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Introduction:

Trade-offs in Theory that Make Sense

The following overview offers a general game plan of the present work, based on a critical evaluation of current problems in the study of language, culture, and cognition. Its purpose is to make a general case for an interdisciplinary approach and to contour a number of theory elements from where to set out. For readers familiar with the field in question this overview will provide brief theoretical points of orientation, while more detailed introductions to the subject matter itself are given in chapter 1 (for Part I) and chapter 7 (for Part II).

This work is about *metaphor and imagery in cultural thought models*. The quest throughout is for a rapprochement between a cognitive and a cultural analysis. Building on recent approaches in cognitive linguistics, I raise the question of how we can shape the cognitive approach to metaphor and imagery into a genuine point of interdisciplinary convergence. Regarding metaphor, I begin by taking stock of the issues most relevant for the neighboring field of cognitive anthropology. This includes the manifold socio-cognitive functions of metaphor, its contextuality and its embedding in more complex tropes, as well as its relation to higher-level cultural schemas. Next, I argue for a balanced view between cultural universality and variation of metaphoric models. Finally, I espouse a stronger focus on cultural knowledge stored in the body in the study of metaphor. The second part of this work expresses a strong interest in developing a general theory of spatialized ('geometric') mental imagery. I discuss its shape and function based on, both, ethnographical examples and recent findings from the cognitive sciences. My overall ambition is to document the amazing scope of the cognitive phenomena relating to imagery, both in non-linguistic symbolic media and in various aspects of language. As a challenge to the broader cognitive sciences, I claim that general-purpose mental 'tools' are constituted by highly abstract images. Specifically, it is suggested that our major ontological categories are mentally processed as kind-defining imagery skeletons.

METAPHOR AND IMAGERY

The strategic ambition of this work is to straddle the fence between several scientific fields of study. Specifically, it introduces to cognitive anthropology (and other social sciences interested in cognition) two overlapping trends from cognitive linguistics called metaphor theory and image schema theory. In other words, a well-developed theoretical body originating with cognitive linguistics is applied to extant ethnographic data and to questions more typically raised by anthropologists, cognitive or other. The analytical apparatus originating from cognitive linguistics (in which metaphor theory and image schema theory are

leading trends)¹ is most closely associated with the writings by Ronald Langacker (1987a, 1991) and George Lakoff (1987). These landmark publications spearheaded an increasing amount of academic output in the past decade or so and led to the establishment of a growing scientific community among cognitive linguists, which is now also spreading out to literary and discourse studies. Cognitive linguists also exerting significant influence on cognitive approaches to philosophy, music, and anthropology, as well as inspiring applied cognitive approaches to embodied intelligence, computational linguistics, wayfinding, and others. Despite this first stage of consolidation that the discipline has gone through, major implications of cognitive linguistics still await a more extensive treatment. One of these arenas for development concerns the culture issue and the scope of spatial cognition.

The chief objective of this work is to build a bridge between anthropological issues and methods from metaphor theory. This requires showing that the method is applicable to what anthropology is most interested in, i.e. complex cultural models, enacted cognition in rich context, and cosmology. Through the tremendous leaps metaphor theory has taken in recent years and through some publications dedicated to the issue (Quinn 1991, Palmer 1996, Kövecses 2000) a fruitful analysis of complex cultural thought is more palpable than ever. I am not alone in suggesting that cognitive scientists of any disciplinary background should vigorously acknowledge that metaphoric processes and imagery are pivotal in understanding representations. The existing transdisciplinary research on metaphor offers both a fine-grained theory and a wealth of methodological approaches that cross-strengthen each other.

Metaphor – let us provisionally define it as conceptual ‘mappings’ between everyday domains of thought – is ubiquitous in cognition. Metaphor analysis is a major avenue towards understanding conceptual representations. Analyzing metaphor means looking at the partitions of cultural thoughts into semi-permeable domains and describing how these are dynamically brought together again in discourse in such a way that something better understood sheds light on something less understood or in a way that a wholly new idea is created. In this work, I use metaphor in several senses that all relate, in one way or the other, to the fundamental connectivity and creativity of cognition. This includes mappings between experiential or social domains, either single, multiple, or of a network kind. It also includes mappings from procedural body knowledge to conceptual knowledge, and vice versa. I hold this connectivity and fluidity to be a defining characteristic of culture, when approached as a cognitive phenomenon. Following the mainstream model, metaphor is understood as a process of extracting skeletal images and mapping these.

¹ Often ‘cognitive semantics’ or ‘Cognitive Semantics’ (with capitals) is used in linguistic literature as nearly coterminous. I will stay with the broader designation ‘cognitive linguistics’ here. At any rate, my own inquiry goes beyond language proper.

My interest lies in explaining metaphoric process proper, but also extends beyond it. Most generally, I am interested in demonstrating the theoretical scope of imagery theory and its cultural dimension. Here I follow Palmer (1996: 116) who speaks of worldviews as “culturally defined imagery”. Hence, much of the work revolves around the importance of so-called ‘image schemas’, i.e. spatialized, skeletal, dynamic, experientially motivated (embodied), and multi-modal mental images. These may be more central to all cognition than has been suspected, including by its proponents. By virtue of metaphor, they structure much of abstract thought and they shape cultural models of all sorts. In other words, the human capacity to build complex models rests on basic physical experiences in space, which motivate conceptual representations. The capacity to perceive image-schematic structure underlies the very ability to see what one concrete thing and another have in common. These points are well recognized. However, the sheer complexity of imagistic thought has not been fully apprehended. I want to respond to this lacuna by showing in how large a number of phenomena and through which complex ways it plays a role. At the crossroads of cognitive linguistics and cultural and cognitive anthropology I suggest a series of new applications, which have yet to be tried in practice.²

ANTHROPOLOGY AND COGNITIVE LINGUISTICS

The theory mix I propose includes the following theoretical ingredients: cultural schema theory, metaphor theory, and the theory of mental imagery, i.e. a Gestalt psychology of conceptual images. These theories possess a natural mutual affinity that needs to be exploited at its fullest. By breaching existing rifts we can make steps toward a common language of these approaches and thus develop a cognitive theory of culture and cultural representations.

This work departs from well-entrenched habits on both disciplinary sides. Regarding linguistics, neither the typical micro-methodology nor a restriction to language per se will be adopted. Bulky case studies in heavily theoretical notation, although occasionally included, I will avoid as far as possible. Regarding anthropology, the essayistic and evocative style of much anthropological writing, resulting in a confusing variety of concepts such as ‘symbols’, ‘models’, ‘schemas’, ‘metaphors’, ‘key concepts’, ‘core-stories’, ‘ethos’, to name but a few, will be forged into a more clear-cut theoretical apparatus. Moreover, a close analysis of

² In many respects this work is similar in intent to Palmer (1996), who collects numerous examples of imagery-based linguistics across cultures, also with the aim of bridging the gap between cognitive linguistics and anthropology. I concur with his advertisement that “[i]magery does not explain everything about language, but an examination of its role illuminates many usages and domains of language of abiding interest to anthropologists” (p. 4). At the same time, the present work will broaden the scope beyond language itself.

imagery through a specific theoretical lens will be suggested, which is still infrequent among anthropologists.

I hasten to admit that the cognitive reinterpretations of many of my examples must remain tentative to some extent. Where empirical rigor stands against theoretical scope, as it often must, I choose scope at the expense of rigor. The rationale for this is that a satisfactory cognitive theory in the social and cultural sciences requires an encompassing framework and bold strokes more than anything else to catch the attention it deserves, while working out the details is up to future studies. I want to chart a navigational grid to cultural thought by describing the interconnections of many relevant themes across disciplinary boundaries. My claims should, then, be understood as programmatic for a cognitive social science based on spatial imagery (cf. Palmer 1996). With this I hope to second the current endeavor of many like-minded colleagues of pushing cultural analysis into the mainstream of cognitive science against the massive countercurrent and using the theory of imagery as a powerful tool in this task.

Cognitive linguistics is of far greater interest to anthropology than most other state-of-the-art approaches in the cognitive sciences:³ First of all, its theoretical apparatus presents a theory of how language is understood through mental imagery on the conceptual level. Since the locus of study are conceptual representations and not words, the perspective can easily be broadened to include non-linguistic cognition. By consequence, the approach starts from structures continuous with percepts and social experience and offers an interesting account of how meaning is grounded in embodied being in the world. Furthermore, cognitive linguistics describes cognition as dynamic and creative, especially with regard to the incessant flow of information between conceptual domains. Finally, let us compare cognitive linguistics to more accepted approaches in the cognitive sciences. Mainstream approaches to cognition contribute an elaborate micro-apparatus for modeling representations, while only skirting or even dodging big issues such as power and culture. Although in cognitive linguistics topics such as ideology are just starting to be discussed more elaborately (Dirven et al. 2001), they have been present in the sub-text all along from the project's inception. The four mentioned aspects, i.e. (1) a conceptual medium deeper than surface language, (2) experience-proximity and the integration of percepts and concepts, (3) cultural creativity, and (4) compatibility with ideology analysis, all have a strong affinity to the aims of anthropological theorizing. Were today's cognitive linguistics not still be done mainly by linguists, much of it would qualify as cognitive anthropology. The boundaries between these

³ Cognitive linguistics sets its foci in ways perfectly compatible with social science interests. By comparison most mainstream linguistics, notably the Chomskian school, presents unnecessary stumbling blocks through applying analytic and abstractive, but frequently not empirically cognitivist frameworks and through an unquestioning acceptance of universalist assumptions.

fields are historical ones to a large extent, and theoretical ones only in minor, though not wholly insignificant, respects (cf. Keesing 1990). Indeed the methods can be adopted and adapted as a tool of the trade for doing ethnographic fieldwork.

The anthropological frame of my inquiry attempts to confront issues still treated as stepchildren by cognitive linguists (presumably for the reason that they consider such issues too far-ranging at the present stage). These include the cognition of large-scale episodes, complex orchestrations in ritual, cultural key concepts, contextuality, multimodality in cognition, complex images, embodiment and preconceptual thought, subjectivized methods, and participant experience. I propose that cognitive linguistics can benefit from the holistic anthropological outlook in a number of respects: First, cognitive linguistics is slow in incorporating a genuinely interdisciplinary scope, although it is acknowledged that the approach of dynamic and embodied Gestalt imagery is perfectly suitable for handling it. Although pictorial representations (Forceville 1998), gestures (McNeill 1992, Cienki 1998), and sign languages for the deaf (Wilcox 1993, Taub 1997) have been recently written on, other extra-linguistic phenomena, e.g. complex cultural knowledge encoded as body habitus or action structure, are still underrepresented or absent (pace Bailey et al. 1998). As a consequence of this linguacentrism, a full-blown theory of the multimodal co-orchestration of imagery in information-rich settings is not yet in the offing. A second problem of cognitive linguistics has to do with its theory of embodiment, which emphasizes the origin of concepts in kinesthetic experience. Though stimulating, the theory espoused lacks clear terms and invites an underestimation of the cultural factor in body knowledge. Recent advances in the anthropology of the body afford an enriching complement here, as I will show. Third, the metaphor branch of cognitive linguistics is somewhat tardy in adopting a more contextualized view of language that deals with large-scale imagery structuring discourse (rather than sentence or phrase structure only), with dynamized reshapings of imagery, and with multimodal imagery. Contextuality and dynamicity, of course, are the hallmark of cultural anthropology and its most important legacy to neighboring disciplines.

Anthropology, with the exception of those parts of cognitive anthropology already centering on representational formats (e.g. schema theory), can equally profit from the proposed mediation. In the past the descriptive style employed by anthropologists, as far as it dealt with cultural symbolism and structures of thought, was neither unified nor, as a rule, satisfactory in the light of what we know now about memory, reasoning, language processing, motivation, and beliefs. Anthropology can benefit from fine-grained cognitive descriptions, even though a loss of descriptive flexibility and situatedness may result. In my view, adopting and refining cognitive methods is a major or perhaps even the only way out of the present impasse of anthropological theory and the disorientation that resulted from the post-modernist critique of the 1980s (cf. Kimmel 2000). Most importantly, cognitive

approaches provide the only descriptively precise and therefore falsifiable way of sorting out the disagreement between relativists and universalists in an even-handed manner. Although the proposed marriage of large-scale ethnography and cognitive micro-studies needs methodological maturation, a higher degree of rigor in debates about epistemology and method can be attained through the adoption of a cognitive apparatus in many presently ongoing debates. While the framework will, no doubt, have to be refashioned, it has the virtue of connecting anthropological ideas to neighboring disciplines such as linguistics and psychology. Through a stronger reliance on ‘convergent evidence’ (Lakoff/Johnson 1999) theory becomes more testable for cognitive reality. Collecting evidence across methods that points in the same direction is the only answer to the dilemma that we cannot look into people’s heads directly, yet should aim at a degree of ‘cognitive reality’ of our claims.

Abstraction and concretion both play a role in the proposed merger. Although theoretical abstraction is often present I emphasize that we are always dealing with the orchestration of (public or mental) imagery for specific goals situated in real culture: Pragmatics comes before semantics (cf. Gärdenfors 2000: ch.5) and culture as an extended thoughtscape is treated on a par with situational pragmatics. This work is about universals to the extent that the general nature of the human mind as imagistic, creative, and metaphoric is concerned. Nevertheless, universal mechanisms can be creatively fashioned and recombined with culturally specific effects. The appeal of the imagery-based approach is that it shows how – through superimposition, elaboration, blending, dynamization, etc. – the basic thought structures are recombinable to an unlimited number of culturally specific representations, while sharing some basic experiential motivations and core-images the world over. I will argue that a theory of culture requires an understanding of both basic structures and specific elaborations. In explaining where the partial sameness and the partial divergences occur imagery theory is far superior to any other cognitive theory of culture that I know. My specific objective, then, is to develop a theory of cultural representations based on metaphor and imagery that occupies a middle ground between universalism and relativism. Such a theory fuses the cognitive human endowment and universal experiential structures with human creativity and with cultural appropriation in deploying these basics to complex ends.

OVERVIEW

Part I of this study is inspired by the work of George Lakoff and his associates centering on metaphor. Part II takes its lead from Langacker’s work, which posits types of spatial imagery to explain the function of various grammatical classes at the phrase level, and now applies it to generic ontological categories, to several interacting levels of language as well as non-linguistic cognition, and to dynamic as well as large-scale cognition.

Undoubtedly, Lakoff's exciting new insights about metaphor, developed together with Mark Johnson and Mark Turner, and owing greatly to Leonard Talmy and Charles Fillmore, brought popularity to imagery-based approaches. On the other hand, metaphor and other tropes have been of abiding concern of cultural anthropologists for nearly a century. Although this convergence of interests has not been lost on observers and although many anthropologists now cite Lakoff, a thorough adaptation and critique of recent metaphor theory in the light of cultural anthropology has not been compiled so far. Taking up this challenge, Part I of the work introduces metaphor theory to anthropologists. It identifies major themes that have not been treated with enough clarity, and simply summarizes others.

This is the game plan: *Chapter 1* introduces the state of the art of cognitive metaphor theory and provides an outlook of its general relevance to anthropology. *Chapter 2* identifies a series of functions of metaphoric cognition that must figure centrally in any theory of culture. *Chapter 3* enters into a discussion of a number of not yet sufficiently clarified theoretical issues in metaphor theory that must be solved if the notion of culture is taken seriously. This regards the culturally shaped embodiment of metaphor, its contextual use and embedding in more complex tropes, metaphor networks and other high-level organizing schemas, metaphor universals, and cultural variation. *Chapter 4* focuses on a specific, highly interesting facet of metaphor theory, namely its grounding in embodiment theory, and on findings about preconceptual ways of cognizing. The question raised here is in what ways 'bodily knowledge' is inherently cultural. *Chapters 5* and *6* give a first flavor of how fundamental metaphors in the context of complex worldviews operate through image schemas and present a framework for understanding how the issues of imagery and worldview analysis are connected. Together all these chapters make a strong case for the claim that understanding cultures means understanding their metaphorical thoughts. As a result, there is an absolute necessity that anthropologists acquire familiarity with the methods and theories of metaphor analysis in their training (cf. Lakoff 1989).

In Part I metaphor was the key issue, and imagery one way (perhaps among several) of explaining its central features. Part II cuts the pie differently. It rests on a theory of imagery that encompasses metaphor but goes beyond a narrow definition of metaphor. My focus is on describing the mental imagery underlying complex and dynamic cultural models, especially as regards kinds of ontological effect elicited by them. The uniting idea of Part II is this: Conceptual thinking means – literally – negotiating a multi-dimensional mental landscape. No doubt the metaphor of the mind-as-a-space has a long pedigree. Yet, the claim set forth here is more ambitious than attempts, such as that of Gärdenfors (2000), to construct explanatory models of conceptual thought based on a 'geometrical' mode. Instead,

I discuss the possibility that space logic may be phenomenally real.⁴ Here I try to integrate ideas stemming from George Lakoff and Ronald Langacker. From Lakoff I take the idea that general-purpose mental tools at the highest possible level of abstraction (or, technically, ‘schematicity’) are spatialized images that organize mental details into particular configurations. In other words, I submit that the mind thinks of its own structure as a complex space. Accordingly, even generic mental forms are understood as spatial constructs on the basis of what we know about real things in physical space. In order to capture the topology or form of thought, generic mental tools are made of skeletal features such as containers, links, distance, overlaps, etc.⁵ From Langacker I embrace the idea that mind uses these tools in a dynamic fashion and coordinates these tools by employing transformations, scanning movements, perspective changes, zooms, blends, and new linkages.⁶

Chapter 7 introduces the key concept of image schema in detail, and gives an idea of how broad its applicability is across grammar functions, categorization, understanding symbols, habitus, etc. While all the foregoing chapters treated image schemas on a more or less ‘semantic’ level, *chapter 8* introduces a wholly new kind of image schema use. With reference to Lakoff’s (1987) ‘spatialization of form’ hypothesis it is proposed that highly generic multi-purpose tools in the mind are ‘built out of’ image schemas, too. In other words, there are top-level generic structures that obey spatial logic in the same way as mental imagery evoked on the phrase level. These I call ‘spatialized co-signatures’, because they frame and assist lower level spatial conceptualizing. In this core chapter I will give a systematic treatment of Lakoff’s hypothesis, introduce examples, discuss the ontological status and the present empirical support of the claim, and eventually advance a multi-level

⁴ Although I emphasize that my discussion is about cognitive devices laymen actually use in everyday cognition, even if this hypothesis proved wrong (i.e. if it turned out that people do not think in images after all), a secondary gain would still justify the endeavor. As Gärdenfors rightly points out, the models developed here are highly interesting even from a purely observers’ theory (‘etic’) point of view, both for explanatory purposes and for building artificial intelligence.

⁵ Note also that this idealist view dovetails with the materialist perspective typical of connectionist models in AI or neuroscience, where nodes, linkages, chaining, overlaps, etc. likewise play a major role in explaining how the brain substrate works. Although the analogy may eventually prove spurious, as a heuristic for the ever-elusive relation of mind and brain it is suggestive enough and may eventually turn out to be more than that.

⁶ To a limited, but important degree I throw into the mix research from other cognitive sciences, such as experimental psychology and neuroscience. This may help solving the problem that it has remained rather unclear with what ontological status cognitive linguists speak of spatial cognition. Do we really think abstract things as if they were physical ones, or is this only a convenient fiction in an explanatory theory? It also depends on an answer to this question to what extent different strands of cognitive linguistics, such as metaphor theory, the theory of blends, and cognitive grammar, are exactly related.

model of spatial cognitive architecture. In *chapter 9*, Langacker's (1987) theory of linguistic imagery is introduced. This has the aim of specifying an apparatus for the analysis of dynamic ontological images. After this introduction, I turn to anthropological applications of the theory, especially with regard to the theory of essences, the learning of cultural key notions, the distinction between process and substance ontologies, and the nature of ritual creativity in shaping concepts. In *chapter 10*, I discuss dynamic features of spatialized images, especially in evoking holistic effects. *Chapters 11 through 13* deal with the question of how extended action sequences can be understood through image schemas. In *chapter 13*, this culminates in a general theory of the multimodality of image schemas, i.e. the inter-mapping of various cognitive mediating structures, such as sound structure, linguistic images, action structure, percepts, body proprioception, and others. Thus, while starting from Langacker's linguistic achievements, Part II is not solely concerned with language, but with all kinds of meaning structures.

REORIENTING THE COGNITIVE SCIENCES THROUGH SPATIALIZATION AND CULTURALIZATION

Though a cognitive approach in the social and cultural sciences, my perspective has repercussions on the cognitive sciences in general. I see two major reasons for this wide relevance: The approach promotes a stronger perspective on the conceptual level of cognition, and specifically a view resting on spatial or geometric ways of representing knowledge. And, it departs from general multi-purpose mechanisms and includes the study of shared representations. Let me discuss these points in turn:

Gärdenfors (2000: 1f), in his recent programmatic book about conceptual spaces, identifies three strands of modeling in the cognitive sciences. These are

- (1) the symbolic approach, which assumes that cognitive systems can be described as Turing machines;
- (2) the associationist approach, where representations are carried by the associations between different kinds of information. (Connectionism is a special case of associationism that models by using artificial neural networks);
- (3) an approach that uses geometrical structures, foremost at the conceptual level in the overall cognitive architecture.

Gärdenfors (*ibid.*) advocates a stronger development of the third among these three:

"The conceptual form of representations, however, has to a large extent been neglected in the foundational discussions of representations. It has been a common prejudice in cognitive science that the brain is either a Turing machine working with symbols or a connectionist system using neural networks. (...) a conceptual mode based on geometrical and topological representations deserves at least as much attention in cognitive science as the symbolic and associationist approaches."

I agree with Gärdenfors' suggestion that this perspective contributes crucially to building a multi-level account of cognition by bridging a theoretical gap between the two mainstream accounts of symbolic and sub-symbolic (connectionist) cognition. The conceptual level, as analyzed through spatialized forms, can connect these levels (For a tentative model of a multi-level architecture of cognition see Lakoff/Johnson 1999: appendix).

The second general implication of my approach for the cognitive sciences is that it highlights culturally shaped mental representations rather than the general architecture of the mind. Raymond Gibbs (1994: 443) observes that the problem with past approaches in cognitive psychology and psycholinguistics is that they

“traditionally concentrate on specifying the general architecture of the language processor. For example, do people possess separate linguistic processors representing their knowledge of phonology, morphology, the lexicon, syntax, semantics, and pragmatics? (...) [A]s is the case for cognitive psychology in general, there is very little impetus in psycholinguistics to study the contents of the mind in terms of the actual beliefs and conceptions that people have of themselves and the world around them or how such knowledge specifically motivates linguistic behavior.”

This critical comment can, in my view, be directed against mainstream cognitive science in general. The methodological bias of the cognitive mainstream privileges subdisciplines with a natural science aura about them, while sidetracking anthropological approaches. As a consequence, a whole class of questions is neglected. This unduly narrow focus runs the risk of introducing, both, a universalist and a biologist bias in the study of the mind.⁷

WHAT TO EXPECT: SOME DISCLAIMERS

This work is situated within a fairly new paradigm that cuts against the grain of many time-honored theories in linguistics and philosophy. However, I will take for granted that an empirically-minded and interdisciplinary cognitivist approach is a means vastly superior to armchair theorizing. Relating to a more specific debate within the cognitive approach, I will

⁷ Gibbs' criticism can be extended to include an influential current trend in cognitive anthropology under the banner of the 'naturalist' program spearheaded by Dan Sperber, and taken up by Pascal Boyer, Lawrence Hirschfeld, and Scott Atran. This approach draws on evolutionary epistemology to develop a theory of culture. While it is profitable to read these stimulatingly heretical correctives in the context of a field that stood under the sway of excessive relativism for a long time, they leave much to be explained. Especially compared to descriptive accounts of mental representations (as in schema and metaphor theory) they seem but a pale reflection. While this is a justification for not throwing the 'naturalization' approach in high relief in this work, I want to emphasize that the two approaches are basically compatible regarding most issues, although perhaps not all.

devote only a minimum of time to the confrontation with the adversaries of the anti-Objectivist approach, and develop the paradigm instead. We can now build upon other works that have adduced devastating evidence that Objectivist theories of cognition are a dead-end street (Lakoff 1987, Lakoff/Johnson 1999).

My approach will be interesting to readers who wish to gain a more profound understanding of issues like symbolism, metaphor, metonymy, narrative structure, habitus and the 'logic of the concrete', or who are seeking instruments for framing the key notion of 'culture' as thought and action. In this sense I see my forebears in cognitive anthropology. Yet, the work is not impelled by the aim of understanding any one rich cultural context. In other words, it is not concerned with delving deeply into any single ethnographic setting. I do not aim at cultural 'thick descriptions' or anything nearly like them. Instead, the present work should demonstrate the incidence of a class of general cognitive mechanisms across a variety of different cultural settings, although it means to do so on an empirical basis.

Although cultural representations (so-called 'folk-models') are the object of study here, some important issues are bracketed out. One such problem concerns the knowledge distribution in a cultural or social community. Although the incorporation of such approaches is a pressing demand for current theory building, my focus lies elsewhere.⁸ I am mainly concerned with the types of cognitive operations that are characteristic of complex beliefs, irrespective of by whom exactly they are shared and to what extent. A consequence of this idealization is that I will speak of cultural schemas as if they were uniform structures, which, of course, is only true in a very simplified model of reality. In truth, they usually have various subversions – some people of a culture will not share them, some will have acquired alternatives and gone beyond them (in particular experts), and their application will be flexible, partial, and vary according to the context. We speak of cultural images within a cognitive approach, which clearly subscribes to a sort of methodological individualism. We have thus 'collective representations' in mind, although there is, strictly speaking, no collective 'mind'. Any cognitive account of cultural phenomena must, of necessity, rest on artificial aggregates of what many people have thought in similar but non-identical ways. Often the accounts will even be Weberian ideal-types of cognitive events in the sense that all of their features can never be found in any single real instance.

Furthermore, I will avoid a systematic distinction between expert knowledge and everyday knowledge, although my emphasis lies on the latter and the two are frequently closely

⁸ This very important concern has often been bypassed without due recognition. Various authors lament the lack of a sociology of knowledge in anthropology that concerns itself with the uneven and disparate social distribution of knowledge and sees culture as an organized diversity (Hannerz 1992, Barth 1987, Keesing 1987). Most promisingly, Hutchins (1995) outlines a view of distributed cognitive tasks and thus of cultural knowledge as supraindividual process.

interconnected. By the same token, relatively little emphasis is given to cultural theories, i.e. conscious discursive ideas. My focus lies more on the level of what has been called cultural models (Holland and Quinn 1987), i.e. shared knowledge structures in the minds of laymen that are indirectly inferred by the observing theorist and that are usually more complex than what the subjects typically believe about their own thought.

GRAPHIC REIFICATION VS. COGNITIVE FLUIDITY

Both graphs and a quasi-graphic mode of describing cognitive representations are used in this work. This is an immediate requirement of the subject matter. After all, we are dealing with analog representations of the mind, meaning picture-like or, if we eschew the visualist bias inherent in this, percept-like. Thus mental entities are represented as a synchronic whole (i.e. a 'one-shot' Gestalt), and not in a checklist-like sequence. Speaking of pictures minimally implies a convenient observer's model of what happens in the mind. However, the graphs used here are more than a vivid way of depicting ideas that might be also depicted through other modes. They try to present a closely approximated depiction of how the studied subjects themselves represent knowledge. Within the well-known framework originating with Kenneth Pike and adapted to anthropology by Marvin Harris we may say that the graphs seek to represent 'emic' representations (i.e. indigenous thought models), as opposed to 'etic' observers' models. The graphs approximate emic realities because they share key topological features, i.e. image-schematic similarities, with the mental entities they want to describe. Thus, while analytic descriptions provide a more roundabout approach to mental imagery, the graphs let you sense at a single go what the idea is.

All this notwithstanding, the graphic mode can only bring into focus particular structural aspects of a representation. The way cultural thought is depicted in this work is, then, bound to be partial and simplifying. Provisos are in order with regard to several features of human cognition: (1) We do not always have clear-cut images in our mind when we think. Much of our thought operates unconsciously and automatized, meaning that we are not fully aware of our mental images. Hence, the graphs normally represent indirectly inferred imagery topologies. (2) Moreover, it is often hard to isolate a specific aspect from our stream of thought. Our cognitive endowment is inherently connective and associative, so that no concept has a clear-cut extension. Invariably, a host of other subconscious images is integrated with the ones depicted here. We can expect an extensive representational field around each concept, without such a linkage showing in the graphs. No representational region of the mind is ever an island. The mind can be likened to a landscape, a sky rising above it, and deep ground extending below with mental objects spread and scattered in clusters throughout, but it is not best thought of as a space of three dimension only. (These metaphors foreshadow the theory to be outlined later, namely that humans think as if their

mind was a multi-dimensional landscape with spatial locations in it.) The entities of the mind are linked in multiple ways which any single graph could never capture. (3) The graphs only depict the schematic topology within the meaning extension of a single concept. However, most of our thought images include rich mental information within the same concept. Those features are excluded here, although they are conceptually present. A cognitive reason for excluding this parallel level is that the image schema level is functionally autonomous to some degree. In other words, the associated imagery can be bracketed for the purposes of explaining many functional aspects of thought and language. (4) Finally, the graphs often neglect the dynamic nature of human cognition. They only capture the transitory mental images of a given moment, highlighting the focal features, while other patterns recede into the background. Therefore, we can figuratively think of the graphs as momentary spotlights. Such frozen features never tell the whole story about a cultural thought pattern, because any complex schema is embedded in a field of broader temporal and thematic scope. Note also that the graphs are not necessarily meant to depict utterly exclusive or entrenched models. Other construals can be applied to the same mental object at other times, or even at the same time. While the mind works in dynamic patterns in any given situation, what is permanent are transcontextual tools, be they innate, transculturally learned, or culturally specific. The graphs found here then mostly depict such mind-tools with multiple applications and many more situated sub-versions.

Another short prefatory note is in order: In accordance with the currently most frequently adopted notational practice among cognitive linguists I use small capitals both

- (1) for **simple image schemas** in mental imagery, such as FORCE, UP-DOWN, CENTER-PERIPHERY, BALANCE, CONTAINER, and
- (2) for **entire conceptual metaphors (or cultural schemas)**, such as ANGER IS A HOT FLUID IN A CONTAINER, IDEAS ARE PLANTS, LIFE IS A JOURNEY, MARRIAGE IS A PATH, ARGUMENTS ARE BUILDINGS, etc., some of which are produced by a mapped image schema (for a more differentiating and theoretically precise notation see Ungerer/Schmid 1996: vii)

Occasionally, when a previously introduced metaphor / schema is subsequently mentioned or when the metaphor / schema is embedded in a sentence, the lower-case will be preferred for the sake of readability.

Note also that *double quotation marks* are exclusively reserved for rendering literal expressions as they are used in everyday language or for quotes from other authors, while in all other cases (e.g. for new theoretical terminology) single quotation marks will be used.

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PART I:

Metaphor Theory in Anthropology

The issue I propose to address in Part I of this work is the broad relevance of cognitive metaphor theory for cultural anthropology and other social sciences. Chapter 1 will outline main elements of a cognitive theory of metaphor based on recent major advances in the field of cognitive linguistics and determine to what extent they are adequate for anthropological concerns. Chapter 2 moves on to a discussion of the function of metaphor in culture and explains metaphor's socio-cognitive role based on anthropological literature. Chapter 3 brings into focus a series of theoretical issues that are of particular pertinence to a cultural theory of metaphor: In particular, I will approach the issue of mutually embedded and intertwined tropes, present a framework for analyzing culture through its fundamental ('thematic') metaphors, discuss the issue of cultural universality, and finally attempt to defuse allegations about metaphors and schemas as strictly alternative cognitive operations, while also showing that they are not wholly continuous. Chapter 4 examines in detail the claim that metaphor is not only a phenomenon of conceptual but also of embodied knowledge, and argues that bodily knowledge is fundamentally cultural. To this end basic insights from medical anthropology will be recast into cognitive terminology. In chapter 5 I will try to develop a theory of cultural worldviews based on the fundamental types of cognitive operation they emphasize or downplay and discuss the role of imagery in this. Chapter 6 already foreshadows Part II: It deals with the contribution of rather simple image schemas characterizing folk-models and metaphors in very complex worldview domains: cosmology, the self, and epistemology. The aim of this chapter is to give a first flavor of the tremendous importance that imagistic models have for the understanding of cultural thought.

Chapter 1:

A Cognitive Approach to Metaphor

Metaphor has been one of the most continuously debated topics since antiquity. Foundational figures such as Aristotle, Quintilian, Vico, Nietzsche, and others devoted thought to it. With Max Black and I.A. Richards it recently became a prominent issue in Anglo-Saxon language philosophy, most notably with Donald Davidson and John Searle. It also plays a major role in Ernst Cassirer's, Suzanne Langer's and Kenneth Burke's work on symbolic forms, in Ricœur's hermeneutics, in the deconstructivist work of Rorty, Derrida and Foucault, and in Hayden White's cultural criticism.

Metaphor is an issue that stands at the junction of many disciplines, including literary studies, philosophy and rhetoric, political theory, anthropology, theology, and psychology. This ubiquity is not accidental. Metaphor is now being recognized as a cornerstone of general epistemology and human cognition, which has a bearing on how we think about experience, reason, language, creativity, the body, communication, and cultural worldviews. Up to the 1980s the theoretical terms of the debate were as contested as the substantive results remained scarce. The systematic and empirical study of metaphor use is a comparatively new phenomenon, especially the theories and methods now accepted as adequate. With the publication of Michael Reddy's article *The Conduit Metaphor* (1979) and Lakoff's and Johnson's seminal book *Metaphors We Live By* (1980) cognitive metaphor theory appeared on the scene. The field has vastly expanded since and has come to play a central role in cognitive linguistics, studies of categorization, and linguistic approaches in general that analyze language as evoked conceptual imagery.

What can this newly burgeoning cognitive approach contribute to long-standing questions? Questions such as: What types of metaphors are there? What is their common denominator? What cognitive functions are involved in metaphor comprehension and analogy in general? To what sort of mental representations do metaphors give rise? How can 'metaphorical' and 'literal' be separated, if at all? Does it make sense to separate terms such as 'simile' and 'analogy' from metaphor, and how is metaphor related to other tropes, such as 'metonymy' and 'irony'? How are metaphors related to 'cultural schemas' and other kinds of mental models? This introductory overview will give a basic account of the nature of metaphor, based on the work of Lakoff and his collaborators. I will discuss the answers to the above questions as we go along.

1. What is conceptual metaphor?

In the past it was often maintained that the definition of metaphor should be kept as inclusive as possible. Now, after two decades of research by cognitive scientists there seems little

necessity to keep the concept vague, but there is certainly a point in starting out from a general notion of metaphor that can accommodate a wide variety of phenomena. To get a first idea of the scope of metaphor consider the following examples:

conventional everyday speech: “He ran out of ideas“, “There are too many facts here for me to digest them all“, “The theory will stand or fall on the strength of the argument“, “She fought for him, but his mistress won out” (Lakoff/Johnson 1980), “I didn’t score with her on our first date” (Shore 1996)

locution: “Spill the beans!“, “My job is a jail” (Glucksberg/Keysar 1993)

proverb: “Man is a wolf” (Black 1962), “No man is an island”

poetry: “Death is the mother of beauty” [Wallace Stevens] (Turner 1987): “There are some days the happy ocean lies // like an unfingered harp below the land. // Afternoon gilds all the silent wires // into a burning music for the eyes.” [Stephen Spender] (cited in Indurkha 1994)

science: In artificial intelligence, it is common to see the human mind as a computer and vice versa (Hoffman/Cochran/Nead 1990). For a long time Western medicine saw the human body as a machine (Johnson 1987) needing a repair of parts when ill. Today, the metaphor of the human as a homeostatic system is becoming increasingly popular. Ecologically oriented metaphors of the human being as a system embedded in other systems can be found in esoteric thought as well as in systems theory.

visual: A print by the Dutch artist M.C. Escher shows two distinct scenes of different scales seamlessly flowing into one another: a table plate in the foreground molds into a plaza of a Mediterranean street scene in the background (Gerhardt/Allen 1984).

political theory: “Society is an organism”, this is, for example, visually depicted in the well-known frontispiece of Hobbes’ *Leviathan*, which shows the state as body of the sovereign made from innumerable miniature bodies of the subjects.

ritual enactment: Christian Communion (“This is the blood and flesh of Christ given to wash away your sins”). The Japanese tea ceremony promotes a sense of cohesion between the natural and social worlds, where the mossy green tea, for example, evokes a close relation to nature (Colby 1991).

religious language: Hinduism speaks of “the Great Wheel of Being” (Olds 1992a), Christendom of “the Kingdom of God” (McFague 1982). Personalization is frequent, e.g. death is pictured as “The Grim Reaper” (Lakoff/Turner 1989). Secular outlooks like (Neo)-Liberalism are similarly governed by central metaphors like the “Invisible Hand”, originating with Adam Smith.

mythical worldview: Several ethnographic examples indicate that humans are equated with certain animals. The Nuer of the Sudan say that “Twins are dappled birds” (Evans-

Pritchard 1956, *The Nuer Religion*, Oxford) and among the Amazonian Bororo the men proclaim, “We are arara parrots” (see Crocker 1977, Turner 1991). Similarly, the Huichol of Mexico have the expression that “corn is deer” (Myerhoff 1974).

All these examples have been characterized as metaphorical. What, then, makes them instances of one type of cognitive phenomenon? Let us start from the pedestrian, but consequential observation that human experiential reality is structured in a way that carves up ‘domains’, such as physical knowledge, biological knowledge, social knowledge, etc. Domains may be defined as *coherent and permanent organizations of experience into arrays of clustered knowledge*. We can speak of a domain when observing frequently co-activated representations and patterns of inference. At the same time, domains are mutually linked in many ways. Human cognition can only work because it is capable of creatively recoupling domains, such as seeing the social in terms of the natural. This semi-permeable nature of domains forms the elementary condition for metaphor.

What is metaphor then? According to Lakoff and Johnson (1980) the common denominator of all metaphors is that one domain of experience that is less structured in a relevant respect is understood in terms of another domain that is more well-structured in the same respect. Put simply, one thing is thought of in terms of another. The function of metaphoric predications runs the gamut from epistemic to expository. In other words, it is used to think things that would otherwise be difficult to think at all (epistemic), to give a better illustration of an idea that would otherwise be more opaque, or just to find a catchy way of framing a pre-existing idea (expository).

In all cases a conceptual structure from another domain is applied to a topical domain that is in conceptual focus. *Metaphor is a mapping of certain salient and fitting characteristics of one domain to another domain, so as to give a rise to a set of systematic correspondences. In order to characterize the directional nature of this mapping we speak of a topical target domain and a source domain from which new structures are adduced*. For example, the domain of traveling and its notion of crossroads is used by speakers of English to structure the description of a precarious marriage situation that involves a decision between two ‘courses’ of action.

In many cases the source domain is concrete, sensate, and everyday, whereas the target domain is more abstract, non-physical, and specialized. A reason for this, which will be discussed later, is suggested by Mark Johnson (1987) with a thrust implicative of Piaget’s work on early conceptual development. There is a body of linguistic, experimental, and developmental evidence that people derive a large part of their more abstract knowledge from the most basic experiential structures of the physical and kinesthetic domain. According to Johnson, that is where human meaning is grounded. The idea of sensate grounding also

partly converges with the observation that most metaphors are not reversible, but unidirectional (Jäkel 1993, Kövecses 2001: ch.2).

Going beyond simple spatial relations as metaphorical source domains Wagner (1993: 185) shows that the experienced immediacy of social relations may be also effective in grounding. For example, dominance and subordination or asymmetry between the sexes lend themselves to a use as source domains. Though there is a clearly a tendency, we should not expect on principle that all metaphors have either a physical or otherwise experientially immediate source domain. Examples of non-physical source domains from quite complex social domains have been documented. Alverson (1991: 101) mentions as an example the game of poker, which American speakers use to speak of social decision-making: "Stay with the blue chips. How do they stack up against the penny-ante stuff? They sweeten the pot by upping the stakes. Stand pat. Just play above board and don't pass the buck. Otherwise you might wind up in a hock." Here, it is not obvious that playing poker is more experiential than the social decisions it is used to characterize.

The issue of directionality and preferred source domains aside, there is at present a broad acceptance of the domain-mapping model for the conceptualization of metaphoric thought. It should not be overlooked that in characterizing the nature of metaphor we are using a spatialized metaphor ourselves, namely that of the relationship between two topological spaces. The metaphor according to which knowledge structures are separate spaces that can be connected and partly merged is almost canonical in the cognitive sciences and has proven quite fruitful. The notions of mapping and correspondences from geometry are perfectly suited to allow for the idea that attributes are mapped individually, while some may be dropped as too fine-grained or irrelevant. Note also that the idea of mapping is sufficiently abstract to cover a broad spectrum of cases. It pictures metaphor as a multi-purpose device, a *general cognitive tool*, that bears on inter-domain relations, whatever their content and whatever the precise mapping vectors. Yet, two other conceptualizations of metaphor deserve mention, namely the 'class inclusion' view and the theory of 'blends', one of which is less and the other more specific than the 'mapping' view.

(1) A view widely held in classical contributions states that metaphor involves the creation of a common superordinate category for source and target. This view still rallies many adherents and was recently newly elaborated by Glucksberg/Keysar (1993). They argue that an example such as "My job is a jail" evokes the idea of a general category of 'things that are confining'. According to this view, no directional mapping relationship between two domains is involved in metaphor. Instead, Glucksberg and his collaborators use notions of cognitive salience to determine which concepts can be aptly expressed metaphorically and which cannot. As a heuristic this model may be useful at points, but overall it remains too unspecific for cognitive theory. Most importantly, among the many aspects of a domain

correspondences are always chosen selectively and what guides this selection is not satisfactorily explained by the salience argument. Clausner and Croft (1997: 275) point out its weakness in explaining eligibility restrictions of mappings. Their example is THEORIES ARE BUILDINGS:

“the constraints do not clearly block nonexistent metaphors which would link *theory* and *building* in the reverse relationship. For example, *The steel frame is valid* (...) is not an apt expression about buildings in terms of theories or arguments. However, it is not clear that the class-inclusion constraints disallow the predicate *is valid* from providing relevant and diagnostic aspects of *theory-structure*, such that steel-frame structure is described in terms of theoretical validity. The *theory-structure* category is not sufficiently specific to make this determination. The generality of class-inclusion categories might by nature preclude such specification.”

Thus, directionality preferences in actual usage are left unexplained by the ‘class-inclusion view’, as it is called. Furthermore, Lakoff (1993: 236) points out that *t* falls short of a cognitive theory of metaphor in three further respects: It does not explain the systematicity of mappings of multiple attributes between two domains, it does not account for the evocative indeterminacy of rich poetic metaphors, and it does not explain purely imagistic ‘one-shot’ metaphors where fairly simple mental images are mapped in the way of a cross-fading film scene.

(2) The theory of blends or network models as proposed by Fauconnier and Turner (1995) is a recently expanding approach for capturing complex meanings that emerge when two or more domains interact. Within this broad framework metaphor is a subcategory, which is based on the analysis of how different ‘mental spaces’ interact. The framework’s general purpose is the explanation of novel and creative mental activity. This, of course, makes the approach attractive as a more comprehensive account of cognition. The blending approach has things in common with the mapping approach but also features important differences. Whereas mappings play a central role in both, in the blending account they are not thought of as going from one domain to another, but going from two domains to a newly emergent mental space called ‘blend’. The blend has emergent properties featured by neither source nor target space. In addition, blending theory also introduces a ‘generic space’, which represents the mental recognition of commonalities between source and target outside the ongoing blend. Overall, I believe that the blending framework is analytically superior to the approach presented here. It is more comprehensive and allows for the reconstruction of dynamic linguistic micro-cognition. However, for an introduction it is too cumbersome, so that the two-domain framework will suffice here.

ACHIEVEMENTS OF COGNITIVE LINGUISTICS

Cultural metaphor systems have been investigated in both cognitive linguistics and in cultural anthropology. Examples from anthropology featuring rich contextual data will be presented in the following chapters. When in need of conceptual tools we should chiefly look to cognitive linguistics, though. What commends this approach is its integrated theoretical framework, which “attempts to connect what we know about conceptual metaphor with what we know about the working of language, the working of the human conceptual system, and the working of culture” (Kövecses 2001: 7). It is comprehensive in that it discusses the systematicity of metaphor, its relationship to other tropes, issues of cultural universality, and applications to fields such as developmental psychology, literature, or teaching. Cognitive linguistics is supported by a set of characteristic methods and kinds of data. Major evidence for systems of conceptual metaphor comes from the following sources (Lakoff 1993: 205): (1) polysemy, i.e. words with a number of related meanings, (2) cases where inference patterns from one domain are used in another, (3) novel metaphorical language, such as in poetry, (4) patterns of diachronic semantic change, (5) psycholinguistic experiments.

There is now a fairly broad coverage of domains of everyday thought, even though mostly limited to English and other European languages and with a great deal of work to be done. Kövecses (2001: ch.2) and Lakoff and Johnson (1999: references) are good places to find overviews. Metaphor research includes highly generic metaphors about events and actions of any sort (Lakoff 1990, 1993) or the conceptualization of causality (Lakoff/Johnson 1999). Force dynamic relations are treated by Talmy (1988) in a non-domain bound way, as a basic class of metaphors that cover a variety of abstract domains. Spatial concepts as manifested in prepositions and the like are treated in large number of studies. Brugman (1981/1988), Lakoff (1987), and Dewell (1994) study *OVER* and *ABOVE* in English, Lindner (1981) *UP* and *OUT*, Brugman (1983) locationals in Mixtec, and Casad (1982) locationals in Cora, to mention but a few. Folk-models of thought, reason, morality, and emotion form another cluster of study. Jäkel (1995) analyzes the *mind-as-a-workshop* and *thought-as-the-manipulation-of-tools-and-objects* metaphor, Sweetser (1990), in her study of metaphor in semantic change, adds the *mind-as-body* metaphor, and Johnson (1987) the *understanding-is-seeing* metaphor. The general metaphorical folk-model of communication as objects passed through a conduit was investigated by Reddy (1979) and Grady (1998). Johnson (1993) analyzes the *morality-as-accounting* metaphor. Emotions have been extensively studied by Kövecses (1986, 1988, 1990, 1991a, b, 2000), Averill (1990), Barcelona (1986), Matsuki (1995), and Yu (1995). Folk-models of social relations have also been explored: Lakoff covers important metaphors for nation and politics in his analysis of propagandistic metaphors used to justify the Gulf War (1992). He also explores the relation of morality and its relation to politics (1995) in America, with a focus on explaining the worldview differences between liberals and

conservatives. Adamson et al. (1996) analyze the American political scene. Winter (1989) treats metaphysical implications of legal metaphors. Quinn (1987, 1991) studies metaphors of marriage in the U.S.A. Metaphor theory has also been applied to various experts' models. Lakoff and Johnson (1999) explore the metaphorical basis of philosophical systems, but also of now fashionable scientific theories such as Chomsky's generative linguistics or Rational Choice theory. Lakoff and Nunez (2000) study the foundations of mathematics. Metaphors in the history of psychology are investigated by the authors in Leary (1990). Literary texts are also an important field of metaphor research: Lakoff and Turner (1989) deal with metaphors for life, death, and time. Turner (1987) treats the English kinship system as a source domain in literature, and Turner (1996) presents a general account of parables.

Despite these remarkable achievements, there are still noticeable limitations in metaphor research in cognitive linguistics. As mentioned above, the cognitive linguistic approach is only slowly reaching out to cover non-European languages. In particular, some issues of cultural universality still remain intractable as a result. Another problem is that the linguistic bias in metaphor research is only slowly being overcome, now including some research in pictorial metaphor, but still eclipsing many other important fields (see Lakoff 1993: 241ff for a brief overview of some of these). A final problem is that the largely corpus-based method employed by most researchers is not very sensitive to questions of pragmatic use of metaphor and the workings of cultural context.

Metaphor analysis implies choosing a specific focus on cognitive phenomena and employing a set of methods with particular strengths and weaknesses. While metaphorical thought plays a role in almost any socio-cognitive situation, few social phenomena can be wholly explained by it. On the theory side it excludes questions asked in cognitive anthropology, for example about inferential mechanisms and dynamic cognition, on the method side it excludes experimental evidence, though compatible with it (Gibbs 1994). Why is contemporary metaphor theory, then, of prime interest to social scientists? Two major reasons for employing it in the study of culture are the following: (1) Metaphor theory is suitable for providing insights about the cognitive integration of worldviews, and (2) it is a major way of improving our understanding of the cultural variation of thought. It affords a method to investigate in detail the structure of many cultural domains together with the frequency, permanence, intensity, and function of their interlinkages. With the exploration of entire fields and families of metaphors we have now an unprecedented means of tracing out cultural landscapes of knowledge, though empirically still incomplete. As I will argue later, metaphor and its background theory of cognitive linguistics offer promising integrative perspectives with schema theory and cognitive anthropology.

THEORIZING METAPHOR

What are the requirements for an appropriate framework for theorizing metaphor? Let us start from a common sense notion of metaphor and see how far this will take us. According to most time-honored accounts some utterances fall into the category of metaphor while others are literal. The idea of metaphor was traditionally defined through its opposition to literal language and considered a rhetorical twist in something that could just as well be expressed literally. Authors beginning with Aristotle see it as rhetorical trope, an embellishment, an expository or illustrative means, something out of the ordinary, while the core of human understanding lay in the correspondence between literal descriptions and the actual state of affairs in the real world. Metaphor, to the classics, was a linguistic, but not a conceptual phenomenon.

A first point of criticism of this common sense intuition is that the identification of a given utterance as metaphor is highly context-sensitive. What is a metaphor in one context need not be one in another. Take the expression "No man is an island". It is recognized as metaphorical rather than literal because the literal construal, even though making perfect sense, would seem unmotivated in most contexts. This simple example shows that nothing is given as a metaphor. The way people use an utterance or other symbolic structure may be recognized as more or less metaphorical, depending on context and intention.

Upon further thought the notion of literalness itself turns out to be rather obscure. While it seems to work well as a heuristic with many examples at first glance, it ultimately runs into trouble. Donald Davidson and other analytic philosophers have expended vast amounts of intellectual energy to defend the literalness thesis and the Objectivist view of reality going with it. Yet, the notion of literalness in the sense of correspondence with 'things in the world' is outright untenable (see Lakoff 1987 for a brilliant and comprehensive refutation of the positions of modern Objectivism in Anglo-Saxon philosophy). This includes the most simple sentences. Conventional cultural information enters into the representation of even an utterance as "The cat is on the mat". John Searle has conclusively demonstrated that for creating a mental representation out of the sentence extra information is necessary, for example that the mat is on the ground, that the mat is rectangular, and that the cat is sitting. In the sentence itself these knowledge items are not specified. Instead, this knowledge comes from cultural prototypes (ideas about typical situations) in the minds of those who read the sentence. If the sentence underspecifies the evoked representation and is not literal in the simple sense, what is it then? George Lakoff (1987, 1993), who is sometimes accused of making everything a metaphor, very clearly states that basic-level concepts that are not metaphorical. In his terminology metaphors are defined by virtue of an inter-domain mapping occurring on the basis of how domains are intuitively carved up. Yet, simple sentences are understood in their own terms rather than in those of a wholly other experiential domain. At

the same time, it remains a fact that neither the terms “cat” nor “mat” have an inherent referent, but give rise to culturally acquired prototypes in the mind instead. Therefore, it seems that such expressions are neither literal in the Objectivist sense, nor metaphorical in the narrow sense. A cognitive approach has to go beyond a crude dichotomy of metaphoric and literal.

I believe that the notion of literalness can be upheld in a relational sense, in the sense of concepts belonging to roughly the same domain. For example the expression “to digest food” belongs to the same proper domain, while “to digest an idea” blends two domains.⁹ In the above sense of the word ‘literal’ no unitary, pre-given, or ‘real’ world is implied. It only relies on speakers’ intuitions on how the world is carved up and takes their subjective mental world as a yardstick. The notion of literalness is very suspect from a cognitive perspective if, and only if it implies (1) a given external reality that is wholly independent of human construal of it, and (2) that some expressions are exact matches for this reality, while others are roundabout ways of description. Whenever the term literal turns up in this work it can be read as a gloss for ‘domain-proximity between two or more concepts according to speaker’s intuitions’.

At times, some terminological confusion may arise through the term metaphor. In the past it referred both to a cognitive process itself or its product, especially its linguistic manifestation. Cognitive linguistics remedies this lack of clarity through adopting the terminological distinction between ‘conceptual metaphor’ and ‘linguistic metaphor’. According to this, a variety of linguistic manifestations can result from the same conceptual metaphor. The manifestations “She is seething with rage”, “Simmer down”, “He’ll blow his top”, “He stewed in his anger”, and “I was letting off steam”, and hundreds of others, cluster around a single conceptual metaphor, often indicated by small capitals, i.e. ANGER IS A HOT FLUID IN A CONTAINER (Lakoff/Kövecses 1987). Cognitive linguists describe conceptual metaphors at a generic level. It uses generic words such as ‘fluid’ and ‘container’ rather than ‘water’ and ‘kettle’, because the inferred conceptual metaphors are intended as an analytic description of the mental structure that linguistic expressions with otherwise deviating particulars share.

We should also take Lakoff and Johnson’s (1980) admonition seriously that many metaphors are so conventionalized and entrenched in everyday thought that people would neither call them such nor attach any more special attention to them than to any other utterance. Examples such as “The prices are *rising*”, “feeling *down*”, “What are you *getting at?*”, “I see what you mean”, “*in a state* of exasperation”, “*bursting* with joy”, “a *well-structured* argument” seem to be quite commonplace everyday expressions. Cognitive linguistics sheds light on their metaphorical nature. Therefore, a cognitive metaphor

⁹ Note, however, that many abstract words, such as ‘good’, ‘do’, or ‘thing’ have no proper domain to begin with and are in some sense inherently metaphorical.

paradigm interested in a systematic description of cultural thought needs a much more inclusive framework than a mere focus on poetic and rhetoric language (or other artful and expressive symbolism). It is the rule and not the exception that people draw on well-structured knowledge from other experiential domains to make sense of a comparatively opaque domain. And, it can be shown that they do so in highly systematic ways.

Contemporary metaphor theory tends to present more a static than a dynamic view of cognition, although the growing focus on the pragmatics, contextuality, and embedding of metaphors in other tropes indicates a way out of this predicament. What sets my approach slightly apart from mainstream research on conventional metaphors is my emphasis on the fluidity and relative openness of our cognitive system. To me it seems salutary to avoid reifications of metaphor. It is quite easy to get a slightly wrong idea by speaking of metaphor as ‘correspondences’ between ‘domains’. Both expressions suggest permanent states rather than situated processes. The stability of the conceptual system across time and settings is here taken for granted more by intuition than by argument, even though the precise degree of this invariance is one of the most pressing empirical issues yet to be tackled. While it is duly recognized that some conceptual metaphors are highly entrenched and others are more ad hoc, at the entrenched pole I see a problem. Conventionalized metaphors tend to be reified as culturally existing entities too easily. More attention should be devoted to explaining why they are taken from our stock in a given context and what transformations of the prototypical form occur in this context, even if they are frequently used and commonly known.

I propose that the fluidity of cognition concerns both the metaphorical mappings themselves and the domain system they are based on. It is well known that many cognitive representations are ad hoc (cf. Barsalou/Medin 1986), and so are many metaphors. Likewise, what we call domains for convenience are in truth open networks in our cognitive landscape. Gärdenfors (2000: 185ff) points out that when we think of a dog’s face, it is hard to say if the concept of ‘face’ comes from a more restricted domain of human bodies and is mapped to dogs or if it stems from a more inclusive domains of mammalian bodies or of an even more inclusive domain of animate bodies. Domains undergo expansions, for example when a child extends the meaning of “leg” from its own leg, to human legs, to animal legs, and then to the legs of tables:

“When expanding domains in this way, it is (...) often impossible to draw a nonarbitrary boundary between a domain that covers the literal meaning of an expression and a domain that is clearly metaphorical. The upshot is that there is no sharp distinction between literal meaning and metaphor.”
(Gärdenfors 2000: 187)

In addition to this, the partitioning of the experiential world within any culture may be done from several complementary vantages, each of which is highlighted for other practical purposes, or varies with personal predilections (cf. MacLaury 1995, Hill/MacLaury 1995). Cultural systems therefore define 'majority' and 'minority' vantages that hang together in a larger frame. To be sure, cultural representations feature clusters and lattices that are to a degree permanent (perhaps a 'competence' aspect), but at the same time also rely on an incessant dynamic activity of interlinking and recoupling (a 'performance' aspect).

Concerning metaphor specifically, two domains may appear more far or near (to the point of being identical) depending on the setting. For example, what is construed as a metaphor in one case may be felt to be a metonymy in another. Also, it has been long observed that metaphor (analogy) and metonymy (contiguity) often intertwine and either one may rest on the other. This has led to all sorts of highly complicated models of trope interaction (cf. Fernandez 1991). The sense of confusion that arises is a result of the undue reification of fluid facts as either metaphor or metonymy. Presumably because of their intuitions about domain boundaries and their fixed nature many authors fall prey to the fallacy that metaphor is a natural category. The failure to recognize that cognitive domain boundaries are vantage-dependent lies at the bottom of this problem. In truth, when an analyst identifies something as metaphor this is often more like a phenomenon of 'seeing as', i.e. an intentional interpretation (I will discuss this problem in detail in chapter 7).

In sum, because metaphors are dynamic recouplings between domains, the strength and duration of these in a given source-target pairing must vary both with (1) the cognitive task or given situational intent and (2) the basic domain relationship assumed on the basis of the larger context. And, of course, between altogether different metaphors (i.e. different source target pairings) even greater variability can be found.

2. A model of metaphor as process between experience, conceptual knowledge, and public representations

I will now develop a processual model of the general nature of metaphor. In line with many recent theoretical contributions, I propose to model metaphor as a multi-level process of emergent bodily knowledge structures that are used in the conceptual domain and eventually result in externalized and public meanings.

A processual model is a precondition for a deeper understanding of metaphor, which more often than not is taken to stand for a static utterance or symbol, as a gloss for the entire process involved. A prerequisite for such a model is a general discussion of cognitive formats, i.e. the two-fold question what the locus of mental activities is and how they are encoded on each level.

It has been repeatedly pointed out by George Lakoff (1993: 209, 245) to his audience of fellow linguists that the locus of metaphor is thought and reason, not language. Metaphor is fundamentally conceptual. What this means is that it *can* emerge at a linguistic level, but does not necessarily need to. Even where metaphor does not surface it may be present at a purely conceptual level, structuring our understanding of an experiential domain. In line with this Earl MacCormac (1985) distinguishes a conceptual deep layer from a superimposed semantic level and from a level of surface language.

However, the terms ‘conceptual’, ‘thought’ and ‘reason’ still conceive metaphor too narrowly. In a human world that emerges not only from reason, but also from experience, we have to ask what lies at the origin of metaphor. Several other authors describe metaphor as a multi-layered cognitive process that reaches further down into a third level of embodied knowledge structures. In these accounts, the term metaphor is also used to describe the very activity of linking primary processes to higher-level processes (which is a sense very different from ‘conceptual mappings between domains’). Among others, Brenda Beck (1978), Robert Haskell (1989), and Laurence Kirmayer (1992, 1993) explicate the fundamentals of this conceptual layer, characterizing metaphor as a mediator between a relatively undifferentiated pool of motor, sensory, and emotive experience on the one hand and semantic thought on the other. To make sense of the metaphoric process a basic idea of the relation between experience and conceptual formation is needed. In a similar vein, the seminal theoretical works of Lakoff (1987) and Johnson (1987) as well as Joe Grady’s (1997a) theory of primary metaphors show how concepts are experientially grounded. Christopher Johnson’s (1997) developmental findings on concept acquisition do the same thing with a slightly different slant; they focus on early childhood domain conflation and thus broad experiential meaning compounds. Most recent approaches highlight that basic kinesthetic schemas are used to structure a great many everyday concepts. In other words, these kinesthetic schemas span the preconceptual and conceptual levels. The basic schemas that have been studied prominently include link, inside-outside, up-down, front-back, center-periphery, path, cycle, balance, and force relations.

I would now like to present a general model of three superimposed levels that incorporates the central insights of these authors. These are the *experiential*, the *conceptual*, and the *symbolic* level.

(1) The primary level of experience is not structured in a symbolizing manner. Loosely speaking, inchoate experience is given to us more as a whole than as pre-existing chunks: a cornucopia of not strongly hierarchical information with no very particular focus, waiting as it were for the human mind and body to impose their structure.¹⁰ If we speak of knowledge at

¹⁰ This notwithstanding, we should not forget that primary experience often already imposes structure and salience, for example when intense pain makes it difficult to attend to other things.

this level it is (a) embodied, (b) pre-objective, and (c) non-propositional. By saying it is embodied I emphasize the sensorimotor and proprioceptive nature of such knowledge, which is not conceptual in the ordinary sense. The knowledge, say about dancing, making love, what a spring day is, or simply how to operate a car, is in the skin, the muscles, the nose, not in the mind. Embodied knowledge is also largely pre-objective because what is known is not inherently sensed as different from the knower; the sign and the signified have the same locus. One much discussed issue bearing on this is the subject-object format of experiencing. Some phenomenologists, Buddhist psychologists, and other 'transpersonal' psychologists argue that this is a construction of the human mind, and not the invariant basis of the 'real world', so that our supposedly a priori distinction of perceiving subject and external object world is imposed through an acquired mental habit upon inchoate reality. This form of consciousness is still very much active, for instance, in some types of meditative experience or in small children before the self is objectified. By non-propositional I mean that reality is not sensed (or made sense of) in a symbolic or linguistic format. There is no string of discrete chunks of information processed in a sequential way to form a proposition. Non-propositional is, to use standard terminology, not coded digitally, but in an analog way. Spoken language or comparable symbolic systems therefore require a transformation of the analog structures of human experience into a digital code. In inchoate experience the degree of chunking of reality characteristic of goal-directed rationality has not yet taken place. There is no picking out of discrete signifiers in the mind to stand for, say, specific objects, activities, or attributes.

(2) At a secondary level we impose conceptual formats on primary experience. This invariably involves a (most often non-conscious) focus on selected aspects of the full initial experiential Gestalt. There are different types of conceptual format, some analog in nature, and some digital. Analog means that the concept is structurally isomorphic and continuous with the experience. Later I will discuss whether analog and digital are not continuous with one another and a matter of relative degree. Leaving this issue aside for now, three basic cognitive modes need to be distinguished. They were contrasted for the first time by Philip Johnson-Laird (1983), who termed them *imagistic models*, *mental models*, and *propositional models*. These subsequently recurred in somewhat changed terminology in the work of other authors. In accordance with the now mainstream terminology favored by Lakoff and Johnson and now largely adopted by the cognitive community, I will speak of *rich images*, *image schemas*, and *propositional models* as the three major formats of the conceptual level.

(2a) *Rich images* are continuous with, though not identical to percepts and possess a fairly detailed inner structure. For example, in the case of visual images, we can evoke colored images before our inner eye. Thoughts are similar to pictures or, more frequently, to movies passing before the 'mind's eye'. Most frequently rich images are

of visual nature, but auditory, tactile, kinesthetic, olfactory, or gustatory images are by no means excluded. Often a rich image associated with a specific situation is a blend of elements of sight, smell, sound, etc. that are recognized as belonging together; it is a multi-modal 'feeling image'.

(2b) *Image schemas* are skeletal abstractions with less detail than rich images. The human mind has the faculty of abstracting a set of identical structural features from non-identical perceptions or rich images. Lakoff (1993) calls these generic-level abstractions. Because of this multi-purpose or generic-level structure image schemas are precisely what enables us to perceive underlying analogies. For example, we are capable of finding a structural schema underlying simultaneously a classroom full of children, a map with a country's borderline and cities on it, the notion of society, and the notion of a mathematical set: A schematized container, possibly with schematized contents in it, underlies all these rich images. Some of these notions can only be conceptualized as pure image schemas, a mathematical set being the extreme case for which there is no rich image. The notion of society per se is similar but possibly evokes rich images through association. A classroom or a map, on the other hand, can either produce a rich image or an image schema as its structural abstraction. Three more points deserve to be mentioned here: First, whatever their difference to other forms may be, the distinction of rich images and image schemas is by no means a clear-cut one. They flow into one another varying with the amount of detail. No exact line can be drawn between them, because the mental format of both mechanisms is analogic in nature. Presumably most image schemas can be fleshed out with more imagistic detail, and every rich image has a potential for becoming an abstract skeleton. Second, image schemas can extend across sense modalities, e.g. we sense similarities between a visual schema of balance and a sensorimotor one. The same applies to visual and acoustic notions of rhythm. It makes sense to speak of image-schematic skeletal concepts in other sense modalities as well, especially auditory, visual, proprioceptive, and tactile. In contradistinction to the olfactory and gustatory modes these allow for temporal patterning and are therefore more highly structured with reference to most people. Third, even though the imposed formats in question are situated at a level we called conceptual, the cognitive operations need not be conscious and seldom are. Often they can only be indirectly inferred through linguistic methods, or through experimental or other analytic techniques.

(2c) In their logical shape both above mentioned formats contrast sharply with *propositional models*. These derive their name from the shape of spoken language, which is sequential, chunked, and features syntactic relations. We speak of such models mostly at the level of very abstract or condensed signifiers, where it is difficult

to image a single analogic image that incorporates all denoted aspects of meaning. Metaphors are usually identified with this propositional type when there are many corresponding features that are mapped between two domains, and the metaphor cannot be reduced to a simple image skeleton of one kind. That the mental format of propositional thought is language-like, digital, and discrete has significant implications. Because information is transposed into a discrete sequence of symbols holding among them certain syntactic relationships, any prior structural analogy of meaning to sensory experience is lost. While our mental picture of a house and the percept of a house are continuous, the sounds of the word “house” have no characteristics in common with the percept. The designated thing and the word have nothing in common, apart from being assigned to one another through a mental link. Their relationship is one of signification. Onomatopoeia aside, it is an arbitrary pairing of symbol and meaning.

(3) The fact that propositional models were named for their sentence like-structure indicates their proximity to the third, the surface level of symbolic models. Speech, inner speech, and similar levels of explicit thought are included in this category. Although the production rules underlying surface language are again mostly automatized and subconscious, it is through the externalized utterances that the digital nature of thought is most strongly subject to conscious self-reflexivity. Linguistic models proper are a sub-category of such symbolic models, which can use other media as well. What all symbolic models have in common is that external referents like sounds, writing, or pictures are matched with corresponding conceptual models in the mind.¹¹

¹¹ The relation of the third level of surface symbolism such as uttered speech to the prior level of mental conceptualization deserves further comment. What sets the two apart is a shift of our observational perspective. In the terminology of Shore (1996) this is a shift from *mental models* to *instituted models*, i.e. meaning that is externally encoded and made public rather than existing only in the heads of people. Sperber (1996: 32) introduces the same distinction under the names of public vs. mental representation, with Keesing (1991: 377) discriminating in a similar way. Donald (1991) describes this shift as the ‘externalization’ of memory and knowledge, which through ritual mimesis of accumulated skills, narrative, writing, or symbolic representation socially reifies thought and thus ensures its stability. A similar point is raised by Berger and Luckmann (1967) in their sociological classic *The Social Construction of Reality*. The consequences of this distinction have often been overlooked, especially by anthropologists. Besides the implications of non-observable mental phenomena for the development of an appropriately suitable methodology, what this amounts to is a shift in our ontology. The term ‘instituted model’ refers to a recurrent external manifestation of cultural meaning in speech, symbolism, and behavior. However, this never allows a direct access to mental models, whose locus is the mind of individuals (or, within a more holistic perspective that includes

All this indicates that there are three legitimate levels of analysis: The kinesthetic and sensorimotor experiences that often underlie metaphor (body), conceptual realizations of these (mind), and symbolic models (language). This tripartite distinction of levels is an

lived experience as well as motor schemas, the locus of 'mind-body'). Mental models can only be indirectly inferred by the ethnographer or linguist from cultural regularities in behavior and speech, i.e. instituted models. Thus, the ontological rift extending between these two levels of description has to be bridged by the observer through appropriate analytic methods.

For many cultural anthropologists and semioticians it is still necessary to point out that instituted models do not have any life split from the mental reality of people who create and transmit them. A ritual, an item of material culture such as an object of art, a proverb, a text, or an utterance do not speak for themselves. They constitute more or less conventionalized *cues for the reconstruction of meaning*, but are subject to context and subjectivity. As cues they only become meaningful through the interpretation by individual minds. Instituted models invariably require a transposition into a mental model. Analysts often fail to recognize that they cannot get at public meanings directly (Strauss/Quinn 1997: 13ff). Clifford Geertz, who takes a deliberately anti-cognitive stance in the sense of opposing a mental locus of meaning, is an influential example. Interpretivists such as Geertz speak about public symbols in an ideal-type way that subsumes diverging meanings of many people in a single formula, while setting aside the question of cognitive reality of these ideal types. Mental meaning is treated as a 'black box'. However, it seems to me that by standards of logic even people maintaining the contrary, such as Geertz, have to assume in some crude way that instituted models must come into people's minds for them to act on them.

A momentous reason why this transposition from instituted to mental models should be studied carefully is the schematically mediated nature of meaning. Rather than being simply absorbed by the mind as a veridical image public representations impinge on the mind indirectly through the mediation and constraints of pre-existing mental models. Cultural schemas or individualized expectational patterns are brought to bear, so that novel information is often assimilated to what is familiar. While schemas make for selective screening of information, they also contextualize by placing the novel information within a known category and by evoking particular affects, encyclopedic information, or inference patterns.

It is not to be simply taken for granted that any given model on this instituted, observable level is being transposed into roughly the same mental model by all members of a culture. Individuals may interpret public knowledge quite differently, perhaps even in a 'dialogue of the deaf' where everyone believes that all others share one's interpretation. Moreover, how well a mental model fares in spreading throughout a population is subject to many factors. In this sense Sperber (1996) programmatically calls for the study of micro-mechanisms responsible for the stability of shared cultural ideas. This necessitates asking why a person chooses to make a thought public, which institutional or personal factors make its repeated dissemination likely, what construal of so-encoded knowledge by the audience is likely, which changes of content are likely with repeated transmission, which means (such as writing) serve the stability of ideas, what makes an idea salient, memorable, and practically relevant, and so on.

analytic division of what usually occurs in a functional continuum. The distinction is nonetheless of value for two reasons: First, it pictures metaphor as a complex processual interaction of levels and thus makes the grounding of abstract meaning tractable by relating it to experiential structures. Secondly, most literature on metaphor has been overly preoccupied with level three, although it is clearly inadequate to see language as the sole locus of metaphor. With linguistic metaphor we need to include embodied and conceptual levels of theorizing. More than that, we have to broaden the scope of inquiry to include non-linguistic metaphor, such as those found in pictures, emblems, movements, actions, and embodied feelings. The present model indicates that many important realizations of metaphor ought to be sought by analyzing phenomena such as gestures, emblems, action structures, or the bodily 'feel' of an experience. I will pick up this thread in chapter 4.

THE CONCEPTUAL LEVEL: DUAL CODING VS. TWO POSSIBLE REDUCTIONISMS

The most controversially debated level among these three is the conceptual one. On the basis of our distinction between analog vs. digital conceptual formats, there are two possible approaches to the analysis of metaphor. One approach that is prominent in semantic field theory, artificial intelligence, and much of cognitive philosophy focuses on the associative relations within semantic fields (e.g. MacCormac 1985, Kittay 1987, Way 1991, Indurkha 1992). According to this view, the similarity created in metaphor is attributed to common verbal associations evoked by source and target. However, as Johnson-Laird, Hermann and Chaffin (1984) have shown, these semantic network models of cognition are subject to formal limitations and cannot completely account for metaphor, to state but one problem with this view. The alternative view focuses on imagistic mechanisms that create a common ground between source and target by abstracting image structures from experience. The most detailed version of an imagistic approach, championed by Lakoff and his associates (cf. Lakoff/Turner 1989, Lakoff 1993, Turner 1993), puts forward the strong claim that the basis of all kinds of metaphor is the extraction of a common image-schematic structure.

Although I strongly sympathize with the image schema approach, I believe that metaphor involves multiple modes of cognition, which work jointly, albeit with varying emphasis on the different modes.¹² Here I side with Paivio and Walsh (1993), who convincingly argue in favor of a *dual coding* approach. It makes sense to believe that propositional thought and image schemas lend themselves to different kinds of representations (cf. Quinn and Holland 1987: 24ff). Nevertheless, we should be wary of an either-or view – for the purposes of analyzing applied language the distinction of analog and digital formats is of restricted value. Propositional and non-propositional thought usually co-occur in everyday thought. Much as

¹² Although later I will suggest a possibility of reducing propositions to images, for the present purposes of introduction I prefer to stay with this distinction.

our brain has actual neuronal nodes, we can metaphorically speak of virtual nodes in our mind, which make translation and re-translation between analog and digital a routine task. Speech or any other kind of symbolic cue can evoke either images or semantic attributes and whole propositional chains, or both. In the same way images, or their abstracted image schematic structure, can evoke either further images or semantic attributes. Plausibly, both images and semantic attributes can serve as mediators either way.

Both theories and the respective mechanisms they emphasize have shortcomings and strengths. The basic strength of the propositional mode of cognition is that it allows for considerable complexity; its weakness is that without connection to the other levels it is difficult to account for the phenomenon of *meaning* in regard to sensory reality. In the analog mode the genesis of meaning from percepts is quite transparent, but we do not know how complex and abstract knowledge arises from this basis.

The relative importance accorded to propositional and analog formats accounts for a major theoretical rift among cognitive scientists. A more far-reaching question is whether either one of these formats can be ultimately reduced to the other. The *imagery debate* of the 1980s with the central figures of Stephen Kosslyn and Zenon Pylyshyn centered on the question whether imagery is an epiphenomenon of algorithmic (and thus propositional) calculations. The notion of 'language of thought' championed by Jerry Fodor and Pylyshyn himself is based on the assumption that the actual level at which thought takes place is just as propositionally shaped as surface language. According to this perspective, the analog images we report on the phenomenal level are relegated to a secondary status of an epiphenomenon, whilst the human mind is taken to be a symbol-manipulating device much like a computer in a sequential, chunked, and digital manner. Lakoff (1987) and Johnson (1987) have made a convincing case contra Pylyshyn that imagery is an irreducible level of meaning in its own right. Gibbs (1994) brings together a great amount of empirical support for this.

The converse question whether propositions are simply a kind of imagery of extreme abstraction and condensation, or an irreducible level, has not been entirely settled to date. On this view, the propositional format is a mere epiphenomenon characteristic of the surface level of words, while the mind is fundamentally imagistic at any level of complexity. Such a position is at least implicitly present with Langacker (1987a) and more explicitly postulated by Palmer (1996). The overall idea seems to make sense. When our mind condenses imagery, it ends up with propositions that somehow function as manageable single tokens for an internally highly complex mental array. Although the issue how this happens has not been settled through empirical research, some authors seem to think of knowledge even at the highest level of abstraction and condensation as imagistic to some extent. Although I find this position intuitively appealing, at present we have to remain uncommitted as to the exact

relation of imagery and propositions pending further findings from experimental psychology and neuroscience. However, in chapter 8 I will indicate some interesting entailments of the view that propositional thought and imagery are cognate phenomena based on my subsequent development of a theory of cultural imagery.

For our immediate purposes this question is more technical than substantial, as long as we acknowledge that these formats are seldom a strict either-or matter. Depending on which aspect of a concept we highlight, it will seem more given to an imagistic description or to classifying it as proposition due to its degree of abstraction or due to its multiplex nature that defies any simple image.

A VERTICAL MODEL OF METAPHOR AS PROCESS BETWEEN LEVELS

Metaphor is best understood as a process (cf. Gerhart/Allen 1984). Within the outlined three-level model metaphor can be depicted as an interactive process between these levels. The following statement by Beck (1978: 85) intends to capture this:

“A verbal metaphor can now be understood as a device whose function it is to inject the results of analogical reasoning processes into the semantic domain. (...) [It is] a process whereby images and experiential associations that develop at a level where a network of sensory associations prevails are transferred to a level where thoughts are ordered according to a logic of verbal categories.”

The same idea is emphasized by Lawrence Kirmayer (1993:185), who, following a terminological innovation originating with Maurice Merleau-Ponty, says that “meaning or action is *presented* to the representational system (...) from lower levels of sensory-affective processing in the central nervous system and from bodily experience.”¹³ In the way proposed here it makes sense to characterize the very grounding of the conceptual in the sensorimotor as metaphoric, since the human being is in some fascinating way capable of sensing analogy between them. In what follows I would like to contrast this other, somewhat unconventional use of metaphor as concept with the more traditional use in order to demonstrate that both form part of a single process: For this purpose, let us call the grounding process in the sensorimotor realm discussed above *metaphor in the vertical mode*. In apparent divergence

¹³ Kirmayer (1993: 171ff) places this process within the relational triad ‘archetype’, ‘metaphor’, and ‘myth’, which he develops to emphasize that body, thought, and socio-cultural structure all contribute to meaning. In his terms, ‘archetype’ refers to bodily-givens rooted in the nervous system and/or formed by the exigencies of social life. ‘Myths’ in his terminology are the legitimating and structuring narratives of a society. ‘Metaphor’, finally, operates as the crucial mediating device between the former two to produce an interaction with the sensory and affective aspects of concepts. He also insists that the imaginative nature of metaphor always generates a surplus of meaning and is never determined one-way from either side.

from this, metaphor was traditionally understood to refer to a mapping either from word to word or concept to concept. Here metaphor is conceived as movement between domains at a single functional level. This can be designated as *metaphor in the horizontal mode*.

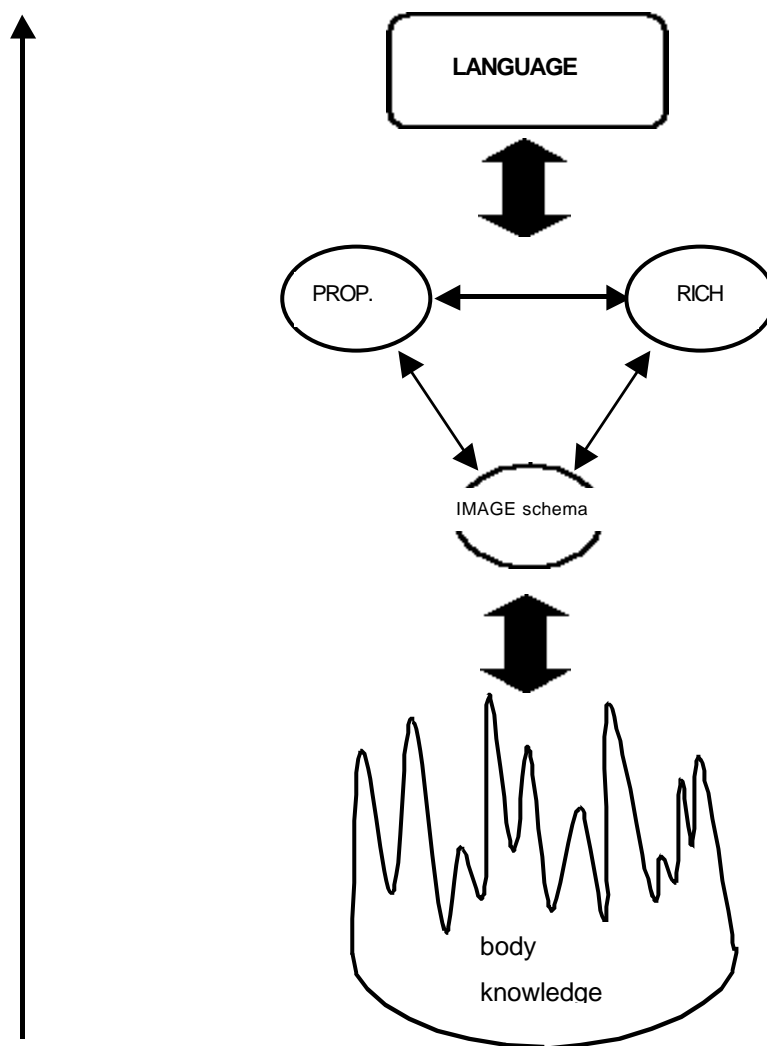
The point that I want to emphasize here is that recognizing a metaphor on the linguistic level requires a switch to or inclusion of the other two levels. Speech needs concepts, and concepts frequently take recourse to the embodied level. It is an important theoretical proposition of this chapter that metaphor (1) as an inter-level process and metaphor (2) as a concrete mapping at the same level are inseparably related. How is this to be understood? In processing a metaphor we establish nodal connections between the three conceptual modes and from these to the sensorimotor level downwards and to the symbolic system level upwards and thus use mechanisms, both horizontally and vertically, at the same time. This merits a closer discussion:

Characterizing the three levels as functional continuum means that metaphor can set out at any of the first two levels once it is cued by language, other symbolic perception, semantic or episodic memory. This also means that metaphor makes use of all three conceptual mechanisms of the second level. Concerning the first point, metaphors can extend over the full three-level gamut within the above described bottom-up process, but they need not do so. Let us consider three alternative possibilities in turn: In full-scale metaphors embodied knowledge is screened for conceptual correlates, thus extracting an image schema, which in turn is transposed into propositional coding and ultimately into surface-level symbolism. Alternatively, the process may stop short of propositional transposition into uttered language and use the image schema as it is within the analogic mode only ('image metaphors'). Finally, it may be that metaphor only stretches between level two and three in the case of evocation of linguistic attributes from semantic memory, which have already been clustered and prepackaged in memory earlier, so that in the concrete instance no evocation of associations from the bodily level is necessary any more. However, embodied associations can be, at any time, brought to resonate. Contrary to Beck's idea of a bottom-up injection of inchoate experience into conceptual thought I contend that the process is not a one-way street. Conceptual structures work their way back to the level of immediate experience. Just imagine a vague emotion triggering a thought process that leads to several creative insights, which then create a new embodied emotion or workings of the pre-objective unconscious.

If we focus on the conceptual level, we find an interacting triangle of image, image schema, and propositional coding. The richness of metaphors emanates precisely from the swift transposition between all three modes, a multiplicity of mutually translatable formats that is characteristic of cognition in general. However, what actually enables metaphor is the picking out of similar structures from two backgrounds or newly creating a common background for dissimilar domains. Either image schemas or propositional mechanisms are

chosen to account for this. If a metaphor operates on image-schematic similarity this means that the generic level structure of an analog mental image is extracted and mapped on another image. If it operates on propositional knowledge this means that symbolic structures associated with a cue are matched. Yet, rich images may also play a certain role. It is acknowledged that except in cases of 'one-shot' image metaphors (see below) they lack the power to initialize metaphors. Yet, in almost any metaphor rich images can provide enriching associations, which in turn can yield valuable detail information of, both, source and target domains.

The following graphic depiction summarizes what has just been said:



What is metaphor then? Metaphor constitutes a particular cognitive process of temporarily or permanently creating connections between what are considered largely separate domains. This process encompasses vertical and horizontal relations. *Vertical relations* relate to the emergence of metaphor from body knowledge via conceptual knowledge to externalized public knowledge. Attending to these is important for the discussion of the grounding and

embodiment issue (see below). *Horizontal relations* are given prominence in the analysis of conceptual metaphors. They are based on mapped correspondences at the same (i.e. the conceptual) level.

It is important to see that the vertical and the horizontal principles work together. Any linguistic metaphor may involve all three levels, both in the speaker's mind and in that of the addressee: Via a public utterance one person tries to encode her embodied-cum-conceptual intentions, upon which the other person decodes this surface level utterance, which evokes a conceptual-cum-embodied understanding in the addressee if successful. Note that I take the relation of conceptual and embodied knowledge to be a two-way interchange. In chapter 4 I will present a model of how embodied feelings emerge as concepts and how conceptual knowledge conversely can produce embodied states.

3. Types of metaphor

A broad definition of metaphor, as proposed here, makes it necessary to distinguish various subtypes of metaphors. Of course, the category of metaphor can be internally differentiated in a number of ways. Metaphors can be systematically classified with respect to at least six criteria,¹⁴ which can be broken down into two groups of three. In the first group there are three *pragmatic-functional criteria*:

- (1) the evocative determinacy of the metaphor,
- (2) the scope of the metaphor,
- (3) the degree of conventionality of the metaphor.

The second group includes three closely intermeshing *cognitive criteria* which all distinguish differential sorts of representations involved:

- (4) the cognitive format of the metaphor,
- (5) the level of schematicity of the metaphor, and
- (6) the complexity type and compositionality of the metaphor, i.e. its interaction with and embedding into more complex metaphors.

(1) EVOCATIVE DETERMINACY TYPE: DIAPHORS VS. EPIPHORS

A first distinguishing criterion is what a metaphor evokes conceptually and how strong the tension is it maintains between two domains. MacCormac (1985), and before him Wheelwright (1962), distinguish 'epiphor' from 'diaphor'. While an epiphor expresses a similarity and uses a readily understood source to illuminate a less understood target domain, a diaphor is merely of suggestive, intuitive value and emphasizes dissimilarity.

¹⁴Kövecses' outstanding introductory guide to metaphor (2001: ch.3) mentions most of these criteria and gives excellent examples for them, though his and my terminology partly diverge.

Diaphors are, for example, employed in science for providing new insights or for illustrative purposes. Epiphors in their purest form might be found in symbolist and dada poetry, non-imitative music, and abstract painting. In diaphors metaphoric indeterminacy and multivocality is strongest. The degree of indeterminacy is also a principal issue with other authors. Berggren (1962-63) and Fernandez (1977, 1986) speak with similar intent of 'analog' or 'structural metaphors' on the one hand and 'textual metaphors' on the other. An analogic metaphor is assigned to its subject on the basis of isomorphic patterns or isomorphic relationships, e.g. in speaking of a 'tree' diagram or an organism as 'mechanical' relationship. Textual metaphors are defined as those which make assimilations based on feeling tone, as in the expressions "glowering clouds", "a brooding landscape", or "dyspeptic bureaucracy".¹⁵

These two poles are ideal types, inasmuch as complete identity and complete lack of meaningful analogy both would obviate any metaphoric process. It has often been said that in metaphors a relationship of "is and is not" exists (Berggren 1962-63). In other words, it involves a dual vision and it is this dual vision that accounts for metaphoric tension. Metaphoric tension is higher in diaphor than in epiphor, but always present. Tension induces a complex process of meaning reconstruction. A diaphor's high tension is what incites rich associative processes in the mind.

The degree of tension owes to the primary distance of source and target domains. With reference to examples such as 'George the Lion' or 'The attorney general is a jellyfish' it is obvious that no permanent identification is created to any important extent. The distance between the two semantic domains is sufficiently great that the two remain separate except for the mapping of a single feature, such as the lion's courage or the lack of backbone in a jellyfish (see Ohnuki-Tierney 1991: 176). Other metaphors have the power to 'spill-over', i.e. to create more durable links of a general kind between domains. Many metaphors use a particular feature of analogy in a given context to evoke the general analogy between the domains. Conversely, a particular cultural proximity of source and target may call for a clear demarcation. Precisely because monkeys or dogs are often like humans in an uncanny way,

¹⁵ Metaphors of feeling tone are perhaps less responsible for basic meaning generation than for putting 'the icing on the cake'. In this sense Paul Werth (1999: 318) stresses that everyday conceptual metaphor on the one hand and poetic metaphor on the other tend to differ in important respects. The poets (and presumably the audience's) thought is usually not so ineffable that she has to use better understood-areas of language to express otherwise inexpressible concepts. While a lack of words may be the motivation for some poetic metaphors, more often metaphor is used for the purpose to make an expression more striking. Further below I will argue that the purposes for employing metaphor include that it evokes emotions, creates memorable and condensed images, and produces further associations.

calling someone a 'dog' or a 'monkey' is a potent insult. It lumps the person into the category as a whole, instead of evoking a particular feature of similarity only, and derogates his humanness in a stronger way than is the case with a lion or a jellyfish.

Note that the degree of tension also crucially bears on a classic bone of contention of metaphor theory, namely the *interaction theory*. The interaction theory, associated with I. A. Richards and Max Black, posits – while remaining too obscure about the mechanism – that in a metaphor the target not only is understood in terms of the source domain, but the reverse is also true. According to this view, a metaphor brings the two domains closer together.

(2) SCOPE TYPE: EXPOSITORY VS. GENERATIVE METAPHORS

Another distinction of considerable importance, in particular for cultural anthropology, pertains to a metaphor's scope. Scope in the sense used here means the overall power a metaphor has within a conceptual system, and how much it governs other elements of it. Various terminologies have been proposed in the past to highlight this distinction between metaphors of local, limited scope and such with a key function within a thought system.¹⁶ MacCormac (1985: 48) suggests the terminology of *conveyance* vs. *basic* metaphor and characterizes the difference as follows:

"The difference between conveyance and basic metaphors follows from their scope and function. Conveyance metaphors usually propose an insight limited in scope, whereas basic metaphors underlie an entire theory or discipline devoted to the description of widespread phenomena."

An almost coterminous distinction is pervasive in the literature on metaphor in science is that between metaphors and models. The issue has been much debated and relates both to scope and clarity. Representative of one particular trend, Way (1991) expresses this distinction by designating those entities as models that are more extensive than metaphors, and usually less ambiguous.

On the other hand, sometimes the opposite distinction has been drawn between metaphor and analogy. Gerhart/Russell (1984: 119) are representative of this when they state:

"The distortion of the fields of meaning by means of the metaphoric process is a structural change which demands that other meanings and understanding have to be changed in the wake of the metaphor. (...) Analogy on the other hand, is an extension of meaning (as distinct from the creation of new meaning.)"

¹⁶ See Ortner (1973: 1338) for an overview of terminology on key concepts and Fernandez' introduction to the volume *Beyond Metaphor* (1991) for a state-of-the-art overview with a particular focus on metaphor and its relation to other tropes.

It is clear that the distinction drawn here excludes 'one-shot' metaphors from the term. Instead the emphasis lies on highly systematic metaphors of great scope and with a great number of entailments. According to this somewhat dualistic view everything that does not entail a fundamental epistemic change (e.g. illustrative and elaborating metaphors) should rather be consigned to the category of 'analogy'. But let us return to MacCormac's distinction of scope between conveyance and basic metaphor, which is a fruitful starting point for further considerations.

In an insightful treatment of selfhood metaphors Brewster Smith (1985: 76f) proposes a more elaborate distinction encompassing a total of three levels, which circumscribe the field of inquiry. (1) *Generative metaphors* delineate the field and mode of discourse as such, much as metatheoretical paradigms do in science. I will also use the term 'root metaphors' for these below. (2) *Constitutive metaphors*, in Smith's terms, are such that contribute to the composition of fairly broad target domains such as human selfhood and consciousness. By extension, this term might cover all kinds of metaphors that are constitutive of a central domain of human thinking. Thus, when folk-models about knowledge and mind, emotions and personality, natural kinds and classification, etc. are structured by virtue of a central metaphor, we can think of these metaphors as constitutive theories of a cognitive domain. These are perhaps not as encompassing as root metaphors are, which amount to transcontextual preferences of basic cognitive modes (such as modularity vs. organicity, or mechanic causality vs. contextuality). Nevertheless, generative root metaphors obviously inform constitutive theories in their particulars. (3) Finally, Smith speaks of *expository metaphors*, which are embedded in the continually reconstructed narratives of everyday life. Pedagogical metaphors also fall within this category. Smith's approach is of particular interest, because he gives some thought to the relation between expository and constitutive metaphors:

"The general import of this chapter is that our expository metaphors about ourselves tend to become constitutive metaphors: there is no clear line between the two classes. The case is similar, I think, for the expository metaphors of personality theory. In this respect psychoanalysis has been particularly rich. The metaphoric institutions of the person – id, ego, and super-ego (...) became for a while more identifiably functional in people at large, one can speculate, *because* psychoanalysis reified them metaphorically." (p. 77)

The metaphors that Smith calls generative have been of abiding interest both to philosophers and cultural anthropologists. It makes sense to speak of metaphors of the uppermost level of the cognitive architecture, which organize a whole culture or worldview, if we allow for some degree of parallelism with other terminology. The philosopher Stephen Pepper (1942) was the first to suggest the term 'root metaphor' for such culturally central devices of the mind,

the term perhaps being related to other terms such as 'key concepts', 'core values', or 'ethos'. Pepper investigates the power of complex metaphors by describing generative nuclear images that stand at the center of whole systems of philosophical thought. One such root metaphor would be *REALITY WORKS LIKE A SIMPLE MACHINE* (such as a lever or a pulley). This root metaphor defines a worldview referred to as 'mechanism'. The ontologizing power of root metaphors is made evident if we reframe them in the terminology of complex cultural schemas, in accordance with more recent conventions in cognitive anthropology. Root metaphors impart a basic shape to specific level knowledge structures. They possess all the characteristics of what the cognitive anthropologist Bradd Shore (1996) calls a 'foundational schema'. Characterizing them as 'schema' means (1) that they screen the scene for culturally relevant and contextually appropriate information that are defined by the schema's knowledge 'slots', and (2) they are sufficiently schematic so that they can be applied to a high number of specific instances which are non-identical but similar.¹⁷ Characterizing them as 'foundational' means that this schematic structure recurs across an exceptionally large number of domains as a powerful ordering device. They are of central cultural importance in that they organize many life domains in a similar way. Concerning this terminological brushwood it will be argued in much detail in a later chapter that 'metaphors' and 'schemas' are highly compatible concepts and that an implicit dualism, as present in Naomi Quinn's (1987, 1991, 1997) critique of Lakoff (1987), often only clouds the fact that the two dialectically act on each other, if they are not partially identical concepts to begin with.

The rigorous description of multi-level hierarchies of metaphor in a previously unprecedented form comes from cognitive linguistics. Only recently Zoltán Kövecses presented a detailed reconstruction of the contributing metaphors for some high level metaphors. One such metaphor with various more specific sub-metaphors is the English *INTENSITY IS HEAT* (2001: ch.9, 10). The true scope of cognitive linguistics, however, emerges from Kövecses' (2000) careful analysis of the metaphor *EMOTIONS ARE FORCES*, which is placed at a high level in the cognitive hierarchy and unites a great many sub-metaphors. Although the idea that emotions are forces does not completely delineate a cultural field of discourse and remains on the level called 'constitutive metaphors' by Smith, a quite significant part of the cultural field is structured by the metaphor. Therefore, repercussions of the metaphor are likely to be found across all sorts of thought domains. Intriguingly, Kövecses moves to a yet higher level of analysis by showing that the metaphors for rationality and for emotions comprise in fact a complementary and conceptually closely linked system of *FORCE*-based imagery. In the overall system two forces, 'agonist' and

¹⁷ Scripts and scenarios for a given situation then fill the slots when information is missing by providing cultural expectations relative to a schema. They also order our memories of an event-sequence, and that they generate complex action defaults comprising different phases (Allbritton 1995).

'antagonist', act on each other. In this conceptualization, emotion is a force that overcomes (pushes away) rationality at times, while rationality has to have enough weight (inertia) to stay in place. This recent move to high-level analysis in linguistics comes close in scope to what Brewster Smith calls 'generative' metaphors. In the next chapter I will present at length an analysis by Lakoff (1996) of an American high-level metaphor that THE NATION IS A FAMILY and a whole hierarchy of sub-metaphors structuring the conservative and liberal worldview as a whole. The case study perhaps comes closest to a bottom-up analysis of a 'generative metaphor', although is in fact a complex system of many metaphors. Further research along the same lines points to a new agenda uniting linguistics with anthropology, which develops a nuanced and multifaceted description of cultural cognitive landscapes and does not stop at single domain analyses. In the future we need a detailed coverage of metaphors in a greater number of domains together with an integrative theory of how these form larger clusters.

(3) CONVENTIONALITY TYPE

Some metaphors are highly conventional, culturally permanent, and recurrent among a group of people, while others are novel and ad hoc, and still others somewhere in-between. Up to the 1970s little was written on conventional metaphor and the term metaphor was primarily used for novel metaphors. In the wake of Lakoff and Johnson's (1980) pioneering work it has become one of the main fields of cognitive linguistics. Research on conventional metaphor (or other related structures such as schemas) is a highly significant means of describing existing cultural thoughtscales.

The term conventional as used by cognitive linguists, both for linguistic metaphors and their underlying conceptual basis, means that they are well-entrenched in usage rather than arbitrary (Kövecses 2001: ch.3). People use conventional metaphors effortlessly, naturally, and recurrently in everyday situations. They are often not recognized as metaphorical, because they stem from an entrenched conceptual mapping between domains.¹⁸ Kövecses presents the following English conceptual metaphors, and one corresponding linguistic manifestation for each which indicates their degree of familiarity: ARGUMENT IS WAR: "I defended my argument"; THEORIES ARE BUILDINGS: "We'll have to construct a new theory"; IDEAS ARE FOOD: "I can't digest all these facts"; SOCIAL ORGANIZATIONS ARE PLANTS: "The company is growing fast"; LIFE IS A JOURNEY: "He had a head start in life".

While poetry is usually thought of as using striking, new metaphors, Lakoff and Turner (1989) and Gibbs (1994) conclusively demonstrate that a great number of poetic metaphors

¹⁸ Note that this has a bearing on our preconceived notions about domain structure. When many highly conventionalized metaphors between two domains can be found, this indicates that the domains may not be as separate after all. With novel metaphors the sense of domain separation is usually strong.

are in fact elaborations of conventional everyday metaphors. An example of theirs comes from a poem by Robert Frost: "Two roads diverged in a wood, and I - // I took the one less traveled by, // and that has made all the difference." Their analysis shows that while the linguistic expressions used here are strikingly unconventional, the single underlying conceptual metaphor is not. It is the LIFE IS A JOURNEY metaphor mentioned above.

Cognitive linguists make far-reaching claims about the cultural function of conventional metaphors. Systems of conventional metaphors comprehensively structure how people think about an experiential domain. While any number of linguistic realizations of existing conceptual metaphors can be found, the number of conventional conceptual metaphors for a given target is usually limited. For example, the target domain of love is limited to the following conventional source domains (Kövecses 1988, 2000: 26f.): LOVE IS.... A JOURNEY ("We'll just have to go our separate ways"), A NUTRIENT ("I'm starved for love"), CLOSENESS ("They are very close"), FLUID IN A CONTAINER ("She was overflowing with love"), FIRE ("burning with love"), PHYSICAL UNITY ("We are as one"), INSANITY ("I'm madly in love"), ECONOMIC EXCHANGE ("She invested a lot in that relationship"), A PHYSICAL FORCE ("She attracts me irresistibly"), A NATURAL FORCE ("He was swept off his feet"), AN OPPONENT ("She tried to fight her feelings"), AN ILLNESS ("She has it bad"), MAGIC ("I'm enchanted), RAPTURE ("He was high on love"), A SOCIAL SUPERIOR ("She is completely ruled by love"), WAR ("She eventually surrendered"), A GAME ("She is playing hard to get"). According to Kövecses, other metaphors are seldom to be found. English speakers comprehend their love experiences via these conceptual metaphors, which comprehensively structure the domain.

Novel metaphors are found in poetry and song lyrics, science, journalism, political or religious rhetoric, slang, humor, graffiti, and other fields. They may also play a role in how individuals conceptualize their everyday life. A non-conventional metaphor for love suggested by Lakoff and Johnson (1980) is LOVE IS A COLLABORATIVE WORK OF ART. This is a new way of thinking about love, which promotes a mutually responsible, active, creative, and esthetic way of living together. In Wheelwright's terminology, novel metaphors not infrequently have strong 'diaphoric' leanings, in the sense that they irritate and are not easily positioned within conventional knowledge, whereas conventional metaphors are situated near the 'epiphoric' pole. This pole is closer to so-called dead metaphor, i.e. the case where through habitual use and lexicalization a metaphor's tensive aspects fades away. Conventionality means lesser tension and stronger entrenchment.

(4) COGNITIVE FORMAT TYPE

On the basis of the distinction between rich images, image schemas, and propositions we can classify metaphors according to which mechanism plays the major role. A basic distinction is that between image metaphors and attribute mappings.

Image metaphors are described as ‘one-shot’ (Lakoff and Turner 1989, Lakoff 1993), meaning that they are not systematic multiple mappings. Two mental images are superimposed on one another, as in the expression “My wife, whose waist is an hourglass”. Image metaphors start out from rich images that are mapped like a superimposed transparent foil on the target image and impart the rich imagery to it. In poetry image mappings play an important role. Another example cited by Lakoff and Turner coming from the Navaho is this: “A horse with a mane made of short rainbows”. Image mappings also lend themselves to synesthesia and multi-modal images. Consider the following poem by Stephen Spender (cited by Indurkha 1994):

“There are some days the happy ocean lies
like an unfingered harp below the land.
Afternoon gilds all the silent wires
into a burning music for the eyes.”

A visual image schema based on the harp’s chords constitutes the core of the mapping. The rich image is one of the sun imparting golden color to the little ripples of the waves almost at rest and of blazing brightness. In addition, a blend between the visual and auditory modes is suggested. An image of musical pattern in the glistening of the sun or perhaps even in the sound image of surf and sea gulls is conjured up. (Note that as far as the abstract structure of music is imagined the evocation is more image-schematic than a rich image.)

In many metaphors complex propositional structure is mapped from one domain to another. Classical examples are ARGUMENT IS WAR and ANGER IS HOT FLUID IN A CONTAINER. Lakoff and Johnson (1980) call this type ‘structural metaphors’, because multiple propositional structures are mapped in a systematical fashion. They bring into correspondence several concepts or inferential structures of the source domain with others in the target domain. By virtue of this they create a structural similarity that is more than a simple similarity between two ranges of experience; it involves a similarity in how the individually highlighted experiences fit into a coherent whole. For example, the conceptual metaphor THEORIES ARE BUILDINGS gives rise to the following systematical entailments: “Is that the *foundation* for your theory? The theory needs more *support*. (...) Here are some more facts to *shore up* your theory. We need to *buttress* the theory with *solid* facts. The theory will *stand or fall* with the *strength* of your argument.” (Lakoff/Johnson 1980: 46). Thus many features of a complex concept are systematically mapped onto another concept. It will be explained a little further below that image schemas, in fact, play a major role in structural metaphors, although no single image schema can explain all of it.

The above-mentioned cognitive types have been sometimes related to conventionality types. Lakoff and Johnson (1980) actually use of the term ‘conventional metaphor’ in two

senses, as opposed to ‘novel metaphors’ and as opposed to ‘image mappings’. Lakoff and Turner (1989: 91) state explicitly that imagistic ‘one-shot’ metaphors are not involved in everyday reasoning. Contrary to this, I believe that examples for conventionalized image metaphors can be found, for example in proverbial expressions such as ‘He’s (as fat as) a barrel’. However, it seems to be the case that ‘one-shot’ image metaphors lend themselves more to novel metaphors, while systematic structural mappings are more likely to be found in conventional metaphors .

A third category of metaphors, which rely exclusively on *image schemas*, is also quite frequent. A simple example is MORE IS UP as in “The prices have risen”, “I hold her in high esteem”, or “The market has plummeted”. Up is an abstract spatial image schema without any rich image attached to it. It conceptualizes quantity in terms verticality. Though ‘more’ is also an experientially accessible concept, notice that the spatial image in the source domain also applies to abstract domains. In IMPORTANT IS UP the source is the same experientially obvious image schema, while the target domain of importance is a bit more abstract. For example, what the social importance of king may be perhaps quite complex a notion, but can be expressed through the simple spatial metaphor of an elevated throne.

We will get to another kind of purely image-schematic metaphors called ‘ontological’ a bit later. Another issue to be discussed is whether (apart from image metaphors, where this cannot be the case) correspondences in basic image-schemas are a privileged underlying mechanism in understanding complex structural metaphors.

Suffice it to say here that many metaphors evoke image schemas and complex propositions in association. Combinations of representational format can be illustrated through a cursory re-examination of three love metaphors: LOVE IS JOURNEY, LOVE IS MADNESS, LOVE IS WAR (Lakoff/Johnson 1980: 47ff). In all three examples some entailments may be described as simple image schemas and others require complex theories for interpretation. These complex theories may again include image schemas, but are not easily reducible to any one of them. LOVE IS A JOURNEY can, at its simplest, be well understood by the abstract image schema for purposeful movement alone (source-path-goal). Deviations, cross-roads, obstacles, and their removal or circumvention can equally be understood as purposeful action mapped onto space. Vessels for traveling introduce the CONTAINER image schema (e.g. a marriage may be the vessel). Finally, the comprehension of many other metaphorical entailments of the journey metaphor, such as guides, co-travelers, fuel, and provisions, requires a fair amount of propositional understanding, because their function is complex both in travelling and in love relationships. LOVE IS MADNESS offers no simple image schema for the whole concept of madness. We may extract partially constitutive image schemas from our understanding of madness, such as the sensorimotor experience to be bursting with some emotion (a container under pressure from within) or the body experience

of being dizzy and without orientation. On the other hand, we may well use our concrete experience of mad people and our theories of their psychological makeup propositionally in understanding the bulk of the concept. Many notions involved, such as 'mental pressure' or 'balance', will clearly be image-schematic, but they are only meaningful in highly complex theory-compounds combining many image-schematic models. LOVE IS WAR again offers nothing even close to a single image schema for the extremely complex concept of war. Again a few basic image schemas can be found, such as the sensorimotor experience of physical collision, tension, and arousal. Yet, these do not account for the systematicity with which other aspects of the complex concept are mapped, for example ally, siege, bulwarks, treason, and treaty. Again more complex knowledge structures are involved. In sum, we can say that while the central aspects of the journey metaphor are reducible to a single image schema, madness and war are much more complex compounds.

In many complex cases imagery is enriched by screening the semantic markers triggered by the central image schema(s) for associative data. The following example from MacCormac (1985: 76) aptly illustrates this. He cites Yeats' poetic description of "birth as a cannon that thunders time away". The metaphor perhaps builds on the basic schematic commonality of birth on the one hand and cannon/shooting on the other that a 'projectile' emerges from a passage. In my analysis, image-schematically this can be mapped onto time. Just as a cannon suddenly creates a trajectory when fired, birth suddenly creates the trajectory of (life-) time. Time conceived as an entity is ejected into a space (and perhaps disappears in the distance). The general metaphor is BIRTH IS A PRODUCER OF TIME. As far as I can see, this is based on the two conventional image schema metaphors POINTS IN TIME ARE POINTS IN SPACE and THE PASSING OF TIME IS MOVEMENT ON A PATH. A possible entailment employed here is TIME STARTS WHERE A TRAJECTORY EMERGES. This also evokes the more specific metaphor LIFE IS A JOURNEY, which hangs together with time as movement on a path. The cannon image in Yeats' metaphor adds to the basic idea that birth produces time. The three elements presumably implied by it are that birth creates time from nothingness (the cannonball cannot be seen), suddenly (it is shot away), and as a trajectory (it flies in one direction and disappears). Alternatively, the expression "thunder away" might also be read as THE EXPERIENCE OF BIRTH IS AN ELIMINATOR OF TIME. This is also based on a conventional metaphor TIME IS A POSSESSED OBJECT. Just as cannonballs disappear from view when fired, so does time disappear suddenly in birth.

Be that as it may, MacCormac emphasizes that the aspect of the projectile alone (and I would add the other image schemas I just analyzed) are not sufficient for an explanation of the metaphor. There are several possible sources for adding rich knowledge:

"But what corresponds to the thunder of a cannon in birth? The screams of the mother or the screams of the baby or both? And how does this 'thunder' eliminate time? Through eternal succession of biological reproduction or through creation of an eternal religious soul?"

Moreover, MacCormac adds that there lies an element of irony in the fact that cannons kill the very thing that birth produces. One may understand the poetical metaphor in these and various other ways. Whatever the interpretation, it will include several more complex aspects other than the initial image schema. Moreover, actual bodily states may be induced through associative evocations. Be it that envisaging thunder gives you 'the shivers', i.e. makes you experience an immediate bodily response, or be it that the metaphor creates a complex conceptual blend, where the pain and the joy of birth, the horrors of war, thunder, life, and death create a unique phenomenal imprint of a holistic quality, which perhaps encompasses contradiction, metaphor, metonymy, and irony at the same time. Throughout these aspects rich cultural knowledge needs to be recruited.

(5) SCHEMATICITY TYPE: SPECIFIC VS. GENERIC LEVEL METAPHORS

Different linguistic metaphors prompt us to highlight different levels of cognitive generality. This was first expressed implicitly by Lakoff and Johnson (1980: 14, 147) in a taxonomy of metaphor types. They distinguish ontological (such as *THE MIND IS A CONTAINER*), orientational (such as *MORE IS UP*), and structural metaphors, i.e. systematic multiple attribute metaphors (such as *IDEAS ARE FOOD*). Even though this taxonomy of metaphor is perhaps not convincingly comprehensive, it implies that metaphors work at different levels of schematicity. Ontological and orientational metaphors only require very simple image schemas, whereas structural metaphors are both more complex and more detailed. Schematicity refers to the relation between rich images, image schemas, and propositions. Cognitive schematicity is understood as imagistic schematicity. This entails that a high level of cognitive generality means a skeletal image on the imagistic continuum, whereas a high level of specificity means a rich image or a proposition. For example the linguistic manifestations of metaphor are always more specific than their inferred conceptual basis, which has to fit several manifestations.

In a later work Lakoff (1987: case study 1) clarifies this issue by introducing a distinction between basic level (specific) and superordinate level (generic) metaphors. This is based in the general literature on categorization, which reveals that conceptual fields are hierarchically ordered into basic and superordinate level concepts. For example, the basic level concepts "cars", "trains", "airplanes", "bicycles", and "subways" are all bound up in the superordinate level concept "vehicle". Therefore, a superordinate level concept is the shared abstraction of several basic level concepts. It involves a high level of cognitive schematicity and generic commonalities. On the other hand, the specific level adds more detail to the schematic image.

The same relation between generic and specific formulations plays a crucial role in how we analyze the metaphors resulting from such concepts. Because of the current mainstream usage I will speak of specific and generic level metaphors instead of basic and superordinate levels.

As an illustration take a linguistic metaphor such as “What I found out was hard to digest”. When we look for an underlying conceptual metaphor of a more general kind we can express this in two ways: At the more specific level we get IDEAS ARE FOOD, but if we further abstract from this there is also a superordinate or generic level of IDEA ARE ENTITIES. (This is the level Lakoff and Johnson would call an ontological metaphor.) The metaphor IDEAS ARE ENTITIES gives ideas a very general and schematic profile as object-like (instead of describing them as, say, a process), while saying nothing on their more specific nature. The corresponding specific level metaphor IDEAS ARE FOOD, by contrast, creates a more detailed image within this broad general category of entities. It is crucial to see that an analysis at both levels is important. More obviously, to choose the specific level formulation is in the interest of a precise description and of capturing the full extent of relevant information about the source domain of food. Less obvious, but equally important for another purpose is teasing out the generic level structure even at the cost of losing much of the concrete knowledge from view. The generic level is indispensable for explaining how families of metaphor hang together. Divergent specific level metaphors can give rise to a single generic level metaphor. The basis of this is their partial meaning identity at a highly schematic level. For example, the basic level metaphor IDEAS ARE FOOD and other basic level metaphors, such as IDEAS ARE PLANTS, IDEAS ARE PEOPLE, and IDEAS ARE PRODUCTS, share a common generic level metaphor of IDEAS ARE ENTITIES. Owing to its high schematicity, the generic level of a metaphor organizes and unites these differing concepts. Note that the grouping into families does not stop at the level where several idea metaphors share their basic structure, it goes even higher. The generic level of ENTITY is a true ontological category that occurs across various cultural contexts by predicating a similar basic topology on them. In European and many other languages a great number of notions from other abstract domains, such as feelings, beliefs, events, messages, etc., share the entity ontology with ideas.

From the analysis of cognitive schematicity and the generic level in metaphors we acquire an understanding of how ontological metaphors work. Ontological metaphors can be defined as reflecting only the highest level of schematicity, such as CONTAINER, ENTITY, PROCESS, or FORCE. They are expressed as image schemas and can thus function generically. As a result, two kinds of situations in which ontological metaphors occur can be distinguished: Ontological metaphors are either the *generic part of complex metaphors*, with the function of bestowing only the merest cognitive framework, or more *simple metaphors operating exclusively on image-schematic abstractions* at a high level:

(1) A conceptual metaphor that is purely ontological and inherently situated at the generic level is evoked by the expression "to put *into* the mind" (THE MIND IS A CONTAINER). It has no specific level structure, simply because "into" evokes a generic image. The same holds for all other prepositions and their metaphoric and imagistic meaning core, and for other kinds of expressions.

(2) Lakoff and Johnson (1980: 152) observe that ontological metaphors frequently prepare the ground for complex attribute mappings (which they call 'structural').¹⁹ In the case of linguistic metaphors like "Time is money" the initial image-schematic operation consists in bestowing a simple spatial ontology on time via the conceptual metaphor TIME IS AN ENTITY. This also fits with other metaphors of time conceiving it as entity ("I have time") as well as with metaphors conceiving it as a CONTAINER that can be filled with time ("Time is running out"). Only then propositional knowledge of what we can do with substances becomes effective, such as "give", "spend", "waste", "steal", etc. Note that the range of associated attributes is constrained by further propositional knowledge about money, since we can't for, example, "throw", "carry", "kick", or "touch" time.

It should be noted that complex domains are frequently metaphorically expressed through more than one ontological type, as Quinn's (1991) study of American marriage shows. Following Cienki's (1997: 13) slightly rephrased version, four ontological types of metaphor are found, namely MARRIAGE IS AN OBJECT, MARRIAGE IS A CONTAINER, MARRIAGE IS A PROCESS, and MARRIAGE IS A PATH. These, in turn, have many subtypes at a more specific level. For example, the ontological PROCESS metaphor is realized as MARRIAGE IS MERGING, MARRIAGE IS A LINK, MARRIAGE IS CONTACT, and DIVORCE IS SPLITTING.

The rub of this is that all more complex metaphors contain detail and generic information at the same time, so that their meaning can be isolated by the analyst at any point on the schematicity scale, ranging from highly detailed to highly skeletal. Figuratively speaking, levels of schematicity lie embedded within one another like the figurines of a *matryoshka*. It is important to see that they serve different cognitive functions: While the specific level contributes the details characteristic of a single concept, the generic level is responsible for its ontological identification within the most general categories of a culture. For example, we know that entities are different from events. All this yields a definition of ontologizing more in general. The ontologizing function is a basic function of the representational system that

¹⁹ They also venture the hypothesis that novel metaphors are less likely to be of the ontological and orientational kind than of the structural kind. The reason they give is that structural metaphors often build upon the former two more primary kinds. Whether these are indeed more deeply entrenched cognitively and thus less likely to be called into question should be a matter for future empirical study.

assigns a concept to a broad ontological category. It is implied that any such category binds a number of concepts from different domains into a generic unit.²⁰

(6) COMPLEXITY TYPE AND COMPOSITIONALITY

Frequently metaphors are constituted by a set of more primary metaphors, especially with regard to the compositional nature of complex target domains. The criterion emerging here may be called the complexity type of a metaphor.²¹ It has just been shown that specific-level metaphors always carry more generic ontological metaphors in them. I now want to demonstrate an aspect related to the previous one: Simple metaphors of a more schematic nature can cut across several domains and they are co-defined by prototype effects emerging from the source domain.

I will base the following discussion on a proposal by Kövecses (2001: 185ff) in which he opposes 'simple metaphors' to 'complex metaphors'. The two terms are defined in a way that simple metaphors function as mappings in complex metaphors. As he notes, Grady, Taub, and Morgan (1996) distinguish, in a similar, though not identical vein, between primary metaphors and more complex compound metaphors. An example in the work of Kövecses is the relation between the English metaphors *ANGER IS FIRE*, which is a complex metaphor, and *INTENSITY IS HEAT (OF FIRE)*, which is a corresponding simple metaphor. There are several aspects worth discussing here:

(1) When linguistic manifestations for the postulated conceptual metaphor *ANGER IS FIRE* are sought, it turns out that they all highlight the same aspect. The linguistic examples all cluster around a limited number of submappings, such as the following: "He was blazing with rage" points to *HIGH EMOTIONAL INTENSITY IS HEAVY FIRE*, while "She felt a tiny spark of hope" points to *LOW INTENSITY OF EMOTION IS A SMALL AMOUNT OF FIRE*. "Fuelling the flames of hatred" points to *MAINTAINING THE INTENSITY OF EMOTION IS MAINTAINING THE FIRE*. "He'll have to keep his fiery temper under control" points to *CONTROLLING THE INTENSITY OF EMOTION IS CONTROLLING THE FIRE*. "Tempers flared and harsh words were exchanged" points to A

²⁰ The problem is also one of how we as analysts tackle the differing metaphor types conceptually. While expressions with underlying spatial image schemas in ontological and orientational metaphors can be isolated by simply putting their highest level of schematicity into a succinct formula (such as *THE MIND IS A CONTAINER*), this is not possible for structural metaphors. They contain too many features to be simply subsumed within a single ontological metaphor at the superordinate level, such as *ENTITY*, *SCALE*, *RELATION*, *PATTERN*, or *SYSTEM*. Their metaphoric content is so complex and varied that it can only be expressed through serially listing the numerous mappings, and thus analytically capture all its features.

²¹ This criterion is partly related to the schematicity type previously discussed. It is also related to the cultural scope and power of a metaphor, since a generic metaphor can govern several domains.

SUDDEN INCREASE OF EMOTION IS A SUDDEN INCREASE IN THE INTENSITY OF FIRE. All these and other entailments from our knowledge about fire are related to intensity. Therefore, when fire is used in an anger metaphor by English speakers, this is done in order to highlight the aspect of intensity of anger. It turns out that, although the overall anger concept is much richer than intensity only, its other aspects are metaphorically expressed through other source domains.

(2) As an immediate corollary, each simple metaphor like INTENSITY IS HEAT (OF FIRE) constitutes what Kövecses (2001: 174) calls a 'main meaning focus' of the more complex metaphor ANGER IS FIRE.²² The notion is based on the observation that source domains tend to be used for highlighting specific aspects, while other aspects that form part of the source typically do not enter into the mappings. Thus, the 'used' aspects from a given source domain tend to be invariant with different targets: English speakers know that fire is conventionally used as an expression of intensity, and intensity only, with the anger target and any other one. Originally the main meaning focus of intensity is therefore mentally stored as a part of the source domain. In the given metaphor the target domain of anger then inherits this main meaning focus. The anger example bears this hypothesis out because, insofar as fire is used as a source domain for talking about anger, it is only used to highlight the single aspect of intensity. Likewise, the source domain of building is employed to highlight structural integrity across all sorts of target domains, but not other features of buildings. If all this is correct, a source is then chosen because speakers know that it prototypically highlights the intended aspect of meaning. With conventional metaphors the focus or the foci of a source concept are culturally agreed upon, so that only novel metaphorical uses of the source transcend this.²³ Kövecses' findings indicate that domain-specific cognitive prototypes, e.g. structural integrity in the case of buildings or intensity in the case of fire, are frequently used in metaphor.

(3) Complex metaphors are constituted from more than one simple metaphor. In other words, several simple metaphors are responsible for a constituent mapping, with each simple metaphor representing one among several meaning foci of the complex metaphor. For example, the metaphor COMPLEX SYSTEMS ARE BUILDINGS has three main meaning foci constituted by three more simple metaphors. These are ORGANIZATION IS A PHYSICAL STRUCTURE, PERSISTENCE IS REMAINING ERECT, and CREATION IS BUILDING. Each of these simple metaphors introduces one meaning focus to the complex metaphor. Again these three simple metaphors capture the conceptual content of all linguistic metaphors having to do with

²² In another work Kövecses (1999) relates this to Langacker's notion of 'central knowledge'.

²³ However, I want to add to Kövecses that some source domains have a great number of possible foci. An example that I will mention in the next chapter is the body as a source domain.

buildings. For conceptualizing other aspects of complex systems people use other source domains.

(4) While it has just been said that complex metaphors involve several simple metaphors, the pie can also be cut the other way around: Any single simple metaphor can characterize a whole range of target domains (although few fully). For example, the metaphor INTENSITY IS HEAT plays a role in a whole number of domains other than anger, such as hatred, lust, hope, desire, psychological pressure, ambition, curiosity, interest, conflict, political activity, or popularity. The scope of the metaphor covers any intense situation (actions, events, and states). Because of its application to many targets the simple metaphor can be called a generic level metaphor. The same is the case when we start from the source domain of buildings. Here, the three jointly working simple metaphors ORGANIZATION IS A PHYSICAL STRUCTURE, PERSISTENCE IS REMAINING ERECT, and CREATION IS BUILDING do not only apply to arguments or theories, but to all other kinds of complex systems, too. Other target domains metaphorized as buildings include relationships, careers, companies, economic systems, or life, to list but a few. Overall, an analysis based on simple metaphors has the virtue of making our perspective shift to the source domains of metaphors. On the one hand, in analyzing a given target, we can take notice of the compound nature of complex metaphors and we can learn which source domains the various parts of a metaphor come from. Conversely, by starting off from a single source domain, we can ask for which targets it is used and take notice of the prototype structure that the source imparts to all of them.

(5) As I see it, as a consequence of being applicable to all sorts of different targets the simple metaphors must be stored as a schematic mental entity. The descriptive level of INTENSITY IS HEAT is relatively independent of any specific mental setting and therefore implies a schematic image. Simple metaphors are therefore nearer in schematicity to the level of basic ontological structures based on image schemas like ENTITY, LINK, PROCESS, or PATH. Like them, simple metaphors form the basic elements behind a large number of specific target domains. However, simple metaphors are richer in structure and different to the extent that they include more than an image schema only. Instead, they are cognitive pairings, namely of a (possibly imagistic) schema, such as intensity, and a prototypical source domain associated with it, such as fire. This double nature probably means that some inferential potential from our knowledge about fire itself flows into the simple metaphor and is used for selecting entailments.

(6) In a critical view, the distinction between simple and complex metaphors can be interpreted as ways of how scientists phrase their theoretical formulations, namely in a more precise and in a more loose way. By isolating simple metaphors like INTENSITY IS HEAT we can better describe the mappings as they actually occur, since the entailments suggested by a knowledge-rich formulation, such as ANGER IS FIRE, are not fully exploited. Often, the

rationale for employing a complex metaphor formulation is simply to have a shorthand for expressing several included mappings, although other mappings logically implied in that formula do in fact not occur. All in all, it seems legitimate to use complex metaphor formulas where a sufficiently large number of mappings is present or where their restricted number is mentioned explicitly.

4. Further theoretical issues

I will now turn to two central issues in the metaphor debate already touched on above, but not sufficiently discussed so far. The first one concerns the question how metaphor is cognitively performed and what the source and the target domains, respectively, contribute to it. The second section continues a theoretical problem just raised above: how to phrase conceptual metaphors in the most precise way possible.

GENERIC LEVEL EXTRACTIONS AND IMAGE-SCHEMATIC INVARIANCE

The most essential and basic aspect of metaphor lies in the extraction of a shared generic level structure from source and target domain or the novel creation of such shared structure. I believe that the following example by Lakoff and Turner (1989: 162ff) is quite representative of metaphors in general. They discuss at length the Chinese proverb “Blind, blames the ditch”. In the specific level understanding a blind person encounters a ditch, and, because of the blindness, falls into it. She blames the situation, but it is clearly implied that she should rather have held herself responsible. The generic level schema in this is that someone has an incapacity; the incapacity results in a negative consequence. The person blames the situation, although she should have blamed herself. With a proverb, which is of more general relevance, it is most clear that it is not the specific level that is implied. The proverb takes a specific example as a source domain and applies it to a generic target domain of many similar cases. In a proverb, a specific linguistic manifestation is searched for its generic level structure. Lakoff and Turner call this the **GENERIC IS SPECIFIC** metaphor. I believe that one might just as well say that this is the most basic general mechanism responsible for metaphoric cognition at large. Both, **SPECIFIC IS GENERIC** and **GENERIC IS SPECIFIC** are transformation principles for interpreting metaphoric meaning. With proverbs (i.e. metaphors which insinuate a target implicitly) and all other sorts of metaphor, a generic level correspondence between source and target is highlighted or created.

The function of imagery in perceiving generic commonalities is significant. The ‘Invariance Hypothesis’ by Lakoff and Turner (1989) and Lakoff (1990, 1993) gives an account of the cognitive process underlying metaphor that highlights imagery. According to these authors, what I called the extraction of generic structure above can be also described as the

preservation of the cognitive topology from the source domain in the target domain.²⁴ Lakoff (1993: 228-29) makes a very strong claim on the role of imagery in this:

“[Earlier we] argued that metaphors could map complex propositional structures. The Invariance Principle does not deny this, but puts those claims into a very different light. Complex propositional concepts involve concepts like time, states, changes, causes, purposes, quantity scales, and categories. If these abstract concepts are characterized metaphorically, then the Invariance Principle claims that what we had called propositional structure is really image-schematic structure. So-called propositional inferences arise from the inherent topological structure of the image schemas mapped by metaphor onto concepts like time, states, changes, actions, causes, purposes, means, quantity, and categories.”

When we speak of the preservation of topology, the word is therefore to be understood in the literal sense as spatial configuration here. It means that parts are mentally mapped onto parts, wholes onto wholes, links onto links, sources onto sources, paths onto paths, goals onto goals, and so on.

I basically agree with this characterization, and indeed Part II of this work hinges on this assumption. At the same time we have to be clear about two things: First, as far as complex mappings are concerned, the claim is only about the preservation of very basic ontological categories, not all the mapped propositions. These ontological categories are imagistic, but not necessarily all the specific information mapped with them. Thus Lakoff's claim has to be understood as saying that imagistic ontological basic categories cannot be at variance between source and target. About the more complex specifics it does not say anything. Second, as critical appraisals of the 'Invariance Hypothesis' by Turner (1993) and Brugman (1990) point out, the preservation of topology is always only true of selected aspects of the source's image schema structure, never of all possible aspects (see below).

Turner (1993) justifiably argues for three specific kinds of mappings that operate by preserving parts of the image-schematic structure of the source. First, *images* can be mapped on images (such as mapping a stooping willow on a depressive man with his head down), second *structural parameters of events* (such as time and causality) can be mapped, and third the *structure of mental activities* such as scanning can be mapped on the structure

²⁴ Lakoff (1993: 215) clearly specifies that an algorithmic or one-way interpretation of this is mistaken. According to him, it is not the case that the whole image-schematic structure from the source is picked out and mapped to the target unless the target domain interferes. Unfortunately Lakoff does not present a clear alternative model of how mappings are established (and we have to doubt that this can be done based on linguistic evidence only). I believe that the model of extracting and mapping image-schematic structure is a good heuristic, and that it does not necessarily imply any misguided commitment to seriality or algorithms, which are separate issues.

of events or of force vectors. At least in these cases the imagistic topology is preserved, and serves to explain how the mapping works.

We would over-generalize by suggesting that a common ‘topology’ invariably has to be introduced through image-schematic correspondences. Consider the canonical example “man is a wolf”, which, as far as I can see, does not involve image-schematic mappings in a crucial way. The mapping highlights complex *attributes* that the common cliché about wolves invokes, like fierceness, rapaciousness, and solitariness. If the metaphor is also about basic imagistic properties, this is to the extent that a common topology is already present as a background condition (and is thus presumably preserved). Generally speaking, if Lakoff’s (1993: 231) hypothesis is understood to say that all extraction or creation of generic level similarities is due to image schemas this jumps to premature conclusions. Propositionally derived common structure other than the basic imagistic ontology can be present. As long as we do not know whether the so-called propositional mode of thought can be collapsed into imagistic thought the preservation of cognitive structure through imagistic topologies falls short of a full explanation.

A related but separate question from that of image-schematic topologies concerns the question where the entailments and the associative knowledge in a metaphor come from. Are they recruited from the source domain or from the target domain? And, if associative knowledge is recruited, say from the source, in what way is this constrained by the target? How much target and source domains each contribute depends on the type of metaphor. Indurkha (1994: 137) distinguishes three types of metaphor, according to how much they actually create a novel similarity:

“In *syntactic metaphor*, the process of forming metaphorical relation is completely mediated by the target concept network. In *suggestive metaphor*, the target concept network provides an initial ontology to the target realm, based on which additional structure is imported from the source concept network to the target realm. In *projective metaphor*, the target concept network is completely discarded, and the target realm is given a new ontology by the source concept network.”

It is in the projective type of similarity-creating metaphors that the source domain plays the strongest role. The best examples come from creative problem solving in science. Schön (1979) reports a well-known case in which a product developing team came up with the metaphor of “paintbrush-as-a-pump” to develop an improved synthetic-fiber paintbrush. Here chunks of the target were regrouped and renamed. With reference to Thomas Kuhn’s work on the structure of scientific revolutions Indurkha (p. 141) says that “a truly creative or revolutionary metaphor almost invariably works by disregarding the existing ontology of the target environment”.

In the rephrased version of Lakoff's 'Invariance Hypothesis' by Brugman (1990), Lakoff himself (1993: 216), Turner (1993), and Fauconnier (1997: 169) both source and target are accorded a specific role: (1) The image-schematic topology of the source is preserved in the target, but (2) the basic ontology of the target domain constrains the number of possible topological attributes. The source imparts a particular conceptual focus on the target, but for metaphoric entailments to play a role they also have to be in line with the target's ontology. Compare the two following manifestations of the CAUSATION IS TRANSFER metaphor (Kövecses 2001: 163): "She gave him a headache" and "She gave him a kiss". In the first case the logical entailments of the source domain of physical giving is fully exploited: when the headache is caused or "given", the person has it. However, in the second case nobody would infer the same entailment. If a kiss is given the person does not have it. When the target is a lasting state the topology of the source is fully preserved, because the two match. When the target is a momentary event, the part of topology is rejected, simply because it does not fit with the target. In such cases the schematic structure of the target provides selection restrictions and overrides potential entailments from the source. The mapped knowledge has to be in keeping with the basic ontology of the target.

One particular way the source domain is of importance has to do with its conventional use rather than its imagistic topology. This is emphasized by Kövecses (2001: 187, see above) in what he calls the 'main meaning focus' of a source domain. He describes this as "the culturally agreed-on conceptual material associated with the source that it conventionally imparts to the target". In other words, prototypicality effects in the source domain constrain which aspects of it are mapped and which are not. Some parts of a source domain are, by cultural convention, not prototypical enough or salient enough to be elected.

More generally, the fact that many possible entailments are left unexploited is not always amenable to an explanation by the Invariance Principle. In the following example there is no override by the target domain to account for an unused entailment: The conceptual metaphor THEORIES ARE BUILDINGS in linguistic reality produces the entailment that they have frameworks, but not that they have windows (cf. Grady et al. 1996). Yet, there is no logical reason for this restriction to do with the schematic structure of the target domain. One alternative explanation for eligibility restrictions was just mentioned, i.e. simple cultural convention. Another one could be that the overall analytic formula of THEORIES ARE BUILDINGS, which we inferred from the linguistic manifestations, is too general to begin with (see below).

Recently the idea is on the rise that something fundamentally new is created in a metaphor that cannot be assigned to either of the two domains. Pauwels/Simon-Vanderbergen (1993: 358), for example, did a linguistic survey that shows how complex entailments – in this case value judgements – may come from either source or target, or an

interaction of the two. The point made by Fauconnier and Turner (1995) that conceptual blends, of which metaphors are a sub-case, recruit from entrenched structures on the one hand and local context on the other also seems to be compatible with this. It is a cornerstone principle of the theory of blending that blends (and thus metaphors) frequently contain emergent structure, which cannot be simply predicted from either source or target. In fact, the mapping process goes back and forth, and the generation of entailments may be more complex than any single model can easily capture. There is also an interesting contribution from phenomenology by Kirmayer (1993: 172f) in line with this. His view is that the mapping from source onto target must involve many small leaps, first moving structure to the vehicle and then checking for coherence by translating the result back. This at least provides a heuristic model of this process, although at the brain level it is probably not performed serially.

A frequently recognized feature of metaphors to do with associative activation spread is their inherent meaning surplus or 'metaphorical indeterminacy', as Paul Friedrich (1986) calls it. This means that metaphors are always prone to give rise to additional images or propositions that are not strictly required for making sense of them or for communicating about them. This connotative level of associated mental, emotional, and embodied images may be virtually inexhaustible and depends much on personal as well as cultural experiences of all sorts. A complex metaphor is a means to trigger a reflexive process that goes far beyond the initial understanding of a single symbolic image. While this is a fortiori true for metaphors in art, it points to the fact that a strictly denotative level of what a metaphor means is hard to nail down even with more conventional metaphors.

CASTING OUR NETS: FINDING AND OPTIMAL LEVEL OF SCHEMATICITY FOR ANALYTIC CONCEPTS

This is a good point to give some thought to the pitfalls of scientific descriptive language in metaphor theory. To capture the cultural reality of a metaphor the analyst has to find the right level of description, both regarding how generic it is and how productive it is in terms of entailments. As an example let us turn back to the two metaphors IDEAS ARE PLANTS and IDEAS ARE PEOPLE. It would first appear that the two can be subsumed under a more abstract metaphor IDEAS ARE ORGANISMS, as Lakoff and Johnson (1980) suggest. However, not all entailments inherent in the complex idea of organism are systematically exploited. Assuming that Lakoff and Johnson's analysis is correct only two entailments from the very complex organisms concept have linguistic manifestations, growth and the life cycle. Other knowledge we might have about organisms, such as metabolism, inner structure, or ecology do not enter into the mapping. For characterizing ideas these are simply not exploited. Consequently, there appears to be something misleading about describing the metaphor as IDEAS ARE ORGANISMS. More fitting for descriptive purposes would be a terminology that picks

out the used mappings, i.e. IDEAS ARE BEINGS WITH A LIFE CYCLE, or even more precisely IDEAS ARE BEINGS WITH A GENITOR AND A RESTRICTED LIFE-SPAN.

Clausner and Croft (1997) give expression to the general problem as follows: When we seek to explain mapping restrictions, there is an optimal level of schematicity for describing conceptual metaphors. To answer the problem of eligibility of entailments one needs to pay close attention to the degree of schematicity of a given metaphor. Less schematic levels enriched in specific detail can explain selection restrictions, while a maximally schematic formulation of the metaphor fails to do so. For the classic example ARGUMENTS ARE BUILDINGS the less schematic formulation THE CONVINCINGNESS OF AN ARGUMENT IS THE STRUCTURAL INTEGRITY OF A BUILDING explains best the entailments that can be included and those that cannot. To give an example, it is simply not an apt expression to say that a theory has a broken pipe or to speak of the rafters of a theory, because rafters and pipes have a structural integrity of their own but do not confer this integrity to an entire building. To characterize the metaphor under scrutiny as ARGUMENTS ARE BUILDINGS, then, falls short of providing the full information necessary to predict the eligibility of possible mappings. The conceptual metaphor, as reflected in its linguistic manifestations, only highlights a specific aspect of buildings, namely its structural integrity.

As noted above, Kövecses claims that limitations in mapped aspects from a domain are a systematic feature of metaphors. Any given source domain tends to be used for highlighting specific aspects, while other aspects that are part of it typically do not enter into the mappings. In my view, Kövecses' search for main meaning foci and Clausner and Croft's call for optimal schematicity react to the same descriptive shortcoming, i.e. that mappings from the source domain are more selective than we think and metaphors such as ARGUMENTS ARE BUILDINGS were initially phrased at a wrong level of schematicity. The problem lies to a great extent in the cognitive strategies we use as analysts. In describing metaphors we intuitively tend to carve up domains on the basis of superordinate level concepts such as 'buildings', and neglect more specific divisions. Counterintuitive though it may be, why should not the 'structural integrity of a building' be a legitimate source domain to begin with?

Choosing an abstract formulation for a conceptual metaphor can be necessary for the analytical task of describing generic metaphor systems, i.e. high-level categories of metaphor. It is also useful for generating hypotheses to test for related entailments of the same generic metaphor. However, if we do this we always have to add which entailments are not exploited in a given mapping. For more selective analytic tasks we should try to formulate conceptual metaphors so carefully that this accounts for all entailments. In sum, then, the level of optimal description should (1) guarantee that all existing linguistic manifestations can be explained as one, and (2) avoid that factually not existing entailments are implied.

DO PEOPLE RECALL ABSTRACT METAPHORS AS EXEMPLARS OR AS GENERIC IMAGES?

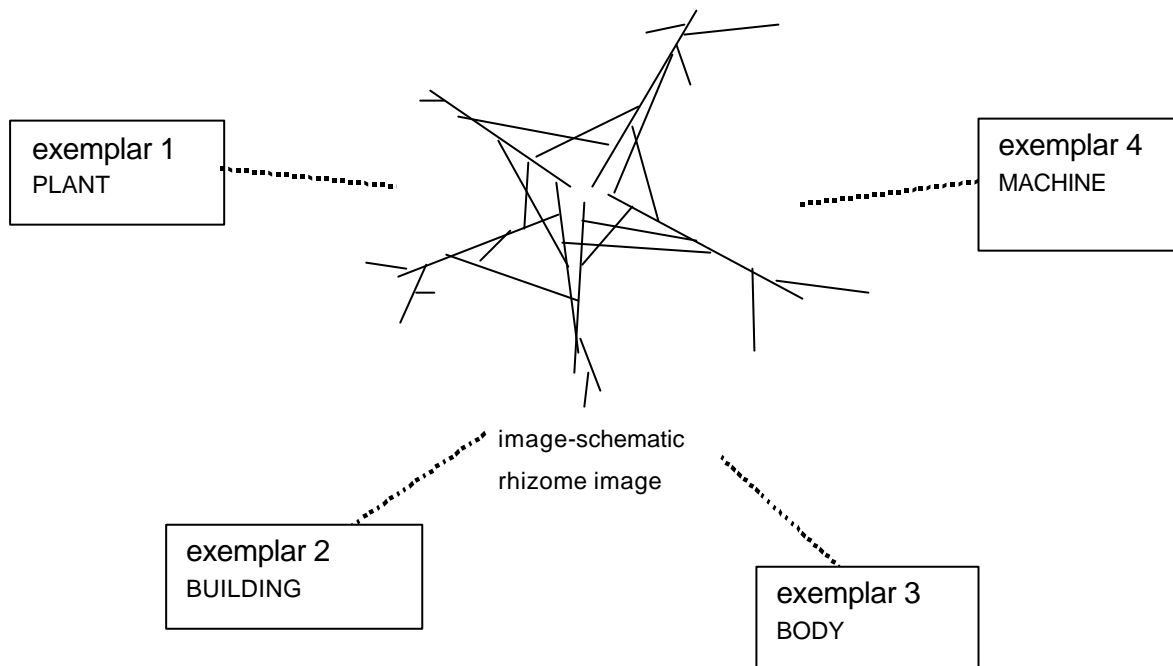
Given that in everyday talk even the most abstract concepts tend to be couched in concrete metaphors, what role do such concrete exemplars play for memorizing abstract concepts? Especially in a cognitive approach dealing with memory it is of interest by which mechanism individuals primarily store and recall a given metaphor. Generally, both a generic image schema and exemplars derived from culturally prototypical cases can play a role in storing a conventional metaphor. However, how important exemplars are in a given instance or how many of them are important is a question for empirical study. Rather than presenting experimental evidence from metaphor comprehension studies here (cf. Gibbs 1994), I want to draw attention to theoretical questions we have to ask when analyzing complex metaphor systems.

(1) The most basic question is whether a concept is memorized and stored abstractly or via exemplars. Let us take an example. Kövecses (2001: ch.8) argues that our conceptualization of complex systems derives from our knowledge of plants. However, we may ask whether a specific plant metaphor for a complex system like “They selectively pruned the workforce” is actually stored as a plant related metaphor in the average mind. After all, the expression “pruning” could also be only an illustrative exemplar, while the predominant representation is no more than a skeletal image of a complex system being reduced in size at one of its joints. Some individuals do not use any concrete metaphor or only search for fitting expository cases for a more abstract image if prompted to do so. While every competent and creative speaker is capable of coming up with an exemplar for an abstractly stored metaphor, this can be found through psycholinguistic experiments (e.g. reaction time, etc.). Another indication for abstract memorizing is present when a person devises non-conventional exemplars. This indicates that the conventional exemplars associated with the concept by other speakers plays no great role in her personal memory system. Of course, this issue may vary from individual to individual and with age. Children presumably first acquire a detailed knowledge about a prototypical source domain they associate with the target. (If these are plants or machines may, for instance, varies according to whether a child grows in the countryside or in a city.) Later they may acquire the whole set from the conventional linguistic stock or learn to abstract away from exemplars altogether.

(2) In addition, there is the question if there are one or more prototypical exemplars for a domain. Even though the plant metaphor is very systematically exploited as a source domain for complex systems and this systematicity gives a clue to its importance, this is no proof that plants are the only source that plays an important role. In fact, later in the same work Kövecses (2001: ch.10) demonstrates that we think about complex systems employing four kinds of metaphoric source domains. Apart from plants, the source domains of the body, of machines, and of buildings are used. All four exemplars are conventionally used and cover

four complementary aspects of complex systems. Kövecses shows that each exemplar (or instantiation) of the generic metaphor contributes one specific element, which then together make up the overall folk-model of complex systems. The source domain of the human body in health characterizes the appropriate state of a system, the source domain of buildings a system's structure and stability, the source domain of a machine a system's working, and the source domain of plants and their growth a system's development.²⁵

In the graph below I present a model of how a generic image is associated with one or more culturally prototypical exemplars (with the size reduction aspect being left out here for convenience). The generic image is that of a COMPLEX SYSTEM, which I have here depicted as a 'rhizome' image. The names in the boxes represent the associated prototypes for the generic image. The dotted lines represent a cognitive coding connection (whose representational nature can be left unexplained here).



²⁵ In many other English metaphors the aspects of appropriate condition, stability, functioning, and development constitute the general main meaning foci which these four source domains serve to highlight. This is related to the so-called 'Great Chain of Being' metaphor (Lakoff/Turner 1989) in the Judeo-Christian folk-model. The model assumes hierarchical levels, each of which is prototypically used to highlight a specific kind of attribute (namely the one which elevates each category *vis-à-vis* the next lower one). Humans are used for higher-order attributes and behavior (like thought and character). Animals are used for instinctual attributes and behavior. Plants are used for biological attributes and behavior. Complex objects are used for structural attributes and functional behavior. Finally, natural physical things are used for basic physical attributes and behavior.

For the sake of argument, we can distinguish several patterns of memorization on the basis of what has been said. Suppose that one individual recalls the core image schema with the aid of the exemplar 'plant', another through the exemplar 'body', another through both exemplars, and a fourth, proficient thinker of abstraction as image schema only. Dual coding is the case in the first three instances, since rich propositional knowledge associated with plants and bodies plays some role. In the last case the image schema is dissociated from any prototype and memorized abstractly only.

These considerations go to show that we cannot come to a conclusive decision about the optimal level of description of abstract metaphors exclusively on the basis of linguistic evidence. Descriptions analytically derived from linguistic metaphor may not be characteristic of actual memorization and need to be supplemented by experimental studies.

5. The grounding of metaphor

A major task of a cognitive theory of metaphor is to explain the constraints on the selection of metaphorical source domains for a topic. Which metaphors are possible and likely, and which are not? Which source domains are likely to be chosen for a given topic? To theorists of culture it should be clear that cultural creativity cannot be predicted. Recent metaphor theory breaks away from the notion of predictability and emphasizes as a goal the explanation of metaphoric *motivation from experience*. In other words, what a cognitive and cultural account can do is explain how existing metaphors are grounded in human experience, either of a universal or culture-specific kind. What it cannot do is foresee which metaphors are possible. This position occupies a sensible middle-ground between positing complete arbitrariness of metaphors and a belief in its logical predictability.

Traditionally, the selection of metaphorical expressions was explained through objective similarity of source and target. However, as Kövecses (2001: ch.6) points out, there is no obvious pre-existing similarity between literal expressions like "digesting food" and "We're not going anywhere" with the corresponding metaphorical expressions "digesting ideas" and "This relationship is not going anywhere". Therefore, Kövecses emphasizes that "in addition to objective, pre-existing similarity – conceptual metaphors are based on a variety of human experience, including correlations of experience, various non-objective similarity, biological and cultural roots shared by the two concepts, and possibly others." (p. 112) Kövecses distinguishes a number of kinds of motivation that go beyond the traditional account. He bases this on the tripartite typology of Grady (1997b) and works it out in greater detail.

(1) A first category are metaphors that build on perceived (but non-obvious) structural similarities or generate such structural similarities. An example is LIFE IS A GAMBLING GAME with manifestations such as "I'll take my chances", "The odds are against me", or "It's a toss-up". There are no inherent similarities, so that it is only the metaphor which highlights the

similarity between winning and losing in gambling and life's actions and their consequences. It is only in the conceptual metaphor that we perceive the similarity. However, this solution pictures similarity as created out of the blue and therefore begs the question. It leaves open on what basis we are able to unite source and target into this conceptual metaphor, which then makes the recognition of similarity possible. The mechanism facilitating the perception of similarity between non-similar yet awaits a more precise description. In the LIFE IS A GAMBLING GAME example the responsible mechanism may have to do with similarities in the logical structure of action together with a similarity in resulting mental states, and thus perhaps similarity governed by a complex script.

(2) In a sub-case of this type of metaphor Kövecses provides an intriguing, yet simple explanation of what induces the perception of structural similarities. He ascribes the facilitating function to ontological metaphors like OBJECT, SUBSTANCE, or CONTAINER. Recall that these were described as extremely basic and schematic above. Kövecses illustrates this through the English language example IDEAS ARE FOOD. Food is cooked, swallowed or refused, chewed, digested, and it provides nourishment. Ideas are analogously thought about, accepted or rejected, considered, understood by the mind, and they provide mental well-being through the act of understanding. Thus a set of systematic correspondences is possible:

THINKING IS COOKING ("Let me stew over this")

ACCEPTING IS SWALLOWING ("I can't swallow that claim")

CONSIDERING IS CHEWING ("Let me chew over the proposal")

UNDERSTANDING IS DIGESTING ("I can't digest all these ideas")

MENTAL WELL-BEING IS PHYSICAL NOURISHMENT ("He thrives on stuff like this")

According to Kövecses, this systematic set of correspondences is induced by a more basic ontological understanding about what the mind and communication is. As Reddy (1979) demonstrates there is a set of interrelated metaphors, namely THE MIND IS A CONTAINER and IDEAS ARE OBJECTS. Based on this, COMMUNICATION IS SENDING (OBJECT-)IDEAS FROM ONE MIND-CONTAINER TO ANOTHER. This is called the 'conduit' metaphor of communication by Reddy. On the basis of these two separate analyses Kövecses makes his crucial observation. In terms of the schematic, ontological metaphors there is an obvious correspondence between the body as container, food as substance, and the act of ingesting this substance into the body on the one hand and the metaphor IDEAS ARE OBJECTS on the other. It seems that the IDEAS ARE FOOD metaphor is guided by the more basic 'conduit' metaphor for communication. Although Kövecses does not say so, I presume that this ontological correspondence between communication and ideas primarily hinges on the core mapping ACCEPTING AN IDEA IS SWALLOWING. It acts as a conceptual 'bridgehead', which makes it possible to add the other mappings and complete it into a system of

correspondences. The swallowing part is a (short) act of letting something into our province of being; it thus matches the ontological topology of the conduit metaphor perfectly. By contrast, THINKING IS COOKING pictures an extended process and leads to slow qualitative refinement of a basic substance. Likewise, UNDERSTANDING IS DIGESTING is a process with the result of an ingested substance yielding a desired effect. These and other correspondences have a quite different topology and thus less in common with the communication metaphor than the idea of swallowing.

(3) Another class of metaphors is not based on similarity in the strict sense at all, but on 'experiential metonymy' instead. This refers to prototypical correlations in our experience, meaning aspects that co-occur as bundles either invariably or on a fairly regular basis. Take the near universal metaphor of MORE IS UP with manifestations such as "The prices are going up", "The unemployment is high", and "Turn the volume of the radio down". Here, quantity is conceived in terms of verticality. Verticality as a source domain is chosen here because of the salient and prototypical experience that piles get higher or the level of a fluid rises when something is added. (Other conceivable experientially motivated metaphors would base quantity on inflation, as with a balloon, length, as with aligning people in a row, or depth, as with digging holes. However, these would presumably be less prototypical.) Metaphors grounded in prototypical experiences regularly create generic level metaphors, such as PURPOSES ARE DESTINATIONS. On the one hand, many different situations in our life require movement in space in order to reach a goal, so that such a generic metaphor seems well-motivated. On the other hand, such metaphors function as a prototype of purposes at large. In other words, they are extended beyond their experiential origin and are applied to cases where there is no grounding in spatial movement (cf. Lakoff 1993: 241). The PURPOSES ARE DESTINATIONS metaphor is thus (together with its sibling-metaphor TIME IS MOVEMENT IN SPACE) used for abstract notions such as LIFE IS A JOURNEY. Many experiential metonymies are based on the functioning of the human body. The experience of body heat, muscle tension, blood pressure, and agitation in anger gives rise to the English metaphors ANGER IS HEAT or ANGER IS A HOT FLUID IN A PRESSURIZED CONTAINER. Reduced blood flow, shivering, and paralysis in fear, likewise, give rise to a metaphor FEAR IS COLD. Again, there is no similarity between anger and heat or fear and cold in any abstract sense; what makes for the pairing is their common co-occurrence in bodily experience.

(4) A final case of motivation, not unrelated to the third, is based either on ontogenetical metonymy or a cultural-historical metonymy. In other words, its basis is a co-occurrence in childhood or earlier ages. With both types, prototypical situations where source and target happen to be recurrently paired form the basis of a more general metaphor. Kövecses speaks of motivation by a situation in which the source was manifest in the origin, or the 'root', of the target. A first sub-case occurs when a biological and probably universal nexus

provides this. Kövecses mentions as an example metaphors for love and affection such as LOVE IS A BOND ("There is a strong bond between them"), LOVE IS A UNITY ("She is my better half"), or AFFECTION IS CLOSENESS ("He's close to his grandmother"). The target domain of love has ontogenetically grown out of the birth experience, early childhood experiences between mother and child, or the experience of sexual unity. Most people also experience these situations in their individual development as strong and prototypical influences. In other cases the original experiential metonymy at the root of the metaphor goes back to cultural history. Such is the case with the ARGUMENT IS WAR metaphor. Again, the verbal institution of arguments has evolved historically from war, and perhaps used to be an initial stage of it. The same applies to SPORT IS WAR, which has a common historical origin with ARGUMENT IS WAR.

6. Cultural anthropology and metaphor theory

So far the cases and results I presented originated mainly in cognitive linguistics. The question pertinent to anthropologists is if the approach outlined here is capable of explaining metaphor networks in cultural context. The focal shift from linguistics to anthropology tends to be a passage from rigor to scope. Anthropologists seek to describe cultural cognition with the broadest possible scope and a view on cosmologies. Yet, even on the basis of extremely fastidious fieldwork documentation, it is difficult to come up with analyses of religious concepts or worldview concepts that match recent linguistic work about more restricted domains in transparency. Though convergence between the two fields is only slow in coming, a series of programmatic moves can and should be envisaged. The following general observations relate to the issues of contextuality, embeddedness, and complexity of metaphor that an anthropological metaphor theory throws into relief.

COSMOLOGIES VS. EVERYDAY METAPHORS

A first question is what the rightful object of metaphor analysis in anthropology should be. While anthropologists are traditionally concerned with cosmologies as manifested in discourse and symbolism, cognitive linguists study the implicit conceptual structures of limited domains, such as time, emotions, thought, communication, morality, self, etc, mostly as manifested in conventional linguistic expressions. Lakoff (1989: 473) points out the following:

- (1) A given conceptual metaphor of cultural importance can but need not play a major role in cosmologies. Domains like 'luck' in English are probably a case in point. The exact status of a metaphor in a conceptual system is a significant matter that needs to be decided empirically.

(2) Conceptual structure and (discursive) cosmology need not be identical. The cosmology of a culture is a view of the universe that is all-embracing, consistent, conscious, believed, and acted upon. The conceptual structures found by cognitive linguists do not always have these characteristics. First, conceptual domains are much smaller in scope than the universe. Although they are internally consistent, they are often inconsistent with one another. Second, though conceptual metaphors are at least sometimes consciously believed, the rules of phonology and syntax are not conscious. Third, something may actually be consciously be disbelieved, but in fact acted upon.

The method proposed by metaphor theory in cognitive linguistics (plus cognitive anthropology and social psychology, as far as the method is used there) relies on the indirect inference of conceptual patterns from surface language or behavior. Cognitive metaphor theory does not necessarily take discursive descriptions at face-value and does not assume that they mirror conceptual reality in a one-to-one manner. This gives the cognitive method an edge over more traditional anthropological approaches. For a long time anthropology has been overly concerned with so-called 'folk-theories', i.e. discursive structures, at the expense of 'folk-models', i.e. unconscious operative structures (Holland/Quinn 1987). Although these two levels interact closely, they are never identical and not seldom vie with each other. A mere focus on folk-theories eclipses many aspects of actual cognition and will simply not do as a cognitive research focus.

As I see it, cosmology is a kind of discursive meta-domain responsible for construing the most important other domains holistically. Conceptual material from all sorts of contexts is drawn together into a larger picture and given a fairly coherent construal. It follows naturally from their partial incompatibility that everyday domains are selectively conceived, reframed, and perhaps transmuted in cosmology. In other words, cultural cognition encompasses a parallel structure of everyday domains of more restricted scope and discursive cosmology. The study of cosmology, no doubt, is a relevant undertaking of its own. At the same time it must be acknowledged that it does not by far characterize a 'culture' without understanding everyday conceptual models. I believe that cognitive anthropology's purpose is to describe how the two systems intertwine with each other. One of the greatest lacunae in the cognitive theory of culture today is that we have no idea of how discursive folk-theories and unconscious folk-models constrain or influence each other. A practical exigency for a cognitively responsible way of doing ethnography is to hold information sources apart, especially between discursive folk-theories and inferred folk-models. Interpretive and symbolic anthropologists should envisage more methodological transparency in how encompassing interpretations about thought systems are generated.

At any rate, one has to be very cautious in evaluating conceptual metaphors as evidence for cosmological schemes. Keesing (1989: 464, 467) warns compellingly that a lot of seeming metaphors are so-called grammaticalized forms developed out of previously functional metaphors. Thus, verbs often become auxiliaries first, then aspect markers, and then tense markers; possessives are formed from expressions of spatial proximity or body-part terms; and second verbs in serial verb constructions can become detached as postpositions and acquire a new function as complementizer. These expressions can be misinterpreted as indicators of metaphysical relations, if one reads their original meaning into them:

“When a form moves further down the chain in the grammaticalization process, the historical metaphoric connection of grammatical element to lexical form (...) disappears.” (p. 467)

Keesing illustrates this through a mistaken interpretation in one of his own earlier works on the Kwaio of Malaita. In writing on the word ‘nanama’, the Kwaio equivalent of ‘mana’, he tells us that he ignored crucial surface-linguistic evidence and treated the word as if it were a substantive, because he failed to take account of a missing noun-marker. This background mistake motivated his treatment of ‘nanama’ as an entity. To this he added misguided metaphoric evidence from idioms about ritual forms featuring the metaphoric expression ‘afuia’, meaning ‘around, around the outside of’. Keesing sought to show that these idioms indicate a nanama-related concept of an ancestral ‘protective mantle’ against malevolent and destructive forces, which envelops the living, their settlements, and their gardens. His linguistically more careful restudy now shows that no such inference is warranted. It turns out that ‘afuia’, though a semantic derivation from the static verb for ‘to be wrapped’, has simply come to mean ‘on behalf of’ in some contexts in contemporary Kwaio. Thus, the rituals in question are simply talked about as being performed on behalf of the ancestors and not as the ancestors protectively enveloping anything.

COMPLEXITY, CORE METAPHORS, AND METAPHOR NETWORKS

Whether in cosmology only or everyday beliefs and actions, the study of cultural systems implies a high level of complexity. When anthropologists study metaphors they tend to focus on such ones that have to do with cultural core-meanings. Metaphors of cultural core-meanings are in fact rich conceptual networks of a multi-contextual kind. Fitz John Porter Poole (1986: 432-33) mentions two quite typical examples of complex metaphor as studied by anthropologists:

“Evans-Pritchard’s (1965) explication of the Nuer idea of *kwoth* by reference not only to various cultural metaphors that implicate matters of space, time, genealogy, ecology, *et cetera*, but also

various facets of different cultural notions of deity, power, spirit, refraction, and other abstract notions, implicitly proceeds by analytic attention to metaphoric constructions and analogic mappings. (...) In turn, my own approach to unraveling the complex Bimin-Kuskusmin concept of *aiyem* – not much enhanced by the gloss of ‘sacred’ – proceeds more explicitly by analytic attention to metaphors and analogies that delimit a theoretical puzzle in the ways the idea is conceptualized, used, and experienced in a myriad contexts (Poole, n.d.). The concept of *aiyem* may be an attribute of persons, things, contexts, and an *aneng* (‘time-place’). It is generally viewed as a condition – a state to be inferred retrospectively from the outcome of events. It is best understood to be canonically a stative verb, or less commonly, an abstract verbal noun denoting efficacy or potency.”

According to Poole, a full analytic closure is usually not attempted. Instead, anthropologists present a partial coherence of metaphors and analogies through sets of different selections, focusings, bracketings, and other shapings.²⁶

I agree that this is a necessity to the extent that any analytical approach must choose its focus. Yet, I also believe that a careful bottom-up reconstruction of conceptual systems, while being an elaborate endeavor, is in reach and that cultural metaphor theory can play a major role in this. In terms of methodological rigor most anthropologists can profit from cognitive linguistics here. I concur with Lakoff (1989: 473) who advocates for students of anthropology a “serious training in cognitive linguistics, training that would both turn them on to the possibilities of profound research in comparative conceptual systems and teach them what kinds of evidence they would need to establish their claims”. As to rigor, Lakoff speaks of a process that is “highly constrained and protected to a considerable extent from the whims of the analyst”. To me this is convincing because metaphor theory clearly specifies what evidence to look for and at the same time possesses a thorough theoretical apparatus for its study. The evidence includes systematic polysemy, correspondences of inferential

²⁶ Poole rightly draws attention to the fact that our own analytic constructs as anthropologists are genres of metaphoric constructions just as the indigenous concepts under study are and proposes that we should bring the two into relation. Leach (1968), through his definition of ritual as communication, forges a complex set of analytic metaphors from information theory, linguistics, and structuralism, by which he dissolves the contrast between myth and ritual. Metaphors that gloss religion, myth, or ritual as a performative phenomenon, a system of symbols, or a functional design focused on need fulfillment are in fact complex systems of entailments with rich explanatory frameworks as a background. However, we need not stop at a very general epistemological recognition of the metaphoricity of complex analytic tools. I wholeheartedly agree with Poole (p. 440) that, with the assistance of the cognitive sciences, linguistics, and philosophical logic, anthropology can learn to reconstruct its analytic metaphors with increasing clarity as rational, systematic, and non-intuitive enterprise. In the past theoreticians in anthropology constructed blends of theory-like metaphors for their immediate purposes, but had no systematic theory of culture, communication, and cognition. With the rise of cognitive anthropology and cognitive linguistics a coherent theoretical framework is at hand.

structures, experimental evidence, historical semantic change on the basis of conceptual metaphor, and systematic extensions of live conceptual metaphors in poetry.

In anthropology a high level analysis of core metaphors and metaphor networks is required. I agree with Poole (1986: 432) who sees the promise of metaphor theory for this field as follows:

“The intricate overlapping of metaphoric constructions may be revealed in shared metaphorical entailments and in partial correspondences among the metaphoric networks, structures, or foci established by those entailments.”

The idea that core metaphors organize sub-metaphors was probably first proposed by Anne Salmond (1982). Her admirable article is a brief, but astute precursor of Johnson’s (1987, 1993) and Lakoff and Johnson’s (1999) studies of the cognitive fundamentals of philosophy, while at the same time comparing Western scientific and indigenous Maori epistemologies based on metaphor. She shows that the epistemology of Western science is a theory governed by core metaphors presiding over a host of related sub-metaphors. In particular she demonstrates that a range of related metaphors are articulated through the spatialized core image KNOWLEDGE IS A LANDSCAPE. This is a metaphor that constrains a great number of others. In cognitive linguistics a similar line of interest has been pioneered by Lakoff (1996), as briefly touched upon above and to be discussed in more detail in chapter 2. His discussion of political worldviews in America uncovers the core metaphor THE NATION IS A FAMILY with an intricate system of sub-metaphors and a partial overlap with an equally intricate system of metaphors for morality. Quite obviously, such analyses undertaken under the rubric of metaphor also fit into cultural schema theory (Holland/Quinn 1987, D’Andrade 1984, 1995).

In a brief overview, what are the analytical steps necessary for an analysis of nodes and clusters? In my view, an analysis of metaphor networks requires posing at least four kinds of questions: It should include the study of (1) partially shared inference structures, (2) representational structures from neighboring domains that are adduced peripherally in a complex metaphor, (3) partially shared source domains of a given target domain, or vice versa, and (4) the reconstruction of cognitive hierarchies according to high-level schematization through multi-domain metaphors.

SCHEMAS AND METAPHORS

An aspect of cultural complexity is that metaphor at a local level of, say, a single expression needs to be understood in relation to more global structuring schemas. In cognitive anthropology ‘cultural themes’ (Strauss/Quinn 1997) or ‘foundational schemas’ (Shore 1996) are thought to act as organizing principles for lower-level data structures. The same basic

necessity is increasingly being acknowledged by linguists studying metaphor networks, as argued above.

For one thing, metaphor theory needs to be embedded in cognitive anthropology with its broader concerns with inference (Hutchins 1980, Cole 1974, Hamill 1990, Shweder 1991, Boyer 1994), complex spatial orientation (Hutchins 1987, Pedersen et al. 1998), memory (Bloch 1998, Whitehouse 1992, 1996), emotions (Abu-Lughod 1986, Lutz 1987, 1988), shared social tasks (Hutchins 1995), or religious ritual (Lawson/McCauley 1990, Bloch 1992, Boyer 1993, Whitehouse 1995). While an increasing recognition of metaphor theory is under way in cognitive anthropology (Keesing 1989, 1992, Shore 1991, 1996, Palmer 1996, Boyer 1990, 1994) the reverse process is lagging behind. Metaphor theory is the predestined ground for a reunion of the two disciplines, yet this still requires shaping a common terminology and sorting out some territorial struggles.

A general problem lies in the dazzling number of concepts recently *en vogue* such as 'metaphors', 'schemas', 'scripts', 'frames', 'themes', and what have you, describing different but inherently overlapping cognitive phenomena. The relationship between them is all but clear. Another problem is that this terminological jumble seems to involve serious conceptual issues. Interestingly, metaphor has become the point of crystallization for interdisciplinary arguments. This is indicated by a vigorous, though not always clear debate between cognitive anthropologists and cognitive linguists, which revolves around the question whether metaphor creates cultural reality or is an expression of underlying cultural schemas (cf. Quinn 1987, 1991, Keesing 1989, Gibbs 1994, Strauss/Quinn 1997, Kövecses 1999). In a later chapter I will discuss this issue in detail. In many respects, so I will argue, the theoretical rift results from the incompleteness of models and selective research foci on both sides, while these are in truth complementary. We need more studies like Allbritton's (1995), which shows that metaphors fulfil functions attributed to schemas. A major future concern should be to sort out the overlaps of representational formats appearing in the relevant literature and proposing clear-cut distinctions embedded in an overall model of how they work together. We need to understand how high level schemas interact dialectically with local metaphors, how schemas organize metaphors, and how metaphors constrain schemas.

DISTRIBUTED MEANING AND MEGAMETAPHORS

Another serious limitation of linguistic metaphor theory in the past was that the cognitive effects of large-scale structures have been scarcely discussed. As Werth (1999) points out, quite often a metaphoric effect is created by sustained innuendo throughout a text, rather than by a single expression. Here a mental image is evoked cumulatively and cannot be definitely ascribed to any locus in a text or a narrative. It is distributed throughout the medium. Werth calls this 'megametaphor'. Though originating from a cognitive approach to

literary texts, incursions such as Werth's have a natural ally in anthropology, where the distributed nature of cognition is a standard precondition of writing ethnographies from a rich background of accumulated fieldwork data. Rituals and myths, which have extended meaning structures, have been analyzed in this way by anthropologists (structuralists even included patterns of kinship, patterns in everyday activities such as cooking, or phonological patterns), although the issue of cognitive reality was often disregarded. While the megametaphors approach is both suggestive and embedded in a comprehensive cognitive framework, what is missing in this comparatively new trend is an integrative theory. It should explain (1) how overall meanings are evoked and recalled, (2) how large scale meanings are condensed out of compounds of small scale meanings, and (3) how micro and macro levels can reinforce each other or how they can create more complex effects together, such as ironic tension. I will propose first steps in that direction in the final chapter. For future work all this also suggests that a closer integration with the theory of action 'scripts', which centers on sequential meaning to begin with, can be obtained.

MULTIMEDIA COGNITION

The complexities of the anthropological trade are not only reflected in linguistic metaphors but are added to by a necessary preoccupation with metaphor in other symbolic modes, such as architecture, ritual, dance, painting, etc. Integrative interpretations of the cumulative impact of all these modes are a characteristic goal of 'thick descriptions'. This, in turn, requires that the interrelations between language and other symbolic modes be analyzed. In other words, what is needed is a cognitive theory of multimedia that explains how meaning structures from different media cumulate or interact in other ways.

In the cognitive approach to metaphor an unfortunate 'linguacentrism' still prevails (cf. Hill/Mannheim 1992: 394). This is particularly deplorable because the image schema approach, which is based in general Gestalt psychology and covers perceptual, conceptual, and actional aspects, warrants a much closer integration with other modes of cognition. The principal reason for linguacentrism is that most protagonists of metaphor theory were trained as linguists and not the restrictive nature of their theory itself. In my view, the theory of imagery, which forms a theoretical kernel of metaphor theory, is especially apt for explaining how the multimedial construction of meaning operates. I propose that the confluence of meaning from several modes of encoding cultural meaning can be suggestively explained, if we can show that even cognitive modes not obviously associated with imagistic thought are based in imagery. Chapter 13 will show that the imagistic approach is perfectly suited to explain how evoked linguistic images, structural features of languages, phonological structures, sensory percepts, proprioceptive feelings, and action structures can be mapped

onto one another. Imagery is thus a 'common currency' that explains meaning similarities across surface differences.

THE PLAY OF TROPES

In most cases of higher complexity, such as are typical of ritual or myth, metaphor cannot be understood as an isolated trope. It is typically embedded in complex and dynamic meaning structures. As a consequence, more attention than in the past has to be directed to the relation of metaphor to other tropes, chiefly metonymy, synecdoche, and irony in anthropology (Fernandez 1986, Friedrich 1991, Turner 1991, Ohnuki-Tierney 1991). Cognitive linguistics has also partly broadened its scope beyond metaphor with its recent focus on metonymy (Goossens 1990, Dirven 1993, Croft 1993, Gibbs 1994, Kövecses/Radden 1998, Barcelona 2000). Yet, the complex interaction of 'polytropes' in complex cultural contexts such as ritual has remained the domain of cultural and linguistic anthropology.

Fernandez (1991) suggests a focus on what he calls 'the play or tropes', i.e. the creative, dynamic, and innovative nature of concepts, which are held to be in incessant de- and reconstruction. In the reverse mode, Keesing (1989: 476) is concerned that highlighting those discursive genres and contexts in which creativity and flexibility is most vividly manifest, such as oratory, gossip, and poetry, submerges from view those genres where talk is most routinized. It seems to me that neither approach should be applied to the exclusion of the other, although cognitive linguists in the past have certainly focused more on conventional tropes than on the play of tropes, so that a balance is still missing here.

SITUATED SOCIAL COGNITION

One of the legitimate strengths of anthropology, perhaps most emphasized by proponents of the interpretive approach, is its concern with situated knowledge. Ethnographers are concerned with describing the pragmatics of a metaphoric incident. Recent works in linguistic anthropology by Levenson, Duranti, Ochs, Haviland, and Moerman are exemplary here (cited by Keesing 1992: 600). They have explored the social contextualization of language and the acquisition of cultural competence. Meaning emerges in discourse as interlocutors interpret each other's speech performances (Palmer 1996: 37ff). Listeners frame situations and construe meaning in them. Meaning is contingent on events and not entirely fixed in conventional expressions and grammar. Its study requires attention to the identities and histories of the discourse participants. Palmer emphasizes the necessity to attend to (1) the immediate discourse situation and (2) the interlocutors' world models. Yet, if meaning were only dynamic and emergent culture did not exist, so that Palmer argues for a middle ground. On the one hand, culture is defined through the existence of a large stock of conventional

expressions and structures with stable imagery. On the other hand, each individual usage implicates it in a particular social and linguistic situation. Therefore, imagery from the cognitive stock always requires framing.

Because metaphor, or any other trope, is a socially situated phenomenon it serves the intentions of actors. Metaphor (and language in general) is socially motivated and motivates others. Both processes must be understood relative to particular social settings (cf. Strauss/D'Andrade 1992), a fact that places metaphor squarely in the social sciences. As Lakoff and Johnson rightly state in their 1980 book title people 'live by' their metaphors. Dirven (1994) studies the metaphors Afrikaners in South Africa live by, Lakoff (1992, 1996) deals with the role of metaphor in American politics, and Dirven et al. (2001) have recently published a two-volume collection on ideology and cognitive linguistics with several contributions on metaphor. My general point is that the strong motivational character of metaphor inherently implies a power nexus. This can be shown for rhetoric and poetry, from which social movements often originate (Fernandez 1977). It can also be shown for the cultural episteme of everyday thought.

Situatedness implies that given metaphors have to be seen relative to their usage contexts, and that we have to refrain from too sweeping interpretations of their cultural significance. Many metaphors that anthropologists are interested in are meant to create a non-everyday context for a particular purpose. Outside this purpose normal ways of categorizing can prevail again. This, of course, is especially true of metaphors in ritual process, which gradually leads the performers away from everyday reality and then back again (Turner 1969).

An interesting field of study for anthropological metaphor theory (especially with reference to globalization and rapid cultural change) is how novel experiences are culturally metaphorized. In Piagetian terms, this involves either 'assimilation' or 'accommodation'. This operates on a scale of familiarity. With very familiar experiences people tend to place them directly into a known schema or metaphor. Somewhat less familiar novel experiences require a process of filtering and highlighting for assimilating them. Still more unfamiliar experiences cannot be placed into existing knowledge structures and require accommodation, i.e. the reshuffling of knowledge and creation of new structures. As I will show later, tradition frequently asserts itself through casting the new in metaphors of the familiar, while metaphorical creativity may also fuel social change.

COMPLEX IMAGERY

As soon as the analysis shifts to both (1) complex metaphor networks and (2) situated metaphors, this affects the way we theorize about the underlying conceptual mechanisms. A cornerstone of characterizing the representational structure of metaphor, it has been argued,

is the analysis of so-called image schemas. Therefore, we have to devise new ways of theorizing complex and situated image schemas according to the points just specified.

Most linguistic examples of metaphor given in this chapter involve image schemas at the most basic structural level (e.g. CONTAINER, FORCE, CENTER-PERIPHERY, UP-DOWN, BALANCE). These simple image schemas will, of course, continue to play a role for anthropological concerns, especially for creating basic ontological correspondences across domains. Yet, applying the anthropological lens also means that the perspective will undergo a shift to a more complex level. This is especially true when the explanatory goal is to understand how a complex situated concept is cognized, and not what basic parts a concept shares with others. Situated and complex meanings are usually not easily described as simple image schemas. Many authors put the tag 'propositional mode' to this higher level of complexity, although I will later suggest an alternative way in which this level can be incorporated into the imagistic perspective, with the work of Palmer (1996) offering a guideline. Palmer is successful in applying quite sophisticated theories of imagistic mechanisms developed by Talmy, Langacker, Lakoff, and Johnson to linguistic examples from many cultures. In the final chapters of this work I will also offer a series of examples for mental mechanisms structured by complex imagery. These chapters will focus on dynamic transformations or condensations of, multiple meanings in, and switches between imagery types.

Studies of imagery also allow a description of how complex cognitive models are constructed out of a set of more basic ones. There are two acknowledged major principles of uniting basic conceptual elements into 'families' (cf. Langacker 1987):

(1) Conceptual organization typically includes the chaining of conceptual elements into clusters. Such a cluster may or may not include a core (a prototype). Conceptual micro-models are built like this, as studies on the structure of polysemy in prepositions show, but the existence of much broader conceptual families between word types or between cognitive domains is also conceivable, if more difficult to demonstrate. It is conceivable that conceptual clusters are activated as actual spatial configurations in the mind and obey certain organizing principles from our knowledge of physical space. Chapter 8 will be devoted to an in-depth discussion of this suggestion, which has been put forward by Lakoff (1987).

(2) Besides organization through clustering conceptual elements can also be brought into a unity through the schematization of features on an abstract level. In other words, the filtering out the generalized basic features (e.g. ontological metaphors) of otherwise differing mental representations can unite metaphor families. Again, this filtering process can be understood as a process of mentally selecting the shared outline structures of imagery and dropping the too fine-grained details.

CONCLUSION: THE TASK OF A CULTURAL METAPHOROLOGY

An anthropological perspective on metaphor calls for taking a specific social context as the starting point, not metaphor abstracted away from its use. The heightened sensitivity for contextuality and holism, which is the hallmark of anthropological approaches, needs to be joined with the effective theoretical apparatus of cognitive linguistics. Thus, metaphor analysis in anthropology has to respond to at least three general challenges: (1) With a view on explaining cultural core meanings it should inquire into complex metaphor networks and their rich background structure, distinguish types of models on various (mutually embedded) scales of generality, and theorize the trade-off between local and large scale cognitive structures on their basis (e.g. metaphors and schemas). (2) With a view on a theory of social behavior it should explain how and why metaphors are acted on, how they are saturated with emotions, and how they facilitate inferences. (3) With a view on the relativism issue it should ask how cultural particulars emerge through situated combinations of universal modules, while being guided by general functional principles of human cognition, and what sorts of bodily, experiential, environmental, or other motivations of metaphor are universal.

Chapter 2:

The Function of Metaphor in Culture

An important avenue to an understanding of cultural cognition lies in analyzing the cognitive utility of metaphor for conceptual, social, and political ends. I will begin this chapter by discussing a number of general effects and cognitive functions of metaphor. Then I will progressively concentrate on the role that complex metaphors fulfill in bridging the gap between conceptual domains, as well as integrating or otherwise structuring cultural discourse. It will become evident that understanding cultural world-views as webs of meaning requires attending to metaphorical functions. In addition to these socio-conceptual stabilizing functions, I will also discuss the dynamic role of metaphor in cultural innovation and the expression of new ideas. Finally, the role of metaphor in expressing conceptually evanescent existential conditions will be examined. The integrative, creative, and expressive functions of metaphor have always been of highest interest to anthropologists, but are seldom thoroughly discussed by cognitive linguists, so that a social-functional view now rephrased in cognitive theory can considerably contribute to a rapprochement of metaphor studies and the social sciences.

1. Basic characteristics of metaphoric cognition: Metaphor is attention-binding, memorable, emotional, and inferential

The pervasiveness of metaphor is not surprising if we look at its tremendous cognitive utility. Generally, it seems to be a lot more difficult to invent new representations for problems that we wish to solve than to borrow them from other domains (cf. Strauss/Quinn 1997: 128). To some degree all human cognition depends on utilizing the familiar to grasp the less understood; i.e. associativity plays an important general role in cognition. Metaphor analysis is a direct way to describe this aspect of familiar knowledge harnessed to new tasks. On top of this, there are a number of specific features that make metaphor an especially powerful cognitive mechanism. A basic reason for metaphor's power lies in its imagistic nature. Because of imagery metaphor is a format that facilitates, both, the vivid and the compact representation and expression of salient knowledge. Moreover, we can expect metaphor to occur at strategically important junctures in culture, since it is typically highly noticeable, memorable, and emotion-arousing. Let me discuss these points in more detail now:

First, metaphor often uses imagery and this in turn facilitates memorization. An obvious aspect of imagery facilitating recall is vividness. In addition, metaphor is presumably a very powerful means for the recall of complex knowledge. This has to do with the Gestalt-like nature of imagery evoked by metaphor. Paivio and Walsh (1993: 321f) argue that the availability of imagistic cognition – which is an inherent property of metaphor – increases the

speed of recall and promotes the efficient storage of information by integrating image clusters, which are then accessed as Gestalts. This simply means that whole chunks of experience and situations are stored in and recalled from memory as single items. This broadly corresponds to the notion of an experiential or cognitive ‘frame’ in the cognitive literature, suggested by Charles Fillmore (1982) and Marvin Minsky (1974). What is important here is that in Gestalt cognition an integrated whole is cognitively more primary and more easily understood than its individual parts, thus making for quick access speed to the whole. Screening Gestalts imposes no sequential constraints and gives way to simultaneous representation of several attributes. Even complex arrays of criteria can be said to be processed and memorized as imagistic Gestalts. The following argument is based on the assumption the metaphors are particularly effective at evoking such complex Gestalts.

The utility of integrated Gestalt cognition for processing the typically complex and fuzzy features of ‘cognition in the wild’ – to use Edwin Hutchins’ (1995) fitting expression – is evident (for details about Gestalts see chapter 7): A good example for a Gestalt representation in real-life cognition is Maurice Bloch’s (1998: 8) description of a Malagasy shifting cultivator faced with the complex decision of what makes a good swidden for cultivation. An experienced Malagasy cultivator can come to a decision in a matter of seconds without going through the numerous aspects in a checklist-like manner, which would take considerably longer. This is possible precisely because he has a conceptual Gestalt image of a good swidden that years of experience have formed. No swidden is exactly like any other and there is no list of necessary and sufficient criteria that precisely picks out all suitable swiddens from the set of possible ones.²⁷ What makes a suitable swidden is a matter of degree. The features of all good sites stand in a ‘family relationship’ with one another without any exact matches being either possible or necessary. The reason for this is that everyday tasks, such as choosing a suitable swidden, regularly display ‘fuzzy’ features.

Because metaphor frequently has an image-schematic basis and because image schemas, in turn, are processed as analog Gestalts, the general cognitive utility of Gestalts

²⁷ Bloch’s intention in giving this example is to argue in favor of parallel distributed models of cognition and against sequential modes of symbolic cognition in many everyday recognition tasks. The reader familiar with the general idea of parallel distributed processing (PDP), as implemented in the non-symbolic models developed in ‘connectionism’, will notice that it neatly converges with the notion of Gestalt imagery. Although modeling tasks in artificial intelligence do not usually involve any notion of imagery (or even representation), the PDP-view is highly compatible with the concept of an integrated representational Gestalt, because both perspectives sidestep the constraints of sequential cognition. As is the case with Gestalt cognition, connectionist models are particularly good at pattern recognition tasks (and superior to models working with symbolic processing), especially at tasks with so-called ‘fuzzy’ patterns that display slightly varying features.

in pattern recognition and memorization directly applies to metaphor. This suggestion is in keeping with evidence that metaphor furthers cognitive economy. It has been shown experimentally that meanings couched in linguistic metaphor can often be grasped faster than in cases when only nonfigurative speech is used. Also, metaphorical information is at least as easily retained in memory (Beck 1982: 94, 1987: 13). One reason that has been suggested is that for the kind of metaphors that employ bizarre or non-everyday combinations of domains a deeper base of cognition may be required. Another reason is that metaphors usually have a number of entailments, which are tacitly included. That means that inferences can be drawn from them, given basic shared cultural models of the relevant domains. White (1987: 155) cogently makes this point with reference to proverbs, which are usually metaphorical:

“Proverbs function as effective communicative devices because they set up the listener to draw such practical inferences by expressing one or more key propositions embedded in a cultural model with known entailments. By instantiating certain elements of an existing model, other, related propositions are invoked through inference. In this way, the proverb user is able to formulate and communicate a point of view without verbally articulating all of its elements.”

Proverbs thus have a prototypical generic level structure that applies or may apply to a multitude of typical cultural situations (cf. Lakoff/Turner 1989). Even if this generic level, in the proverb, structure is couched in the details of the proverbial situation, it can be easily extracted, transposed, and understood in analogy, given that the evocative context to which the proverb is applied is right. When you hear such proverbs as “It’s no use crying over spilled milk”, “The grass is always greener on the other side of the fence”, or “Don’t make a mountain out of a mole hill!” your cultural knowledge and the context together will give rise to the appropriate inferences and lead to suitable actions. The fact that metaphors are ‘catchy’ and emotional makes them powerful devices, e.g. in political rhetoric. One aspect that emerges when speaking about entailments, namely that they can also backfire by over-extending a metaphor, shall be only mentioned here and argued in detail later.

Specifically, metaphor can facilitate not only perception and expression, but also reasoning sequences. Quinn (1991: 81) stresses that a “metaphor might fix in mind a particular lengthy, complex causal sequence or preserve a piece of longer, more complex one, so that the piece can be retrieved and fit into the rest of the causal chain” (see also Fernandez 1986: 46). Quinn specifically shows how the effortless access to various metaphors of marriage and to their entailments allows for frequent and imperceptible slips between different conceptual metaphors within a single statement of her informants (p. 86). (For a thorough treatment of metaphor and inferential capacity see Klein 1987).

Metaphoric cognition is not only memorable because of these features, but also because it is emotion-arousing.²⁸ A great deal of recent research in cognition shows that the dualism between thought and emotion is no longer tenable and metaphor provides a perhaps the best example for this. Recall Beck's and Kirmayer's description of metaphor as the injection of sensory-affective knowledge into semantic space that was mentioned above. The reverse is also true: There is experimental evidence that thoughts produced by metaphors may be immediately felt emotionally because of the same inter-level interaction. Moreover, a large number of works describe the use of metaphor in therapy, for example for creating a vent and means of expression for suppressed and otherwise blocked emotions. Likewise, studies in medical anthropology from a large number of cultures deal with the importance of metaphor in healing. In all these accounts the emotional and the cognitive aspect are inseparable phenomena (cf. Kirmayer 1992: 336, Kirmayer 1993, Jackson 1983, Csordas 1990).

In summary, metaphor creates cognitive salience due to five inherent properties: First, metaphor forces the mind to make higher-order linkages, which are the fundamental units of recall from memory (Beck 1987: 13). Secondly, this implies that the mind has to participate actively and that it invites reshaping. Thirdly, metaphor typically includes high levels of imagery, which is known to be memorable (*ibid.*). Fourthly, metaphor is an efficient means of storing complex information because of its entailments, which are reconstructed through applying a whole system of generic aspects from the source domain to a new context. And finally, metaphor encourages emotions, which in turn have the power to make an experience salient. For all these reasons metaphor is highly attention-binding. In all likelihood it is precisely through these factors that (non-conventionalized) metaphors are recognized as something out of the ordinary by the people who use or hear them.

After this introductory characterization let us now consider two examples to show that metaphor can involve both the transfer of complex inferential models and the transfer of emotions from one domain to another.

²⁸ The insight that (linguistic) metaphor can arouse emotions goes back to Aristotle, who valued metaphor highly in his sparse but influential treatment of it. Yet for others, especially the Enlightenment philosophers, this potential was to become the chief source of opposition to metaphors and other tropes, castigating them as the appropriate means for populists and manipulative sophistry. To argue against metaphor as 'unscientific' and 'ideological' and to try to purge language of it has its adherents to the present day. A watered-down version of this persists in the largely futile attempts to reinterpret metaphor as literal proposition, e.g. by Davidson (1978).

MAPPED INFERENTIAL MODELS

Frequently metaphors project an entire inferential structure from one domain to another. Palmer (1996: 223) aptly formulates that “[t]he cognitive topology of the source domain constitutes a field of inference.” Therefore, metaphorically mapping a topology means that this inferential field is preserved in the target domain (or at least in part). In other words, the principle of mapping does, in many cases, not only apply to static image-schematic structure in the narrow sense – whole inferential sub-models operative in the source domain can be transferred to do reasoning task in the target domain.

Certain metaphorical transfers cannot be observed as linguistic mappings, but only inferred on a basis of plausible conjecture from the entailments of how people reason about something. A case of cross-domain mapping where inferential structures are mapped across domains is explored by Boyer (1990, 1993b, 1994), who intends to show how religious ideas are corroborated by cognitive mechanisms commonly reserved for biological kinds. Specifically, he claims that the inferential characteristics of essentialism can be mapped from natural species to social ‘species’. Boyer starts from the observation that the identification of members of a social category is often constrained by tacit essentialist principles. He couples this with recent research suggesting that there is a general human propensity to ascribe essences to natural species. If essences are ascribed to social groups this is done because of this original predisposition in conceiving natural kinds that is mapped on other domains. Thus, social species are being perceived as ‘pseudo-natural kinds’.

To understand what this means a brief outline of findings on essentialist thought is necessary here (I will treat the subject in considerable detail later). Essences are ascribed to living kinds, and perhaps to other entities. Even though natural kinds, such as giraffes and lemons, are identified by typical perceptual features, this provides neither necessary nor sufficient conditions to define group membership. A typical lemon is yellow and a typical giraffe long-necked. When a lemon is bluish or a giraffe short-necked, they remain lemons and giraffes. Therefore, Boyer argues (on the basis of how people express folk-theories in discourse) that the belief in natural kinds includes as a second element the assumption of an ‘underlying trait’. All individuals of a kind are presumed to have a common underlying trait. This trait, even though it remains vague, is considered to be existent and causally responsible for making a thing just that kind of thing it is. What makes a giraffe a giraffe is not its size, its habitat, its spots, or its long neck, but its ‘giraffeness’. As Boyer (1990: 104) says “[t]he idea of an undefined common essence is a powerful cognitive mechanism, universally available to human minds.” Essentializing is an intuitive heuristic, which is perhaps not innate as such, but a sort of default that can be easily instantiated by fitting input. A ‘natural kind’ is a predication that allows generalizations, because their features come in bundles. If one giraffe is pointed out to me and I know giraffes are a natural kind, then I can assume that the

observed features are those of all giraffes. With non-natural kinds this sort of straightforward inferential potential is limited.²⁹

How is this inferential structure then mapped on the social domain? The mapping between natural and social kinds is reflected in the semantics of many languages. For example, the Indian concept *jati* can be glossed both as ‘caste’ in the social domain and as ‘species’ in the natural domain. Boyer bases his theory on the study of the Fang of Gabon and their social category of *beyem* (‘people who see’). This category includes ghost specialists and bards, yet it is not defined by any observable feature or by a set of such features. Rather, one either is a *beyem* or not by virtue of an unobservable inner organ. A person either belongs or does not belong to the category, with no intermediary cases permitted. Yet, common discourse on *beyem* is intrinsically vague, saying that they are involved in uncanny and anti-social activities, but that it is impossible to say anything definite apart from that. The actual decision about someone being a *beyem* is a matter of intuition or individual inference,³⁰ so that a folk-theoretical account operating on a defined observable features is impossible. Boyer argues that, nonetheless, an invisible essence is ascribed to the category of *beyem*. This invisible essence of a social kind is metaphorically perceived on the basis of knowledge about natural kinds, which are the prototype of essential categories. Only this underlying belief allows particular inferential patterns:

“The fact that the class of *beyem* are represented in much the same way as a natural kind is crucial, because it makes possible to entertain beliefs based on inductive generalisations. Once *beyem* are represented as belonging to a ‘species’, characteristics of singular individuals can be represented as typical of a group as a whole. Then the properties of people identified as *beyem* will be extended as being probable properties of the whole class (...)” (Boyer 1993b: 138)

²⁹ So far as I understand the experimental evidence cited by Boyer, it cannot be unequivocally decided whether the belief in essences ontogenetically really develops first for natural kinds and is then metaphorically mapped from this domain to others. Essentialist categories, which create the basis for inductive generalization, might also result from a general mental default. Such a default might apply to all cases where a new category, social or other, is formed. However, whether pseudo-natural kinds are a general learning default for categorizing novel experiences or whether they are selectively mapped from natural kinds does not affect my argument. What is important is that inferential structures that are already known from one or more domains are transferred to novel domains.

³⁰ As an alternative a complex pre-discursive folk-model could be responsible (for example one that defines category membership through a family resemblance model). On that assumption the uncommitted stance of subjects is due to the fact that they may implicitly identify a *beyem* when they see one, but cannot specify a single general principle, simply because their mental model works differently from the discursive requirement to identify clear-cut rules. Unfortunately, Boyer has nothing explicit to say about this possibility.

Experts make definite statements about *beyem*, but when they do so they invariably focus on singular cases from their personal experience instead of using general principles. Boyer claims that non-experts construct representations of what a *beyem* is in terms of features gradually drawing on experts' statements and diagnoses on individual cases and that they can do so because they believe that the category is essentialist. It is only through the essentialist belief that, despite external diversity, there is an invisible source of deeper 'sameness' that licenses the inference. This belief is captured in the linguistic predication *beyem*, which is understood as an essentialist kind.

Boyer (1994a: 171f) repeatedly insists that interpretation merely in terms of conventional metaphor has serious shortcomings, since the inferential patterns of the essentialist assumption need to be analyzed in addition. Boyer asserts that his account goes beyond prior theories of metaphor, because a cognitive mode of construal figures prominently here that has to be analyzed independently. One can have essentialist assumptions without metaphors and vice versa (p. 172). Two features of Boyer's analysis not typically included in the research design of metaphor theorists are the study of inferential patterns in social contexts and the reference to developmental data on how children learn to categorize. Although the appropriateness of the term metaphor may be questioned, in principle I see no reason against it, as long as we define metaphor in a way that it can include the mapping of specific inferential structures, including such that draw on auxiliary models like essentialism. We should also not forget that the importance of inferences has been duly recognized by Lakoffian metaphor theory under the label of a metaphor's *entailments*. Furthermore, as I will try to show in chapter 9, I believe that such essentialist construals of categories need to be explained by an image-schematic Gestalt that is then mapped from one domain to another, and not only a set of inferential principles added up.

MAPPED EMOTIONS AND MAPPED BODY KNOWLEDGE

In many cases, the metaphoric process intermeshes much more intimately with experienced emotion than a purely rhetorical focus would lead us to believe. Metaphor can blend two emotional worlds. As the following example will show, it can serve to define a context in a culturally desired way by evoking particular emotions from another context. The example stems from McGee's (1987) fieldwork on the Lancandon Maya of Chiapas and a key communal ritual that involves the brewing and drinking of an alcoholic beverage called *balché*. This drink, made of fermented water, honey, and *balché* bark, is consumed in prolonged ritual sessions by men, often until they become nauseated. A special song in the style of a love song is sung to accompany the ritual consumption. The song is called *The Little Wife* and its purpose is quite plainly to prevent the drinkers from vomiting. In this song the drink *balché* is likened to a woman and drinking the beverage is stated in physical terms

with obvious sexual connotations, like 'embracing the Little Wife'. Although the drink only has a low alcohol content the men eventually become drunk, which is a desired state. Inebriation is sought because, as the Lacandon say, they do it in imitation of the gods and because of the ritual potency of the drink. Therefore, the men must seek not to get out of their state by vomiting. The song is designed to help them in this by equating the drink to a desired woman. It can be parenthetically noted that several aspects of Maya mythology motivate the likening of *balché* to a woman. (It is a woman because its main ingredient honey is linked with women and sexuality: Bee hives are viewed as female or womb symbols with indigenous peoples throughout Latin America, as are other objects where honey is found, such as hollow logs; bees are also regarded as female.) Furthermore, the sensory connotations of honey and the desire for the sweet taste provide an additional basis for the association to desiring a woman sexually.

All of the Little Wife song is structured with reference to *balché*, which, according to McGee, can be understood as a key metaphor of the Lacandon Maya religion (p. 112). Taken as a whole, it becomes apparent that the song is not about a woman, but rather a statement about the transcendental effects of *balché*, in particular an individual's desire to experience the altered state of consciousness induced by the drink, and the psychological pain experienced in losing grasp of this state. This loss of the transcendental experience is depicted in the song as walking or feeling alone, whereas other verses are about the desirability of *balché* conceived as the Little Wife. In McGee's account the central status of the metaphor lies in the fact that it expresses Lacandon thought about the relationship between gods and men. A crucial entailment following from the metaphor has to do with the proximity of the gods, which may be, by way of contrast, opposed to the remoteness of the Christian god of the Lacandon's neighbors, who have converted to Protestantism. Just as a woman can be approached and embraced, so, too, a relationship with the gods can be cultivated by drinking *balché*. Interestingly, through the Little Wife metaphor the gods are conceived in terms of physical approachability and thus immanence, since the men can come nearer to them through the states of their bodies. Speaking in terms of the methodological framework of this work we may say that the metaphor is embodied in a quite basic sense. The memory of embracing, taking near one's body, and possible sexually congregating with another desired body is mapped on the enacted ingestion of a substance into the body. Beyond being mythologically motivated, as described above, I would therefore suggest that the metaphor is also motivated phenomenologically by virtue of the similarities between the experiences of ingestion and embracing. Arguably, the similarity is image-schematic both in an embodied and in a conceptual sense, in that something is brought within the physical orbit of the subject and has a profound bodily and emotional effect on him.

What is more, the effect is, in both cases, about not being alone anymore. Both experiences are about existential experiences of closeness in a very primal sense.

What is demonstrated very nicely here is how the metaphorical evocation of emotions of a particular kind can redefine a context or invest it with a particular kind of importance. In this case, the song crucially defines the ritual as going beyond its more mundane significance as a recreational binge. Admittedly, it is not the metaphor itself that gives the ritual its religious character of being about communion with the gods. Nevertheless, I would argue that it defines *the particular embodied nature* of what 'religious' here means to a considerable extent. As we have seen, it carries ontological entailments about the immanent relation of man and the gods. The drinking of *balché* is given religious significance, in that the desire to be near the gods is given an experientially well-known counterpart while a more basic form of desire is appealed to. The effect on the participants is that their desire to remain inebriated is strengthened by evoking sexual closeness and the wish to prolong it. Hence, it would be somewhat reductionist and superficial to see the Little Wife metaphor as no more than a handy psychological device that prevents vomiting. A main theme of Lacandon Maya religion is created (or at least expressed) through it, namely that of physical closeness and ritual states as being about transcending apartness.

In my reading of McGee's case description, two domains of life, namely sexuality and religion, are integrated through the metaphor of the Little Wife and this is achieved by a mapping of embodied states of emotion and mood. Two forms of embodied desire for closeness are related by the metaphor. In other words, what the metaphor does can – for analytical purposes – be defined as a two-stage process: First it produces the effect to direct the attention to the physical experiences in both domains. Then the metaphor highlights their embodied similarity (ingestion/embracing, being stimulated, being part of a whole and not alone) and evokes the appropriate physical-emotional mood. Thus, one domain is imbued with a strong emotional coloration from another domain. Later I will discuss at length how, in such examples, two domains are brought further together as a whole through such metaphors and thus influence the way the world is ontologically carved up into distance and proximity relations between domains of experience.

2. Explanatory 'frame setting' and generative deep metaphors

Much past research on metaphor, pioneered by Mary Hesse (1970), has been devoted to its role in science, where its elementary function relates to the solving of new problems by analogy. Its scientific application encompasses the discovery, the development, the evaluation, and the exposition of new ideas. Although I am not much concerned with science here, it is clear that these functions can also be claimed for everyday thought in general (see various authors in Holland/Quinn 1987). Such explanatory metaphors can either import a

new viewpoint into a well-defined pre-existing theoretical domain or bring about a paradigmatic change of perspective about what a whole domain consists of.

When Donald Schön (1993) [1979] speaks of 'frame setting', i.e. the apprehension of a specific context via a deep metaphor, he aims at showing how new perspectives and interpretations are generated. He illustrates his general idea with reference to urban housing policies.

"I have become persuaded that the essential difficulties in social policy have more to do with problem setting than problem solving, more to do with the ways in which we frame the purposes to be achieved than with selection of optimal means for achieving them. (...) Problem settings are mediated, I believe, by the 'stories' people tell about troublesome situations (...)" (p. 138)

Schön gives a beautiful account of practical reason here. Initially, we are confronted with a problem-setting context, which we then give a 'reading'. In doing so, we often construct a deep metaphor which is generative of the story. Although, more often than not, the deep metaphor remains implicit, it unfolds systematic entailments and shapes action in the problem setting. Applied to his case study this means: In the urban renewal policy of the 1950s neighborhoods were mainly seen in terms of health and disease, and therefore as slums, as though 'possessed of a congenital disease'. By contrast, in the 1960s it became customary to see slums in terms of a 'natural community'. It is striking how the policies issuing from these different metaphorical apprehensions stand in diametrical opposition to one another. In the one view of social reality the 'cure' was seen in dislocation and complete restructuring, while 'mere palliatives' were rejected as ineffective. In the other view the urban renewal strategies of the previous decade were seen as dissolving social cohesion and solidarity and thus heavily criticized.

Schön also shows how one can deal with a dilemma by *frame restructuring*, i.e. devising a new story format that come to grips with both its horns, i.e. that conforms to both conditions of the dilemma simultaneously. It needs to be underscored that this does not mean a facile denial of conflicting aspects to achieve more cognitive consonance. On the contrary, our scope creatively broadens if the conditions allow:

"We do this best, I believe, in the context of particular situations whose information-richness gives us access to many different combinations of features and relations, countering our Procrustean tendency to notice only what fits our ready made category schemas." (p. 152)

This observation clearly reminds of Piaget's notion of *accommodation*. In accommodation schemas are transformed in order to fit the given data. Simply to assimilate data into preexisting schemas will not do in these contexts. The accommodation of our problem-frame,

on the other hand, may give us a new grip on the problem. A metaphoric account of a situation usually confers a problem-oriented focus on a matter. Note that a frame does not only give a theoretical view of a problem but that it also incites certain courses of action, and thus cultural practice. More about generative functions of metaphor will be said below.

3. The enabling and delimiting of discourse

Some metaphors can become so salient that they substantially shape cultural discourse. They do so in at least three ways: Firstly, metaphors provide the central themes of discourse and enable the thinking processes related to these. Secondly, it follows implicitly from this that, by focusing on some aspects of reality, they must also blot out others. That is, they delimit the thinkable, which means that metaphors can impose far-reaching and highly consequential epistemological and ontological constraints. Still other metaphors, thirdly, expand the thinkable. Cultural change brings about new ideas (and geniuses before-their-time act as their vanguard). Usually these are initially considered as explicitly metaphorical, i.e. they are not well integrated into any existing domains, and only become conventionalized later.

Work in philosophy by Stephen Pepper (1942), in literary criticism by Paul de Man (1978), in cultural anthropology by Anne Salmond (1982), and most systematically in cognitive science by Lakoff and Johnson (1999) has shown how the philosophical discourses of the West have fundamentally drawn on metaphorical understandings. Rorty's influential (1979) work – a touchstone of postmodern philosophy – has presented a forceful criticism of the 'reality as a mirror of nature' metaphor as the problematic image on which millennia of Western epistemology rest. On categories such as 'mind', 'soul', 'will', etc. within the discipline of psychology the various excellent contributions in Leary (1990) are unparalleled. In past and present the metaphorical key models are constitutive for philosophical, scientific, and folk-theoretic views of reality and knowledge. All these beliefs rest on 'root metaphors', a term coined by Stephen Pepper. More on root metaphors will be said in chapter 5. For now it is sufficient to provide a few examples to show how metaphors govern the scope of discourse.

SELECTIVE REALITIES

In the simplest case the way that metaphors govern the scope of a discourse is straightforward: While they accentuate certain aspects of an issue, they hide others. Metaphors affirm the so-ness of something in a particular respect and thus mediate conceptual associations in connection with a topic. As James Fernandez (1977: 127) put the matter, metaphors make some things in the world relevant and all other things quite irrelevant. Metaphors are the conceptual pillars of ideologies. Apart from directing our

thought in a given field towards particular associations, metaphors sometimes have a constitutive function for the field as such, i.e. for thinking about some particular issue (cf. Pepper's 'root metaphors' and Smith's 'generative metaphors', ch.1). A high-level metaphor of this kind can provide a unique conceptual model for a domain to the exclusion of other possible models. The perhaps most famous example in the cognitive literature on metaphor can be found in Michael Reddy's (1979) still important analysis of the CONDUIT metaphor for communication. According to Reddy, the American cultural model of communication is totally constrained by the CONDUIT metaphor and makes other ways of thinking about it quite difficult to conceive. We have a linguistically evident and cognitively deeply entrenched tendency to think of communicating as sending objects (the ideas) through a conduit (utterances) to a receiver. Any view of a necessity of interpretation or a complex hermeneutic process is excluded, as long as ideas are fixed and given objects that only require being transmitted in much the same way that parcels are. The parcels can be simply opened up and the items in them taken out still identical to those the sender put them in. Indeed, on such a view any failure to communicate can only be due to faulty objects (badly put ideas), a blocked conduit (not loud enough), or unopened parcels (unwillingness to understand, stupidity). Often the conduit view will work well enough and even provides certain benefits – a position that Rudzka-Ostyn (1988) defends in detail. Nevertheless, it has serious social consequences if people think *exclusively* in these terms. It becomes particularly detrimental in cases of cultural or worldview encounters, since the actors are unable to conceive of the necessity to empathize with frames of interpretation that one does not share or to realize that any difficulty might be involved in doing so. The conduit view also helps to naturalize the own worldview and to mystify the fact that it, also, is only defined against a background of unquestioned, but in fact culturally constructed pre-understandings, rather than being the result of a universal and pre-given reality. For along time the conduit metaphor has also hampered more sophisticated models of communication in scientific thought, especially in the wake of Shannon and Weaver's (1949) influential theory of information (see also Strauss/Quinn 1997: 18, 153ff).

That metaphor is as potent in concealing as in revealing is especially true with respect to complex theories that rely on a combination of metaphors. Some metaphorical theories are quite consciously crafted to accentuate a particular view and blot out other facts. Take the theory of rational choice, for example. It rests on the generalized assumption that people make (a) dispassionate and conscious decisions, (b) based on sufficient information about alternative choices, and (c) to maximize their gain. As an analysis by Lakoff and Johnson (1999) shows, choices in this theory are metaphorically conceptualized by the image of a traveler standing at a bifurcation of paths and evaluating the desirability of the two final locations: In this mapping the paths are distinct, the destinations known, the path taken is

independent of previous decisions or an overall orientation, there are always preferences, and choosing has no costs in any way. Furthermore, the desirability of the final location is metaphorically mapped as something that can be numerically measured in a basic common unit, in the same way that money makes commodities commensurable but leaves everything that cannot be converted into money unconsidered. What is blatantly absent in the universal view of the rational actor is the fact that people cannot always choose freely or even consciously, that very disparate local conditions cannot be measured by a single yardstick, and that economic choices are embedded in a social system as well as a cultural background. All this results in the possibility that the allegedly universal rational choice is nonsense from a commonsensical or local point of view.

An additional metaphor flows into the theory when it frames companies or even whole nations as rational actors (i.e. as having the same needs as individuals) whose purpose it is to maximize well-being in the form of wealth. With the help of this third mapping the whole metaphoric complex, as it stands today, has become the foundation of an economic and political doctrine. Lakoff and Johnson (1999: 533-34) illustrate the inherent selectivity in such a mapping with respect to foreign politics:

“Game theory and models of rational choice (...) have been used since the early days of the cold war as ways of making foreign policy and war more ‘rational’. In order to use rational-actor models for foreign policy nations must be conceptualized metaphorically as people with interests – national interests. What is used is a Nation As Person metaphor. It is in the interest of a person to be healthy and strong. In the Nation As Person metaphor, health of a person maps onto overall economic health for a nation, and strength for a person maps onto military strength. Maximizing the national interest, according to this metaphorical logic, is maximizing the nation’s overall wealth relative to other nations and its military strength.

What the Nation As Person Metaphor hides are the real people and all the forms of well-being they individually require. The metaphor also hides all ecological values that do not translate into wealth and military strength.”

Thus certain aspects of the socio-political sphere are picked out and mapped by the metaphor, whereas others are left unrecognized. Such metaphors promote a normative view and presuppose a specific moral view that disregards the well-being of real people. However, this example shows yet another thing. In the present-day situation, rational choice theory has not only an implicitly normative character, but is promoted with a lot of scientific and political clout. The United States train economic personnel from all over the world in conformity with such a rational choice outlook. The International Monetary Fund and the World Bank put states under the obligation to conform to the neo-liberal view of economic health that at the same time disregards completely the well-being of individuals (at least in the short run). In doing so they promote what will be called a Strict Father Morality a little bit further down, a

morality that wants to teach the 'children' to become self-reliant even if it hurts, rather than seeing to their emotional needs. Thus developing nations are not only forced to embrace a cultural ideology of economy that is not very compatible with their social system, they are also forced to apply metaphors of morality that originated in Anglo-Saxon Protestantism. These metaphors are being ideologically endorsed and disseminated as underpinning of a politically and economically motivated discourse promoting the interests of the rich countries.

CORE METAPHORS ENABLE DISCOURSE

That metaphors have the power to pick out important aspects of reality and conceal others is only one important aspect among several. Many important metaphors do not, as one might assume, simply preclude disagreement, dispute, or development. Much on the contrary, they enable multiplicity in discourse, albeit within a given range. This pertains foremost to metaphors that are generic and specify only a minimum of detail structure, so that a discourse can appropriate them in various ways, while always remaining within the fundamental limits of the metaphor. Danziger (1990: 332) takes an example from the history of psychology to show how a scientific discourse can be governed by a basic metaphor:

"Basic metaphors, like that of psychological energy, provide a kind of rough schema that, when held in common, can constitute one of the minimal conditions for effective human communication. But because metaphors link two domains (...) in rather undefined ways, these schemata leave open the issue of precisely which assumptions and questions are to be transferred from the one domain to the other. So metaphorical schemata not only provide a framework for shared discourse, but encourage differences of emphasis and therefore conditions favorable for theoretical development."

There are two implications here. One is that the same basic metaphor can come to have very different entailments over the centuries, while remaining essentially stable. The other is that different schools of thought that otherwise have little in common may share a basic metaphor, thereby creating a common ground between them.

It is an interesting observation that certain source domains are employed again and again in numerous mappings in a culture. This runs against the argument by Zoltán Kövecses (see ch.1) to the effect that metaphorical source domains usually have a conventional main meaning focus in a given culture, i.e. the aspects they highlight are invariant across target domains. Conceivably, some source domains have a large number of possible cultural foci, i.e. they are a frequent exemplar used in discourse. Let us consider the example of the human body, which comprises a vast number of traits that lend themselves to mappings. Very different aspects of how we think about the body can become salient. For one thing, a body is an organic system. For another, it is a reproductive system. Then, it is a homeostatic system that tries to maintain a balance. It can be healthy or weak, defective or functional. It is

embedded in an ecological context. It is a whole with parts, some of which are more central, some less. It is a bounded entity with clear limits. (From a combination of all these aspects emerges the widespread metaphor of the society as a body.) Furthermore, the body serves a certain purpose, namely that of life; in this way it exemplifies a *telos*. It goes through cycles. It has aesthetic appeal and may embody the beauty of creation. It is the abode of selves and the agent of intentional subjects. It has two sexes which stand in complementary relation to one another and which are capable of sexual union. It has two symmetric sides, which can be used for mapping binary structures. It has a canonical spatial orientation and a characteristic topology, which can be mapped onto other spatial relations (cf. Heine 1997: 143). It grows and decays. Its size and shape may vary. It comes with different racial traits, and so forth. It would seem that the potentialities for using salient characteristics of the body are virtually inexhaustible.³¹

It can be hypothesized that source domains of this sort serve the diachronic integration of shifting cultural discourses. In all likelihood, a rough template such as the body, by its status as a lowest common denominator, will resist change much longer than more context-bound sub-models and entailments that are tied to a specific historical situation. The popularity of the body as a source domain is likely to persist, even when a particular metaphor, such as the society as organism, falls into disuse. A source domain can stay in use, while its main meaning foci undergo shifts. Put in general theoretical terms, a productive source domain can accommodate a huge variety of particular ways of framing and entailments. We can surmise that such long-term stable metaphorical frames are one of the central ways that culture is diachronically integrated. (However, as I shall argue a bit later, metaphors and other tropes can also play against one another in a contrastive relationship between present and past.)

Basic metaphors also integrate cultural discourse synchronically, while at the same time diversifying it. An excellent demonstration of the differing, indeed contrary, ideological entailments of a culturally shared basic metaphor can be found in Lakoff's analysis of U.S. American political worldviews in the book *Moral Politics* (1996). His analysis is worth discussing in detail: Lakoff's basic contention is that Americans understand politics in terms of the family, with the state being the parent who is responsible for the citizens, who are its children. Through discourse analysis of selected political statements and manifestoes Lakoff analyzes the world-views of both conservatives and liberals in an ideal-type fashion and

³¹A similar example is given by Gudeman and Penn (1982: 90) with precisely the same point in mind: "A leaf, for example, could model bilateral symmetry of the body or of a social organization; alternatively its growth, coloration and desiccation might model the human cycle of life to death; yet again, its internal patterning might be seen to model a genealogy."

traces the governing metaphor of THE NATION IS A FAMILY together with its various submetaphors.

Lakoff seeks to demonstrate that a single schematic conceptualization, i.e. the state as parent, can (1) accommodate two systematically configured political standpoints that are diametrically opposed, and (2) unite them on a common discursive ground. The split results from diverging views on pedagogical matters. In the conservative case the parental responsibilities are understood by the framework-metaphor of the so-called *strict-father morality* and in the liberal case by the metaphor of the *nurturant parent*. The differing and even contradictory political entailments of the basic metaphor follow from the mental topology of submetaphors and sub-models grouped around it: Both core-understandings of pedagogical style are a part of a tight-knit network of auxiliary metaphors about the nature morality and justice, about the nature of the human being and how she learns, and about the question whether human actions are determined by a moral essence or by social factors. As we shall see below, it is these auxiliary metaphors that make all the difference, in particular through the way they are hierarchically ordered.

The entailments of these versions of the THE NATION IS A FAMILY metaphor are manifold, systematically interrelated, and directly bear upon a great many social issues. In both versions the family metaphor has substantial repercussion on stances on the role of the government, taxes, social policy, abortion, crime prevention, environmental policy, military expenditure, etc. In strict-father morality the government's role is seen in making the citizens self-reliant through teaching them responsibility for their own lives by being strict, but not interfering anymore in their affairs once they have become 'grown up'. By contrast, in nurturant parent morality the government's responsibility is to respond to the social needs of the people and promote their welfare and the capability for self-actualization and self-development.

Lakoff shows how almost every aspect of conservatism is linked to a morality of reward and punishment and a view of the world as essentially hostile and 'tough', a world in which self-reliance of the individual is the only chance. (This is, by the way, the cultural hallmark of the Calvinist legacy and the central difference between U.S. conservatives and more traditional versions of the strict-father view in many other societies, which are based on gerontocracy, life-long respect for elders, and the power of extended family networks.) In strict father morality the myth of America as the land of opportunity looms large. It employs the metaphor of the ladder-of-opportunity that is literally there to grasp and for everyone to climb. Those who do not are themselves to blame because the ladder is assumed to be real, as a real physical object would be. This goes hand in hand with the assumption of strict father morality that human nature is basically motivated by rewards and deterred by punishments. Thus, social programs would only subvert human nature. In the nurturant

parent version of the liberals the federal government should encourage social programs because they are investments into communities and help people to empower themselves as productive citizens. In contrast with the ladder of opportunity metaphor, racism, sexism, poverty, the lack of education, and homophobia are recognized as barriers to the free pursuit of self-interest. Therefore, they also speak in favor of 'affirmative action' to promote fair chances for disadvantaged groups. In the liberal view of justice the notions of fairness and distributive justice are central, whereas conservatives believe in the metaphor of strict moral accounting.

For liberals progressive taxation is a way of meeting the parent's duty to support the younger, weaker, or infirm children in the family. Taxation of the rich is, to conservatives, being punished for being self-reliant model citizens and for doing what they are supposed to do according to the American dream. For them, the very basis of morality is at stake. Also, because taxes are seen as service of the government provided to the public, who pays for it, it is seen critically that people have no right to choose whether to purchase this service. 'Big Government' is felt as meddling into the affairs of self-reliant citizens.

One might ask why conservatives increase military spending, although it means bigger government, which is otherwise abhorred. A good answer is that, above all else, in strict-father morality the major duty of the government as a father is to protect his children. Since the ethic of moral strength has priority and everything is keyed to hierarchical authority, self-discipline, building strength, and fighting evils, the military is the principal institution that embodies strict-father morality. People who go through the military are model citizens who acquire strict-father moral values there. Likewise, the conservative opposition to liberal attempts to enforce gun control results from a view that sees guns as the individual's form of protection in an essentially hostile world and as symbolic of the male role as family protector. Guns are the instruments of moral strength, self-reliance, and the power of the strict father.

Conservatives hold a corresponding theory of moral essence, according to which past behavior is a guide to essential character and essential character predicts future behavior. The recent 'three strikes and you're out' policy as a response to the growth of juvenile delinquency is a result of this view. Conservatives do not believe in social causes of crime. But apart from that it is essential to understand, Lakoff argues, that in this morality-based discourse pragmatic liberal arguments that strict policies do not actually reduce crime do not count. Many conservatives believe that only if children of welfare mothers are put into orphanages and raised to have strict father values, the cycle of dependency, immorality, and lawlessness can be broken, and that this will help to solve the problems of crime and drugs as well. Similarly, many conservatives believe that it is wrong to give out clean needles to drug users or condoms to teenagers. Instead, they should learn to 'just say no', and be taught self-restraint and abstinence. Some will get hurt in the short run, but in the long run a

societal standard of behavior will be set and the nation as a whole will be better-off. Also, illegal immigrants should not expect food, housing, or health care, since they are not 'children in *our* family'. For liberals, immigrants with no immoral intent are seen as innocent children needing nurturance.

Conservatives espouse a behaviorist theory of human nature. They claim that harsh punishment, such as the death penalty, will work to eliminate crime and they even declare that violent crime is the result of 'permissive' child-rearing practices. Liberals respond that violence results from abusive treatment and corporal punishment through the parents, neglect, and social causes such as poverty. Opposing the priority of moral strength and moral essence, their worldview recognizes concepts such as 'class' and 'socio-economic' forces. Social problems are located within society, and not within individual moral weakness. Also, since nurturance implies as supreme value a basic reverence for life and well-being liberals are opponents of capital punishment.

The metaphors employed in the human relation to nature are particularly interesting in comparing typical liberal attitudes and the traditional Christian conservative view. For conservatives nature appears as God's dominion given to man to steward wisely, a resource for immediate human use, a property for sale and purchase, a work of art for human appreciation, an adversary to be conquered and domesticated (a wild animal to be tamed), or a mechanical system to be figured out and controlled. For liberals nature is a mother who provides for us, it is a whole of which we are inseparable parts, it is a divine being itself to be respected and revered, it is a home to be maintained and kept clean, and finally in today's world it is a victim of injury whose wounds need to be healed.

Finally, Lakoff argues that Liberalism and Conservatism build on two different versions of Christianity grouped around different sets of metaphors. For conservatives the idea of sin and moral debts that have to be paid is preeminent. Good Christians are obedient to a remote and superior Father-God, accept the natural hierarchies and the literal truths of the Bible. A good moral essence requires self-discipline and self-denial. For liberals God is a nurturant parent to human beings. Since God's grace is nurturance, empathy, and compassion, the moral way to act is nurturant action for humans as well.

All this indicates that liberal and conservative discourses are both grouped around a system of metaphors. The metaphors in question may be shared by both sides but are given different priorities. *And, what makes them assume different priorities is, if we follow Lakoff, the basic organizing metaphors of strict-father vs. nurturant parent morality.* For conservatives the metaphors of Moral Strength, Moral Authority, Moral Order, Moral Boundaries, Moral Essence, Moral Wholeness, Moral Purity, and Moral Health hold priority (p. 101). For liberals Morality as Nurturance, Morality as Empathy, Moral Self-Nurturance,

Morality as Nurturance of Social Ties, Morality as Self-Development, Morality as Happiness, Morality as fair Distribution, and Moral Growth figure on top (p. 135ff).

Apparently both versions of the family metaphor are linked to a complex model that is richer than the metaphors on their own. Yet the model is guided by them and organized into a coherent worldview. The family metaphor as embodying a major model of American society forms a discursive framework in which a host of densely interwoven beliefs, also amenable to a metaphorical analysis, is accommodated. Depending on which sub-metaphors are brought to bear within this shared framework (all of which emerge from opposed readings of the Bible) we get very different results in terms of political, social, and pedagogical outlooks. Lakoff shows that Americans are in fact not dealing with two wholly unrelated versions of a basic metaphor that are similar by chance, but that related buttressing metaphors direct the priority of entailments chosen. The family metaphor enables a cultural discourse on a shared ground, while at the same time creating a main watershed between politico-moral worldviews because of the multiplicity of its possible entailments and sub-models.

A highly important conclusion is that a metaphor must be always analyzed *vis-à-vis* its entailments, which are in turn dependent on the social and cultural context the metaphor is embedded into. It is indispensable for an anthropological perspective on metaphor to consider its embedding into a context and to closely attend to the diverging entailments of metaphors that are superficially similar for comparative purposes.

4. Reinforcing inter-domain relations: Cross-buttressing and world-view integration

Lévi-Strauss (1963: 96) characterizes metaphor as “a code which makes it possible to pass from one system to the next”. This adage touches upon one characteristic of metaphorical thought that has been of abiding interest to generations of anthropologists, namely the role it assumes in the integration of worldviews. The following sections pursue this issue, first focusing on the play of metaphor between two clearly circumscribed domains, and then broadening our view to include metaphors that provide a common conceptual underpinning for a large number of contexts. Finally, I will try to extend the term metaphor even further to describe mutually supporting conceptual networks, even where there is no central metaphor. All these settings deal with the cognitive integration of distinct realms of experience and disparate ontologies. The intriguing point for anthropology is that metaphors assume a central social function, aside from shedding light on a less understood domain: They weave the whole cultural fabric into a denser pattern. The basic cross-connections between two cognitive domains I term ‘cross-buttressing’, since the metaphorical reference to another domains provides stability for a domain, and vice versa.

Metaphor has an epistemic function in creating parameters of similarity between domains, thus determining which questions are asked for finding out the degree of similarity between

two things. It is useful to recall Nelson Goodman's (1972) argument that anything is similar to everything else in infinitely many respects. While this is based more on a general philosophical argument than on cognitive study, it shows that relations of analogy do not preexist in any metaphysical sense. They need to be constructed either by our automatized conceptual apparatus or through conscious deliberation. Consequently, it is metaphoric thought, defined as links and mappings between dissimilar domains, that either produces or reflects salient common characteristics. No metaphor connects all conceptual material in the source domain to the target domain. Mappings are by their nature incomplete, so that a given domain never maps onto another in all possible respects. Or, as Lakoff and Johnson (1980) put it, it is normal for metaphors to have 'unused parts'. Some possible metaphorical entailments are not very relevant, others simply do not correspond with target domain beliefs and practices. For instance, Boyer (1993b: 134f, 1994a: 172) observes that the Fang of Gabon, use a metaphoric linkage of their clans to biological genera, which is reflected in a polysemous word designating both 'clan' and 'species'. They metaphorically use the word 'species' to describe variations in behavior and mentality between lineages. However, this metaphor has at least one very important entailment that is not exploited, since it would be at variance with Fang social reality: Fang clans are exogamous and therefore cannot be linked to the notion of biological genus, since that would, obviously, include that breeding is only possible within the species. Clans are like species in several important ways, yet in this respect they stand diametrically opposed to the typical characteristics of species. So what do metaphors then accomplish? I would argue that they select a limited number of comparative parameters geared to a given context. In our example the mismatch of the clan metaphor with respect to the breeding aspect simply does not matter for the relevant context, although it may create clashes in other contexts.

SILLOVERS

Generally, which parts of a metaphor are used and which are not depends on the context, the background of the individual's past experiences, and new matches created through new insights. Frequently there are core features, but which other attributes are carried over to the target domain together with them is variable. The assertion of metaphor can provoke a metonymic chain of elements or experiences associated with the metaphor as part to whole, cause to effect, or any other contiguity in time or space. Not only the mapped metaphoric topology itself may be relevant, there is always a hidden reserve of associated concepts, both in the source and the target domain, that may become activated. Which among the infinite number of possible elements enter into the metonymic chain actually exploited is context-dependent.

I intend to show that this propensity of metaphor to carry less central metonymical associations with it has significant repercussions on the relation between domains in general. As Emanation (1995: 178) points out, with a long pedigree going back to Max Black's and I.A. Richards' 'interaction theory', metaphor may enhance the similarity of structure across the two domains. Once domains are perceived as similar in several salient respects further aspects tend to be assimilated to this pattern. This is corroborated by experimental evidence by Kelly and Keil (1987) demonstrating that a successful metaphor may reinforce similarity ratings of people and predispose them to judge further cases on the same basis. In other words, there is an initializing metaphor that then attracts further mappings. Responsible for this is the metonymical (i.e. contextual) coherence of aspect-clusters within a domain that invites considering additional aspects as eligible for a mapping once one of them becomes metaphoric. For example, if we metaphorically conceive humans as computers this may result in a more general propensity to consider living beings as machines. The overall principle in question here is a transposition of the mapping from the specific level to the generic level.

In some particular cases a salient or apt mapping can trigger a psychological process of 'elective affinity' (see ch.3) that continually reinforces the inter-domain bonds to the extent that a complete analogy is engendered, because people actively search for further correspondences. In other words, entire domains can come to be linked by a snowball-effect that further increases the tendency to consider yet new members of the first domain in the light of the other. Needless to say, such a process can only occur so long as the domains allow a sufficient number of similarities, i.e. if there is a 'critical mass'.

Spillovers can also occur as sub-conscious knowledge transfers from another domain, because an analogy (or metonymy) is somehow already assumed. A study by Wagner et al. (1993) on popular biological beliefs about human reproduction exemplifies this: The authors examined how European beliefs about conception and about the behavior of reproductive cells are influenced by traditional gender clichés. They found a widespread folk-belief that the active 'macho' sperms seek out passive, 'feminine' eggs, competing for them, and that the best or fittest 'man' conquers the 'female'. Modern biology proves these folk-theories (which are undoubtedly supported by much school education of the past) as of limited educational value, since eggs are apparently just as active as sperms. What these theories are successful at doing, however, can be gauged in a broader perspective on the role of knowledge in society: They integrate beliefs about gender behavior and thus support social role stereotypes. Nature, in this view, has ordained that not only humans act as traditional males and females, but that their reproductive cells as parts of them also do. I would even argue that, by way of reinforcement through such a metonymical part-whole relationship, a

more deeply seated understanding of human essence is supported, that replicates itself at all levels.

How are we to evaluate the example, then? A belief that is scientifically wrong, or biased, may nevertheless be socio-functionally instrumental in conserving traditional views. Educationally misplaced spillovers can also be highly effective when put in this perspective. While, on the one hand, they entail certain 'false' assumptions, they may, on the other hand, serve to integrate two domains in the same way apt metaphors do, irrespective on how one might feel about such a metaphoric buttressing of conservative strongholds. At a more general level, this indicates that successful spillovers may actually create an autodynamic of mutual cross-buttressing between two domains. In our case here they suggest an encompassing 'natural law' that is valid on the social and at the biological levels alike. Thus, the belief in a general, trans-domain 'law' may in fact be built up by a perception that was initially guided by one domain and then assimilated by the other

What makes spillovers likely? Let me develop a few speculations for future testing here: We can presume that if a metaphor is very conventionalized, if it maps a rather large number of aspects to begin with (in so-called structural mappings), or if it involves some highly prototypical exemplars of the domain, the rest of the domain context is more likely to be carried-over. Conversely, if a metaphor is a limited mapping, only expository, ad hoc, or far-fetched, the likelihood of spillovers can be expected to be low. Permanent cross-domain links may also be inspired by basic primary metaphors from early childhood or the presence of synesthetic linkages, which both seem to be powerful motivators for metaphors (see chapter 4). For example, a salient primary metaphor such as AFFECTION IS WARMTH may bring about a general tendency to use body sensations as source domain for understanding more complex emotions.

BIDIRECTIONALITY

Metaphoric domain pairings of historical importance have been observed to go back and forth in a discourse. This means that they change their direction in the course of historical development, when a metaphor's target domain later becomes to be perceived as its source domain, or vice versa. This interesting aspect is, for example, highlighted by Danziger (1990: 334), when he cites metaphors for the mind in Western discourse:

"In the case of the physical energy metaphor, the bidirectionality is (...) striking. In fact, the interaction was historically recursive. Such concepts as 'force', 'power', and in part 'energy' had strong psychological connotations before they were metaphorically extended to the physical world."

There are several other examples in the history of Western science in which metaphorical mappings have gone back and forth between the social field on the one hand and science

and philosophy on the other hand (cf. Leary 1990). Newton provided another prominent example, when he drew on the idea of social solidarity and sociability to devise the concept of gravitation. Once the concept was formed, it was borrowed back to explain social structure in terms of physical gravity. This recursion could take place under the changed 19th century conditions when natural science had acquired unquestionable prestige. Thus, what is target and what source presumably depends on the relative social and cultural importance of the corresponding domains in an era. Bidirectionality can also be observed synchronically between different sectors or institutions in society. Thus, while religious institutions may use force-enablement images from politics, such as God as a sovereign, to reinforce their claims, politicians may point to similar, religiously inspired force-enablement metaphors, such as the divine right of kings, to justify their policies. Each social institution takes the other as a point of reference, whereby they support each other. Presumably the most often noted bidirectional relationship is that between discourse on nature and discourse on the human (social) sphere, whereby both the natural is humanized and the human is naturalized (see below).

EXCURSUS: RESEARCH ON COGNITIVE CROSS-BUTTRESSING AND CO-ACTIVATION

We have now seen examples of diachronic bidirectionality and of bidirectional relationships between social actors who mutually support each other. Let us next have a look at synchronic bidirectionality between mental domains or beliefs. This is a relationship I propose to call 'cross-buttressing', i.e. the circular learning and/or subsequent strengthening of two or more concepts. In the following excursus I will first introduce the notion of learning by co-activation and then go into an interesting recent approach from cognitive anthropology on the cross-buttressing of beliefs that are used in inferential tasks, in which co-activation plays an important role.

Let me first give a brief general sketch of learning and point to some possible similarities between the clustering/linking of concepts and neural clustering/linking. The mutual strengthening between neural regions is a consequence of learning by co-activation at the conceptual level (i.e. 'experiential metonymies'): If we repeatedly encounter two prominently figuring experiences or two concepts in the same context, say dentists and pain, this is what I call co-activation. Depending on how often we go through this experience and on how impressive or traumatic it is, sooner or later a permanent conceptual link will result. (Pain-traumatized people will be afraid of going to the dentist forever, even if newer techniques make the experience less terrible than it originally was.) Many researchers assume that there is a neural correlate to co-activated mental concepts, namely two agglomerations of brain cells with synapses linking one neural unit to the other. With repeated co-activation, these synapses become permanently or at least temporarily stronger, while other synapses may

fall into disuse. Learning models of this kind are today available not only from neuroscience, but also from the AI-approach of connectionism. In AI, artificial learning agents (implemented through parallel distributed networks with dynamically evolving synaptic weights) give greater weight to task-relevant 'synapses' following their repeated co-activation. Moreover, recent publications by D'Andrade (1995) and Strauss/Quinn (1997) argue convincingly for the relevance of such models for the explanation of cultural knowledge.

The relationship between neural clusters whose linkages are gradually strengthened can also serve as a heuristic for understanding conceptual representations. Although it would seem that complex concepts cannot be explained through neuronal arrays in any simple way – it is often said that concepts form an 'emergent' (i.e. non-reductive) level on top of the neural substrate – the structure of the following argument about cultural concepts is surprisingly analogous.

Cross-strengthening between cultural concepts has most extensively been treated by the anthropologist Pascal Boyer (1994a: 258f, summary on p. 288). He claims that, if a belief plays a role in a strengthening inference for another assumption, it may be strengthened itself in the process, simply because it is more often used. Thus, the probability of the belief being selected as relevant information in subsequent contexts will increase. Let me give an example: When a student is taught that experiential domains, such as physics, society and power, love and emotions, psychology, etc. can all be understood as hydraulics, this will probably not only improve her understanding of hydraulics, it will also make the concept still more eligible for future explanations and possibly dislodge other explanations in new contexts. One of the most widespread conceptual cross-links is that between thought about society and about nature. The literature on the discursive linkages between these two domains is exceptionally rich, much of it in the history and sociology of science, and the issue continues to be a hotly debated, like in the current sociobiology debate. While the distinction between the animal/plant world and the human world is a cultural universal, it is always an uneasy one. In structuralist anthropology the theme of cultural thought bridging this conceptual rift again is a central topic of analysis. For example, the structuralist theory of totemism posits that oppositions and relations between animal kinds replicate social oppositions and relations in a way that one becomes the template for the other or that both come to share a template more abstract than any of them.

Back to some interesting suggestions made by Pascal Boyer, who unfolds a general theory of 'cross-strengthening' between assumptions and beliefs. Although linguistic metaphor need not be involved – Boyer appears to be working more on the basis of long propositional reasoning chains without giving direct clues whether metaphors play a role or not – the cognitive principles employed seem of interest to metaphor theory. Boyer develops his theory based on his pet example from his fieldwork among the Fang, already discussed

above, where he envisages a relationship of circular ‘cross-strengthening’ between beliefs about social roles – especially about the essential character of ghost specialists and bards called *beyem* – and the *episodic memories* of past encounters with *beyem* that people adduce when trying to identify novel cases. A crucial hypothesis in Boyer’s theory is that strengthening can go backwards (p. 254-58). This means that assumptions used to enrich descriptions of situations in the memory are themselves strengthened in the process. For instance, whenever the Fang recall past episodes featuring *mvét* bards and *mvét* ghost specialists (together creating the category of *beyem*) in order to account for their intuitions about the category of *mvét*-ness itself, the episodes are also made more salient. Thus, the stability of certain non-schematic assumptions, such as episodic memories, can be explained by their continued contribution to inferences about other beliefs.³²

It is interesting to discuss the differences of this approach to the study of metaphor proper. First, Boyer writes on reasoning task in discourse, such as category identification based on past experiences, while metaphor is neither necessarily about identifying salient attributes nor only about reasoning. Second, while metaphors do not primarily come from the episodic memory, Boyer claims that the inferences he discusses do. One aspect, which is almost diametrically opposed to the study of conventional metaphors, lies in Boyer’s claim that inferential linkages are contextually adduced when needed. He emphasizes that suitable pieces of information for strengthening a belief may be adduced from the episodic memory when needed in a given situation without either forming a permanent schema or being a part of a systematic ‘worldview’ – strengthening assumptions are only activated when needed to facilitate the construction of evidential accounts.³³

³² At least these are plausible conjectures and one should think that, unless the episodes are remembered as especially untrustworthy examples, higher memorability can in some cases result in increased veracity. Presumably one would not remember non-pertinent episodes, so the fact that one did remember them can retrospectively make them appear important. Still, we should take care not to conflate the memorability and the evaluative dimensions of a representation, such as its veracity.

³³ Although Boyer fails to produce any conclusive evidence as far as I can see, this hypothesis is useful for countering exaggerated claims of systematicity in inference tasks. (At the same time, this does not exclude that schemas may be systematically encoded for a range of other cognitive tasks.) For methodological reasons I would also caution against the idea of wholly fluid, individual, and ad hoc reconstructions of evidential accounts that need no conventional schemas, especially as long as the role of schemas in the reasoning passages has not been tested for through detailed linguistic analysis. Together with other knowledge structures, it would be interesting to see what role metaphors play in reasoning, whether permanent cultural schemas are drawn on, and which other domains are actually invoked in the discourse portions – unfortunately we do not know from Boyer’s very abstract discussion of his data.

The general upshot here is that, if we go beyond a restricted focus on episodic memories and classification, it follows that knowledge structures in general may mutually support each other and that co-activation may be the reason for this. The other aspect in Boyer's approach that, by extension from beliefs to domain relations, is really interesting for metaphor theory is the suggestion of backward strengthening. It supports a slightly modified version of the 'interaction theory' of metaphor, which used to claim that metaphors always affect the understanding of the source domain too. In line with this Boyer's approach implies that if a source domain is used to shed light on one or more salient target domains (i.e. if it is co-activated with salient knowledge), this increases the likelihood of future activation for other tasks of the source. Note however that, diverging from the classical 'interaction theory', this does not necessarily imply that source and target are understood as being 'closer' to each other. It simply means that a domain increases its likelihood to be chosen as a source domain in the future in the overall mental landscape.

MACRO-METAPHORIC RELATIONS: THOUGHT-STYLES AS CLUSTERS OF MUTUALLY SUPPORTIVE MODELS AND METAPHORS

Without there necessarily being any one-way relationship between a source domain and a target domain, cultural knowledge is often structured in clusters of mutually supportive domains. Deborah Gordon (1988) analyzes a prime example of cross-buttressing in an article on the ideological roots of Western biomedicine. Irrespective of its superficial rhetoric of biological reductionism and a self-image as neutral and universal, in reality biomedicine

"draws upon and projects *cosmology* (ways of ordering the world), *ontology* (assumptions about reality and being), *epistemology* (assumptions about knowledge and truth), understandings of *personhood*, *society*, *morality*, and *religion* (what is sacred and profane)." (p. 19)

More specifically, Gordon maintains that there is a relationship of mutual support between naturalism, individualism, and biomedicine:

"Naturalism is founded in a number of important distinctions that assert the autonomy of "nature" from the "supernatural", from human consciousness, from "culture", "society", "morality", "psychology" and particular time and space. Naturalism also asserts a separation between cosmology/ontology on the one hand and epistemology on the other (...)" (p. 23)

An analogous relationship of mutual support holds between institutionalized fields in society, such as science, philosophy, politics, and everyday life. Gordon follows Charles Taylor's (1985: 4) claim that the beliefs of natural science are intimately intertwined with underlying images of the self and the attached images of freedom, power, and dignity. They are

governed by a picture of the human agent who is capable of disengaging herself from the world and shaping it:

“We objectify our situation to the extent that we can overcome a sense of it as what determines for us our paradigm purposes and ends, and we can come to see it and function in it as a neutral environment, within which we can effect the purposes which we determine out of ourselves” (cited in Gordon p. 21)

Nature is disengaged from its previous metaphysical and spiritual connections. It is thought of as given ‘out there’ and as a mechanism to be understood, not as anything meaning something to humans, in the sense of purposes and goals. It distinguishes primary qualities of a thing in itself and the secondary meaning for someone. As a consequence, the physical is the real for biomedicine, which distinguishes ‘objective signs’ from the patient’s subjective complaints called ‘symptoms’. Furthermore, there is a commitment to atomism and its bias towards the discreteness of parts. Related to this is the belief that being is rooted in essences, not in relationships, or in process. For example, diseases are considered as separate entities from their hosts. As a consequence, they are not treated in society, but in the individual, and even more likely in an isolated body part instead of the body as a whole. The commitment to atomism and materialism is also reflected in the stance towards culture. The basic material parts of the body, which are understood as the vessels of disease, are objectively similar and therefore taken to be universal. Culture is external to the body and to disease. Disease is essentially an individual problem, systematically abstracted from social context. The distinction between ‘mind’ and ‘body’ is mirrored in the distinction of ‘natural man’ and ‘cultural man’. Nature’s truth is universal, eternal, and absolute: It stands beyond any specific place or time. Likewise, events are connected through the laws of nature, rather than through the lives of individuals. The deeper truth lies in general laws and essential abstractions. Diseases are perceived as statistical phenomena abstracted from individual patients. Related to this, individual diseases are metaphorized as generic diseases: The source of an individual occurrence of ‘cancer’ is the universal disease of ‘cancer’. The body itself is metaphorically defined as a stable physical – and, as such, passive – object with a stable identity, separate from the self, separated by the skin from other human beings and the social environment. As further consequence, the laws of nature in the body are independent of morality, just as rationality and truth are separate from morality: sickness has no special attraction to virtue or vice.

These views emerge from a general naturalist epistemology. Perception and understanding are separate in this view. Perception is an objective given, and understanding is looking into things by means of analysis. The agent of knowledge is the individual. The individual is as prior to society in the same way that the atom is to nature. This belief in the

sovereign individual actor is paralleled in an understanding of society not as end in itself, but as a means for individual happiness and, in the worst case, as an impediment to individual freedom.

Significantly, the visual metaphor for knowing is predominant and tends to yield a static picture of structure rather than process. In like manner it produces the feel of distance rather than involvement. It is then detachment that provides the privileged window to truth, and is best suited for the analysis of discrete parts in succession. The knower must separate ('detach') herself from the object of knowledge, in order to perceive it from the exterior without a bias. From this vantage point, the object can then be copied on the knower's mental sketchpad as an accurate replica or mirror image.

All these models are already metaphoric in themselves, and they are metaphorically related through partial overlaps of their reasoning structure. Gordon gives a succinct characterization of the commonalties between biomedical naturalism and individualist epistemology:

"Both take the atom as the model and have little use for society and culture. Both the naturalists (who regard humans as material beings) on the one hand, and the individualists (who treat the 'essentially human being' as pure will and reason) on the other leave the space between subjects, objects, and atoms uncharted and impotent." (p. 42)

This symmetry arises from an extensive web of cross-mappings between nature and the human world, although it is hard to say which one is modeled after the other. Historically, it was perhaps the healing model that expanded into "a moral and engineering one" (p. 20), inasmuch as the symbolic reality projected by it is becoming more dominant as a folk-model. Now that the biomedical model has colonized other life-worlds, these may be invoked as an autonomous support of biomedicine. For example, a medical student experiencing doubts about her profession, perhaps in a gut reaction to the dispassionate 'medical gaze' on the dead bodies she has to dissect (Lella/Pawluch 1993), may take recourse to an objectifying gaze which she already is familiar with from bureaucracy, engineering, or even philosophy in order to ward off these doubts.

For a description of this complex thoughtscape it is best to take recourse to the notion of metaphoric cross-buttressing. Apart from the fact that each of the beliefs can be subject to a metaphoric analysis, the mutually supportive relations between the models may also be termed metaphoric, better yet maybe: *macro-metaphoric*. The crucial point for cross-buttressing relations is that they stabilize a belief system. A structure of mutual reinforcement makes knowledge and associated practices a lot more difficult to overcome and accounts for their historical tenacity in the face of considerable counterevidence. By the same token, the structure of mutual reinforcement promotes the naturalization of the Western world-view.

This is to say that if all its relevant part domains fit into a larger picture, or mutually account for each other, what is a contingent social choice acquires a sense of natural inevitability. In Gordon's words, "a sense of 'natural inevitability' or 'givenness' is constructed out of social choice" (p. 20).

Beliefs can strengthen one another, as long as they are compatible. However, they need not constrain each other strictly in a way that permits no alternatives. Their significance may predominantly lie in the fact that alternative models can be dislodged in discourse, by referring to a supportive extant domain that forms part of the same metaphoric complex. Such a perspective shows that the mind is irreducibly metaphoric, for it fundamentally works through establishing links between domains. Many links are established on a temporary basis, as in seeking relevant information for reasoning tasks. Other links, however, are permanently entrenched. A suggestive hypothesis is that networks of cultural theories like the one described by Gordon has a partial neural counterpart in networks in the brains of acculturated adults. What we may minimally hypothesize is a match with neurally patterned responsive and adaptive reactions that have the purpose of answering to externally encoded culture, i.e. the *instituted models* shaped by legal, political, pedagogical, and scientific institutions, public symbology, culturally transmitted techniques of the body, etc.

NODAL KEY-DOMAINS

It can be an important function of key-symbols to unite disparate strands. Here I want to focus on the conceptual use of a single metaphorical source-domain as a 'node', which is employed to interweave discursive strands and create a focal point for cosmology. The best material for such a demonstration that I know of is found in Suzanne P. Blier's work on house architecture and ontology among the Batammaliba of Togo and Benin (1987). Blier argues that a very prominent source domain for metaphors in various target domains can serve the task of epistemological unification for themes that would otherwise lack a single basis of coherence and grounding. Her material provides evidence that clarity and order are created out of multiple and disordered contexts by uniting several metaphors in the source domain of the house. Her analysis demonstrates how cosmological key features, ideas about the hereafter, the realm of the sacred, psyche, family, political expression, and theatrical performance are conveyed through different aspects of the house as an architectural metaphor:

"Although the house is not thought *to be* a cosmos (even a miniature one), a paradise, a deity, a human, a family, a tomb, a political body, or a theater (in an exclusively dramaturgical sense), it is like all of these things. Through the metaphor of the house, the relationship between the diverse parts and actions comprising each of these worlds is made clear. The house provides a context for seeing things and actions in terms of other things and actions." (p. 205)

The house provides a material focus for thought domains that would otherwise not co-occur in a single place. It may bring about a cognitive integration of contexts, especially since the house embodies all of these symbolic features as a single perceptual Gestalt. All of the important cosmological features can be imagined as a single, symbolically heavily saturated image. Such a perceptual Gestalt, then, would promote the creation of a conceptual Gestalt and thus bundle all sorts of unrelated associations into one cognitive structure. The house is, as it were, a mnemonic device to remind of the deeper unity of domains that are experientially distinct.

In his ethnography of a Kabyle village, Bourdieu (1977) proffers a similar analysis of a seemingly quintessential setting in which a set of metaphors stretching across domains convene in a single focal point as a foundational schema. This metonymic locus is again the house. Its interior space is symbolically endowed with multiple metaphoric significations and becomes a condensed model of significant ritual acts and cosmological codes. Perhaps Bourdieu would not object to calling the locus a prototype model in which the fundamental cultural schemas, which inform a great many other cultural domains, are packed into a single context and occur in their most condensed and most significantly holistic context:

“All actions performed in a space constructed in this way are immediately qualified symbolically and function as so many structural exercises through which is built up practical mastery of the fundamental schemes, which organize magical practices and representations: going in and coming out, filling and emptying, opening and shutting, going leftwards and going rightwards, going westwards and going eastwards, etc. Through the magic of a world of objects which is the product of the application of the same schemes to the most diverse domains, a world in which each thing speaks metaphorically of all the others, each practice comes to be invested with an objective meaning, a meaning with which practices – and particularly rites – have to reckon at all times, whether to evoke or to revoke it. (...)” (Bourdieu 1977: 91)

Furthermore, the house is an integrative locus in which the human body, interior space, and cosmological space are mapped onto each other both by virtue of their spatial coincidence, as well as by their loadedness with cosmological codes through *hexis* (orientational) schemas.

“All the symbolic manipulations of body experience, starting with the displacements within a mythically structured space, e.g. the movements of coming in and going out, tend to impose the *integration* of the body space within the cosmic space by grasping in terms of the same concepts (...) the relationship between man and natural word and the complementarity and opposed states and actions of the two sexes (...)”(p. 91)

As integrative perceptual foci, these settings with multiple metaphors are not only a question of some domains being salient and therefore occurring repeatedly. They are also a question of cognitive functionality, with a view on knitting cultural experience into a fabric. Perhaps, we can metaphorically think of such domains of crystallization as 'cultural attractors of meaning', following a terminological suggestion by Sperber (1996). We may assume that these work partly by virtue of the source's existential importance (as in the case of the body, the house, or the landscape), and partly by virtue of historical precedence as a focus of attention, which, over time, draws more and more cultural themes under its spell. In such a more functional perspective, not the thematic location of the conceptual node, but the fact of unification as such is of primary relevance. For similar examples featuring polysemous words uniting disparate domains see James Howe (1977) on Cuna political metaphors.

FLOATING SIGNIFIERS: CONTEXT-SHIFTING METAPHORS UNIFY A DISCOURSE

As structuralists have long pointed out, a basic metaphor can be defined as one that recurs across various cultural contexts and plays a role in structuring these contexts. An effect that very often directly follows from such basic metaphors is the integration of the many contexts in which it appears. Such basic metaphors can also take on the form of what Lévi-Strauss (1966) called 'floating signifiers'. These are defined by the fact that a rough-hewn basic idea does not have one single fixed meaning or context. Likewise, Fernandez (1986: 78ff) speaks of shifts of reference in artful discourse. That a unifying effect can be created, even if the metaphor's meaning remains vague, is illustrated by Brenda Beck (1987: 21). She draws from her fieldwork in South India to show such an effect for poetry of the religious kind. Her example is about a mystic who once wrote elaborate poems about baked and unbaked pots. Although it was clear to the reader that this was intended as a metaphor, the exact referents remained rather opaque. In some contexts the metaphor seemed to refer to the opposition of male and female, in others to soul and body, in yet others to initiate and novice, while at times emotional themes like 'cruel' and 'kind' were evoked. This metaphor is not bound to one context, but shifts between contexts in the course of a narrative, although the contexts retain a common reference to a unifying theme provided by the (initially rather obscure) metaphor. In each new appearance of the metaphor the context gives it a different specific meaning, a new slant. At the same time, the meanings in the other contexts are recalled as the story progresses, and perhaps possible further meanings in yet other contexts anticipated.

We transcend basic categorization by projecting a large number of normally unrelated domains into a single image. Thus the distinct provinces of everyday thought are reintegrated. At the same time a core theme is constituted, albeit of an abstract or opaque kind, around which a network of meanings unfolds. The fact of being at the core is important

in itself, even without the concrete referents that are successively linked. A focus of attention, or a key notion, is thus established. (In chapter 9 I will propose an explanation for key concepts based on the imagery of a spatial node.)

Ambiguity or vagueness with respect to conventional categories can turn into a strength essentially, rather than a weakness. Through ambiguity a more tightly knit web of categorization may be suggested than conventional understandings normally warrant. Blumenberg (1996: 448) even deems the recourse to indefiniteness a general characteristic of sacral texts and adds that their rationale of survival is to ward off banal literality. This can be so, because the texts are credited with a power that is never risked in practice by putting them to the test. In other words, the major advantage of sacral metaphoricity lies in the fact that a sacral term will not be tested for coherence in novel contexts as easily as other terms, thus becoming a much more flexible floater than a conventional term pinned down by concretion.

This argument is a plausible expansion on Sperber's 'epidemiology of representations', which speculates on cognitive criteria which make ideas historically durable. Sperber (1996: 116) explicitly ascribes to religious representations the power of remaining stable and relevant, because they lend themselves to different interpretations according to the agent, the context, and the stage in the life-cycle. In this perspective, floating signifiers have, on average, a higher life-expectancy than domain specific mechanisms or symbols. The basis of cognitive longevity can, then, either be a total lack of concrete reference or a high level of schematicity uniting many referents. The more abstract a schema is, the greater are its chances to outlast the worldview in whose context it arose in the first place. Owing to the fact that various images from altogether different historical contexts share the same generic abstraction, abstract knowledge is more resilient to change and flexibly adaptable than narrative and conventional symbolisms, which, once torn from their proper context, may quickly fall into disuse and oblivion.

5. Metaphoric scaffolding from the inchoate to the representational

As outlined in the first chapter, metaphor is a process between sensory experience and 'thoughts of the body' on the one hand and cognition and language on the other. An aspect of cognition that may also be called metaphoric is the way scaffolds from the sensory to the abstract are raised. Metaphor, now defined as a top-down or bottom-up process, rather than a horizontal mapping at the conceptual level only, provides a model of explaining how the 'raw' experience of inchoate reality becomes a cultural image. Foreshadowing chapter 4, which deals with the tie between experience, body knowledge, and conceptual thought, a rough sketch of some of the embodiment literature is useful at this point.

Laurence Kirmayer (1993: 171ff) proposes a three-tier model in which metaphor is assigned the central role of mediation between body and culture. According to Kirmayer, metaphors are the mediating structures between primary body knowledge and social structuring principles. Primary metaphors of the bodily realm ('archetypes') are given situated extensions into the conceptual ('metaphor' proper). Through metaphors in turn, experience is ordered by narratization into social legitimizing and structuring narratives ('myth'). To Kirmayer, "[t]he perspectives of myth, metaphor and archetype capture respectively, social, psychological and bodily contributions to truth and meaning" (p. 175). He further elaborates on the mediating function that he assigns to metaphor:

"Metaphors are stacked to create a scaffolding of meaning that runs in two directions to ground our thought and action in early synesthetic and sensorimotor experience on the one hand (...) and in social forms of life on the other (...)" (p.185)

This scaffolding of levels makes it possible that cultural symbolic techniques act back on the body. An example is symbolic healing, which lies at the focal point of Kirmayer's perspective. The same bodily effectiveness of symbolic techniques is true for voodoo death, though with an inverse orientation (Beck 1987: 14f).

A leading protagonist of the anthropological study of metaphor, James Fernandez, directs his gaze towards the stereoscopic function of metaphor, which has been called, in a famous phrase, 'is and is not' by Douglas Berggren (1961/62). Metaphor is ideal where a double identity is implied. Metaphor dwells on the edge of objectification, having one foot still in primordial and bodily experience, and one foot in an objective 'distance' between the human subject and his world. The primordial is also often identified with the natural. The following observation on totemism by Fernandez relates to the stereoscopic view of man as natural-cum-social beings:

"The power of totemism is that it at once preserves the sense of primordial identification processes and achieves a sense of separation both from nature and other social subjects. As it is so often put in totemic myths, 'We once married animals (or were born from them),' or 'We once were animals, but now we know better.'" (Fernandez: 1986: 36)

The general interest of Fernandez are metaphors of primary identity, especially the conceptual movements effected between a deficient existential state and a desired state (hence his recurring parlance of "predications on inchoate pronouns", i.e. on *I, you, he/she, we, they*). Therapy, perhaps also a cultural ritual, works much the same way by predicating identities on the subject or a group of subjects (cf. Kirmayer 1993).

It has been repeatedly observed that the realities and experiences cherished most, those of religion, also most profoundly elude our attempts to put them into words. A quite thorough statement on this fundament of the human condition is presented by Roy Rappaport (1979: 128) in an argument for the indexical (deictic) nature of ultimate realities. Their constitutive nature is that they can only been demonstrated or participated in. Rappaport builds upon a Peircean tripartite distinction between symbolic, iconic, and indexical signs to separate three types of corresponding meaningfulness. Within this tripartite schema Rappaport emphasizes as characteristic of everyday cognition that things are categorized, distinct, and objectified, i.e. the subject does not participate in them to an important degree. The world is split into the observer and a set of distinct objects, for which different conventional symbols stand. These share nothing with their referent, but are arbitrary. By contrast, higher-order meaning is derived from the perception of deeper underlying likenesses among the apparent distinctions. The governing notion here is similarity, the sign mode is the iconic, meaning that structural features are shared. (One wonders if Rappaport had an implicit concept of image-schema in mind, which is precisely the mechanism accounting for the imagistic kind of structural similarity that may obtain between different particulars.) This is what in our terminology may be called metaphorical activity between domains. Such activity may mold a fairly coherent and integrated cosmology. Finally, in highest-order meanings subject and object collapse into one another. They are the outcome of an identification of meaning with those who experience them. The corresponding sign mode is indexical – the signs are either effects or parts of what they signify and are no longer *representational*, but have been called ‘presentational’ (see ch.4). In ritual participation such highest-order meaning may be experienced. I take this to be what in our terminology is the primeval source of metaphor in embodied, preconceptual consciousness. Any conceptual or linguistic metaphor drawing from that substrate of original consciousness is more secondary and alienated. Any objectifying rendering is bound to fail, since a mode that separates object and subject from the experiential continuum intrinsically (mis-)represents. In other words, there is consciousness before all original distinctions. It is this fundamental existential ground³⁴ that metaphor of the kind discussed here reverts to.

In consequence, metaphor can make the purely experiential conceptually tractable. In grappling with the ineffable in the *inchoate experience of religious or ritual states of mind-*

³⁴ I do not believe that it is particularly fruitful to say that this eludes us because it is ‘the numinous’, ‘the wholly Other’, as a tradition in Western phenomenology of religion going back to Rudolf Otto would have it. We may call such consciousness radically immanent without any qualms, and I would suspect that epithets of transcendental ‘otherness’ arise from a subject-bound uneasiness deeply imbued in Western thought, which paradoxically does not dare discard the contrastive principle of dualism as a means to delineate the subject as a basic ontological unit.

body, metaphor can make them accessible to discourse. Metaphor provides a mediating structure between the primary level of consciousness and conceptual cognition. What has been called 'presentational' reality in the tradition of Merleau-Ponty is tropically injected into discourse. Metaphor preserves much of the emotional quality, immediacy, and sensory associations of embodied primary knowledge. Indeed it participates in it, being an interstitial device of two worlds. To borrow from Turner's (1967) celebrated model, the kind of metaphor we discuss now is 'liminal'. In Fernandez' (1986, 1974) terms, metaphor effects the insertion of the sensory into *conceptual quality space*.

There have been some attempts to speculate about the universal parameters of human quality space. Echoing Osgood's (1964) research on the universal in affective meaning, Richard Shweder (1984: 36) states:

"For any language, contrastive adjectives (wet vs. dry, kind vs. cruel, up vs. down, smooth vs. rough, fast vs. slow, strong vs. weak, etc.) display considerable redundancy and can be reduced to three underlying dimensions of 'feeling tone' or 'connotative meaning' (pleasantness, strain, excitement or evaluation, potency, activity level). These three universally mediate judgements across sensory modalities (synesthesia) and concrete domains (metaphor)."

Basic axiological parameters of experiential quality (cf. Krzeszowski 1993) are, for instance, suggested by comparative linguistic research, notably by Dixon's (1982) well-known study *Where have all the adjectives gone?* (cited in Lakoff 1987: 29). Yoruba or Igbo has only 8 and 12 adjectives respectively, but these are non-arbitrary and refer to the most basic qualities that are, seemingly, linguistic, and thus perhaps experiential, universals. Nevertheless, the question remains whether quality space is not perhaps still cultural, even if it is pre-conceptual.

METAPHORIC META-STATEMENTS ON THE NATURE OF SOCIAL COGNITION

From time to time the connective function to the inchoate can also be witnessed in metaphor's comment on the objectified nature of human thought and the structure of social discourse itself. Metaphors can be used in this way to invert a dominant mode of thought temporarily, both by pointing beyond it much in the way negative theology does (which is metaphoric *par excellence*), and by setting sensory images of unmediated experience in its place.

Following the well-know position expounded many times by Victor Turner, a fundamental human insight may be that social structure is not all there is to life. Precisely because some cultures are so preoccupied with the emphasis of structure, the anti-structural statement seeks itself a pathway in ritual 'communitas'. Anti-structure may be at a loss for words. What cannot be said can be enacted. Metaphor clears the gap in Wittgenstein's pronouncement

that “the boundaries of my language are the boundaries of my world”. Constraints of structure (structure of society, structure of language) make experiences that transcend that structure or form its alter ego only metaphorically expressible. In the female initiation among the Bemba of Zambia, described by Audrey Richards in *Chisungu* (1956), laboriously made figurines of clay are suddenly pulled apart. The figurines initially were made as explicit emblems of wifely and motherly obligations, of domestic and kinship duties. With ritual names and songs attached to them they primarily instruct the girl about her role as a woman. Turner (1974: 295f) takes up this example with the intention of commenting on social structure and some metaphorical predications on it. In his perspective one might say the figurines, songs, and names instruct the young woman about her ‘structural fate’. Then, with the breaking of the figurines, the ritual turns against structure in a sudden inversion. The figurines’ destruction metaphorically signifies the destruction of social structure. (Incidentally, this probably is a case where the social is understood as a body, as figurines in the shape of humans would suggest.) Turner observes:

“[B]ehind it lies perhaps the (...) human impulse to assert the contrary value to structure that distances and distinguishes man from man and man from absolute reality, describing the continuous in discontinuous terms. The important thing for those who use metaphorical means is to build up as elaborately as they may a structure of ideas, embodied in symbols, and a structure of social positions, symbolically expressed, which will keep chaos at bay and create a mapped area of security. Elaboration may, as in Chinese cosmological schemes, become obsessional in character. Then a metaphorical statement is made of what lies at once between the categories of structure (“inner space”) and outside the total system (“outer space”). Here words prove useless, exegesis fails, and there is nothing left to do but to express a positive experience by a negative metaphorical act – to destroy the elaborate structure one has made and admit transcendence, that is, over all that one’s culture has been able to say about the experience of those that bear or have borne it to its present point in time. Actually, what is conceptually transcendent may well be experimentally immanent – *communitas* itself. (...) Here the metaphor of destruction is a nonverbal way of expressing a positive, continuous aspect of social reality which tends to escape the discontinuous character of most modes of communication, including linguistic codes.” (Turner 1974: 297-98)

Let me expand on Turner’s analysis with some interpretive license: In Richards’ example, the actual metaphor of interest to me emerges in the form of a meta-language statement on cultural discourse. Seemingly, the destruction of the figurines is not a part of discourse as the rest of the long ritual was, it is more like a commentary on the discourse as a whole and its fleetingness, precisely like *negative theology* that must throw its lot with an encircling strategy and can only stage forays from the epistemic outskirts without ever pinpointing the ever-elusive locus of truth itself. In the example, metaphor starts working in the domain of structure by using its laboriously made symbols for social meaning and ends up by breaking

the coherence and exclusiveness of the domain. The domain structure as furthest boundary is called into question and a, perhaps still evasive, outside other is constituted. Thereby, the scope of possible consciousness is broadened, because the implicit suggestion is that if structure is of limited value only, something else must be there. When I say that the framework of the structural is called into question, I mean the following: The whole act of investing figurines with symbolic meaning becomes the subject of the metaphor, not only the symbolic content of the emblems. It is not only that the referent of the tokens is destroyed with these, the symbolic meaning annulled and an elaborate ritual statement simply taken back, as it were. The destruction of the figurines is, more centrally, a meta-level commentary on what has been going on before all along. It is a commentary on the very *performative act of symbolic cultural activity* as such, the acts by which the figurines were invested with symbolic power to stand for duties. In short, the ritual *as a performative whole* metaphorically stands for human symbolic activity per se. The very human capacity of using symbols is the topic, and through metaphorically breaking it participants are reconstituted as pre-symbolic beings!

To restate it: When the symbolic tokens are broken, this signifies that ultimate reality stands outside symbolized, objectified experience. It signifies that the act of symbolic process, which perhaps comes to stand for culture as a whole, is of limited power and must ultimately be reversed. While using an objectified symbol, the mode of the objectified is called into question and the ultimate relativity of cultural constructs of the mind vindicated. Turner's answer to the question of why nothing is said explicitly about anti-structure in the ritual is this: Experiences that relativize structure are of a kind called 'communitas', which is beyond literal description by language. In other words, the statement is about an experiential fact, not about one easily evoked in the mind without metaphor.

6. Cultural stability and cultural change

Ideologically speaking, metaphor as such is uncommitted, fulfilling neither an intrinsically conservative nor an intrinsically progressive or revolutionary mission. Metaphor can be responsible for social upheaval and for the stability of the traditional order alike. The competition between ideologies is often a competition between their key metaphors. Metaphors can either preserve social stability by inciting conservative social action, or where social changes prevail they can at least create a sense of cognitive continuity in the face of incipient collapse. In this section I will survey a few examples showing these various social functions. A first aspect that deserves to be discussed is the general dialectic of political and cultural discourse through metaphor. This means that many cultural metaphors are not part of the cultural stock automatically shared by all members of the culture; instead they are *instruments in the continuous negotiation of culture*. Here is an example:

THE PROMOTION OF METAPHORIC MODELS AND THE DIALECTIC OF CULTURE: 'THREE STRIKES' IN U.S. LAW

Linguistic metaphors sit in a double position within the dialectic of cultural change. They reflect the extant beliefs of some people, while serving as models for other people. A good example is the social role of spectator's sports and their socializing function: Sports and games can be both mirror images and models of social life. Take as an example recent efforts to legislate stricter penal laws in the United States. A much-discussed law that has been passed is referred to the 'three strikes and you're out'-regulation. It decrees that any three delinquencies, even minor thefts or the like, must result in a life sentence. "Three strikes and you're out" is a metaphor coming from baseball language, where a batter gets three strikes for hitting the ball, which is the precondition for entering into the running game. In case of failure he is sent to the bench. This tag was possibly not only attached to the law after the fact by journalists as a catchy headline, it may have been influential in shaping the ideas of the legislators, building on the basic understanding that social norms are game rules.

First, it has to be understood that the number 'three' is a culturally significant number. Many fairy tales and jokes give the protagonists three tries or guesses. If you lie three times, nobody will believe you anymore, as all American's know from the tale of the wolf and the three little pigs. Furthermore, baseball as such is considered the national sport, the epitome of what it means to be American (Shore 1996). It metaphorically encodes a series of American cultural core-values, e.g. that endeavor is a course (around three bases) and that winning requires team spirit. Admittedly, the image of 'strikes' introduces as a culturally ambivalent evaluation. In the new law the word bears negative associations with actual criminal violence, whereas in the game a strike is what is required to go on and be successful. However, the collocation 'three strikes' is associated with three failed strikes rather than a successful attempt. So the metaphor has to be understood at a more abstract level. You get three tries before being taken out of the game for failing.

All in all, an existing metaphor SOCIAL RULES ARE GAME RULES together with a mythical belief in THREE TRIES IS ALL YOU GET is reinforced by the 'three strikes' legislation and the way talked about it. It is important to understand that the specific dialectic that draws on past cognitive resources in American culture is enacted by the conservative political actors, at the same time excluding other possible metaphors. For example, the liberal view on penal law, which argues that social deprivation, ignorance, and poverty should motivate affirmative action (perhaps through a hydraulic image of balance maintenance), is thereby circumvented and is rendered 'un-American', since it does not conform to the win-lose game model, which is made even more salient in the ears of the audience by the baseball terminology. Thus, a specific politico-moral attitude (with dire consequences for many individuals and the society

as a whole, one may say) is promoted in the population on the basis of harnessing a moral metaphor to a shared American topos ('baseball as epitome of society') and entrenched through the institutionalization of a folk-metaphor as a socio-legal reality.

METAPHOR, IDEOLOGY, AND JUSTIFICATION

Of late, there have been various works on the political and ideological key role of metaphor (see Howe 1977, Chilton 1984, 1987, Lakoff 1992, 1995, Rigotti 1994, Dirven 1994, Dirven/Frank/Ilie 2001). The example of American conservatism and liberalism, studied by Lakoff (1996), was already discussed at length in this chapter. Another analysis by Lakoff (1992) centers on the metaphors used by American politicians to justify the Gulf War in 1991. These include the characterization of the occupation of Kuwait as "rape" and the fairy tale scenario of the just war featuring a villain, a victim, and a hero, in which Hussein is the demonic villain (and seen in a historically unfitting analogy to Hitler), Kuwait the innocent victim, and America plays the role of the hero. Apart from this 'rescue' scenario evoked through metaphor there is also a scenario of 'self-defense' against Saddam Hussein having a "stranglehold" on U.S.-economy. Of course, another recurring thought pattern was the Clausewitzian metaphor WAR IS POLITICS PURSUED BY OTHER MEANS and the economic metaphor RATIONALITY IS PROFIT MAXIMIZATION, including a cost-benefit analysis. There was the personification by THE RULER STANDS FOR THE STATE ("pushing Saddam out"). The metaphor THE STATE IS A PERSON highlights the way in which states act as units, while hiding the internal structures of a state and the diverging interests within it. There were metaphors of war as a competitive game (officers saying to their crew "This is our Super Bowl"), war as medicine ("surgical strikes"). On the other hand, an understanding of the American war effort as violent crime, murder, assault, kidnapping, arson, rape, and theft remained conspicuously absent. Instead, America was pictured as both courageous and rational, while only the Iraqis were irrational, criminal, and insane.

Some metaphors buttress the status quo – they keep intact what Peter L. Berger (1969) calls the 'sacred canopy' in static, traditional societies. Conservatism, for example, uses metaphors of social balance or of a stratified system in which every individual has her place and forms part of a larger whole. The transition between historical political ideologies is reflected in their metaphors, as Rigotti (1994: 62ff) shows: Classical political thought in Europe emphasized metaphors of internal coherence, unity, and concord underlying expression like the "state ship" or the "state edifice". More typical for modern political thought are military metaphors of war, in the conflict for resources or in the democratic competition between individuals. A conceptual image of this kind is found in Marxism, which centers on the class conflict and the multiple metaphor of dynamically evolving antagonisms. Furthermore, nationalistic ideologies heavily draw on metaphors in their discourses of identity

and otherness. Esra Sandikcioglu (2001: 176f) describes metaphors found in the Western perspective of the Orient and the Arab world. This 'we-other' relation is centered around five thematic polarities: We are civilized and moral, while they are barbaric and immoral; we are powerful, while they are weak; we are mature and in a position to educate or teach, while they are immature and in need of discipline and education; we are rational, straight-thinking, in control over emotions, while they are irrational, emotional, unpredictable, uncontrollable; we are stable and promoting stability, while they are unstable, unreal, transient, and fantastic (also cf. René Dirven's 1994 book *Metaphor and Nation: Metaphors Afrikaners Live By*). Polar metaphoric images are also characteristic of racism. Bruce Hawkins (2001b) shows that ideological Nazi writings metaphorically used an iconographic frame of reference based on the light spectrum, in which the notions of 'death' and 'parasite' were placed at the black end of the spectrum that was equated with the Jews, while 'life' and 'Aryans' were equated with the pole of light at the other end.

METAPHOR AND THE CREATIVITY OF LANGUAGE

The ideological function of metaphoric thought as such was exceedingly well grasped and depicted by George Orwell. In the nightmarish vision of his novel *1984*, 'Big-Brother' totalitarianism does not by any odd chance strive to eliminate all metaphorical potential in language through the purge of English and its continuous replacement by 'Newspeak'. It aims at clearly bounded designata, which are systematically ordered in families of impoverishing word-prototypes, yielding synthetic expressions such as "doubleplusungood". While the internal metaphorical relation between such related words is strengthened, at the same time that genuinely binary relations are subsumed as one marked category and thus gradually abolished, previously existing external relations of the words to other domains, such as associative evocations, are rendered impossible. True enough, new metaphorical clusters are put into place, in inseparable blends of affective and cognitive meaning, instilling praise, awe, fear, and faith. Yet, these blends remain static. Self-sustaining clusters of meaning in which every atom is continuous with every other replace an open relation of words to experiences. Metaphor by virtue of linguistic indeterminacy and imaginative innovation through new conceptual links is excluded by definition. This reform is enforced as a public policy in order to make "thoughtcrime" impossible, even inconceivable. It is telling that this totalitarian policy aims at the utter conventionalization of truth, while envisaging the destruction of tradition as that which allows thought innovation. It aims at transforming the inherently imaginative nature of language. Although it has been pointed out by Paul Chilton (1984), rightly I believe, that taking Orwell's ironical novel as politico-linguistic theory would mean embracing a too radical version of the Sapir-Whorf hypothesis, the Orwellian vision

gives us a glimpse of what the world and ultimately the human mind would be without metaphoric indeterminacy and creativity.

COPING WITH CHANGE THROUGH METAPHORS

Metaphor is a major coping strategy when rapid social change wreaks havoc in the minds of traditionally oriented people. It mitigates the cognitive effects of social transformations in two ways: the retention of old metaphors for new realities and the creation of new metaphors to come to grips with or raise a bulwark against change. Concerning the former a commonplace, but particularly neat example can be found in Cohen's (1994: 141) field research:

"In Walsay, Shetland, tropic movement across domains was an effective means of coping with rapid and pervasive social, economic and technological change (...). Terminology originating in small open-boat fishing would be applied to the £2m spanking new purser trawler, crammed with the latest technological and mechanical wizardry; or a patient would describe the high-tech surgery he had just endured in terms of a sheep's ailment with which he would be familiar, as a competent crofter."

Newly created domains of everyday experience, such as high-tech, may be unfamiliar or even uncanny to people firmly embedded in traditional culture. Consequently, understandings from the formerly dominant, but now superseded domains are imported not only to comprehend what has happened in functional terms but also to retain a glimpse of the cherished aura of a bygone world. Thus metaphors can serve to cast the new in terms of the old: the high-tech trawler remains, in a metaphorical double vision, a simple fishing boat. Palmer (1996: 224) gives a similar example from the Athabascan language of the Coeur d'Alene native Americans in Idaho. When motorized vehicles first appeared, their tires became 'wrinkled feet', a reference to the pattern of their treads. Palmer cites an analogous example from the Western Apache of Arizona, originally studied by Keith Basso (1990), in which the entire topology of the human body is mapped onto cars and pickup trucks: The hood is the nose, the headlights the eyes, the windshield the forehead, the front and rear wheels the arms and legs. This was even extended on the items under the hood – the innards: The battery became the liver, the wiring the veins, the gas tank the stomach, the distributor the heart, the radiator the lung, and the radiator hoses the intestines. In effect, a whole cognitive domain came to be systematically understood in terms of another, guided perhaps by the underlying conceptual metaphor *MOTOR VEHICLES ARE ANIMATE BEINGS*. Obviously this systematic mapping serves the function to lexicalize a newly emergent cultural domain of previously unknown objects. Yet we may presume that it accomplishes a second objective as well: It creates a sense of cultural continuity by appropriating an external technical innovation into the own language, rather than succumbing to cultural change at the

cognitive level by taking over the English terms. The English terms are not related in an image of an animate whole, so that the Western Apache would progressively disown themselves of a poetic, integrative, as well as practical cultural schema conceiving the world through body part analogies.

In some more extreme cases, especially where change is perceived as injuriously foisted upon the community by external forces, we can find highly politicized key-metaphors as a reaction to social change. These furnish the disoriented with an explicit evaluation of the process of change as a whole and point towards a defensive course of action. Gustav Thaiss (1978) provides the interesting example of a powerful key image in the political rhetoric of the Islamic renaissance. The setting of his analysis is Iran shortly before and during the revolution, which led to the creation of the 'Islamic republic'. In the 1970s, under conditions of rapid modernization and social change, Islam, for many, came to be the sole guarantor of orderly social interaction, predictability, as well as coherent morality and symbolic meaning. In reaction to this situation, Muslim leaders metaphorically depicted the Muslim *umma*, the community of believers, as a weak, violated woman. The metaphor of a ravaged woman captured well a widespread sentiment that resulted from the forced modernization and the encroaching Western values under the Shah's regime. By the way, the metaphor of violation in connection to the community is by no means arbitrary, since femaleness, and particularly motherhood are already evoked etymologically (*umm* = mother). The rape metaphor instantiates, both, concepts of violation and concepts of defilement. Through the cultural force imposed by Westernization the traditional Iranian society is bereft of its integrity at the same time that its purity is soiled. More than that, the metaphor is particularly skillfully chosen concerning its entailments within the patriarchal cultural context. By allowing the community as a female to be ravaged by outsiders what is insinuated for Iranian men is effemination and a lack of virility. Sexual imagery is thus not only quite potent in this culture (as in many others) in providing an image of domination, it is also linked to the notion of honor. Being unable to avoid the rape of one's women brings collective shame on the community of men who let this happen, which in turn calls for protective reaction.

Another aspect of femaleness for Iranian men is the depiction of woman as fickle, potentially adulterous, and associated with worldly pleasures. Iranian society as a whole is, therefore, understood as 'having an affair' with Western society and its fickleness. By implication, deeply implanted anxieties of being cuckolded are unearthed. We have here a prime example of metaphor's emotional force, of which the clerics and political leaders who created the metaphor were very well aware. The *umma* as ravaged woman was an intentionally created piece of rhetoric to create a strong common focus for dispersed emotions of social discontent, enkindle nationalistic sentiment, and thereby instigate political action.

Just as they create a collective conceptual and emotional focus under transformational duress, metaphors can also be a central means for the preservation of the self. James Fernandez (1986: 10) pays considerable attention to the uses of metaphor in the organization and maintenance of the individual or collective self vis-à-vis the others. He analyzes metaphoric status strategies of positioning oneself in desirable places, disparaging others, turning their offensive metaphors against them, and changing the ground when one wants to ostensibly ignore an assault. Resituating the self into more desirable positions, as a consequence of social change, may also be a collective strategy, as he shows in his analysis of the syncretistic Bwiti cult among the Fang people of Gabon. The Bwiti revitalization movement first emerged during the First World War as a reaction to the adverse situation in the colonial world (p. 17ff, see also Fernandez 1982). His fieldwork in northern Spain points in an identical direction, for example where he gathers evidence for the use of tropes to maintain identity under the pressures of the Castilano 'Great Tradition' in Asturian language and poetry.

Local traditions, the unruly 'Little Traditions' in Robert Redfield's idiom, always hold at their disposal alternative, subversive metaphors. These can serve as a means of self-assertion in troubled times or it can even serve as a fulcrum of social upheaval. This is demonstrated not only in the work of Fernandez. The power of poetry, its creative indeterminacy in drawing on the established conceptual order and its role in building a bridge to that which lies beyond is highlighted by the linguistic anthropologist Paul Friedrich (1986). Finally, it is Victor Turner (1974), who demonstrates an equally abiding interest for the rhetoric of poets, preachers and social revolutionaries throughout much of his work. Consequently, metaphors can also actively enable development and cultural change. As folk poetry, subversive jokes, or political sermon, they are the manifestoes of the illiterate. They (and other tropes) serve as a toehold or a point of crystallization for rebellion, because they are catchy, emotion arousing, and rich in imagistic power. What Turner calls 'anti-structure' more often than not comes in the garb of metaphor with the power to shake the foundations of the powers-that-be. Writing on mystics, Turner attributes to them a comparable potential that local traditions may nurture as a reaction to centralist pressure:

"In my view it is no accident that (...) mystical rhetoric, charged with oxymora and metaphors, is very often characteristic of movements of egalitarian, popular protest during liminal periods of history when social, economic, and intellectual structures showing great stability and consistency over long periods of time begin to show signs of breaking up and become objects of questioning both in structural and anti-structural terms. We have been accustomed to think of mystical utterance as characterizing solitary individuals meditating or contemplating in mountain, desert, or monastic cell, and to see in it almost anything but a social fact. But the continuous operational conjunction of such language with movements of the *communitas* type, the Friends of God with the Rhineland mystics, for example,

leads me to think at least something of what is being uttered is referring metaphorically to extant social relationships. 'Withdrawal' there is, 'detachment', 'disinterest', there is, to mention terms common to the mystical lexicon of many cultures, but this withdrawal is not from humanity, but from structure which has become too long petrified in a specific shape." (p. 192)

Some significant theoretical insights into the nature of culture can be gleaned from what has just been said. The school of structural-functionalism in social anthropology and sociology has been variously castigated, with justification we might add, on grounds of projecting only a static picture of society. A central inadequacy of this view results from the nature of human cognition itself, namely from its fundamentally metaphoric nature. In this sense, Hildegard Heise (1997) vehemently argues for the dynamic nature of human thought in an attempt to fuse social theory with recent insights stemming from neuroscience: She claims that the human mind is a system intrinsically open to change and adaptive, without which the evolutionary success of the race would have been unconceivable, and therefore social structure must also be a system inherently open to innovation. By no means is ideological discourse a free-floating automatism beyond the influence of individual actors, as many brands of structuralism would have it, nor is discourse – as functionalism would presuppose – only discourse in the service of social stability and the powers-that-be. Contrary to Foucault's early work, discourse is inherently 'surpassable', and one principal reason for this should be obvious by now: There is always an 'exterior' to discourse precisely because so much of cognition is ultimately metaphoric. Apart from the many conventionalized metaphors that structural-functionalists focus on, there are inherently always also other metaphors effecting a discursive extensions into new domains and reconfiguring discourse. The impossibility of discursive closure, among other reasons, follows from the impossibility of purely literal thought. Most referents do not enter into one-to-one correspondences with objects, thought is no veridical mirror image of reality, nor is meaning fixed or unequivocal in the sense that it is determined. Instead, it is usually motivated by perception and beliefs, and although motivation is never arbitrary, there are usually several possible meaningful construals of a 'fact'. Society cannot be cast in one mold, because there exists little that is literal in the simple sense (see ch.1), especially not in the realm of complex models. According to this perspective metaphors are the cognitive tools of insurrection and the cognitive motors of social innovation.

On the other hand, metaphors may give rise to a (new) sense of community, especially in cases where it has become questionable. Keeping the metaphorical nature of most language in mind, we can see that key-notions may be shared communally to yield a sense of unity without forcing an iron corset on meaning. Evidence for the multiplicity of an outwardly constraining social discourse comes from a study of political attitudes in the rural English community of Wanet by Nigel Rapport (1993). Cohen (1994: 116), to whom I owe the

example, summarizes it as “a microscopic study of interpretive differences, concealed in a shared vocabulary, among a handful of closely related individuals”. In what Cohen glosses a ‘dialogue of the deaf’

“each of them spins the common verbal currency into individually distinctive loops of meaning which constitute their respective ‘world views’. These individuals believe that they share the meanings of the words they transact with each other, just as they believe that they think alike about their principal ideological compass points. (...) Yet notwithstanding their broadly similar orientations to the world and despite their long and intimate association with each other – the two central characters are affines and had been friends since childhood – (...) each imputes to these shared verbal forms significantly different meanings based upon their *personal* experience, on which their selfhood rests. The meanings do not just differ but, as Rapport skillfully shows, they are mutually antagonistic.”

The findings of this study, again, sensitize us to an essential insight for any cognitive approach to culture: Shared instituted models do not automatically produce shared cognitive models. What is taken as literal in fact turns out to possess no *one* true reading. Nonetheless, there is consensus on the centrality of the notion, yet its individually diverging referents remain hidden from the interlocutors and remain unquestioned. In conclusion, my conjecture is that many a key-metaphor has been historically well chosen for its healthy balance between reference and referential indeterminacy. We have seen that metaphors have the remarkable power to integrate communities through shared understandings while giving ample leeway to individual divergences. Perhaps such metaphors that optimally accommodate both aspects are those that stand the test of time most successfully.

SUMMARY

Years ago we were given a first programmatic listing of ‘the missions of metaphor in culture’ by James Fernandez (1977), the leading authority in the anthropology of metaphor. Fernandez distinguished seven missions of metaphor: (1) to provide identity for inchoate subjects by sign-images, (2) to accomplish affective movement, (3) to ensure optimal allocation of subjects in social quality space and to make reference to some prelinguistic quality space, e.g. through synesthesia, (4) to provide a plan for ritual behavior, (5) to bridge gaps in causality, (6) to fill inchoate frames by incorporating experience in the form of sign images, and (7) to transcend the preoccupation with parts and to return to the whole. According to Brenda Beck’s efforts to systematize and compact this (1978: 84), metaphor enables a movement from an abstract concept to a concrete image; it entails reference to affect and/or experience; it bridges logical gaps, it relates parts to a larger whole, and it maps out nonverbal phenomena or behavior.

In the present chapter I have taken up Fernandez' view that metaphor carries out many functions in the making of culture. I have tried to systematize most of the mentioned aspects with reference to cognitive theory, to add others, and to bring together a number of interesting case studies. In sum, the present chapter discussed the following functions of metaphor in culture: First, as the basic general cognitive functions of metaphor its emotionality, inferentiality, salience, and memorability were discussed (with the latter two characteristics, of course, holding especially true for consciously noticed and novel metaphors). Moreover, I have shown that metaphorical mappings allow the solution of problems and the creation of explanatory frames.

In addition to these general cognitive functions, I have discussed the role of particularly powerful conceptual metaphors, which are an important route to the explanation of cultural, social, or political discourse. Key metaphors provide a central means of discourse, both by delimiting the range of what is thinkable and by enabling it. Metaphors, in some cases, delimit discourse by making alternative conceptualizations 'hard to think'. A particularly powerful metaphor in this respect is Reddy's CONDUIT metaphor for communication, as reflected in most European languages. Metaphors enable discourse, inasmuch as one organizing metaphor, such as the American THE NATION IS A FAMILY documented by Lakoff, organizes alternative political worldviews through the hierarchization of its submetaphors. I hypothesized that an organizing metaphor tends to be historically more stable compared to its more subordinate beliefs. Due to its superordinate nature it is capable of accommodating a certain range of specific beliefs. (In this view, it is often easier to infiltrate the old paradigms than to overturn and demolish them completely.)

Another way in which metaphors organize cultural discourse is by projecting several metaphors into a single nodal key-domain, like it is shown in Blier's study of Batammaliba house-architecture. Nodal domains are symbol-spaces in which numerous metaphors are integrated through their co-occurrence in the same locus. Different aspects of the house become the source domains for a whole set of metaphors. The metaphors are then perceived as connected through this metonymical link. So-called floating signifiers, as described by Lévi-Strauss, fulfill a similar integrative function of metaphor. Here, a single source domain or a whole piece of discourse is used in many different social contexts. Depending on the context, the metaphor is also given different readings (i.e. projected on different target domains), but at the same time it makes a clear statement about the contexts belonging together at a higher plane of meaning. Both, in nodal key-domains and with floating signifiers the fact that a single metaphorical source domain is harnessed to various target domains intimates a neighborhood relationship between the targets. Furthermore, it was argued that domains can enter into a permanent relationship of mutual support. Through Gordon's example of the ideology of Western medicine, I have described what I called

'macro-metaphoric relations'. In these web-like structures metaphors reinforce each other and establish a complex model that may become fairly self-supporting at some point. This kind of self-stabilizing dynamic was also brought into connection with the argument that co-activation patterns strengthen a conceptual (or neural) linkage and increase the chances of future activation in further contexts.

In addition, I have surveyed anthropological literature indicating that metaphor is constitutive for injecting religious experience into discourse, by grounding the otherwise unspeakable in language. In this context, I have spoken of the 'scaffolding of knowledge from the inchoate to the representational' (more about this in ch.4). Likewise, various studies on the metaphors of social revolutions by Fernandez indicate that vague misgivings of the masses can be funneled into a concrete understanding of a social problem through a new rhetoric metaphor and thus serve a similar function.

With regard to social dynamics, metaphor may account for, both, conceptual stability and change in culture. While many metaphors stabilize ideological systems, they can alternatively give leverage to criticism and subversion. Interestingly, metaphors can also serve the function of guaranteeing a degree of cognitive continuity where society itself undergoes more rapid change than many can cope with, as the example of the old Scottish fisherman showed (who explains a new target domain through a more familiar source domain). Finally, based on Rapport's study of the town of Wanet it was argued that metaphors can act as a buffer for the diversification of worldviews and attitudes within a single community, by enabling a pseudo-dialogue. All in all, however, it was pointed out that metaphor, despite its conservative potential, is a major reason for the inherent openness and creativity of language and precludes the possibility of discursive closure, in favor of which social theorists sometimes argue.

Chapter 3:

Anthropological Theory and Metaphor

This chapter deals with current issues in the study of metaphor and looks into how they relate to topics raised by cognitive anthropology: The first section alerts to the fact that the analysis of metaphor cannot be abstracted away from cultural context. A facet of this is that often understanding metaphor is only possible in conjunction with other tropes, or as an embedded part of a complex meta-trope. My special focus will lie on the relation of metaphor and metonymy. Methodologically the section stresses the virtues of an anthropological approach to tropes.

The second section takes a look at the relation of metaphor to culturally important 'themes' or 'foundational schemas'. I will take a bit of a detour here in introducing a general theory of how ideas spread and not confine myself to metaphor in the narrow sense. However, all this will hopefully lead to a general insight that should not be left out in an anthropological treatment of metaphor. The idea is that recurring basic schemas, which spin their web through numerous lifeworlds, are something like cultural basic metaphors, albeit metaphors that are not specific to one domain.

The third section deals with the issue of universalism and relativism. It begins with the presentation of several universals that metaphor research suggests. Subsequently, I will argue that even partly universal metaphors are always culturally embedded in their behavioral, normative, evaluative, and embodied dimensions. In searching for specifics within universals I will present a checklist for where to look for those. Finally, I will discuss the ontological status of image schemas as universals and suggest a double perspective on basal image schemas and situatively embedded image schema compounds of high complexity.

In an effort to hew more graceful instruments of analysis from the present conglomerate of terminology, the final section investigates the intricate interrelation of the terms 'schema' and 'metaphor'. Basis for this is a stimulating, yet also problematic, paper by Naomi Quinn that set going an intense debate in the 1990s. Through a close reassessment of the debate I hope to make steps toward unraveling a central problem of cognition in culture: a resolution of the contradiction between efforts to describe cognition as situated and efforts to isolate basal ontological atoms across domains.

1. Metaphors and polytropes

A deplorable, but dominant tendency of much past literature on tropes was its undue restriction to metaphor. Only quite recently we have seen a welcome move away from considering metaphor in isolation in the field of cultural anthropology. Roy Wagner's *Symbols*

That Stand For Themselves (1986) bears witness to this propitious development, but foremost we have to mention the various outstanding contributions in the volume edited by James Fernandez *Beyond Metaphor* (1991). The volume's programmatic claim is best expressed by Terence Turner's succinct formula that metaphors stand in structural continuity with other forms, tropic and non-tropic alike (1991: 126). Turner, in tandem with Paul Friedrich's (1991) contribution in the same volume, proposes to speak of a complex 'play of tropes'. Both build on the observation that real social settings often feature interacting, overlapping or nested tropes.³⁵ Situated in cultural context, so it is argued, it makes little sense to consider metaphors as fundamentally apart and different from other tropes, like metonymy, synecdoche (as a special form of metonymy), and irony. Other arguments of a similar kind can be found in Sapir (1977a), Fernandez (1986, 1991), and Ohnuki-Tierney (1991). Just like Terence Turner all these authors emphasize the role of ritual. It is an essential structural principle of ritual and mythical meaning that tropes are interdependent and have the ability to transform into one another. And, as a corollary, often a complex trope operates on several cognitive levels at the same time. This high degree of interpenetration between tropes also means that they are as an ensemble more than the sum of their parts. As a result we are confronted with the limits of our terminology: clear-cut definitions of, say, metaphor as opposed to metonymy appear like mere academic reifications with restricted explanatory value for the cognitive phenomena they purport to tackle. It is the purpose of this section to convey an idea how these 'polytropes' intermesh.

METAPHOR, METONYMY, AND SYNECDOCHE

A prime focus in the field has always been the relation of metaphor and metonymy. These have both been seen as polar opposites as well as related phenomena, and often as both of these. Before we proceed I need to give a short definition of metonymy here. Typically, metonymy is understood as a relation between two terms on the basis of a part-whole, whole-part, contiguity, or cause-effect relation. Classical examples are the linguistic substitution of "the crown" for the king, "a sail" for a ship, "the deck-hands" for the sailors, 'a house' for a noble family. Similar sorts of symbolic substitutions are known from associative magic, as when a nail clipping, a hair, or some blood becomes effective for bewitching the person from whom they were obtained, because they are used in the person's stead.

While metaphor operates on analogy, similarity, or homology, and fulfils a role of distance and symbolic reference, it might be said that metonymy operates more on proximity, incorporation, assimilation, and mutual transformation of terms (cf. Shore 1996: 201f). David Sapir (1977: 20) characterizes the difference between metaphor and metonymy as follows:

³⁵ For an accessible and concise introductory overview of these see Tilley (1999).

“With respect to the notion of shared domain or common ground a metonymy can be taken as the logical inverse of a metaphor. Rather than the relationship of two terms from separate domains that share overlapping features it is the relationship of two terms that occupy a common domain but do not share common features. (...) A metonymy, it appears, emphasizes the whole, the entire domain (...) shared by two terms (...), and its success as a trope depends on how fully this idea of wholeness can be conveyed.”

What does this mean? It has often been noted that metaphor has an effect on the relation and perhaps the proximity of two separate mental domains. The culturally conventional and already typified criteria of ‘sortal correctness’ are broken and a novel typification is created that may become conventionalized with repeated use. Also, metaphors are perhaps the most important means for expressing a novel intentionality (Alverson 1991: 98). However, in one respect metonymy goes further than metaphor. Metonymy foregrounds the idea of wholeness. Whereas metaphor is – in terms of ontological domains – the more separate and more ad hoc operation of relating two entities, metonymy unifies in a deeper sense. Metonymy not only creates a novel shared category, the category is explicitly reified and thus transcends the ad hoc status that metaphors tend to have. In being reified the source and the target are assigned the status of parts of a *substantial continuum*. Consubstantiality is the defining characteristic of a metonymical relation where two entities are perceived as members of a common domain. Metonymies make strong ontological claims and can account for what has been called substance ontology. In this sense Sahlins (1985: 81) remarks on Polynesian cosmology that it builds on a veritable substance ontology, with the result that speaking of metaphorical transpositions merely between the parallel code of nature and culture (as the familiar structuralist approaches would do) is not quite adequate anymore:

“If the Polynesian scheme is unlike so-called totemism, as Levi-Strauss (1963) says, because of the genealogical continuity (or consubstantiality) between ‘supernatural’, ‘natural’ and human beings, then *it is a universal system of differential homologies rather than of homologous differences.*” [italics mine]

If metonymy can be seen as a metaphor making stronger ontological claims, it is conversely no surprise in this light that for some authors writing on metaphor its definition comes quite close to that of metonymy. Sam Glucksberg and Boaz Keysar (1993) define metaphor as the creation of a novel superordinate category. A classic anthropological position of a similar kind can be found in a celebrated paper by Keith Basso (1976). However, others, such as Lakoff (1993), rightly criticize this model as reductionist. And indeed, a crucial problem is that the novel category model does not allow a distinction between source and target or their different functions. However, I will enter into that discussion later. For now it suffices to note that this claim of the superordinate category depends on the question whether the commonality

established by a metaphor remains transitory or whether it is *reified* as a concept (e.g. by assigning it a lexeme) and the concept is thus made a permanent category. Hence, we may say that an element of metonymy, that is consubstantiality, is part of any strongly reified metaphor. We should note that even if some metaphors constitute themselves as metonymies by creating a new whole (even if it is only temporary), the reverse is not true: Two dissimilars may be constituted as parts of a tropical whole without a shared property that would make them metaphoric. A metonymy need not include any metaphorical mapping.

The long and the short of all this is that it is unwise to deduce from our terminology a *principled* ontological or cognitive distinction of metaphor and metonymy. It is foremost practical considerations which indicate that this analytic distinction quickly reaches its limits. The ethnographic realization that metaphors can take over the mission of metonymies and vice versa goes back at least as far as Lévi-Strauss (1966) and Fernandez (1977). More empirical evidence is furnished by Tambiah (1968), who demonstrates that the analogic systems of Trobriand magic employ a combination of metaphor and metonymy. In an apt phrase Christopher Crocker (1977a: 59) says that “metaphor and metonymy are perspectives” – they are different ways of viewing the same thing. This realization prepares the ground for a later chapter, in which I intend to reframe the terms of this old terminological muddle by demonstrating that metaphor and metonymy are nothing but two viewing arrangements on a single cognitive process.

Before we turn away from metonymy it should be said that one has to be wary of the terminological inflation found with many authors, so that one does not get lost in theory. Metonymic principles are invoked in all the different senses that have to do with contextual association. A crucial distinction worth mentioning here relates to the status *vis-à-vis* the conventional categories of our mind. Metonymy can be contextual, so that outside of it the two referents belong to separate wholes or fall within the general divisions of domains as we usually conceptualize them. Therefore, a metonymic context can be either created on purpose, for example by ritual enactment; or, alternatively, a metonymical phrase can draw on the preexisting conventional domains of everyday thought. In the former case a contiguity is usually established as an end in itself, for example as a cosmological predication of wholeness, while in the latter case a given contiguity is used as a means for another end, especially to highlight an aspect of something in rhetoric, poetry, or simple conventional locutions. It is extremely important for properly understanding the terminology of tropes to ask ourselves this: Is a trope given as a conventional relation between domains that we can build on as a basis for inference or is it only created in a process yet to be described (and therefore more the goal we want to reach than the means toward it)?

The term metonymy is in part even used to designate an inherent aspect of the metaphorical process itself, since a carry-over of images from one domain to the other of

things associated with the vehicle is operative in almost any metaphor. A case in point is Fernandez (1977: 126) when he says of the associative power of metaphors in ritual:

“An utterance of metaphor itself as well as the actions undertaken to realize it is attended by a set of associations which ‘belong’ to it by reason of contiguities in previous experience. The assertion of metaphor thus provokes a metonymous chain of elements or experiences associated with it as part to whole, cause to effect, or other contiguity in time or space.”

After these terminological words of caution let us return to more substantive issues. Some authors have been concerned with the specific ways metaphor and metonymy interact in one setting. I will discuss two different novel suggestions for using the term synecdoche that have been proposed by Terence Turner and Emiko Ohnuki-Tierney in their contributions to Fernandez’ 1991 volume.³⁶ The first in a more general and the other in a more specific sense, they define synecdoche as a trope that combines aspects of metaphor and metonymy. With a view on the processual nature of tropes, Ohnuki-Tierney (1991: 179, 187) offers a definition of synecdoche as the combination of analogy predications on the one hand and either part-for-whole or contiguity relations between categories on the other. Synecdoche is the *process* of two distinct semantic categories moving together as a result of a metaphorical predication. In this movement of ‘becoming’, synecdoche remains an interstitial trope between two modes of thought, because a semantic tension between two categories is maintained. For example, social minority groups are subsumed under the general ‘we’ to negate their presence, while at the same time they are set apart as scapegoats. This reflects a common type of synecdoche, i.e. the transformative process from categorial proximity to categorial inclusion engendered by metaphors.

Although in some contexts Turner seems to be satisfied with such a more general definition of synecdoche as any combination of metaphor and metonymy, he also offers a more specific suggestion (1991: 148ff). According to him, synecdoche could be used to designate a more specific relationship between metaphor and metonymy, where a part of the whole structurally replicates the form of the whole. A good example is the well-known frontispiece of Thomas Hobbes’ *Leviathan* in which the giant body of the monarch is made up of innumerable little bodies, those of his subjects. The macrocosmic and the microcosmic

³⁶ Traditionally, synecdoche was understood as a trope closely akin to metonymy proper. It referred to a substitution of a part for a whole, rather than an attribute situated in its proximity. I will reject such a definition on the simple grounds that both things can be subsumed under metonymy and that the difference is frequently vague. Consider the substitution of ‘a sword’ for a knight: Is the sword different from the person and thus a substituted attribute (‘metonymy’) or a defining criterion for the knight as such and thus a part-whole relation (‘synecdoche’)? The question seems difficult to answer.

levels of a whole (metonymy) thus also share the same form (metaphor). Another example would be the metrical foot of a poem that is iconically replicated on higher combinatorial levels, such as lines, stanzas, or the level of the whole poem (p. 153). The creative principle of synecdoche can be formulated abstractly: If an attribute or structure is created in one part and then transposed to the whole in a metonymic predication, part and whole will share the same attribute or structure and the whole will replicate the parts at a macrocosmic level.

POLYTROPES AND PERFORMANCE

Dan Sperber (1975: 144) writes on the social role of tropes:

"[I]n interpersonal relations symbolic utterances and behavior constantly evoke what the relation may become and contribute to its transformation: the imaginary complicity evoked by irony against a third party is also an invitation to real complicity; the intensity of hyperbole is an invitation to shared enthusiasm; inversely, irony directed against the hearer, litotes, symbolic gestures of hauteur or of respect are invitations to keep one's distance."

Tropes are, therefore, instruments of social action. This is what James Fernandez (1986) reminds us of in his repeated and strong emphasis on the 'performance' of tropes. To speak of the performative nature of tropes means that a trope is not in itself a metaphor, a metonymy, a synecdoche, a double entendre, or an act of irony, but only becomes a particular type of trope when used and interpreted by particular actors – in short when harnessed to a historical or social context purpose and invested with the intentionality of human purpose. Also, it is frequently the case that several tropic operations are triggered by a single referent, a complex of referents, or a context. Victor Turner's (1967) classical formulation of the 'multivocality of ritual symbols' fits in well here. Turner's theory of the ritual process asserts that rituals condense a score of themes into a single sequence or symbol.

As a case study I will summarize Bradd Shore's (1996: 197f) treatment of the North American Kwakiutl and their polytropic relation to totemic animals. Shore's synthesis of earlier ethnographies tries to go beyond the narrow formulations of totemism as a single trope that was characteristic of the past. The polytropic complex of totemic animals lets resonate at least three symbolic modalities that are not fully separable. The theme dominating the Kwakiutl universe is the act of eating and being eaten: The central ontological concern is not how two different things are alike, but how one becomes another in the chain of eating. By donating its flesh to the hunter the animal participates in the regeneration of the human body. The physical life of the animals is incorporated into the body, which is human on the outside but essentially animal within because of this. Humans and animals form "a single thread of life, a continuous chain of participations" (p. 197): animals take off their skins to become human, just as humans don these very skins as clothes and as ceremonial

costumes for spiritual renewal. A second great chain of life was traditionally established by the use of the animal skins as the primary medium of marriage exchange for the Kwakiutl. The animals participate in the regeneration of the human species in yet another way. They are used as classificatory crests – the function traditionally described as ‘totemic’. Their outer shape was considered a kind of soul, and these animal shapes were used as sacred crests which appeared as works of art and in costumes, and were one of the ways for humans to propagate the spiritual ancestors. Thus animals are, in Shore’s words, “a total regenerative artifact”. They assume a triple role: animals-as-food, animals-as-skin, and animals-as crest:

“As food, the dominant symbolic modality was incorporative and participatory. (...) As skins, the emphasis was on symbolic mediation between human groups and the transformability of tribal opposition into unity through marriage. And as crests, animals entered into metaphorical relationships with humans and came closest to serving a genuine classificatory function.” (p. 198)

It is clear that different contexts require different emphases of the three totemic modalities of animals. Among other things, the roles of animals are subject to seasonal shifts. However, speaking of a polytropic totality means that each context implies a co-presence of the other modes in the function of a backdrop.

‘WE ARE ARARAS’

By way of another example I would now like to substantiate the case for a strongly contextualized consideration of tropes. In a fine and theoretically very deliberate critique of earlier ethnographies Terence Turner (1991) reanalyzes a ritual expression among the Bororo of central Brazil, who have been reported to make the claim ‘we are araras’ (a kind of red macaw) for a long time. Ever since Karl von den Steinen’s work in the last decade of the 19th century this avian trope of the Bororo has been puzzling anthropologists and has stimulated repeated debate as to whether this is best described as a metonymy, a metaphor, or a more complex trope. Turner takes issue especially with the analysis of Christopher Crocker (1977b, 1985²), who argues for a simple metaphor on the basis of the similarity between the male and the arara existential condition. The merits and problems of Crocker’s position I will only skirt here. It can be noted, however, that it is difficult to decide for any reader unacquainted with the nitty-gritty of the ethnographic details whether his analysis is only partially or fully at variance with Turner.³⁷ Turner opposes to this his own version into

³⁷ Crocker’s (1985: 41) position can be briefly summarized: He argues that the statement ‘we are araras’ metaphorically expresses the futile attempt of male Bororos to attain the pure essence of being and form in ritual for more than a temporary transmutation that occurs when they become a vehicle for the spirits called *aroe*. In this respect they are alike to the macaws that are believed to be entered by

which he skillfully weaves an argument for the plasticity of tropes that goes considerably beyond a sole emphasis of metaphor.

He begins by pointing out something that Crocker also notes, namely that in the expression glossed as 'we are araras' the copula takes on a verb form denoting existence in present time as opposed to permanent states of being. This lets Turner suggest that the more fitting gloss of the sentence would be 'we make ourselves araras' or 'we become araras'. This points to the importance of a specific context of the assertion associated with the self-creation in arara form. To substantiate the claim that Bororo men make themselves araras and to see how the claim is motivated, Turner puts a central ceremonial context under scrutiny in which the men adorn themselves with a key attribute of the araras, namely their feathers. It will be the task of the remainder of this section to show how, in a complex argument, Turner contends that through this ritual context the male actors symbolically reproduce and define themselves and their society as Bororo. First it is important to realize the cosmological significance of the araras. The Bororo conceive of plumes, and above all red macaw plumes, as the emblem and form of spirits they call *aroe*. Why are araras likened to spirits? Apart from the role araras play as temporary host for spirits, Turner suggests that the feathers come to stand for inner spirits or inner essence as an emblem, because it is the spirits that are seen as creative principle for the external form of all things. Arara plumes are chosen as emblem because they are the prototypical most culturally salient exemplars of an external form, the most salient and prestigious ceremonial item, and the scarce resource *par excellence* of Bororo society. The externally visible red parrot plumes represent the spiritual world as generalized emblems for the dynamic principle of creation of an outward form that stands for an inner essence. Finally, plumes suggest the lightness and flying transcendence of spirits. This thematic linkage is also borne out by the linguistic evidence, as the word for plumes also means 'soul' or 'spirit', 'ancestor', any 'living member of the Bororo', and 'any actor representing spirits'.

aroe who, normally being uncorporeal beings, sometimes wish to copulate and eat. However, this is temporary and the araras are by no means equal to the *aroe*: So, Crocker concludes, "even in the midst of the ceremony a man is just as limited an aspect of spirit and of transcendence as a macaw." Crocker's explanation why only Bororo men use the expression is that they express with it their existential irony about the fact that they can never fully escape their categorical belonging to a matrilineal identity through their projection into the domain of spirits. While without ethnographic reanalysis we are in no position to definitely arbitrate on this claim, Turner correctly points out that this explanation by Crocker is given in too ad hoc a fashion to be a very convincing reason why women are excluded (he does not explain why escaping from the matrilineal identity is a goal of the men and how it might be achieved). Turner himself contends that the expression is linked to ceremonial contexts in which traditionally only men perform.

Thus, by donning arara plumes the Bororo play the role of spirits towards themselves. Ordinary men ritually make themselves into demiurgic araras by metonymically creating an external form of spirit-being for themselves. Arara plumes are conceived as the privileged medium for the materialization of human essence. By covering themselves with arara plumes the actors create themselves in the form of spirit-actors, they "create themselves *in the form* of creators of social form" (p. 139). The feathered form becomes the basis of their power to reproduce the society. Hence, by becoming araras they become more fully human "in the sense of a social being capable of transcending and recreating the structure and meaning of social life." (p. 150).

This interpretation is also supported by evidence from the neighboring Kayapó, for whom ceremonial dance is linked to flight and arara feathers to souls. Becoming araras figures centrally in Kayapó death ritual. The corpses are laid in their graves with bunches of plumes tied to their arms. The soul is conceived of as flying out of the grave toward the rising sun. Moreover, souls who take up a terrestrial afterlife as ghosts enter into the form of araras who are perched on rays of the sun. A similar thing occurs in the climactic rite of boys' initiation, when the adult ritual companions adorn themselves in plumes and run around the inside of a 'nest' created in the village plaza with outstretched arms and crying 'ra-ra-ra-ra' in imitation of the parrots. The befeathered men and women also dance in the village singing songs in which they assume the perspective of the high-flying arara. Like the Bororo, the Kayapó make themselves birds or partake of their characteristics. Any dancing ritual itself is called 'flying' and the plumes are prototypically associated with flying, which in turn connotes the ability to transcend the everyday social world and the power to encompass and subsume it as a whole. We may note that this combines the primary metaphors of CONTROL IS UP and KNOWING IS SEEING to create KNOWING THE WHOLE AND SHAPING IT IS SEEING FROM A LOFTY DISTANCE. The ritual imbues the feathered dancer with the power to get outside his or her social identity in order to recreate it. While the Bororo do not share the Kayapó linguistic equation of ritual dancing as flying, their term for plumes confirms the same set of underlying ideas, since it also has the polysemous meanings 'anything light', and 'soul', the implication being that the soul can rise above the bodily form by its lightness.

Let us recapitulate the succession of tropic operations involved by considering the Bororo and Kayapó evidence together. We have seen that at an initial level the plumes detached from the araras stand for the parrot. Then, by donning the plumes, a quality associated with the birds is attached to the men. The men acquire the arara powers of 'spirit'. Thus, the ritual process starts with a metonymic operation twice over. But since these acquired powers are different from the concrete arara powers of flight and growing feathers, a second tropic level of metaphor can be said to emerge. Again the feathers are the vehicle. Now, the lightness of the feather metaphorically comes to stand for the ability to fly and the ability to fly is in turn

linked to transcendence. (As we have seen plumes are also semantically linked to spirit by the polysemous word *aroe*.) To become a flying being metaphorically means to separate oneself from the usual constraints of the social mode of terrestrial existence, and to assume an external, bird's-eye view of it. Thus, donning feathered regalia creates the power to generate social form (p. 147).

There is yet another, third, level of tropical meaning that encompasses the two prior ones. The ceremonial dance through the social space of the villages recreates its patterns and with them the key transformations of social relations that are the focus of the rites of passage they celebrate in their dance. This recreation is achieved in the form of *araras* through which the dancers acquire the function of the creators of social form. If I read Turner's difficult text correctly, social form is thereby imbued with the creative nature of spirits. Actors are creators of 'araraness', and the ritual as a whole is a creation of social 'araraness'. Turner argues that, as consummation of the process, the "metaphorically related human and *arara* elements become metonymically defined as parts of a single whole of spatial and functional relations" (p. 148). Here, ritual action creates two distinct things as interdependent parts of a whole. This means that the *araras* and humans become part of a single order that emerges by virtue of the enactment. Thus, what belongs to separate orders in everyday life, like society as the realm of humans and nature as the realm of *araras*, becomes correspondingly suspended at a higher level created in ritual action, and merges them into interdependent parts of a single totality.

It might be concluded in general that the tropic principle of ritual is enactment that creates new totalities through embedding them in a single context. The spatial and functional proximity of humans and *araras* (plumes) in the enacted ritual creates a single whole that encompasses them. The enacted ritual form assumes the character of those who create it, i.e. the *arara* dancers. Ultimately, when the ritual transformation is achieved, a synecdochic relation as Turner defines it (see above) is established. In this relation the social whole, whose parts are dancers of spiritual *arara* attributes, comes to be conceptualized on a supraindividual level as a notion with the same spiritual attributes of all the parts: it becomes a society transcendentalized with spiritual 'araraness'.

A general understanding enters into all this, which follows from the generic trope inherent in all ritual. The generic tropic nature of ritual can be seen in the fact that all ritual is effective by standing for something external to itself. In other words, because humans control the symbols of something in the ritual they control the world outside of it. In Turner's example it is through acting on and recreating social space that the act of the *arara* dancers stipulates the essential identity of the ritual and the social. The direction of this enactment – the reproduction of social form – is enabled by a part-for-whole understanding of the ritual act in relation to the world. By controlling the ritual event in such a way as to create this single

order one makes the world outside at which the ritual is directed a controlled order. Ritual as such functions through the basic metaphoric understanding that AN ENACTED CONTEXT IS THE LARGER WORLD.

According to Terence Turner, the total operational structure, the fact of being a part of a master trope, constitutes the necessary background for the cultural construction of the individual tropes (p. 151-152). Or, in other words, the whole is more than an analysis of each of the individual parts separately would reveal. There is a dialectical relation in the sense of a mutual relativization and interdetermination of parts and wholes. This entails a relativity of domain boundaries and a simultaneous separation and integration of the two orders. The externality to the social order allows the araras to serve as vehicles of the transcendence of that order.³⁸ If the araras were already parts of the social realm, the ritual would be pointless. Only by virtue of being lofty 'spirit' beings, the Bororos can stage the act of transcending their society by making themselves into such beings. On the other hand, the fully human Bororos have themselves this capacity to take a bird's-eye view and recreate themselves through it. Turner emphasizes the necessity of domain separation, which is still salient in metaphor, and of domain fusion, characteristic of metonymy. In combination they form what he also calls synecdoche:

"The synecdochic structure of the ritual process is the essential framework for maintaining the simultaneous separation and integration of the two orders – nature (as the order of the araras) and society (as the order of humans) – upon which the meaning and the efficacy of the process depends." (p. 149)

This example indicates the great importance of considering individual tropes in the context of larger structures. This is also the central import of an anthropological perspective in the study of tropes. Unless we want to risk a serious distortion of the pragmatic, intentional, and conceptual meaning of tropes we have to abstain from considering them as elementary units in the study of natural ethnographic settings.

³⁸ Although Crocker (1985: 31f) shows in much detail that the macaws are the only Bororo domestic pets with whom people (usually women) entertain affective relations, and that this places them somewhere in-between the human and the animal realm, this finding need not be necessarily understood as standing in contradiction to Turner's view. Many other examples from other ethnographies indicate that it is frequently the intermediary categories that are tropically the most potent ones (cf. Ohnuki-Tierney 1991: 177).

2. Thematicity in culture

Modern-day cognitive anthropologists are often concerned with analyzing so-called 'thematic structures' (Strauss/Quinn 1997) or 'foundational schemas' (Shore 1996: ch.2) typical of a cultural group. The study of cultural master metaphors in cognitive linguistics, such as by Kövecses (2000) points in a similar direction. The underlying idea to all these notions is that patterns of the mind that recur in slightly modified ways across contexts form the very moorings of culture. Thematicity is a constitutive feature of the concept of culture and can be defined as the tendency of particular schemas and metaphors to be evoked in a wide variety of cultural contexts. This is amply illustrated in ethnographic literature, as Strauss and Quinn (1997: 118) state in their major theoretical work on the cognitive basis of cultural meaning:

"Examples would include complexes of understanding about honor in the circum-Mediterranean area, as described by Bourdieu (1977) for Kabyle society, or about rivalry in Sherpa society, as described by Ortner (1989), about the Western discourse of normality that Michel Foucault (1972a) describes, or about self-reliance in the United States, which we will describe further below. As Foucault (i.e. 1979: 23) makes clear, a theme or 'discourse' can spread even across contexts separated by the boundaries of distinct subcultures, such as those that comprise the separate professional disciplines of social science and penal law."

Thematic schemas inform cultural practice and cultural representations alike and pervade cosmology as well as everyday cognition. This can be exemplified by another well-known case of thematicity presented by Marshal Sahlins (1985: 14-19) who writes about the role that sexuality traditionally played in Hawaii. Sex forms an integrative thematic complex that casts a symbolic web over numerous other lifeworlds. It goes beyond 'ideology' or 'superstructure' and shapes the performative structures of society, being a means of material gain and status politics. First, beauty functions as the paradigm of the political. The esthetic and the moral intermesh. Hawaiian chiefs are praised in genital chants in metaphors of their sexual beauty. The unique beauty of the chief makes him a privileged object of universal affection. It institutes a relation of attraction and coherence "that is not only centered or hierarchical, but makes the *subordination of those who behold it an act of love.*" (p. 17) Second, sexual attachment is an important avenue of upward mobility and creates the most important social liaisons. Unions are sought for advantage, and sexual intrigue is a common means of choice. Sex guides the making of social relationships: there is a veritable 'political economy of love'. Third, if we can believe Sahlins, the political structure of the kingdom as a whole is perceived as a precipitate of the forces of sexual attraction. He proposes that by Hawaiian cultural logic the "social system is thus constructed out of passion, structure out of sentiment" (p. 29). Finally, this thematic nexus is expressed cosmologically. Every sexual union recapitulates the original congress of male heavens and female earth. There is a

system of common descent on several planes of cosmos and society. A long genealogy of descent defines nobility in opposition to commoners and what is born of chiefly parents is another god. Because sex is linked to the theme of reproduction and that in turn forms a general ontology of the differentiations of substance from the primordial downwards. Sexual and reproductive process becomes the universal template for cosmological process. Thus, Sahlins' analysis also shows that thematic schemas can result in substance ontologies. In a substance ontology there is a cultural representation that the whole socio-cultural process is dependent on the presence of a substance, which not only becomes the underlying prime mover of social becoming but is conceived of as an energy, an attribute, or a possession (cf. Sahlins 1980 for a closer analysis). One more important thing we can see from this characterization is that thematicity does not address particular task schemas as such, but a highlighted domain that informs a wide range of other domains. Instead, a range of different situational task schemas incorporate thematic structures in complex ways, such as Hawaiian sexuality, Kabyle honor, Sherpa rivalry, bio-medical, sexual and behavioral normalcy in Europe, or (as we shall see) American success and self-reliance.

THE COGNITIVE BASIS OF THEMATICITY

It can be asked now how thematicity comes about, both in the diachronic development of a culture and in the individual process of enculturation in childhood. Strauss and Quinn (1997) develop a cognitive theory of how a given representation becomes thematic. Their quotation given above continues as follows:

"This thematicity that culture exhibits, again, depends upon a complex interplay between properties of the culturally constructed world and properties of the mind. As we will consider, conditions are only sometimes right for thematicity to result: Not all cultural schemas become cultural themes." (p. 78)

Therefore, culturally specific as well as universal cognitive features contribute to this. Strauss and Quinn offer a series of complementary answers to the question of the origin of thematicity. First, thematic structures may be the result of schemas learned very early in childhood. For example, the American concept of love in marriage of grown-ups can be explained on the basis of early childhood experiences of love. (see Strauss/Quinn: ch.7). These experiences are then metaphorically adapted to the new context of marriage, while retaining a great deal of those expectations learned in infancy.

Second, such structures result from a schema being learned in a wide variety of contexts. Taking the American schema of self-reliance as an example, Strauss and Quinn (p. 119) argue that schemas are more likely to be further generalized, if they are initially learned in a number of contexts. American middle-class children learn the schema of self-reliance at home, at school, throughout day care, and in extracurricular activities like the Scouts and

Little League. These institutions do not only reinforce the schema of self-reliance, they progressively broaden its definition, so that it is eventually transformed into an internalized template for the child. This means that the schema is progressively elevated to an ever-higher level of schematicity. The schema is acquired on a higher level than any one of the individual contexts would specify, a level of schematicity that spans the contexts as underlying common denominator.

Third, there is a mechanism called 'elective affinity' – a term originating with Max Weber – for new rhetoric and products that appeal to a preexisting understanding. Elective affinity is a selection process in which people screen new cognitive input for information that fits into an assumption toward which one is already inclined. People pick out new information in order to corroborate their prior assumptions. Therefore, elective affinity is an autodynamic process that assimilates new information into preexisting schemas and stabilizes them in the process.

³⁹ As example take again the schema of self-reliance in the U.S.A. Because many Americans share understandings about self-reliance, the kind of public and political discourse, the pastimes, and the forms of entertainment that promote self-reliance 'sell' well. As Americans find it natural to be self-reliant they are unlikely to question the assertion that the United States must supply its own energy needs, or that welfare dependency is bad. This response conveys messages to the powers-that-be about which future policies to envisage, which products to develop, and which marketing strategies to embrace. Therefore, with prevalent themes there may be a self-stabilizing cyclical process of production and election. This closely corresponds to the dialectic of externalization and internalization of social symbols that Berger and Luckman (1969) describe so well. This autodynamic process can also be

³⁹Pascal Boyer (1994: ch.7 and 8) has the same mechanism in mind when he talks of *ad hoc abductive reasoning* to strengthen assumptions. However, he puts the emphasis differently: He rightly stresses its role as a general feature about cognitive assumptions that we can posit without recourse to any explanation by 'worldviews'. Abductive reasoning can strengthen relatively isolated single beliefs without any necessity for them to be embedded in a more encompassing whole. This raises a valid point. Anthropologists need not automatically take recourse to arguments on the grand scale by invoking belief systems, when general cognitive principles of situative selection can account for the data. Much like Strauss and Quinn, Boyer seems to agree that such 'elected' assumptions can become cognitively entrenched. The main difference in emphasis is that Boyer underscores an additional aspect: As long as assumptions are situationally elected, this process of strengthening allows for change, because at any other time additional information may be drawn on that will lead to different assumptions. Let me note however that the weak point of this interesting view is that it does not explain in detail what it is that guides our screening and determines which filters we chose. It is easy enough to reintroduce the notion of 'ideology' or 'worldview' here through the back door as such overarching structures that govern more localized processes of cognitive selection (cf. Ortner 1990 on this problem).

reproduced in social relationships: When many people share an understanding, the powers-that-be (in a democratic society) will tend to reproduce that understanding by catering to their beliefs. Dan Sperber (1996: 116), a leading figure in another influential theoretic strand that is centrally concerned with the question of what causes a representation to spread and become thematic, makes a similar point:

“An increase of the density of public productions in the vicinity of an attractor [i.e. meaning attractor, M.K.] tends to reinforce the attractor, if only because it increases the probability that attention will be paid to these more numerous productions.”

Spearheading a program in anthropology that builds on general cognitive principles rather than on ‘cultural beliefs’, Sperber (1996: 84) proposes what he calls an ‘epidemiology of representations’. This approach tries to find cognitive principles accounting for the fact that a given belief is easily remembered and can spread among a group of people. This line of inquiry implies that pieces of information of a certain kind tend to be picked out by people even without explicit instruction because they are salient or easy to remember. Sperber identifies a number of factors responsible for the thematic spread of a representation that are psychological as well as ecological: The first important factor concerns the ease of memorization of a particular element of knowledge. Some beliefs are more intuitively plausible than others, perhaps on innate grounds. For example there is a fair amount of work that points to a general human propensity to conceptualize living beings in terms of natural kinds (Hirschfeld 1994, Boyer 1994, Atran 1996). Then again, a digestible portion of salient information that is counter-intuitive can even enhance the ease of recall of a context. Religious assumptions often mix highly intuitive with some counter-intuitive beliefs to achieve a maximum effect, as Boyer (1993, 1994) intends to demonstrate.⁴⁰ Further factors that contribute to the spread and stability of beliefs are the existence of background knowledge and a motivation to communicate the representation. Finally, the recurrence of situations in which the representations can be used (see above, Strauss/Quinn 1997), the existence of writing as a means to store memories externally (cf. Goody 1977, 1986), and the existence of institutions that are engaged in the transmission (cf. Boyer 1990) play a role. One more factor that I would add here is the affective loadedness of a representation (cf. Whitehouse 1992, 1996b). Strauss and Quinn (1997: 132f) note that the motivational salience of a representation can vary considerably between individuals and that this also influences the

⁴⁰Sperber and Wilson (1986) and Sperber (1996: 116) argue that an over-density of mental representations may result in a decrease of relevance, at least to conscious attention. However, the reverse is probably true concerning subconscious cognition, especially if we bear in mind that the knowledge most taken for granted is culturally the most important knowledge (cf. Bloch 1998).

cognitive entrenchment of the representation. Two individuals can be exposed to the same cultural information but care differently about it, so that they will not internalize it in the same way.

WHAT MAKES A METAPHOR THEMATIC?

Let us now focus on metaphorical expressions in language and on what makes them thematic. There are two dialectically related sides to the process that lets metaphors become thematic: cultural exemplars and cultural themes.

One important vehicle for creating shared metaphors (and schemas) is constituted by what Strauss and Quinn (1997: 145-152) call 'cultural exemplars'. For example, Mother Teresa is the current exemplar of the selfless benefactress, and one might metaphorically call somebody 'a veritable Mother Teresa'. Exemplars come into being when specific thought structures spill over to inform the entire context in which they are embedded. For example, a metaphor that originally only expressed a particular aspect of marriage can become more and more linked to the whole domain of marriage as it gains popularity. Once in currency, metaphors and other structures continue to be used just because they come so readily to mind in the context. They become emblematic for the whole context or domain. A sizeable bank of cultural exemplars is learned from first- or second-hand experience (such as stories, myths, life narratives, etc.). Some of them are highly culturally distinctive, others recur across cultures in a similar fashion and may be based on universally salient sources, such as landscape, body, animals, social activities, etc., even though their expression takes different guises in the context. Exemplars may change from generation to generation. Today Mother Teresa has supplanted Albert Schweitzer as the exemplar of the saintly helper of the poor. Cultural exemplars also supply people with a fund of analogies they use in reasoning when trying to understand new experiences. For example, children understand love and marriage, which is still beyond their ken, on the basis of the exemplar of their playmate relationships, as Strauss and Quinn show in an earlier work (1992). In other words, exemplars become the privileged source domains for metaphors that people apply to new experiences. At the same time that the exemplar is the expression of schema, the schema uses the exemplar as a vehicle for spreading. It is an easily remembered condensation rich in imagery and context from which a schema is extracted. I would argue that myths are the institutionalized form of such schematic exemplars, which people adapt to their present reality.

The circulation of cultural exemplars is only one of the ways in which metaphors that include these exemplars become widely shared themselves. Another way that metaphors spread is through relating to a general cultural theme, which is situated on a higher level. Many widespread metaphors reflect and encapsulate prominent cultural themes (1997: 156). For example, the manufactured product metaphor

"colors Americans' understandings, not only of marriage, but of the many domains of life to which they apply the values of hard work, pride in one's work, Yankee ingenuity, and other American virtues associated with making things that last and work well."

There is a more general cultural schema that predisposes Americans to see all kinds of things and relations as manufactured products. Consequently, the metaphor of manufactured products for marriage has spread to the domain of marriage for the same reason that any understanding becomes thematic – through the multiplicity of similar-but-not-identical experiences. I would add that the metaphor is able to colonize new domains not simply because it reflects a given cultural status quo, but because it reflects the normative values of hard work and diligence that are encoded in the status quo in specific ways. It appears that themes and exemplars are dialectically related. An exemplar is chosen because it fits a preexisting theme and the theme in turn is integrally connected with the exemplar. That is, one way to encode themes is by culturally typical exemplars.

Strauss and Quinn observe that, in general, wholly new solutions to reasoning tasks and new representational systems do not easily develop. Usually they evolve out of simpler systems over long periods of time and are modified to suit new needs. In a similar spirit Sperber (1996: 141) speaks of 'parasitic information' that locks into a preexisting schema. Schemas recommend themselves to new contexts with a family resemblance to the old. It is important to note that in the process of the thematic spread the appeal of themes is 'grafted' as they are incorporated into new schemas. The schema of success and the overarching appeal it has for Americans is a case in point:

"Once it has been invented, the subsequent spread of a schema for reasoning about marriage will owe much to this broad appeal. That is, the lesson about succeeding is neither an unfamiliar nor unwelcome one to newlyweds, who bring with them into marriage a more general orientation to succeeding from the many earlier contexts in which they have learned it. Most Americans thus want success, and find it natural to seek success, in marriage as in so many other endeavors. It is so natural for Americans to think of marriage in terms of success and failure, indeed, that some of them experience divorce as the most acute of personal failures." (Strauss/Quinn 1997: 179)

All this notwithstanding, thematicity always remains partial. Strauss and Quinn emphasize this point strongly and speak of centrifugal factors of meaning construction that are opposed to the centripetal ones. There is no cultural dynamic guaranteeing that all the members of a society will come to agree on a wholly cohesive worldview, as earlier functionalist approaches assumed. Nothing prevents multiple or even contradictory cultural themes from emerging. Any cultural schema will only be culturally appropriate in certain types of situations. Take again self-reliance in the U.S. and how it interacts with gender roles.

Someone who is a self-reliant career-woman in the working place may be still expected to act feminine and helpless when a faucet leaks. She is, as Strauss and Quinn (p. 121) say,

“unaware of the inconsistency, because her self-reliance understandings and her feminine-helplessness understandings are represented in different parts of her neural network and are triggered in different contexts by very different features of experiences, so they rarely come into conflict.”

They conclude that there must be a process of ‘compartmentalizing’ the social world into situations where thematic schemas are appropriate and such where this is not the case.

Quite recently Kövecses (2000: 172-181) systematically discussed sources of intra-cultural variation in metaphor. These include (1) the change of prototypes through time and (2) the existence of complementary or competing prototypes at the same time. Prototypes may shift, be elaborated, or change in intensity. For example, since Victorian times American metaphors for male friendship have changed. Speaking of ‘fervent lovers’ and ‘deep and burning affection’ was not uncommon in the 19th century. In the 20th century notions of warmth have largely replaced the heat of fire among friends. Alternative conceptual metaphors for a domain may also reflect that this domain has several parallel prototypes. In America love is understood through aspects, that of ‘ideal love’ and that of ‘typical love’. IDEAL LOVE IS UNITY, while TYPICAL LOVE IS AN ECONOMIC EXCHANGE. In a similar way real friendship and friendliness are distinguished. In real friendship the true inner self is revealed, while in friendliness a primarily social role of predictable pleasantness is projected. Similarly Lakoff (1987: 74ff) discusses a multiple prototype model of ‘mothers’, which includes a genetic model, a nurturance model, a marital model, and a genealogical model. A cluster of these combined models determines what ‘a real mother’ is. The multiple mother prototype also reflects developments typical of more recent times. Now there are also donor mothers, surrogate mothers, adoptive mothers, stepmothers, and mothers who give up their child for adoption.

THEMATICITY AND SCHEMATICITY

An important key to the cognitive basis of thematicity is schematic imagery. Schematic structures are important in understanding all kinds of cultural knowledge, including scenarios and metaphors. Skeletal structures in mental imagery are responsible for general thematic templates, by virtue of accommodating numerous concrete experiences. I will only briefly mention a few examples treated above or to be picked up later and leave the more detailed theoretical argument to later chapters:

In chapter 4 I will treat in detail Bradd Shore’s (1996) analysis of how the initiation process for Murngin boys of Northern Australia involves the repeated enaction of a foundational schema in the walkabout journey, in age grading rituals, and in the guise of mythic tales.

Together these ultimately teach novices the basic cosmological outlook of their people. Through repetition and ritualization specific events gradually become highly generalized archetypes in their minds. As such, together with multivocal semantic symbols, they become schematized into a general set of patterns with very strong kinesthetic associations (p. 259). A major aspect of the foundational schema is an inside-out and outside-in movement in a general spatialized template with multiple associations and a journey “through a complex landscape of organized categories” (p. 222f). Another well-known example comes from Bourdieu’s (1977) discussion of female *WITHINNESS* and male *EXTRAVERSION* schemas in Kabyle culture. These schemas are highly thematic and encoded in body posture, evoked linguistic imagery and symbolic house space alike. Across these modes of expression men are associated with a generalized image of dynamism and directing force to the outside, while women are associated with an image of stasis and directing force to the inside. A further example is found in the work of Sherry Ortner (1990) on the Sherpa of Nepal. She approaches narrative plot-structures with a view on underlying cultural schemas, which she calls ‘core stories’. Ortner uncovers a foundational plot that relates to a main cultural theme of the Sherpa, namely rivalry among men for resources and power. She describes a prototypical, yet flexible basic scenario of how rivalry relations pass through certain stages, which is found in action sequences both as acted out socially and as described in the mythic blueprints of social action. Likewise, Kövecses (2000) presents a detailed linguistic analysis that English metaphors for the various emotions such as anger, love, fear, happiness, or shame share a generic *FORCE* model that is, of course, implemented in diverse ways. He speaks of a ‘master metaphor’. Kövecses also indicates that at a yet higher level all the emotions go into a more general model where they are opposed to rationality, so that one acts as an ‘agonist’ and the other as an ‘antagonist’ in a shared force relation (“I was overcome by my emotions”).

This brings us to the argument why schematic imagery is so important for integrating many models and metaphors into a recognizable single cultural style. Let us assume that within any given cultural group (1) significant cross-contextual relations between a series of connected clusters of folk-models exist which share a kind of *family resemblance*. Let us also assume (2), as argued earlier, that many major cultural models and metaphors are imagistic and non-propositional. From these two assumptions it follows that what makes several models part of the same cluster is their shared imagistic dimension on the topmost level of schematicity. The rich details of the models vary from one context to another, but their skeletal features are recognized as related and processed in a similar way. In Ortner’s example this could mean that all the different cases covered by the schema of rivalry among men share a basic causal structure. According to Johnson (1987) this basic aspect of how the events unfold is mainly understood through *FORCE* relations, much like billiard balls

passing on their impetus. However it is probably not only this general aspect of event structure, but also the more content-related mental representations of antagonism, vying interests, appearing on and leaving from the contended field and the involved rise in prestige that involve schematic imagery. The general point made here is that imagistic schematicity contributes to the emergence of cross-contextual links between cultural knowledge from different domains.

3. Cultural universals and variation in metaphor

One of the most interesting issues from an anthropological standpoint is what the study of metaphor can tell us about cultural universals and variation. I will briefly survey the kinds of universals emerging from metaphor research. Then I will enumerate some major dimensions in which superficially similar metaphors diverge. Through this I aim at showing how specifics and universals can be integrated in a comparative framework. In closing, I will ask to what extent and in what sense image schemas are universal, as is implicitly claimed by many cognitive linguists, and discuss their explanatory and ontological status.

The first obvious universal is the prevalence of metaphor itself, which characterizes human thought as such. Beyond this we have to study the incidence of specific metaphors across cultures. According to my brief survey of the literature, metaphorical universals can be sought in several specific dimensions: (1) in the prevalence of certain source domains in culturally significant contexts, (2) in specific pairings of source and target domains, (3) in patterns of historical change in metaphor, such as grammaticalization, and (4) in construals of the topology of entire domains, which are independent of variation in surface language. I will discuss these here. (5) A final source of universals are similarities found at the generic level of metaphors that diverge otherwise. I will discuss this a bit later in this section when inquiring into the universality of image schemas.

PREVALENT SOURCE DOMAINS

Cultural anthropology testifies to the fact that some source domains attain a special role in a great number of cultures, (not considering the target domains for which they are used for the moment). A practically ubiquitous example is the body as a basic source domain for metaphor (Douglas 1966, 1970). Body parts, body postures and gestures, body functions such as sex and reproduction, fluids such as blood, sperm, saliva, or excretions are among the richest sources of metaphor and a major cultural preoccupation in a great number of cultures. Christopher Tilley (1999: 36) argues that two other things beside the body, namely the house and the landscape, are source domains of high productivity across many cultures. He explains this through the existential significance of bodies, houses, and landscapes in the sense that all three form containers for human dwelling in the world. Cultural symbolism can

very often be found in body art, how people shape and symbolically infuse their dwellings, and in the shaping of the landscape or the setting of orientational landmarks. While the target domains cover a broad spectrum, these findings show that humans craft their immediate environment and themselves to expressive purposes.

Further particularly potent sources for metaphors are animals, which can be found in the literature on totemism. According to Willis (1974: 9) and Crocker (1977a: 43f) this profound significance derives from the fact that animals have a double role in being part of our enduring biological heritage as human beings and, at the same time, per definition being outside human society. Animals are brought into human categories by an extension of the principles governing human social relations (Tilley 1999: 49). Besides ecological and experiential salience, a reason for their widespread use is their multiple potential both as metaphor and metonymy. Animals are, on the one hand, close to humans and figure prominently in social life and, on the other hand, allow for many analogies with humans (moving, eating, mating, dying, hierarchy, different races, having societies, etc.) The master metaphor here is HUMANS ARE ANIMALS, which organizes these many sub-mappings.

Furthermore, metaphors can be related to human modes of subsistence. Bird-David (1990, 1992, cited in Tilley: 1999: 50) produces case evidence for characteristic foundational metaphors in particular modes of subsistence. He argues that forest dwelling people, such as the Nayaka of South India, the Mbuti of Congo, or the Batek of Malaysia, share a central metaphor THE ENVIRONMENT (THE FOREST) IS A PARENT. An important aspect of this understanding is that the forest, like a parent, gives unconditionally and provides for humans. Among the neighboring cultivators of the same regions this metaphor is transformed into the metaphor THE ENVIRONMENT (THE LAND) IS AN ANCESTOR. The important entailment here is that the land, like an ancestor, only gives in return for prestations. It is an interesting hypothesis to check whether these metaphors are universal or near-universal within cultural groups sharing a subsistence mode. At any rate, they seem to be motivated by the environment and the typical formative experience of people living in it.

UNIVERSAL SOURCE-TARGET PAIRINGS

Another way to look for universals is to search for universal conceptual metaphors in the strict sense, i.e. pairings of specific source and target domains. For example, Kövecses (2000, 2001) presents evidence that the metaphor ANGER IS HOT FLUID IN A CONTAINER is not only found in English, but also in Hungarian, Polish, Chinese, Japanese, Zulu, Wolof, and Tahitian with minor variations. Ning Yu (1999) discovered that event structure metaphor in English is also fully present in Chinese. Both languages conceive states as locations, causes as forces, changes as movements, actions as self-propelled movements, purposes as destinations, means as paths, difficulties as impediments, etc.

There is a particularly interesting, but seldom mentioned cross-cultural study by Hoyt Alverson (1994), who compares expressions for time in English, Chinese, Hindi, and Setswana. He suggests some universals in experience that create a semantic repository that is shared between cultures. The findings based on linguistic collocations indicate that time concepts in all four cultures fall into the following five classes: (1) time as a partible entity, (2) time as causal force or effect, (3) time as medium in motion, (4) time as a course, and (5) time as an artifact of ascertainment of the change of time.⁴¹ There is, however, one exception among these four examples: In Hindi a conception of time as a linear or orbital course is not present. Apart from this, the results point at a common experiential motivation and thus some phenomenological universals in the experience of time.

A very similar kind of explanation comes from the study of so-called 'primary metaphors' by Joe Grady (1997). The assumption is that primary metaphors arise because many embodied experiences in the world are universal. Such universally acquired metaphors can derive from archetypal early experiences in the parent-child relationship. These include AFFECTION IS WARMTH, INTIMACY IS CLOSENESS, and RELATIONSHIPS ARE ENCLOSURES. Likewise, basic experiences with objects in infancy shape primary metaphors such as UNDERSTANDING IS GRASPING, MORE IS UP, or IMPORTANT IS BIG. Basic experiences in spatial movement prefigures TIME IS MOTION, STATES ARE LOCATIONS, and PURPOSES ARE DESIRED OBJECTS. It remains to be seen how broadly the evidence bears out these hypothesized universals.

ONTOLOGICAL METAPHORS AND OTHER TRANSFORMATIONAL UNIVERSALS

An intriguing type of universal has to do with the conceptual expression of one ontological kind in terms of another. This is expressed in the notion of 'categorical metaphors' proposed by Bernd Heine and his colleagues (Heine/Claudi/Hünemeyer 1991, cited by Keesing 1989: 465). Their assumption is that there are experientially salient connections between the most elementary ontological domains that hold universally across languages. Their findings from a survey of many languages indicate a universal directionality determining which domain classes can become a metaphorical source for other classes, and which a metaphorical target. There is a specific order holding between source-target pairings in ontological metaphors. It can be expressed in a chain as follows:

PERSON → OBJECT → SPACE → TIME → PROCESS → QUALITY		PERSON → OBJECT → SPACE → TIME → PROCESS → QUALITY
<i>source domain pole</i>		<i>target domain pole</i>

⁴¹ The results for Chinese and English metaphors are corroborated by the articles of Ning Yu (1995) and Lakoff (1990, 1993). However, they cover only cases (3) and (4) of Alverson's more inclusive survey and apparently missed examples from the other classes.

Quality stands at the abstract (target domain) pole, with the categories left of it becoming progressively more concrete. A conceptual category may be metaphorically expressed by any other to the left of it in the chain. Thus, a quality can always been expressed as a process, time, space, objects, or persons. Processes can be expressed as time, space, objects, and persons, and so on. As a support of this Claudi and Heine (1986) examine some common metaphoric relationships in the Niger-Congo language of Ewe and document a series of highly conventionalized equivalences between sources and targets, which shape its most basic ontological metaphors AN OBJECT IS A PERSON, SPACE IS AN OBJECT, A QUALITY IS AN OBJECT, QUALITY IS SPACE, TIME IS SPACE, A PROCESS IS SPACE, QUALITY IS A PROCESS. Heine (1997a) shows these to be universal.

Heine and his colleagues also study a diachronic language development called grammaticalization, i.e. how lexical forms become progressively transformed into grammatical categories. The process of grammaticalization is a form of diachronic metaphor. Lexical forms come to stand for some other linguistic function. They become progressively 'bleached' of their semantic content (i.e. schematized) and come to serve as abstract relational functions in some contexts. For example, they explore how a volitional verb applied to willful human agents comes to be used for non-human entities, following the AN OBJECT IS A PERSON transformation.

Heine's comprehensive work (1995: 131f, 1997a: 148ff) also describes other transformational (near-)universals. His findings indicate that the range of concepts from which new linguistic forms are metaphorically derived are severely restricted in cross-linguistic comparison. Thus, if new terms for 'east' and 'west' are acquired, these terms most likely relate to expression for the rising and setting sun. If a definite article arises it is most likely derived from a demonstrative attribute. If an indefinite article arises, it is almost invariably derived from the cardinal numeral 'one'. If a term for 'front' is introduced, it is almost invariably derived from a body-part noun, such as face, eye, head, breast, and the like. Moreover, it is very common that spatial and temporal relations come to mark logical relations in discourse. Heine (1997a: 150) summarizes this as follows:

"This means that erstwhile expressions for spatial and temporal concepts turn into markers for discourse functions such as anaphora or cataphora, or into markers for conditional, causal, purposive, adversative, concessive, and other relations, and this again may also have the effect that adverbs and adpositions originally used for locative and temporal concepts tend to end up as elements whose main function it is to express causal subordination (...)."

Universal hierarchies in modes of synesthetic metaphors seem to follow a logic quite similar to the ontological categories described above. It was pointed out earlier that metaphors such as "sweet silence" are quite natural, while "silent sweetness" occurs rarely. These and many

other examples demonstrate that sound is more readily conceived as taste than the other way around. Joseph Williams (1976) and Yanna Popova (personal communication, July 14th 2000) suggest that there is a universal modality hierarchy, such as that some senses are preferred as source domains and some as targets. Touch is preferred to taste, which in turn is preferred to smell a source domain in synesthetic mappings. Smell again is more primary than sound, and sound more primary than vision. This can again be expressed in a hierarchical chain:

TOUCH → TASTE → SMELL → SOUND → VISION	
<i>source domain pole</i>	<i>target domain pole</i>

Popova argues that the hierarchy results from the experiential immediacy of modes such as touch, which makes them closer and thus more ‘reliable’ in an ontological sense. By contrast, visual information is experienced as external and existentially more remote.

UNIVERSAL CONCEPTUAL TOPOLOGIES

Another kind of hypothesis on universals concerns the complex conceptual topologies, rather than the study of individual utterances. One argument comes from the study of imagery that underlies systems of spatial prepositions, which have been of much interest to metaphor theorist because of their polysemous nature. Alverson (1991: 113) assumes that there are archetypal scenarios or lived-body experiences that serve as a basis for encoding complex categories in the lexicon. He proposes scenes encoded as wholes, as given in phenomenal experience, that “any language would encode in a small number of lexical items all of the basic experiential properties of this one grand scene.” The language as a whole will always encode the scene, even though there exist various ways of breaking up this intentional geometry and temporality, as well as ways of assigning the components to the lexicon. Specifically, the archetypal scenario is given through full and rich image schemas that are “ready and robust codings of certain universal, materially and perspectively grounded experiences.”

As a case study he compares the polysemous senses of English ‘over’ to its counterparts in German and the South African language of Setswana, which break up the lexicon in divergent ways. However, he believes that the following experiential archetype is able to accommodate the cross-linguistic differences:

“There is an experience that would in some minimal way be shared by all languages/cultures and their speakers – that of the immediate surface of the earth and the seeming course of sun and moon. Such a ‘scene’ would contain such potentialities for experience as these: (1) propinquity; (2) distance; (3) demarcation of spatial relationships; (4) the dial, orbit, or trajectory of sun and moon, whose light is

both a point and a sweep or array; (5) cloud cover; (6) altitude; (7) courses of movement/travel through the trajectory; (8) barriers to sensory and locomotor access; and (9) behavior of entities occupying this scene.” (p. 112)

Based on such an archetypal experience people construct a complex multi-construal model (Palmer 1996) that encompasses various ways of schematization and of perspectively construing a scene.

There are several other authors who have suggested universals in the mental scenes and the imagistic topologies that constitute them. An interesting result is that the topology of mental relations between several prepositional terms is invariant across languages in spite of surface variation. Gärdenfors (2000: 175-176) summarizes the work of Bowerman and Pedersen (1992):

“In a cross-linguistic study involving thirty-eight languages, they investigated how native speakers described situations of containment, support, attachment, adhesion, hanging, and so forth. In particular, they studied the following six spatial situations: (1) support from below (for example, cup on table), (2) clingy attachment (band-aid on leg), (3) hanging over/against (picture on wall), (4) fixed attachment (handle on door), (5) point to point attachment (apple on twig), and (6) full inclusion (apple in bowl). (...) Different languages use different spatial expressions to express these kinds of situations. For example, in English (1)-(5) are covered by ‘on’ and (6) by ‘in,’ and in Dutch the prepositions used are ‘op’ for (1)-(2), ‘aan’ for (3)-(5), and ‘in’ for (6). Despite considerable variation in the languages investigated, the spatial situations were not categorized in arbitrary ways. All of them appear to be constrained by an underlying dimension that orders the spatial situations from (1) to (6). For example in no language did Bowerman and Pedersen find a term that was used for (1) and (5), but not (3).”

The results indicate invariant topological groupings in the imagery underlying various prepositional systems, with always the same elements being conceived conceptually next to each other in the same overall order.

Another at least superficially similar argument is proposed by Anna Wierzbicka (1992: 11ff). She holds that meaning is composed from a set of universal semantic primitives on the conceptual level. Wierzbicka tries to isolate irreducible meaning atoms (an ‘alphabet of human thought’, p.18) by constructing a sort of meta-language by which all complex concepts can be described. A basic concept is accepted as a semantic primitive if it proves itself across unrelated languages, if it is demonstrably active as a ‘building block’ in the construction of other concepts, and if the building blocks are lexical universal, i.e. concepts which have their own word (p. 12). Likely candidates include ‘think’, ‘say’, ‘know’, ‘do’, ‘thing’, ‘person’, ‘want’, ‘like’, ‘good’, ‘bad’, ‘this’, ‘something’, ‘when’, and some dozens more. The meta-language approach is useful for analyzing the conceptual content of culturally specific

concepts and their polysemous sub-versions. For example, one major meaning focus of the English word 'soul' can be decomposed as follows:

"one of two parts of a person

one cannot see it

it is part of another world

good beings are part of that world

things are not part of that world

because of this part a person can be a good person" (ibid, p. 36)

The model helps in pinpointing conceptual elements that might be universal. When complex cultural concepts like the English *soul*, the Russian *duša* and the German *Seele* are compared through compounds of primitives, this may reveal a partial overlap and tell in which specifics the similar notions differ. Yet we have to bear in mind that semantic primitives never occur in isolation, but as "elaborated and augmented", and are thus dubious as universals independent from more complex configurations. Note finally that the approach is more of an analytical observer's model for describing similarities between languages than a cognitive one. It does not reflect representations as they are used, since the question of mental formats is bypassed through the artificial meta-language.

HOW CAN UNIVERSALS BE EXPLAINED?

Findings on universals in metaphor prompt the question what motivates them. Once cultural borrowing and accidental coincidence have been excluded by looking at a sufficient number of unrelated languages (cf. Kövecses 2001: 259), universals call for an explanation. I would like to argue that the common basis can be explained by co-occurrences of things, sensory impressions, or abstract attributes that can be experienced in any culture (experiential metonymies). Various kinds of experiential co-occurrence can be listed:

(1) Universal archetypal experiences may motivate metaphors such as AFFECTION IS WARMTH OF INTIMACY IS CLOSENESS.

(2) Other universal archetypes may motivate a rich image-schematic scene that is encoded in language and underlies polysemous categories, e.g. for a proposition such as OVER. Yet, it cannot be simply taken for granted that just because an experience such as the rising sun is universal, it is the cognitive archetype from which the conceptual system in question results. It needs to be shown that a scene actually shapes the lexical system as reflected in a detailed analysis of the imagery.

(3) Universal physiological reactions of the autonomous nervous system may indirectly motivate metaphors, such as in the case of emotions. In chapter 4 I will discuss evidence that ANGER IS HOT FLUID IN A CONTAINER is so widespread because

of universal experiences of blood pressure, body heat, and respiratory intensification in anger.

(4) General ontological metaphors for time, space, modality, etc. (i.e. the Kantian a priori structures of the experienced world) are hardly shaped through a single formative experience. Instead, basic ontological metaphors, such as EVENTS ARE JOURNEYS, MEANS ARE PATHS, OR TIME IS A MOVING OBJECT, underlie many kinds of experience and arise from basic spatio-temporal experience.

All in all, experiential universals can either stem from archetypal scenarios such as the sun rising or being comforted by one's mother, or constant background structures of experience such as moving bodies going with the passing time.

THE CULTURAL EMBEDDING OF METAPHOR

Undoubtedly, many will take the above similarities in metaphor as evidence for cultural universals. While there is at least some degree of truth in this, speaking of universals can encourage too far-reaching conclusions, particularly since the term 'universal' usually means something different to a cognitive scientist than to a cultural anthropologist. In this sense, *it is of crucial importance in comparing cultures to distinguish idealized metaphors from their particular cultural actualizations*. Culturally wide-spread preoccupations with metaphoric themes, such as the up-down dimensions, paths, the body, animals, plants, landscapes, etc., should not blind us to the necessity of directing our attention to the details. Theorists should check systematically for a series of sources of variation. These include the way metaphorical meaning is embodied, the emotional, evaluative, and normative entailments of a metaphor, and the scope of use of a given metaphor.

Seemingly identical metaphors often have widely diverging practical entailments, in the way they are ideologically and culturally embedded. A case in point is Thomas Ots' (1994: 129) comparison of Chinese and German idioms of the heart as locus of emotional action. This means that in both cultures the heart is basically conceptualized as a container. Similarly, in both cultures the container can become agitated, which is hardly surprising, since heartbeat provides a universal base for such a conceptualization. At the same time, there are evaluative differences with regard to the movement inside the container:

"But there is a small, yet decisive difference between the Chinese and the German idioms of the heart. In Chinese the rhythmic action, e.g. the pounding, beating, and jumping of the heart of joy is missing. If the heart jumps or palpitates (...) it refers to something negative, refers to a heart that is in fear and danger (...). The cultural motto of quietness and harmony that constructs a still and empty heart has left its imprint on Chinese idiomatic language."

Another fine example is the expression “A rolling stone gathers no moss.” In Britain this is used in derogatory sense, because moss is valued and rolling mostly signifies rolling too fast. In the United States, on the other hand, moss has come to stand for something undesirable that sticks to things when one stays in one place too long. No doubt, this distinction reflects the cultural importance of roots in Britain versus the American valuation of mobility.

As these examples illustrate, we must look for the differences between similar metaphors foremost in their emotional, evaluative, and normative dimension. While analytically the metaphors share something, their experiential nature diverges, such that the jumping of the heart is felt differently by Germans and by Chinese (see chapter 4 for a general model of embodied metaphor).

Acknowledging the way metaphors are embedded in cultural ideological discourse and in the weave of meaning is a prerequisite for understanding them. A comparison originally made by Shore (1996: 283) illustrates the importance of a metaphor’s embedding and the diametrically opposed effects this can have on a seemingly identical basic metaphor. Juxtaposing the ethnographic evidence from Greece by Herzfeld (1987) and his own Samoan fieldwork (1982), Shore shows that while both Greek and Samoan codes of privacy operate on a spatial CENTER-PERIPHERY image schema, their orientations are opposed. On a sliding scale between intimate and formal relations the key association for Greeks is between intimacy and household privacy, i.e. insideness. In Samoa it is periphery that suggests the intimate, while it is the center that suggests public and formal life. Both cases share a common basic equation of spatial distance with social distance, but with differing points of reference. In the one case the relevant point of reference is the house and in the other the social sphere as a whole. Thus, while in a very basic way the two schemas are alike, namely in ascribing cultural importance to the center, either as individuality or public life, the specific entailments differ depending on the ideological importance attributed to individuality. Johnson’s (1987) and Lakoff’s (1987) basic metaphor IMPORTANT IS CENTRAL is supported by both examples, whereas the entailment INTIMATE IS CENTRAL is not.

The scope and the degree of emphasis a simple ontological metaphor receives in a culture and the specific concepts it occurs in may vary considerably. Take as an example MORE IS UP, for which Beck (1982: 90) compares Tamil, a language of South India, and American English. Although gaining status is viewed as up in Tamil, because it is said that “people climb the ladder of fame”, the loss of status is conceived in different terms. One usually says “a person’s light has dimmed”. This suggests that other images beside the verticality schema are equally or more important for expressing status. Likewise, health is not conceived on a vertical scale, but in terms of liquids. Being in health is not seen as being up, but as the body, as its container, being filled. Poor health is seen as a liquid evaporating from the body. Comparison shows how wary of ethnocentric generalizations we need to be, especially

where metaphoric conceptualizations are deeply entrenched, as is the case for the Western treatment of ideas as material entities:

“For example, in South India ideas are clearly not objects. One cannot grasp them, give them away, see them, taste them, or eat them. In the Tamil language ideas cannot be bounced off someone, they cannot be chewed, swallowed, or even turned over and examined. Instead, in Tamil ideas are said to grow brighter, as fire brightens when you add fuel. An idea can also rise, as the sun rises in the morning, or it can move like a wave does on the sea. An idea can move fast, as a horse can gallop, and it can decay or evaporate when little used. Hence in Tamil ideas have life, light, and even movement, but they have little material substance.” (p. 93)

There is also evidence for cultural directionality preferences. Beck (p. 88) exemplifies this by comparing Tamil and Lao proverbs. Tamil proverbs commonly describe natural scenery in terms of the human body and, for example, liken two mountains to two breasts. By contrast, the Lao of Malaita tend to describe the human body in terms of natural scenery (“two breasts are like two mountains”). We may hypothesize that the directionality found in a cluster of metaphor may encode a culturally canonical perspective, such as the perspective from society versus the perspective from nature.

All this shows that cultural evaluation and fine-tuning *ipso facto* enters into the understanding of metaphors, and cannot be simply factored out. Hence, I argue against a too decontextualized view of cognition – cognition is what cognition does. What a metaphor actually *does* is determined by the entailments and these are drawn from culturally and historically situated knowledge. For this reason it is unfortunate that discourse pragmatics is passed over too lightly by most metaphor theorists in linguistics.

SPECIFIC WITHIN UNIVERSALS

We need an understanding of the actual complexities of cognition beyond a crude either-or view in the debate between universalists and relativists. A detailed analysis of basic metaphors embedded into social context provides perhaps the best leverage to demonstrate that, once one gets into the nitty-gritty of a cognitive analysis, both extreme positions prove to be untenable, and, to a certain degree, vacuous claims. Let us take a closer look into what a cognitive analysis of metaphors can actually contribute to the anthropological study of universals. As argued above, the relationship of shared metaphors and their cultural entailments deserves particular attention. Here, Emanatian (1995) and Kövecses (2000) can provide some valuable guidelines for further research.

Michelle Emanatian shows nicely how embodied metaphors for emotion can be, on the one hand, basically shared between cultures, and on the other hand differ once one takes a closer look at their *scope*, *entailments*, *framing*, and *associated imagery*. She illustrates this by comparing metaphors for lust and sexuality from American English and Chagga (a Bantu

language of Tanzania). There is a striking similarity between these languages in the source domains that are used: For both there is considerable evidence for the two metaphors of 'eating' and 'heat' to conceptualize lust.

Apparently these significant parallels in the semantic domains favored for conceptualizing lust are not accidental. Further confirmation that the eating metaphor is extremely widespread, which Emanatian mentions in passing, comes from the Cuna language of Panama and Mehinaku of central Brazil. It seems plausible to assume that 'eating' and 'heat' are experientially motivated in a similar way all over the world. For one thing, eating and having sex are the most salient ways in which the body is permeated by or permeates the external world or another body and thus both provide basic experiences of communion. In the case of 'heat' the general metonymy whereby the physiological effects of an emotion stand for the emotion is evident. The basic correspondence in Chagga and English concerning the source and target domains can be understood in this way. While this choice is not arbitrary, but motivated, as Emanatian argues, the cultural appropriation of the metaphors cannot be predicted from it. Clearly, each culture shapes how these basic correspondences are felt, perceived, and schematized (p. 178). Emanatian's attempt to answer the question where identical primary metaphors can differ furnishes valuable clues, which can be generalized.

Cultural variations may arise in at least four important respects: First, the same metaphors can be either a choice from a large stock of alternative ways of conceiving a target domain, or only from a narrow range of cultural metaphors. Second, the basic correspondence may have different entailments. This means that what can be inferred from them varies culturally. Moreover, how productive they are can vary in degree. Third, the domains are framed differently. This means that which aspects of the source domain are mapped on the target and which are not depends on culturally specific conventions. Finally, the mappings are colored with rich images, depending on culturally salient or typical objects that are associated. Emanatian (1995: 172ff) illustrates each of these differences comparing Chagga and English:

(1) *The variety of different metaphors used for a given domain:* Lust metaphors seem very rich in English. Lakoff and Kövecses (1987) show these to include SEXUALITY IS A PHYSICAL FORCE AND LUST IS A REACTION TO IT, LUST IS INSANITY, and SEX IS WAR. These source domains do not appear to be used in Chagga. In fact, according to Emanatian, Chagga only has a third, somewhat less systematic source domain for lust, which uses PEOPLE ARE ANIMALS and draws on well-known traits of various animal species to describe human sexual behavior. Otherwise only SEX IS EATING and SEX IS HEAT appear.

(2) *Range of possible entailments used and degree of productivity of the source:* As is always the case with metaphors, the source domain is used selectively. A source of variation subject to cultural constraints lies in the choice and number of traits mapped. For instance, in English the source domain of eating is exploited only to a much lesser extent than in Chagga. For Americans lust is conceived of as hunger and positive sexual attributes of either partner as flavor (although sweetness is more a trait used for women). The most obvious way the mapping is selective is in that sexual intercourse is not usually referred to as eating. The Chagga metaphor produces a much wider range of metaphorical entailments. All the entailments of the eating schema are used: hunger, the hunt for and sampling of food, sex as eating itself, nourishment and satisfaction from eating, and savoriness of the food. Nonetheless, there are clear constraints here as well. A woman can taste good and sweet, but not spicy, smoky or salty. She can be sugar honey, but not goat meat or corn gruel. A man may eat or taste a woman, but does not chew or swallow her.

(3) *Framing differences of the target:* There are also differences in the target domains with respect to what is mapped and how. In English the metaphors are used for desire with both sexes, whereas in Chagga only male lust is conceptualized as hunger. Similarly, for Chagga speakers male sexuality does not involve heat. In contradistinction to English, heat in Chagga is typically ascribed to a desired female partner; it is not a trait of the person desirous himself. Heat is the sexual enthusiasm and skill of a woman, whereas in English it refers to lust in general, which both men and women can have.

(4) *Imagery differences:* The imagery drawn upon to concretize the mappings differs. In Chagga 'hot' women are likened to hearth, rather than a microwave oven. Likewise their sweetness can be 'sugar' or 'honey', but not the (ice cream) 'flavor of the month'.

In sum, Emanatian's article can be applauded for specifying the particular cognitive mechanisms that allow for differential ways of framing common metaphors. Recently Kövecses (2000: 165) proposed an even more refined list of potential sources for cross-cultural variation in shared metaphors, which partly overlaps with Emanatian's study: (1) variation in the content of prototypical cultural models, (2) variation in the influence of the broader cultural context and its key concepts, (3) variation in the scope of a conceptual metaphor or metonymy, (4) variation in the elaborations of conceptual metaphor or metonymies, (5) incidence of linguistic metaphor as opposed to a preference for metonymies. Since the others have been covered in the discussion of Emanatian's article I will pick up the first two and the fifth points here.

The first and second points both relate to cultural context and simply treat two of its aspects separately, namely the variation of scenario details and the contextual models that cause them. As concerns the variation of scenario details, it is possible to find divergent patterns in the expressive part of the prototypical cultural model of anger. While Chinese, Westerners, and Zulus (among others) seem to experience anger as a force inside oneself the typical cultural reaction is not identical. In China anger is not so often expressed and directed against another person. It is seen as a congestion of *qi* in the own body, which can be diverted to its various parts (p. 166). In the English model anger is expressed and directed against the perceived offender. In the Zulu model people tend less to direct anger on a specific target; instead they behave indiscriminately aggressive against everyone (p. 167).

The embedding of metaphorical models and scenarios in other more general models provides an explanation for the motivation of these differences (p. 168). Anger in European cultures is embedded in the much more inclusive model of the four humors. Anger in Japan relates to a model of the two selves, the personal (*honne*) and social self (*tatemae*). Controlling one's anger results from the cultural standard of maintaining one's social face, while hiding one's innermost feelings. Anger in China, as mentioned above, relates to the broader concept of *qi*, which includes a model of harmony between the universal complementary forces of *yin* and *yang*, and views the human body as a homeostatic system. The broader cultural context also influences how concepts are evaluated (p. 169). In American culture and in many others anger has a very negative evaluation, while in Zulu culture it also has a positive side to it, because intense activity is culturally valued.

The final source of variation raised by Kövecses concerns the incidence and range of metonymies in cultural discourse as opposed to metaphor. He cites studies indicating that in the domain of anger English speakers rely heavily on metaphors, while speakers of Zulu, and to some extent speakers of Chinese, predominantly use metonymies for the same purpose.⁴² I know of no evidence that indicates general (domain-independent) leanings toward metaphor or metonymy between cultures.

Wrapping all this up we get the following list of potential sources of variation (although the points intermesh, so that the analytic distinction is somewhat artificial). I will divide each main point into further sub-points:

⁴² What sort of consequences a preference for metonymies in a given domain or a culture as a whole has remains unclear. My conjecture is that in the case of conceptual imagery emerging from and retrojected into the body (such as in emotions) linguistic metonymies produce a greater sense of bodily immediacy. For other metonymies relating to a non-bodily experience, the same may be true in a weaker fashion. In many cases, however, the preference for on trope metonymy may simply emerge from conventionalized style patterns without entailing a great cognitive difference.

- (1) The incidence and variability of metaphors and models used for a given domain:
 - 1a How many different metaphors structure a given domain?
 - 1b How different are the metaphors that are found in a single domain? Are there complementary or competing metaphors? Do they form clusters?
- (2) The systematicity of structural sub-mappings and the possible entailments of a given conceptual metaphor:
 - 2a Which structural sub-mappings are exploited?
 - 2b What is the number of entailments?
 - 2c What are the specific kinds of entailment?
- (3) The discourse pragmatic usage and social framing of a given conceptual metaphor:
 - 3a How is a metaphor applied: who says what to whom and when?
 - 3b How is a metaphor embedded in more general models?
 - 3c What is the evaluative dimension of the metaphor?
- (4) The illustrative imagery used at the level of linguistic manifestations for a given conceptual metaphor:
 - 4a What kinds of linguistic manifestations or cultural exemplars that frame the conceptual metaphor?
 - 4b Do the manifestations or exemplars come from the same or different domains? (metonymic vs. metaphoric relation)
- (5) General patterns in metaphor use in a culture:
 - 5a What are directionality preferences manifested when studying groups of metaphors of a culture?
 - 5b Does a given culture rely more on metaphors or metonymies?

ARE IMAGE SCHEMAS UNIVERSAL?

Questions of universalism have significant repercussions on image schema theory. For instance, it may be claimed that specific basic image-schematic building blocks such as FORCE, CONTAINER, PATH or BALANCE form part of schemas related to a certain domain in many or all cultures. An example for such a claim is that discourse on the human body universally features CONTAINER-related expressions. A more far-reaching claim is that there are transcultural core-schemas with an organizing role, though diversely elaborated in detail. Here an example is the claim that FORCE occurs as a central part of the emotion domain in many cultures. In this view, the model's core part is image-schematic and motivated by

roughly corresponding experiences. Hence, transcultural archetypes are understood as imagistic topologies, which are partly shared.

I intend to show that all these issues are not only empirical but also epistemological in nature. A general theoretical problem turns around two opposed definitions of meaning, one analytic and one cultural. I join with Terence Turner's (1991: 122) insightful critique of idealist tendencies in much of symbolic and metaphor theory. He speaks of

"a tendency to regard the minimal elements, for theoretical purposes, as prior in both epistemological and ontological senses to the combinatorial structures in which they are incorporated in cultural discourse and social action."

This lays the finger on the crucial aspect of Lakoff and Johnson's theory that is problematic: Centering on idealized basic metaphors too easily encourages the impression that these could ever be actualized *just as such*. The universal view embraced by much of cognitive science is artificial from the point of view of recent cultural anthropology, insofar as the latter is interested in explaining situated culture. It is an artifact of its spurious epistemological presuppositions. An uncritical assumption of primary experiential atoms in their own right means falling prey to what Clifford Geertz (1973: 37) calls a 'stratigraphic' view of the relations between culture and the human substrate. Such a view would attempt to analyze man by peeling off layer after layer, each complete and irreducible in itself, and revealing a layer of a different kind underneath. This misleads us into thinking that we can peel away culture, then the functional regularities of social organization, then psychological factors such as basic needs and finally get to physiological and neurological foundations. A similar drift is noticeable with image schema theory as presented by Lakoff and Johnson. There seems to be an implicit idea that, when we take different cultural contexts that use the same metaphor, we can peel away the metaphor's cultural context (i.e. extract a single metaphor from a series of differing cultural contexts), uncovering it in its pure and simple state, and compare the essence. However, this disregards that by way of being experienced in a cultural context a basic metaphor is understood in a specific way, never as pure idealization. Paraphrasing Alverson (1994: 14), there is a *necessary* conflation of that which is locally, historically, and culturally acquired and that which is a priori to experience.

Therefore, locally, historically, and culturally embedded metaphors seldom permit the sort of universalist conclusions that characterize many idealized models in cognitive theory. Yet, this does not mean that searching for basic metaphors is altogether useless. Even if the metaphor in isolation exists only in the theory's abstraction, this is a perfectly valid scientific strategy, as long as one remains aware of what can be shown by it and what cannot. For example, from research on primary metaphors in early childhood we might infer cross-cultural similarities in cognitive development against the backdrop of a generalized cognitive

functional model. What we cannot infer are universals of *phenomenological, lived, or contextualized meaning* as such.

A cautious attitude towards the issue of universals has important ramifications for the understanding of image schemas. A universalist view is only plausible when considering basal image schemas and disregarding their contextual instantiations. No doubt, experiential motivations for CONTAINER, FORCE, BALANCE, and PATH occur in a roughly comparable manner everywhere, even though first spatial experiences are irreducibly cultural. Yet, arguably universal examples of a child seeing a rolling object knocking into an object (FORCE and COUNTERFORCE) will not do here. A focus on developmental motivations and a description of generic commonalities of these schemas means asking the wrong questions. Instead, a perspective on cultural performance sheds a different light on image schemas. Approached in this way they are situated and saturated with cultural background meaning, intentionally and perspectively dynamized, and, as a rule, form complex compounds that are very closely tied to cultural contexts of a particular kind.

(1) Image schemas form part of situated knowledge. Cultural idiosyncrasies enter via contexts of use that augment and situate the basic schemas. Although there are large stocks of expressions and structures with stable imagery, such as morphemes, words, idiomatic phrases, metaphors, or traditional narratives, each usage of a conventional expression implicates it in a particular social and linguistic situation (Palmer 1996: 39). This dependency on context must be true a fortiori *between* cultures and languages. It follows that image schemas should be analyzed relative to their embedding in cultural discourse styles and social settings. They should be understood as constituents of dynamic configurations that are more than the sum of the basic parts we can analytically isolate.

(2) Image schemas express a cultural, or for that matter perhaps a personal intentionality. It is for this reason that Alverson (1991: 117) strongly cautions us that we must conceive of image schemas as *significance bestowing devices*, rather than simple mimetic abstractions from Euclidean space. They are intentional tools by which people *make* sense, and not actualistic shapes. What he means by this is that basically similar image schemas may be differently construed, depending on intent and viewpoint. Culture determines fairly stable modes of construal in bestowing intentionality. For example, linguistic worldviews may produce a strong bias to construe an image schematic scene as moving, as Palmer (1996: 148) notes for the Yaqui speakers of northern Mexico and Arizona, while English speakers will tend to construe the very same scene as static. In other words, people shown the same drawing will actually see it as representing a static or a moving person depending on culture.

A general methodological problem of image schema research is the incomplete match between words and experience. Languages carve up experience in various ways, even where there are archetypal patterns, setting the joints in different places and leaving different parts unnamed. For this reason the indirect inferences that we draw from linguistic metaphor allow only for weak conclusions about universals, as Hoyt Alverson (1991: 111) points out. Lakoff (1987) implies that image schemas are basic components of experience which are mapped onto particular senses of lexical items. Although he does not assume an invariant external reality, he implicitly assumes some invariant embodied motivations. This leads to a tacit and very problematic assertion that image-schematic meanings that are glossed by a single lexical item must therefore constitute an integral category of experience. Alverson notes a certain fragmentariness and lack of predictability in the way experiential reality is carved up by different languages, despite the fact that all languages make reference to the same set of image schemas. This is clearly shown by his comparative data on the senses of *OVER* in English, German, and Setswana. Languages allocate spatial experience to lexemes in different ways that mirror specific cultural intentionalities of experience. Even assuming that archetypal experiences like the sun's trajectory create a ground of commensurability between cultures, language would never give us one-to-one matches between lexemes and experiences. Languages reflect different parts of universal experience by augmenting some aspects and leaving others without words. Consider as a simple example the perspectival imagery of grouping ourselves with other people, as reflected in the system of first to third person. The study of English grammar reveals an absence of a dual and of a distinction between inclusive and exclusive "we", and yet both distinctions are conceptually available to English speakers, although they are not linguistically expressed. As another example Alverson mentions the English schema for *OVER*. There may exist many aspects of a mental scene relating to spatial relations that no typified sense of *OVER* captures. In contemporary English *OVER* prototypically expresses a specific intentional gaze, namely an arc that spreads outwards as it is seen from below. Yet other languages will not necessarily use a single lexical item to express this perspective (or, for that matter, a proposition), even if they will have ways of evoking such a perspective. Nor will the intentionalities evoked by the culturally dominant linguistic terms be identical, even if the basic perspectives are comparable.

A DOUBLE VIEW BETWEEN BASAL AND COMPOUND SCHEMAS

When we compare the metaphor systems of different cultures we can ask two closely related questions. We can ask, both, if complex schemas include similar image-schematic building blocks and if they share generic ontological core-schemas around which sub-schemas are grouped. To clarify the issue I propose two partly overlapping distinctions of cognitive

formats, one between *compound and basal schemas*, the other between the *generic and specific level* of a given schema, as expounded in chapter 1:

(1) The first major distinction is that between compound and basal schemas. Basal schemas are found in most works in the Lakoff-Johnson tradition. These are micro-analyses isolating small image-schematic units in linguistic metaphors. Expressions are combed for image schema primitives such as CONTAINER, FORCE, BALANCE or SOURCE-PATH-GOAL, which are fairly simple in structure and generic. More complex and multi-level image schemas have not been much mentioned outside anthropology (*pace* Cienki's 1997 helpful observations). Although the metaphors analyzed by linguists are a lot more complex than image schema primitives, the residual complexity is usually explained in terms of propositional mappings. I believe that this strategic bias towards basal image schemas misses some of the opportunities of image schema theory.

A hypothesis rarely pursued by linguists, but particularly suggestive for the study of ritual, myth, body techniques, and narrative is that rich multivocal meanings may be compressed into a multi-aspectual single image. Technically, this can be described in terms of an image schema transformation that Johnson (1987) calls 'superimposition'. In other words, several basal constituents may be stacked onto one another to form a more complex image schema. In chapter 4, I will discuss a Samoan image schema compound of CENTEREDNESS, CLOSURE, CONTAINMENT, REST, and BALANCE (Shore 1991). The complex schema is linked to the setting of a chief's presence, in which all of these elements occur as one in the same embodied posture. This complex superimposition of image-schematic elements is what I will call a 'compound in culture' image schema. Note that the basic unit of analysis here is a situated compound of meaning as it is typically manifested in large sequences of discourse or symbolic action. This entails two other aspects: Regarding superimposition it is good to remind of a basic tenet of Gestalt theory, i.e. the primacy of wholes before parts. Thus the configuration of the parts is in all likelihood accessed as a whole from memory. Moreover, through being experienced in a cultural context, the basic element is intentionally understood and evaluated in a specific way, never as pure idealization.

(2) A related distinction becomes relevant when we ask whether complex superimpositions also include a governing 'core' part. This reflects the relationship between the generic level and the specific level of a given metaphor. It was proposed in chapter 1 that the generic level structure, i.e. the image-schematic skeleton, is rigged out with several sub-schematic details. It was also said that correspondences between several metaphors within a culture can be pinned down by abstracting the metaphors to a schematic level. Analogously, this procedure allows a comparison of metaphors between cultures. A possible hypothesis is that generic level 'core' image schemas are universal, while their details which are grouped 'around' them vary. Kövecses (2000: 190) illustrates this as follows from his research on emotions:

"The cultural or folk models are both generic and specific level structures. At least in the case of the basic emotions, the generic level schema involves 'cause-force-response.' In the light of the evidence we have so far, this schema seems to be universal. Most of the richness of human emotional experience is, however, given by the specific-level cultural models."

Note that Kövecses connects the experiential and felt pole of cognition with the specific level structures. The generic core is an interesting finding, but the phenomenal reality of a concept in culture, its feel, is only accessible through the schema with all its details. In brief, transcultural prototypes indicate partly universal motivations for a given domain, while at the same time allowing for cultural values that refine these.

The major difference between the descriptive strategies (1) and (2) is that under the heading of simple superimpositions we can usually treat schemas still amenable to a more or less full description as an integrated compound, while complex schemas, such as the generic emotion schema, are no more than high-level descriptions of what actually involves very complex details, including scenarios, even though these are put into parentheses for the time being.

What is the epistemological upshot of the distinction between the basal or 'building-block' sense and the aggregate or 'compound in culture' sense of the term image schema? On the one hand, without doubt there are important ways of understanding ontologies as basic and small-scale image-schemas such as CONTAINER, PATH, LINK, BALANCE, or FORCE, a fact that linguists highlight with a (largely implicit) view on transcontextual 'competence'. Such findings on cultural competence have to be analytically reconstructed through material from several non-identical contexts. At the same time ontologies have to be understood through complex imagery aggregates ('compound Gestalts') of the specific setting they form part of, a fact that anthropologists highlight with a (more explicitly theorized) view on context-bound cultural 'performance'. Therefore, the ontological status of image schemas depends on which of the two perspectives we take. A focus on the building-block sense of image schema will invariably yield universals in the basal elements. Conversely, the compound sense, in which cognition is seen as heavily embedded in contexts, will invariably yield variation in the details. Much of cultural diversity of thought is the result of many creative and unique combinations of a reasonably small set of basic image schemas.

I have mentioned before the undue preponderance of analytic strategies of understanding image schemas at the expense of linguistic pragmatics and ethnographic empathy. To meet this challenge, I raise the following claim with regard to the epistemology of anthropological metaphor theory: If there is to be a marriage of ethnography and the study of culture with cognitive science this calls for a careful balance between generalizing and analytical strategies on the one hand and holistic, empathic, and phenomenological strategies on the other (cf. Lindquist 1995). The issue relates to what has been described as the problem of

'etic' and 'emic' meaning by anthropologists. There is agreement among most contemporary anthropologists that analytic ('etic') accounts have to closely follow specific indigenous ('emic') thought patterns, even though an exact replication is neither possible nor fruitful for a generalizing discipline. As I have suggested in an earlier work (Kimmel 2000), cultural anthropology needs to cultivate a perpetually shifting double-view that instantiates generalizing analytical grids while remaining aware of their rich contextual basis in ethnography and starting from the indigenous view. This requirement of a double-view has clear repercussions on the understanding of image schemas in anthropology. It means that we need to study, both, recurrent basal schemas and cultural compounds. In effect, the two relate to non-identical cognitive issues. I will argue in the final section of this chapter that the former viewpoint is of interest for understanding how overall ontological correspondences are woven through thought systems, while the latter viewpoint is indispensable for understanding situated action.

CONCLUSION

Many authors, including almost all founding figures of cultural anthropology, have written on the subject of cultural relativism and universality (see, e.g., Gumperz/Levinson 1996). While the claim of an only nearly complete coverage of the issue would be preposterous, this section identified a number of sub-issues made tractable by metaphor research: We can with some justification speak of a number of universals with regard to specific metaphors, to imagistic scene construals, and to directionality patterns, as in diachronic grammaticalization or in synesthetic modalities, although much more empirical comparative work needs to be done. I argued that there are legitimate universals with respect to functional theories of cognition, while looking at cultural (or personal) meanings reveals a level that is ipso facto less universal. To get into the intricacies of cultural meaning I provided a checklist for where to look for variation: Metaphors differ with respect to the incidence and variability of metaphors and models used for a given domain, the systematicity of structural sub-mappings and the entailments, discourse pragmatic framing, illustrative imagery, and more general patterns in cultural metaphor use. Finally, I argued that a perspective on imagery calls for being wary of ontologizing claims. Basal image schemas should not be considered ontologically prior to their combinatorial variants unless there is an explicit theoretical justification for it. My critique occasioned the need to distinguish two senses of the term image schema, which I called the 'building-block' and the 'compound in culture' sense of the term. On this basis I appraised the hypothesis that core imagery of complex models may be fairly universal in some cases, although the surrounding 'propositional' details vary. Furthermore, on a methodological level I argued that the two perspectives on image

schemas need to complement each other in a double-view that is both genuinely comparative and ethnographically adequate, i.e. faithful to context-based data.

4. How cultural schemas and metaphors work together

No doubt, the analysis of cultural meaning cannot exhaust itself in the study of local metaphors; it must include cognitive higher-level ordering devices. Hannerz (1992: 8) puts this as follows:

“The basic units of meaning – ‘memes’, ‘wits’, or whatever else it has been suggested they be called – are not easily delimited; and then of course, cultural analysis cannot occupy itself with a mere collection of meaning units, somehow seen as atomized and all distinctive at the same level. What matters more are the higher-level notions and ordering devices – ‘themes’, ‘focal concerns’, ‘galaxies’, ‘key symbols’- which turn the collections into structures, with some degree of coherence.”

The relation between local and higher cognitive structures is a major concern in recent metaphor theory, where there has been substantial controversy both about the relative definition and importance of cultural schemas (or cultural models) vis-à-vis metaphors. Better than anything else these two terms exemplify, as one major protagonist has it, a “territorial squabble between anthropologists and linguists”, one, however, that has substantial methodological and ontological implications. Schemas and metaphors have to a significant extent been understood as competing claims in the debate, whose main protagonists are Lakoff and Kövecses (1987), Quinn (1991), Gibbs (1994), Strauss and Quinn (1997), and Kövecses (1995, 1999, 2000). It is worth recounting the debate, because – even though it involved some misunderstandings – it is productive in clarifying one of the fundamental issues the cognitive sciences are grappling with. The debate was opened by Naomi Quinn (1987, 1991) in two papers that critiqued the claims made about the nature of metaphor by Lakoff (1987) and Johnson (1987). Quinn, who is an anthropologist, claims that their approach understates the variability in the use of metaphor while overstating their role in constructing understanding. On the basis of her fieldwork consisting of in-depth interviews with married couples in the United States about their representations of marriage she argues that without the guidelines of cultural schemas metaphors alone cannot structure understanding. Quinn takes issue with the fact that in Lakoff’s and Johnson’s analysis culture is missing, to which she assigns some sort of superordinate role in guiding the selection of metaphors.

The whole debate boils down to two related questions: (1) *What sort of cognitive structures do we have to consider first in a cultural analysis and which have the greater governing power in guiding our thought?* (2) *Is metaphor primarily used as an expository device of preexisting concepts or is it constitutive of these concepts, i.e. does it constrain*

understandings in an independent way? Ultimately, my aim here is to show that the alleged antagonism between conceptual metaphors and schemas is an artificial one. When we factor out terminological muddles and misprisions, the two sides complement each other. The crucial challenge is to develop a clear functional model of complex cognition that can come to grips with multiple interpenetrations between several crosscutting levels. As an answer to this, the present section aims at a conceptual framework for how marriage can be both a domain of a kind and ontologically linked to a wider reality and for how the terminology of schema and metaphor can help in attending to both of these features of human cognition.

Before I make my own points, we should recapitulate Quinn's study from which she launches her criticism. The analysis of the interview material indicates a conceptual field that is clearly delineated. The occurring metaphorical expressions can be separated into eight groups, which correspond to different thematic fields that the couples bring up when describing their marriage (1991: 66, 1997: 143). All other kinds of metaphorical themes remain conspicuously absent. For example conceiving marriage in terms of food, such as a cone of ice cream that becomes consumed after a time and cannot last, does not occur in American thought. The occurring eight thematic groups of metaphors are *lastingness* ("It was stuck together pretty good", "It's that feeling of confidence we have about each other that's going to keep us going") *mutual benefit* ("That was really something that we got out of the marriage", "Our marriage is a very good thing for both of us"), *sharedness* ("I felt like a marriage was just a partnership", "We're together in this"), *compatibility* ("The best thing about Bill is that he fits me so well", "Both of our weaknesses are such that the other person could fill in"), *effort* ("She works harder at our marriage than I do", "We had to fight our way back to the beginning"), *difficulties* ("That was one of the hard barriers to get over", "The first year we were married was really a trial", *success or failure* ("We knew that it was working", "The marriage may be doomed"), and *risk* ("There're so many odds against marriage", "That marriage was in trouble").

At the same time, each thematic element is instantiated by a wide variety of metaphors so that within each of the eight classes people use highly variable expressions. Take as example the theme of marital lastingness, which is cast into at least three types of metaphors by the speakers: Marriage is metaphorically framed as a *manufactured product*, that is well put together, structurally sound, made of good materials and with the necessary care. It is depicted as "shaped into something good", with "solid foundations" or "forging together the best parts of each person". A second metaphor from this group treats marriage as an ongoing *journey* undertaken together by two people. The marriage lasts as long as the two move onwards. A third metaphor treats marriage as *two inseparable objects*, a durable attachment, or a permanent common location. Further metaphors conceive it as a secure possession, an indestructible object, or a covenant with God, etc. Concerning this variability

Quinn observes that even in a short sequence of speech speakers effortlessly slip between various metaphors, “that understandings can be recast, and are constantly recast, into different metaphors resting on different [image] schemas” (1991: 65).

Quinn bases her central, but controversial theoretical claim on the variability within the thematic groups: Metaphors themselves can, according to her, not be the source of a shared cultural understanding, because how people choose from the variety of metaphors must be guided by something else, i.e. a more encompassing underlying structure:

“Although language holds the clue to the cultural schema I will describe, the schema is far from isomorphic with the language, or obvious from it; certainly it is not retrievable from any given metaphor speakers use.” (Strauss/Quinn 1997: 144)

Quinn’s alternative view is that the linguistic metaphors provide satisfactory mappings on independent and already existing cultural understandings, which are too multiform to arise from a simple image schema. Although she denies the importance of metaphors completely, she assigns them more of an expository than a constitutive role for thought. At several points in her text she takes this to mean that speakers mainly use metaphors to clarify points deriving from prior schema-guided ideas (1991: 76, 1997: 141). In other passages she softens this claim considerably (1991: 64, 93; 1997: 153ff), so that it is somewhat difficult to say what exactly she believes. In the closing passage of her 1991 paper she even concedes that “[p]erhaps there is no one kind of structure more fundamental than any other, but a variety of transformations of our understanding, instated for different purposes”, which is in fact just what I will suggest here. Describing metaphors as ‘expository’ can, then, either mean that metaphors are not conceptual at all or, if they are, that they are governed by a superordinate conceptual structure which encodes cultural knowledge about marriage holistically.

In what follows, I would first like to show that conceptual metaphor remains a just as likely explanatory construct for Quinn’s interview data as cultural schemas do. Second, I will trace ways in which both kinds of arguments are similar and propose that any demotion of metaphor results from a misprision of Lakoff’s theory. Third, I will propose a distinction between metaphors and schemas that actually makes sense and build a two-dimensional model on this in which they complement each other.

WHAT IS NEW IN QUINN?

In Quinn’s view, the choice of metaphors is motivated by the conceptual themes of an underlying cultural model. Let us have a closer look at how she arrived at her results. As I see it, three important levels of argument in her analysis need to be distinguished:

There is the basic data level of the various linguistic metaphors, yet ungrouped.

There is the analytical level of the eight themes, which represent contextually enriched notions, such as lastingness or mutual benefit. Most importantly, they specify useful sub-segments for a detailed analysis; together they circumscribe the whole cultural schema.

There is the analytical level of ontological metaphors, which represent four abstract groups of generic imagery types, such as OBJECT, CONTAINER, PATH, and PROCESS. These crosscut the themes.

The Quinn's arguments for favoring a 'schema' as the effective conceptual structure all have to do with complex overlaps between metaphors and meanings that become evident on the basis of the data:

(1) A first counter-argument against metaphor's constitutive role, to Quinn, lies in the fact that alternative instantiations of the same underlying concept can be found throughout different metaphorical systems with different clusters of expressions (1991: 71):

"A lasting marriage can be both a well-made product and an ongoing journey, as well as a firmly held possession, a secure bond, and a permanent location, and that this is so can be only made explicable in terms of the underlying concept, independent of any of these metaphors, of marriage as lasting." (p. 71-72)

Thus, she hypothesizes a common underlying concept more general than each metaphor, and encompassing all of the metaphors of a thematic group. This may be understood as a claim that the underlying level is coded in a metaphor-invariant and neutral format or perhaps 'propositionally'.

(2) Quinn's (1991: 78) evidence indicates the interesting fact that metaphorical expressions that highlight only one aspect of the eight marriage themes are a minority; the most frequently chosen expressions capture two or more related themes, such as sharedness, lastingness, and effort. She infers that recurrent metaphors must be "satisfying instantiations of a 'conventional' or culturally shared model, capturing multiple elements of that model" (1991: 79). In other words, *metaphors tend to be chosen to maximize their overlap with the thematic field as a whole.*⁴³ A well-chosen metaphor, then, allows large

⁴³ This is not to say that the cultural schema cannot involve contradictions among its thematic elements. Quinn's data indicate, for example, a frequent internal contradiction of norms that result from the expectations of mutual benefit and of lastingness. The contradiction turns around the question if either party should be free to leave if mutual fulfillment does not occur. Similarly, a couple must share common goals and interests, but a marriage should not encroach on the autonomous needs of either partner.

parts of a broader model to be captured. Through it as many of the thematic elements of marriage as possible are accessible as 'experiential Gestalts' (even though Quinn does not use this expression). For example linguistic expressions for MARRIAGE IS AN ONGOING JOURNEY TOGETHER accommodate all of the following themes:

"Travelers can keep going (that is, their journey is a lasting one) together (and shared) over routes that may take them to places they might like to stay (that are mutually beneficial) and uphill or through rocky terrain (difficulties) over which they must struggle (make effort) to meet unknown dangers (risk)." (p. 78)

In my understanding of Quinn's text, metaphors are chosen because they create a more to-the-point match with the way thought is representationally condensed at a higher level.

(3) Another argument for cultural schemas comes from Quinn's analysis of reasoning sequences from her interviews (1991: 84-88). It appears that different linguistic metaphors facilitate different parts of the reasoning sequences, yet need not do the reasoning task alone or match it exactly. Moreover, some metaphors blend to create information that is not predictable from them without considering tacit cultural knowledge about marriage. To arrive at the intended conclusion the metaphors need to be specified and contextually related to one another by drawing on information that they themselves do not directly yield. Much remains unspoken by the interviewees, so that information has to be filled in. This indicates that other devices from cultural knowledge are resorted to in understanding the sequences. As examples of such supportive structures Quinn mentions other folk-models, such as the folk model about character maturation, or narrative presuppositions, such as the implicit expression of causality by syntactically aligning elements. In Strauss and Quinn (1997: 166f) she argues that schemas as mediating structure hold responsible for efficient reasoning because they create condensed neural networks that allow direct reasoning chains from any thematic part to any other, such as effort and lastingness of marriage, even if these are causally distant. These are just as easy to perform as more direct links, such as difficulty and effort.

(4) A final argument relates to the complexity of ontological structures in meaning. Quinn emphasizes that the cultural schema she posits is not of one founding by showing that each theme of marriage, such as lastingness, mutual benefit, or sharedness, draws on various kinds of image-schematic generic metaphors. These crosscut her eight themes and have no single distinctive ontology.⁴⁴ For example, metaphors for marital lastingness may derive from four different generic image schemas (1991: 69-70):

⁴⁴ For comparable findings see Kövecses' (1995: 342) analysis of the concept of friendship in America. His data indicate that friendship, which is an aggregation of various ontological conceptualizations,

“The ‘well-made product’, ‘indestructible natural object’, and ‘secure possession’ metaphors can be considered to instantiate an ENTITY schema, the ‘ongoing journey’ metaphor a TRAJECTORY schema, the ‘inseparable objects’, ‘unbreakable bond’ and ‘covenant with God’ a RELATION schema, and the ‘permanent location’ a CONTAINER schema. These four schemas are the bases for all metaphors in the talk I have analyzed.”

Like the expression grouped under the lastingness theme each of the other seven themes draws metaphors from these four ontological categories. Following Cienki’s (1997: 13) slightly rephrased version these four generic categories can be described as MARRIAGE IS AN OBJECT, MARRIAGE IS A CONTAINER, MARRIAGE IS A PROCESS, and MARRIAGE IS A PATH. This indicates that the linguistic metaphors are neither reducible to a central schema nor a single stable assemblage of schemas. Thus, the cultural model of marriage can take expression in variant schematic or ontological terms. On this basis Quinn questions the argument put forth by Lakoff and Johnson as a key method to prove that metaphor structures understanding. Their method was the identification of clusters of expressions that point to a single metaphorical system. However, for marriage there are different metaphorical systems, each with its distinctive ‘cluster of expressions’. As an alleged corollary, she holds these to be alternative instantiations of the same underlying concept (1991: 71).

EVALUATING THE CLAIMS

What should we think of these arguments? Concerning the field-delimiting function of conceptual structures Quinn is on common ground with Lakoff and Johnson (1980), who state that metaphors always hide and highlight aspects. Quinn’s basic observation that no more than eight thematic groups are found is hardly surprising in this light. What is fairly new in her argument is that a complex field of background knowledge must be drawn on to understand the overall cohesion and usage of metaphors. Thus the conceptual model that governs the choice of metaphorical expressions in discourse perhaps has to be more complex than metaphor analysis usually state.

Another new and controversial aspect is that Quinn invests the so-called themes with the power of intermediate structuring devices in the conceptual hierarchy. Schemas allegedly preexist in a more primary format, a sort of ‘Mentalese’ (“my interviewees’ understanding of this story about marriage exists, for them, independently of the metaphors they use to talk about marriage”, p. 68). Linguistic metaphors are, then, reduced to alternative expository devices picking out aspects from a primary conceptual story format and putting them into

has no concept-specific source domain. Like Quinn Kövecses speculates that the same conclusion holds for all sorts of other examples, making multiple ontologies a rather typical case.

language. Such a middle level of condensed propositional themes seems to make sense as a working hypothesis. Yet, why such a middle level should precisely correspond to the eight posited 'themes' cannot be seen. Two considerations suggest utmost caution: First, the ontological status of the eight themes is *prima facie* that of explanatory constructs. They result from Quinn's own analytic efforts to infer an underlying conceptual structure from the linguistic material, probably by drawing on her intuitions about reasoning domains as a member of the culture. Quinn introduces them as a convenient expository level of aggregating meaning and then starts using them *ex hypothesi* to illustrate overlaps, nothing more. To be sure, in discourse sequences sometimes also correspond to temporal chunks. Yet Quinn herself says that metaphors are used in a way that several themes very frequently intersect in one spot. Sometimes themes are described as topics through 'non-metaphorical language' by the interviewees. Yet this need not happen. We may claim that the eight themes are plausible because we as members of the same culture find them intuitively clear. Nevertheless, we also find a lot of other groupings equally intuitively plausible. I believe that numerous different aggregation levels might be equally real in actual cognition, depending on the situation and the actor's intent: the level of themes, that of the overall model above, that of the metaphors below, and that of all the intermediate levels between them. Thus, there is enough evidence that themes *can* be carved up by the interviewees themselves in Quinn's way, but it is both doubtful that these precise groupings are used to the exclusion of others or that only the level of themes affords privileged conceptual pegs.

The second problem with a conceptual middle level is its mental format. We do not know precisely what 'propositional' means. Moreover, propositions may be interpreted as imagistic condensations of the very image-schematic metaphors that Quinn tries to relegate to the second line (this hypothesis I will propose in chapter 8). If this view proves tenable, Quinn's themes would be constituted by complex models made from various image schemas combined. Such an imagistic perspective clearly obviates the argument that some sort of 'Mentalese' is involved. Taken as a whole, the argument of 'one conceptual theme - many expository forms' pointing at an abstract mental language is crucial in the debate, but too weakly corroborated.

Quinn's argument of schemas as integrated reasoning frames strikes me as legitimate. However, it is not incompatible with research on conceptual metaphors and does certainly not obviate their conceptual nature. I concur with Gibbs (1991: 204-5), who argues that there may be patchworks of metaphors, each of which facilitates a part of the reasoning sequence:

"The fact that speakers often employ a variety of metaphors in talking about marriage, sometimes switching quickly between tropes, does not mean that those expressions only name or refer to aspects of some non-metaphorical cultural model. As is the case for anger, people use different metaphors, even within the same narrative, because each metaphor reflects a different aspect of their

metaphorical understanding of some experience. One's cognitive model of marriage may consist of various metaphors that capture different aspects of our understanding of marriage, such as compatibility, mutual benefit, and lastingness. These metaphors may be contiguously linked, perhaps as a kind of radial structure, yet need not be internally consistent. For example, we may at times see marriage as being a container but at other times as being like a manufactured product."

Kirmayer (1993: 174-5) expresses this in a similar way when he speaks of mixed metaphors whose coherence "stems not from any consistent extended metaphoric concept, but from a more specific experiential fact that is being repeatedly described from many angles." This points to the fact that schemas are structured by the exposure to and participation in an information-rich experiential complex.

What about the argument of complexly intertwined ontologies in each thematic cluster? It is a common and recognized fact that domains feature complementary ontologies of different ilk. Quinn's demonstration of four crosscutting image-schematic ontologies deserves high recognition for showing that even small discourse chunks mix generic ontologies. However, her deduction of an 'underlying' level and the relegation metaphor to the superficial level of expression is a non sequitur of ontological complexity. There are quite simply other ways to explain this finding.

DO THESE ARGUMENTS REFUTE LAKOFF?

I also have major doubts with regard to Quinn's intended critique of Lakoff's view on conceptual metaphor. Without wishing to disparage her achievement in clarifying key points of the issue and promoting more precise methods, it seems to me that Quinn's critique results from a misprision of his position in most points. Metaphor, according to Lakoff, is manifestly conceptual and has independent power in constraining thought. Quinn introduces two criteria to disprove Lakoff. These are the low explanatory power of metaphors for inferential structures and the fluidity of linguistic metaphors in discourse:

First, Quinn (1991: 73) argues against Lakoff that metaphors do not give rise to independent inferences. In her view, not the metaphors themselves provide inferences directly, but the cultural models that motivate the choice of an apt metaphor. As evidence, she quotes interview passages, where informants elaborate metaphorically on points they obviously had in mind already. She is successful in showing that linguistic metaphors reflect existing understandings and do not typically produce new conceptual inferences ad hoc. In reasoning sequences speakers select their linguistic metaphors to match points they already have in mind (Strauss/Quinn 1997: 157). This argument is rather trivial however, since nobody has ever claimed that metaphors situationally constrain reasoning in the way that a person utters a metaphor, suddenly recognizes an entailment and is forced to the next part of the sequence. An explanation based on conceptual metaphor would equally assume that

speakers' intentions are already in their minds before the linguistic metaphor is produced. Another argument by Quinn directed against Lakoff (*ibid.*) is that after using a metaphor speakers often articulate the point they want to make in non-metaphorical language. What legitimately follows from Quinn's observation is that other conceptual structures, such as propositional statements, usually interact in a larger model with any conceptual metaphor and that ways of studying these in tandem with metaphor, including the necessary transposition and double-coding processes, ought to be sought. If intended as a more general point against the Lakoffian approach Quinn's argument lacks force, however: The many documented literal linguistic expressions may, in principle, be constrained by a so-called conceptual metaphor just in the same way a linguistic metaphor is. This is especially true when a single conceptual metaphor occupies a key position in discourse, like in the Lakoff (1996) study on American politics. (After all, a conceptual metaphor of high power is functionally nothing else but a schema and it is obvious that Lakoff does not restrict his notion of conceptual metaphor to small-scale conceptual entities only.) Returning to the marriage data, what seems most obvious at first sight are various middle-level conceptual metaphors. With regard to her own case study at least Quinn, then, is justified in saying (despite Kövecses' suggestion discussed below) that no single conceptual metaphor constrains the marriage discourse entirely and in all its details. At the same time, this does not imply the metaphors do not constrain parts of the discourse.

Quinn sees a second observation as indicative of the fact that many metaphors are only expository (1991: 84-87): Reasoners, far from adhering to metaphorical entailments, are just as likely to switch metaphors in the middle of a piece of reasoning. On the one hand this invalidates the generalization that metaphors constitute understandings by allowing only inferences that follow from the most immediate metaphorical entailments. On the other hand, a quick switching between tropes does not logically entail that expressions refer to non-metaphorical cultural model. It does mean that there must be a general governing device that represents the thought chain as a whole. In this sense Gibbs (1994: 204) proposes that there may be one general cognitive or cultural model for marriage that is motivated by a cluster of contiguously linked conceptual metaphors. Such a model may be linked through a radial structure model, i.e. a fuzzy set, and need not be wholly consistent.

For yet another reason a conceptual level of metaphor exerting some constraints cannot be argued away easily. Gibbs (p. 205f) rightly maintains that if people used metaphors only for the purpose of highlighting different parts of the cultural model, a much greater variety of metaphors than the relatively small number of the eight reported groups should be expected. The fairly limited range of conventional metaphors in the couples' talk about marriage must minimally reflect (co-)constraints coming from the metaphors' conceptual profile.

ANALYZING SCHEMAS AS METAPHORS

It seems to me that there is more common ground between Quinn and her adversaries than either party is willing to acknowledge. Quinn herself conceded more recently that even though no single obligatory metaphor type exists in domains such as marriage, in other cases a single metaphor may encompass a whole schema (Strauss/Quinn 1997: 153). In some cases, like that of the CONDUIT metaphor for communication, discussed in Reddy's classic article (1979), metaphors *can* in fact assume a governing role. She acknowledges that the CONDUIT metaphor is a prime example of a metaphor culturally entrenched to a degree that there are no alternative metaphors to choose from, so that this conceptualization is obligatory. (Note that the superordinate level metaphor of CONDUIT is functionally a schema and at the same time spans several domains, as communication is a part of most everyday domains.)

It would seem that an alternative analysis of Quinn's cultural schema as just this kind of high-level metaphor with multiple entailments is quite possible. To this effect, Kövecses (2000: 121) argues that the UNITY metaphor underlies the American understanding of marriage. He maintains that the UNITY metaphor is compatible with the eight kinds of thematic expectations Quinn found:

"Because a part by itself is not functional, people want to share their lives with others in marriage. Because only one or some parts fit another part, people want compatible partners in marriage. Because (to get a functioning whole) a part must perform its designated function, people want to fulfill their designated roles in a marriage relationship. Because wholes have a designated function to perform, marriage relationships must be lasting." (p. 121)

I will not raise possible counterarguments to this approach here. Rather, I mention it to show that phrasing metaphor at the right level is always an alternative for understanding complex cultural schemas. It is an empirical question whether such a unitary formulation in terms of one metaphor bears out all the necessary entailments or not.

COMPLEMENTARY LEVELS OF ANALYSIS

In sum, my discussion of Quinn's claims reveals no compelling reason to think that the interviews feature merely expository linguistic metaphors. Inferring conceptual metaphors from the interviews that have some explanatory power, at least on a local level of discourse, is always possible. There are good reasons to think, however, that the level of conceptual metaphor interacts with a yet higher level of ordering devices. Quinn introduced good arguments for a scene-capturing overall cognitive format that we must also include in our theory. When Quinn says that metaphors are repeatedly introduced because they are satisfying instantiations of constraints from a cultural model, this is correct in one way, but

too far-reaching in another: (1) It makes little sense to analyze the metaphors independent of the larger model that interrelates and organizes them. The metaphors are linked by a cultural model, an idealized cognitive model (ICM), or metaphor system, or whatever we call it. (2) Yet, it is not necessary to assume that all relevant constraints come from the organizing model only, and none from the metaphors. *It is the interrelation of the two that is necessary to motivate people to choose particular metaphors.*

In order to clarify the issue, I propose that cultural schemas arise as an elective affinity between (1) a situated scripted scenario / an experiential cluster and (2) a stock of more general and independently existing conventional metaphors from the mental storehouse of so-called 'competence'. When people choose to focus their discourse on topics such as marriage the culturally available stock of metaphors is screened for matches with the experiential whole of marriage. This results in a conventionalized set of conceptual metaphors used for marriage, which are situated as a compound and exist on an independent competence level as individual modules. The domain of marriage is constrained in complex ways, so that we can tackle the matter either from the point of view of individual recombinable metaphors recurring across domains or from the point of view of the experiential structure of the whole domain at hand.

A major misunderstanding in the debate arises because Lakoff and Quinn have different understandings of the key term 'ontology'. A critical argument by Quinn is that metaphors do not produce real ontologies and are therefore not conceptually potent. She addresses the issue in reanalyzing Kövecses and Lakoff's work on the American model of anger (1991: 63f). Although she accepts most of their analysis as perfectly consonant with her own approach, she takes issue with the conclusion of Kövecses and Lakoff that the 'anger ontology' is largely constituted by metaphors. Instead she points to the missing level of culture (p. 65), presumably meant as Gestalt ontologies occasioned by holistic fields of cultural experience.

It seems to me that both positions are correct, provided that we distinguish two types of relevant ontology.⁴⁵ The understanding of anger can be governed in its *situational or domain ontology* by a cultural model and at the same time be informed in its *basic or trans-domain ontology* by metaphors. Any basic ontological metaphor, such as OBJECT, CONTAINER, PATH, or PROCESS cuts across a number of domains and forms part of a general cultural stock of

⁴⁵ It is easy being misled by Lakoff and Kövecses' talk of metaphors as 'constitutive' of ontology. However, as far as I can see 'constitutive' is not referring the cognitive model in all its various respects, but to basic ontological categories that cut across numerous domains. I agree that in the more extended sense of the word it is questionable whether ontology should be defined exclusively as an ontology of analytically separated individual parts. The notion can with equal justification describe the holistic field of an entire domain and what we know about it experientially.

ontological kinds, irrespective of their situative use (cf. Lakoff/Johnson 1980 on 'ontological metaphors'). The two levels of ontology crosscut each other, though they may possibly vie with each other at times. It becomes evident that Quinn's (typically anthropological) concern is with situational ontologies, while Lakoff and Kövecses' concern is predominantly with trans-domain ontologies. Both aspects are complementary. There is no a priori reason that I can see why one of these two levels should carry more causality in the representational system than the other.

I propose that metaphors and schemas co-evolve. They are both mental mediating devices in the Vygotskian sense and both contribute to ontology in the broad sense. A very sensible dialectical position between metaphors and cultural schemas as mediating devices for understanding is advocated by Holland and Valsiner (1988: 264-65). They speak of models instead of schemas but mean the same thing:

"Metaphors highlight and shape aspects of the model, but the meaning of the metaphor is shaped by what one knows of atoms of the subject matter independent of the analogy (...). Highlighted by a new metaphor, a cultural model may be developed in different directions, and similarly the meaning of the 'new' metaphor itself may come to be elaborated in new ways (...). The metaphor and the model develop together in a dialectical fashion; neither determines or is determined by the other."

Furthermore, it seems sensible to claim that both mediating devices are comparable in cognitive generativity, albeit with different functions in a more complex model of cognition.

THREE COGNITIVE FUNCTIONS

I will now offer a model of representational architecture with three functional aspects. Two of them are part of the conceptual metaphor level of analysis, and one pertains to the overall cultural schema, ICM, or metaphor system level.

The two levels that emerge from the classical analysis of conceptual metaphor were first distinguished by George Lakoff (1987: 406), together with Zoltán Kövecses, in their study of American anger.⁴⁶ These are now usually called a metaphor's 'specific' and 'generic' level, but may also be called 'basic' and 'superordinate' levels (see chapter 1). On the one hand there is a generic metaphoric level of high schematicity that expresses generalized experiential structure of something. Generic level metaphors include the image schemas ENTITY, INTENSITY, LIMIT, FORCE, CONTROL, and BALANCE. These recurring elements have been acquired as embodied experience that occur across a great number of domains and they provide links to other domains that let us class anger with other entities, forces, limits,

⁴⁶ The relevant part of *Women, Fire, and Dangerous Things* (case study 1) was done in collaboration with Kövecses and also published in Holland/Quinn (1987).

etc. *in certain respects*. On the other hand there is a specific level of low schematicity and high concretion relatively close to the speech level. Here anger is conceived as a HOT FLUID, INSANITY, A BURDEN, A FIRE, A STRUGGLE. Generic metaphors are always “framed in a particular way in their application” (Kövecses 1995: 339).

Both levels assume different cognitive functions: According to Lakoff and Kövecses generic metaphors, which are image-schematic structures recurring across a great number of specific concepts, have a constitutive function. In their words, they provide the ‘anger ontology’. Ontology – in the sense of what I called a ‘trans-domain ontology’ – means that we can categorize anger as something that shares an image-schematic profile with other ENTITIES, FORCES, LIMITS, etc. We recognize the similarity of anger to things in other domains by extracting the generic level from the richer experiential schema.⁴⁷ The intra-domain level of specific metaphor fulfills a quite different function: The detailed comprehension and the inferences we can draw about anger (e.g. that it is not only any entity, but one that feels like heat and pressure) only comes through this level. Lakoff and Kövecses (1987: 406) clearly realize that assuming one governing level is quite unmotivated, because separate functions are involved:

“One is tempted to ask which is the more primary: the constitutive [generic or superordinate level] or the basic-level metaphors [which are rich in information and imagery]. We don’t know if this is a meaningful question. All we know is that both exist and have their separate functions: The basic-level metaphors allow us to comprehend and draw inferences about anger, using our knowledge of familiar, well-structured domains. The constitutive metaphors provide the bulk of the anger ontology.”⁴⁸

Thus both levels, generic and specific, *subsist* in a metaphor, and both are cognitively effective in different ways. As Gary Palmer (1996: 59) has it, more abstract schemas “coexist with, or within, the concrete model”. Moreover, of the two levels the specific level is more strongly linked with the schema and its domain-specific features, whereas the superordinate or generic level, which bestows the general trans-domain ontology, is relatively independent from it.

The third level in the representational architecture functions to organize sets of metaphors into a cultural model (= ICM or metaphor system). This is the level stressed by Quinn: To

⁴⁷ Kövecses (1999: 185) applies this to American marriage. According to him marriage can be understood as MARRIAGE IS THE PHYSICAL AND/OR BIOLOGICAL UNITY OF TWO COMPLEMENTARY PARTS. At the same time “this way of conceptualizing marriage is simply a special case of the larger process whereby non-physical unities in general are constituted on the analogy of more physical ones”.

⁴⁸ Nevertheless, parallel to this commendable insight they retain a more uni-directional parlance of ‘inheritance’ from the generic to the specific level in other parts of their work (Lakoff 1993, Kövecses 1995), which I find much more problematic.

understand the complexities of discourse in elaborately structured domains we need to hypothesize a configuration of thematic linkages which stems from the knowledge about an extensive experiential domain. In my understanding this structure involves the following features: (a) It organizes lower level models, perhaps in a scenario or a radial category, (b) it allows diverse construals of this domain from multiple vantages, (c) it is only partially integrated logically but forms an experiential and memory compound, (d) and metaphors are orthogonal to the model as a whole in the sense that they crosscut many such models. I propose that, just as specific and generic levels of a metaphor fulfill equally important functions, now the organizing level of cultural schemas is added and fulfills another indispensable function that is needed to explain complex cultural cognition.

On the basis of all that it seems plausible to assume the following cognitive task sharing: First, that relatively basic-level metaphors, such as ANGER IS A HOT FLUID, evoke experiential inferences; second, that metaphors on a relatively superordinate level, such as ANGER IS AN ENTITY, evoke cross-domain links; thirdly, that the act of choosing metaphors in complex domains like marriage needs a model for specifying the links among experiential inferences and for coordinating them in reasoning. Note that in the third respect the term inference pertains to the question of what goes with what within the experiential domain of marriage or, in other words, which of the analytically separated themes tend to occur as Gestalts and which Gestalts are especially common. If these Gestalts are dissolved into their parts that recur in differing contexts we get the individual metaphors. These in turn can also connect into contexts that have nothing to do with marriage, since ENTITY ontology plays a role in all sorts of contexts.

A conclusion of tremendous general significance emerges, namely that *there are several co-present, but crosscutting ways of ordering in the mind that work together*. The interaction involves (1) a set of metaphorical understandings at the specific level for, say, anger or marriage; (2) a 'mother-model' that links up the various metaphors, perhaps as a radial structure of the kind proposed by Lakoff (1987), and (3) a set of ontological linkages of the individual metaphorical building blocks that reach out into other domains. The functional task sharing between these levels is as follows: Which expressions are chosen by speakers to fit the experience of a specific marriage situation is constrained by the rich knowledge of specific level metaphors. Thus, what each metaphor means in terms of entailments is defined by its specific level content. How discourse parts of diverse content hang together, are merged and opposed, and how one can change topics is specified by a cultural schema, ICM, or metaphor system. Finally, what each metaphor means in relation to broader ontological kinds is defined by its generic ontology. Generic ontologies may also build bridges to further associative general knowledge of a trans-domain kind for importing it into discourse. General knowledge about cognitive modules, e.g. what a goal, an interest, a

need, a belief, a social relation, or a person is, presumably requires this generic level of image-schematic metaphors to a significant extent. Overall, there are *three different cognitive functions* that can be considered separately:

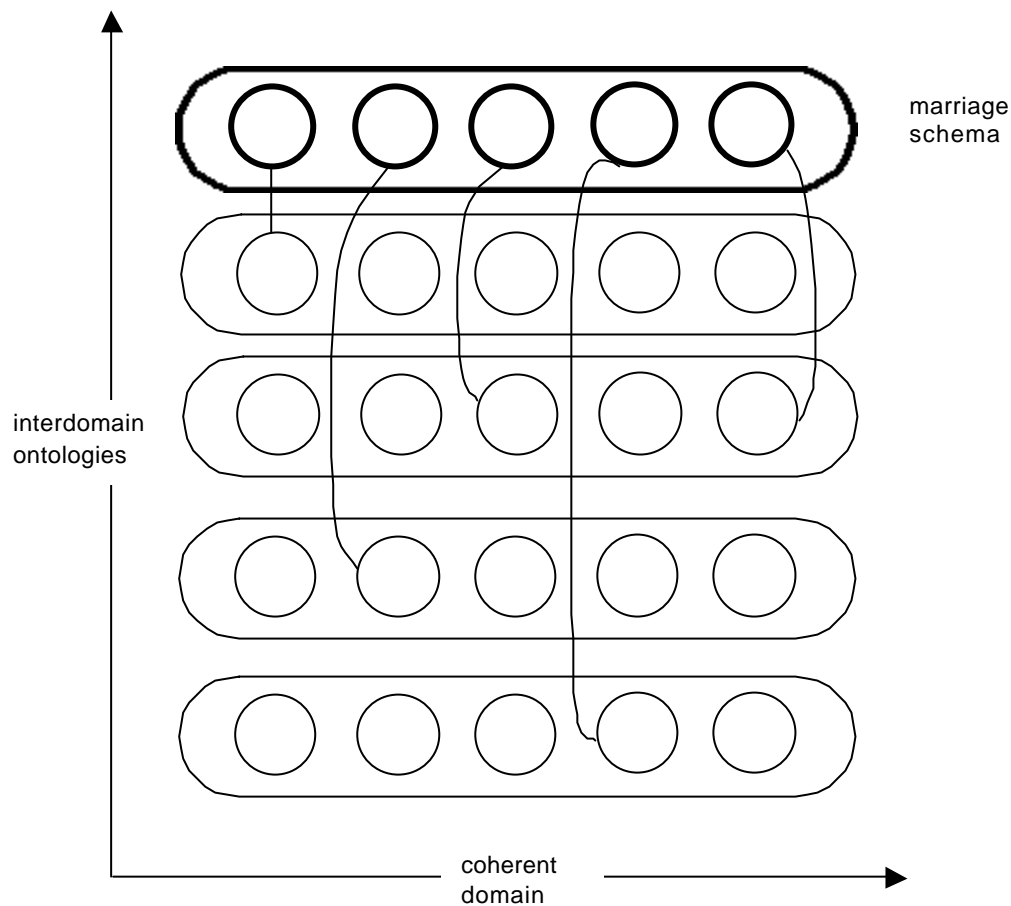
- (1) The *generic ontology* comes from image-schematic metaphors. These connect anger to many other locations in the cognitive landscape.
- (2) The *specific entailments* and inferences come from specific level metaphors operative in the domain only.
- (3) Finally, the *alignment and combination of appropriate metaphors* comes from an idealized cognitive model (as Lakoff calls it) or a cultural schema (as Quinn calls it.)

In a co-evolved model it makes no sense to say that any one of these levels individually chooses or constrains metaphor in discourse. The three aspects are not only perfectly compatible, but necessarily supplement one another. This does, of course, not exclude that cognitive operations from different levels occasionally vie with each other for power (e.g. in cases where strong conventionalization is absent or several possible cognitive construals of a situation are possible). However, it is presumably just as often competing models on the same level – of generic ontologies, entailments, or ordering principles – that vie for power.

Summing up, the generic ontology level can be depicted as inter-domain activity, while levels two and three are more intra-domain. The intra- and inter-domain ordering planes are reminiscent of the trans-contextual permutations in a word-paradigm and the contextual word-sequencing of the syntagm in linguistics. A more context-oriented and domain-based approach appeals more to anthropologists, whereas the trans-domain metaphor approach appeals more to cognitive semanticists who do not as strongly emphasize pragmatics. Ultimately however, both disciplines should study both aspects within a broader framework.

I maintain that we should study both aspects together. One set of studies should take guidance from the way everyday domains are carved up, while the other should concentrate on smaller constituents of such models that are shared between domains.

In a two-dimensional graphic representation the system of multiple linkages can be depicted with the trans-domain ontological correspondences in the vertical dimension and the model-guided coherence of a rich experiential setting in the horizontal dimension. The small circles represent the ontological building blocks within a broader schema. (Depending on our descriptive level these can either stand for simple image schemas or more complex conventional metaphors, albeit of still restricted scope). Looking at several schemas in parallel, there are multiple correspondences between the building blocks across them. These are indicated by the vertical connectors.



A SYSTEM OF MULTIPLE ASSOCIATIVE LINKAGES WITHIN AND BETWEEN SCHEMAS

If applied to the case study on marriage the whole picture becomes even slightly more complex. Here embedding relations among individual linguistic expressions, middle-level thematic pegs (at various possible levels of condensation), and overall cultural schemas are involved in the first dimension. In addition, these pair variably with ontological metaphors in an orthogonal second dimension. Thus, both generic level metaphors and specific and information rich metaphors weave associative links to other domains. I propose that *complex cultural models can be described in a theory of associative spreads both within a schema and between different schemas* (which are never clearly demarcated anyway). Generic and specific levels work together in associative processes, since generic ontology extracted from one context can always be enriched with rich knowledge from other quarters in the cognitive network. Generic metaphors are the interface where richer informational structure is recruited.

Associative spreads occur in several dimensions: First, ontological metaphors cut across the various themes and expressions of the marriage schema (intra-schema linkages). Second, in regard to inter-schema linkages, ontological metaphors cut across wholly other schemas as well and recruit subsidiary information from them. Third, cultural schemas are analogously informed by rich information from other such schemas.

(1) Intra-schema associative links. Because a cultural schema is so complex and encompasses diverse themes, these necessarily share multiple local resemblances at selected points of intersection. Quinn's data indicate a more complex relation between themes and generic ontological metaphors so that *(a) each theme or even individual expression encompasses many alternative generic ontologies and (b) any generic ontology occurs across a number of themes or expressions*. In addition I propose that *(c) ontological similarities can become points of entry for more specific evocations of rich knowledge structures*.

(1a) Mixed local ontologies within a theme. This first aspect, i.e. that within a given linguistic metaphor several ontological types can be mixed, is exemplified at length by Quinn (1991: 71):

"(...) marriage may be an ENTITY that follows some TRAJECTORY in the 'ongoing journey' metaphors, as in 'We take a lot of credit for the direction it went in'; or it may be a CONTAINER of the married people on this TRAJECTORY, as in 'I'd have to say 'Stop the boat, I want to get out' 'Metaphors such as 'We wanted to continue together' or 'We might come to a place where we have to separate' rest on a joining of the TRAJECTORY schema with the RELATION schema. The last example, indeed, instantiates three schemas conjoined: the place where married people have to separate is a CONTAINER of the RELATION on the TRAJECTORY. In 'You can go some place that you'd like to be at or you can not,' the place reached is a CONTAINER of a different sort, this time of marital benefit. To provide one last, and different example, 'We got it,' a metaphor of marriage as an ENTITY firmly in possession, might be said to invoke as well the hand or other CONTAINER in which it is kept, the TRAJECTORY of its acquisition (made more explicit in the metaphor 'The marriage was up for grabs'); or the RELATION of ownership."

(1b) Partial integration of themes through ontological metaphors. Additionally, ontological image schemas partially integrate metaphors from separate themes, so that they form fluid groupings. For example, the BEING MARRIED IS BEING INSEPARABLE OBJECTS metaphor expresses the same basic ontology found in the MARRIAGE IS A MANUFACTURED PRODUCT metaphor. Both share an ENTITY ontology and both can have parts that fit together well and do not break apart. Both are variants of the PART-WHOLE image schema and also share the more specific aspect of indestructibility. Similar local overlaps can be found with other pairings. Note that integrations may theoretically take place at various level of schematicity. For example, "That's going to keep us going" may evoke not only the middle-level PURPOSES ARE DESTINATIONS ontology, but also the high-level PROCESS ontology, which is shared by yet a larger group of metaphors.

(1c) Associations of rich knowledge between themes triggered by ontological similarities. It is also of consequence that the individual metaphors may be related through associative chains in a way that an ontological similarity constitutes a conceptual peg for

evoking rich knowledge. While “That’s going to keep us going” does not explicitly include the journey scenario and is, at first blush, only about movement and effort, it can easily evoke some of the same associations as saying “Our marriage is a journey” outright, because both share a partial ontology of PURPOSES ARE DESTINATIONS. In this way the expression can indirectly evoke all the other structural entailments of journeys, such as sharedness, difficulties, and possibly compatibility and risk. Thus, by virtue of partial overlaps in their ontological generic structure metaphors can evoke other parts of their conceptual structure, too.

(2) Inter-schema associative links. Between largely separate schemas a series of possible associative linkages is possible: *(a) Ontological source concepts structure other cultural schemas too, (b) domain related targets can be a version of a more abstract target category, (c) each domain draws on image-schematic understandings from subsidiary or neighboring domains on roughly the same abstraction level, (d) the same mechanism of peripherally adduced knowledge may produce rich knowledge structures from other schemas.*

(2a) Associations triggered by generic ontological metaphors. That more generic level knowledge always coexists with or subsists within the specific level was shown above. Just as the generic level metaphors are used across the various marriage themes, they also unite marriage with other cultural contexts of occurrence. To what extent ontological building blocks are actually used to mediate between various cultural models is hard to say. One metaphor with OBJECT ontology can always trigger another such metaphor. The associative spread between schemas through generic ontological metaphors in most cases probably depends on further constraints being present because these ontological kinds such as OBJECT or PATH are simply too frequent to occasion useful associations.

(2b) Embedding in superordinate target-domains. Metaphors occurring in the marriage domain are embedded in superordinate metaphors that span many domains. Marriage as a very clear-cut target domain is at the same time part of a more abstract target domain, for which the same ontological characterization holds. For instance, MARRIAGE IS A CONTAINER is embedded into the more general metaphor of SOCIAL INSTITUTIONS ARE CONTAINERS. After all, one can ‘enter’ into a treaty, just as one can ‘enter’ into society or ‘enter’ into marriage. All social institutions share the fact that they can be construed, among other things, as bounded spaces. Likewise, the conceptualization of lastingness through MARRIAGE IS A JOURNEY would probably not make as much sense without the more general metaphor LIFE IS A JOURNEY. A marriage is lasting if two people follow a common path on the journey of their lives and share their individual paths. Life as a journey and marriage as a journey are both imagistic variants of the PURPOSES ARE DESTINATIONS metaphor.

(2c) Recruiting metaphors from neighboring metaphor systems on the same level.

Related metaphors from neighboring domains that are not necessarily superordinate can also contribute some meaning or give rise to an associative link. An example is found in the marriage as a well-built product metaphor. The aspect of fitting the parts together properly uses the subsidiary metaphor AN EFFORT OF WILL IS A PHYSICAL EFFORT. Another example are the suggestive overlaps between the marriage and the self model. According to Lakoff and Johnson (1999) the self can be metaphorically conceptualized as THE SELF IS A PHYSICAL OBJECT or THE SELF IS A PHYSICAL LOCATION or CONTAINER. Marriage uses these conceptualizations. First, the metaphor of the self as object maps onto the metaphor of unity, so that the two selves are understood as the inseparable objects united in marriage. This metaphor includes SELF CONTROL IS OBJECT POSSESSION (p. 272). On the other hand, having a successful marriage means possessing a valuable shared object, as in “We held on to what we had”. Thus MARRIAGE IS A JOINTLY POSSESSED OBJECT. The way marriage and the self are controlled is thus analogous. Second, the American self includes SELF CONTROL IS BEING IN ONE’S NORMAL LOCATION (p. 274). Metaphors of the MARRIAGE IS A CONTAINER kind conceive a conjugal union as a shared location (“Stop the boat, I want to get out”) easily map onto this understanding. After all, in marriage people are not only physically together, they share their selves and let them interact, which makes an imagined uni-locational space of the shared self quite likely. It follows that marriage can be imagined as a merger of two selves in a physical location.

(2d) Recruiting rich data from neighboring schemas. Apart from image-schematic metaphors, the marriage schema establishes a variety of links to rich information coming from other cultural schemas. For example, the manufactured product metaphor evokes other widespread cultural themes such as Yankee ingenuity in building and fixing objects, or the cultural idea that effort will ensure success. These are complex cultural beliefs spread across many domains. These inferences follow from the rich information encoded on the specific-level what building things or making efforts means to Americans in terms of its cultural evaluation and not from a generic ontology. Possibly, such linkages to rich knowledge structures work through shared ontological pegs as described in (1c), which evoke other schemas with the same ontology, whereupon further rich knowledge from the schemas is adduced. The same process that is effective between the themes of a cultural schema can also be effective between various schemas.

TRANS-DOMAIN SCENARIOS

One aspect of the interrelation between the ‘syntagmatic’ and the ‘paradigmatic’ dimension of complex models has not been expressly raised in the foregoing overview: Scenarios, although in themselves quite complex constructs, may inform a large number of context-

bound domains and thus constitute building blocks of cultural cognition. The above-mentioned case studies of American anger scenario and American marriage schema furnish an excellent demonstration. Lakoff and Kövecses (1987) describe anger as an 'idealized cognitive model' (ICM). This ICM is a prototypical cross-domain scenario encompassing five phases, which specifies differing metaphor clusters for its consecutive phases and different aspects of the experience. The scenario-like features in the ICM guide the selection of the appropriate metaphors for each of its phases. The stages range from an offending event, anger, attempt to control the anger, and loss of temper to retributive action. In the scenario each of the phases has typical aspects that are highlighted by metaphors of one kind. For example, when speaking of the physical and emotional effect of anger the metaphor ANGER IS A HOT FLUID is chosen. When speaking of the social evaluation of anger people chose ANGER IS INSANITY. When speaking of the cause of anger people choose the metaphors THE CAUSE OF ANGER IS TRESPASSING and THE CAUSE OF ANGER IS PHYSICAL ANNOYANCE, and so on. The thematic task sharing also reveals a temporal sequencing of metaphors. For example, ANGER IS A HOT FLUID refers to an earlier temporal stage of anger, whereas ANGER IS ANIMAL BEHAVIOR refers to the actions in which anger eventually result, etc.

This ICM of anger occurs across many different everyday domains of experience. It is a part as of public life, work, friendship, relationships, or sports. Therefore the model of anger is a cross-domain scenario, a modular component of numerous experiential realms which is flexibly adapted to them: Anger in a relationship is slightly different from being angry at one's boss or being angry at the kids next door. Marriage, by contrast, is more domain bound, and is a highly complex experiential cluster consisting of consecutive (and alternative) sub-scenarios, anger being one among many.

How do these two orthogonal levels relate to each other? First, the marriage schema specifies in which situations a sub-scenario such as anger can occur between spouses, what contributes to it, where it is justified and where not, how to deal with it, and which repercussions on the relation can be expected according to these criteria. Second, being a lot more extensive than marital anger, the marriage schema connects a numerous other situations, experiences, expectations, needs, norms, and beliefs among each other: For example, there may be general schemas about what constitutes happiness, fairness, or responsibility that are adapted to marriage, while equally informing other domains in non-identical but similar ways. Of course, the same happens with the anger schema in all other usage contexts.

PROBLEMS WITH THE ONTOLOGIES USED IN COGNITIVE RESEARCH

I have so far tried to present a model of complex cultural representations. The status of the model is multi-causal and not uni-directionally constraining. It captures multiple relations of

cultural reality as *both context bound and trans-contextual*. Because of these multiple ordering planes pitting cultural schemas against metaphors reveals itself as a *false dichotomy*. Palmer (1996: 107) arrives at the same conclusion and speaks of a “fallacy of exclusion”. The failure to realize this fallacy reflects a much more general problem in the minds of many cognitive scientists. There are two entrenched but mistaken ontological assumptions that run through parts of cognitive science and shape the way many of its protagonists construe their evidence: (1) The assumption that either the higher or the lower level of schematicity must be more primary in a representation than the other (generic vs. specific metaphors); (2) The assumption that either the structure of an experiential domain (represented by a schema) or basic modular constituents that reach across domains (represented by ontological metaphors) must be more primary.

Of course this raises very difficult issues of method. There has not even been any empirical demonstration so far of what would make the case for hierarchically ordered levels, much less of how to decide which level is topmost, provided that we knew we must privilege one among them. In this sense, Gibbs (1994: 206) argues against totalizing either-or positions hinging on the notion of ‘metaphor’ and offers the following methodological admonition:

“The challenge for theorists who adhere to the position that metaphor is used primarily for talking about experience and does not constitute our conceptual understanding of experience is to provide explicit evidence that people do not think of these concepts in metaphorical ways. We should not simply focus on whether the mind and culture is inherently metaphorical or nonmetaphorical. Rather we should focus our attention on the explicit detailed examination of various concepts to determine the ways in which these constituted are by both metaphorical and nonmetaphorical schemes of thought.”

Gibbs also points out that we do not know yet if idealized cognitive models or schemas are convenient fictions created by scholars to suggest regularities in human experience. This is correct, though the same caveat might apply to conceptual metaphors. We are thrown back to an argument of plausibility, an argument that we should pursue carefully while keeping our conceptual tools under close scrutiny.

I suspect that many linguists tend to prefer image schemas as primary sources of explanation because it appears so very plausible that they are developmentally acquired as basic modules. However, discussions of the ‘primariness’ of cognitive mechanisms need to sharply hold apart the question of developmental precedence in infant learning and the question which conceptual structures govern in adult cognition. Serious muddles have resulted from the failure to distinguish the two. The question is of importance whether infants first learn general cross-domain similarities on a high schematic level (such as NON-PHYSICAL UNITY IS PHYSICAL UNITY) and only then bring these general schemas to bear upon new

knowledge domains. The alternative would be that they start from the relatively 'unfiltered' experience of a domain and arrive at general level metaphors later. The answer to this question will differ considerably depending on the domains in question. For example, in learning about marriage children can draw on more abstract structures from their cultural stock than in learning about friendship, because a close acquaintance with marriage is only established at a later stage in cognitive development. I would strongly suggest that an either-or phrasing of the question may be beside the point. Presumably, a dialectic process of co-evolution is at work at the various stages of learning about marriage and the like, so that basal metaphors and experience rich schemas are acquired jointly, perhaps with one or the other taking the lead at certain stages, but reversing the relationship at other points. However, the debate about metaphors and schemas lacks sufficient developmental evidence (as far as I know) to actually reconstruct this process, even though Strauss and Quinn (1997) give some speculative thought to the role of developmental experiences of love.

Pending further developmental data, I believe that our present discussion must confine itself to the question of cognitive primariness in adults who have fully acquired the shared knowledge relating to marriage. After all, all the evidence discussed comes from interviews (Quinn 1987) or association experiments (Kövecses 1999) with adults, if we exclude, as I think we must, corpus-based linguistic approaches. Even if it should turn out that either image schemas or rich cultural contexts precede the other developmentally, the issue here is another one. It concerns the question which knowledge structures are more generative in an adult discourse as situated in culture. Concerning this question, I maintained that metaphors and schemas are situated on a similar level of overall generativity.

SCHEMAS, METAPHORS, AND METHODOLOGICAL PITFALLS

In conclusion I want to pinpoint some methodological pitfalls of a general kind arising from the foregoing discussion:

(1) In framing research domains, conventional expressions such as 'marriage' cannot a priori be taken as natural and exclusive units of analysis. Assuming that its designative range corresponds to a cluster of great conceptual density in the heads of people begs the question. This is no more than a heuristic hypothesis that a cognitive study has to establish itself. A fairly unified domain can be defined as one where conceptual elements recur significantly more often than in other configurations and depend on each other in larger inference chunks.

(2) Even if 'marriage' turns out to be a fairly distinct experiential domain, its conceptual counterparts are interwoven with other concepts. We cannot think of a schema belonging to marriage as if all of its conceptual structure were exclusively used there. Marriage feeds on the broader concepts of love and emotion, self, social obligation, kinship, work and livelihood,

folk psychology, social codex, and cultural ethics. These ipso facto flow into this domain while at the same time crosscutting it. Not only the interviews on marriage have to be analyzed for other crosscutting major themes, clusters as they occur in natural discourse should be also studied.

(3) Depicting the functional mechanisms working in a given domain as unitary is unwarranted. Cultural models may be partly integrated and may share prototypes (Kövecses 2000: 122), but also exhibit internal tensions (Strauss/Quinn 1997: ch.8; Kövecses 2000: 173-176). Gibbs (1994) mentions some new research on marriage that suggests that there are several overlapping models for American marriage, such as 'ideal' vs. 'typical' or 'good' vs. 'bad' marriages (cf. Sweetser 1987 on 'lies', and Lakoff 1987 of 'mothers'). To Gibbs one reason for the variety of metaphors is that Americans do not have a single cultural model of marriage. So a schema must accommodate complex and partly contradictory internal relations.

(4) As to metaphor analysis, it always needs to be checked whether different metaphors in a domain facilitate different parts of a reasoning sequence in a kind of task sharing. If this is the case, metaphors are not to be interpreted as alternative descriptions of some underlying whole with an entirely identical meaning, but as complementary units covering the different meaning aspects of this whole. In addition, if such ontologically dissimilar metaphors overlap in their main meaning focus, explanations for their choice in discourse should be sought in pragmatic factors, before falling back on the 'expository metaphor' position.

(5) Causal claims require a clear model of cognitive functional hierarchies. Without such a model, expressions like "instantiations of an underlying schema" and "metaphors only name the parts of cultural models", as Quinn phrases them, are gratuitous. There is no a priori reason to assume that metaphors are not equally located on the conceptual and prelinguistic level. By reason of this, hierarchical or uni-directionally causal metaphors inherent in formulations like 'constitutive', 'motivating', or 'governing' should be used with utmost care and may impose false choices. There is no a priori reason to assume that either metaphors or schemas exert causality of a one-way kind on the other. Crucially, complex discourse cognition arises through multiple constraints.

(6) One a more general level my argument is directed against the excessive reification of analytical devices in studying cultural cognition. We have to remain aware of both definitional overlaps and task sharing between models, schemas, idealized cognitive models, scripts, frames, scenarios, and metaphors. For the same reason we should be aware of the possible internal differentiations of each of these units of analysis. Specifically, I argue for two kinds of necessary differentiation: (a) We must abstain from reifying cognitive representations at any one level of schematicity or aggregation. Instead we should acknowledge multiple levels of aggregation that are operative at the same time. Certainly, reification is especially uncalled

for when it rests only on intuition, as with Quinn's eight thematic groups. But even if a detailed analysis of functional task sharing between metaphors reveals the existence of certain clusters and units, this does not mean that they cannot also be functionally subdivided or aggregated into larger units for other tasks. (b) Furthermore, associative and ordering mechanisms of two orthogonal kinds have to be acknowledged, i.e. such that are intra-domain and such that are trans-domain. We should not pit cultural schemas and individual image-schematic ontologies against each other as alternative explanations for the same thing. While they are both important, they relate to different cognitive functions. Theorists in the past have not only been comparing apples with oranges, they have, sometimes unwittingly, been comparing fruit crates with pips, i.e. elements belonging to orthogonal functional levels or to different levels of aggregation.

Chapter 4:

Embodied Culture

The focus of this chapter lies on what I have called the vertical nature of metaphor in chapter 1, i.e. the idea that metaphor stands at the entre-deux between the pole of the referential, conceptual and the pole of the sensory, pre-conceptual. I will now present a general framework for understanding the relation between embodied and conceptual states. In doing so, I will emphasize the cultural nature of embodied metaphor and distinguish types of embodiment together with their social and cognitive function.

1. Towards a merger of anthropological embodiment theory and cognitive linguistics

The tight bond between metaphor and embodiment is a central tenet of cognitive linguistics. Undisputedly, Lakoff and Johnson's (1980) innovative move to adopt it as fundamental pillar of linguistic theory must be applauded. At the same time, the concept of embodiment remains undertheorized to the present day. While embodiment is being studied from various viewpoints in cognitive linguistics (cf. Rohrer 2001: 60-66, who surveys more than a dozen), it is seldom approached as a phenomenological reality. In response to this deficiency, the present chapter raises several unresolved or neglected issues from an anthropological standpoint with a view to embodiment as an experienced and phenomenological reality. Significantly, it will also reclaim knowledge of the body as inherently cultural and, conversely, culture as something that needs to be explained through bodily cognition. New anthropologies of the body which have grown out of feminist and medical anthropology afford ways of talking about embodiment that may seem a bit strange at first, but in truth only indicate how narrow a scope of questions cognitive linguists ask. While this narrow focus is often sought on purpose, the potential of image schema theory to productively merge with rich – if perhaps more opaque – ways of theorizing in anthropology is being overlooked. To meet this challenge, the present chapter introduces a strand of embodiment theory that I see as a valuable extension of cognitive linguistics. This is embodiment theory in medical anthropology and, more particularly, a recent phenomenological approach in this field. I suspect that to many cognitive and cultural linguists a heavy emphasis of this kind on embodiment may seem like a digression. Let me therefore contour in six points why incorporating new elements into embodiment theory is advantageous. I believe that the following embodiment related biases have, to some extent, hindered a full extension of cognitive linguistics into a full-blown theory of culture:

(1) First and foremost, cognitive linguistics (as far as I am familiar with it) leaves the central theoretical notion of 'preconceptual' undertheorized. What remains relatively obscure is, both, the exact ontological status of the preconceptual and its relation to cultural schemas

and the motivation of concepts. What *is* most emphasized, especially by Johnson (1987), is that metaphors developmentally stem from kinesthetic experiences at the preconceptual level. But what does preconceptual ‘grounding’ exactly mean? First of all, the role of preconceptual knowledge in adult cognition is not satisfactorily clarified: Given that preconceptual knowledge comes first in ontogenetic developmental, is it superseded by other modes in adult cognition? Does every conceptual metaphor let preconceptual knowledge resonate as an immediate reality? Or can metaphoric schemas generated out of preconceptual knowledge later be split from their embodied origin and start an autonomous conceptual existence? Next, what is the role of culture in the changes that preconceptual structures undergo after childhood? Are the basic embodied schemas discussed by Johnson universal, or are they inherently culturally refined and augmented? Is there such a thing as a universal human physiology? Do objective symptoms correlate with similarities in the felt body as well? How can we explain ‘culture bound syndromes’? A final question has to do with methodology: How does the preconceptual manifest itself to the scientific observer and which method is best suited to fathom the preconceptual reality of others? Can we gain access to it by introspection, participant observation and empathy, psychological experiment; linguistic analysis, or all of these? As I see it, a number of further substantive issues results, simply because all the previous questions are passed over too lightly:

(2) While cognitive linguistics emphasizes that concepts arise from kinesthetic structures, it leaves undertheorized that preconceptual forms can be equally effective forms of cultural knowledge. Body knowledge may occur without conceptual counterparts and still be as motivating and action-constraining as these. Thus, we should not only speak of indirect experiential grounding but think about *direct experiential motivation* of cultural action as well. Moreover, because the body is often identified with the universal, it is frequently not understood that body knowledge is shaped by culture in the same significant way concepts are. Hence, it is with much justification that Bloch (1998) and Cruces/De Rada (1993) call for a radical broadening of the concept of cultural knowledge. Another problem in this respect is that relevant knowledge is bracketed out by a methodological preference for disembodied linguistic analysis over participant experience, which is a genuinely subjective and embodied method.

(3) Cognitive linguistics emphasizes that the basal constituents of thought are image schemas and that these are embodied (i.e. experienced as kinesthetic structures before they inform representations.) At the same time, it undertheorizes that complex conceptual models are also embodied in significant ways⁴⁹ and, in doing so, falls prey to a grave ontological fallacy – a tendency to regard simple image-schematic modules as either cognitively more basic or ontologically more ‘real’ than complex, culture-specific packages. This problem I

⁴⁹ George Lakoff clearly realizes this in an interview with Roberta Pires de Oliveira (2001: 38).

have already taken issue with in the preceding chapter, by showing that complex embodied schemas go far beyond modular concepts, such as the basal FORCE, PATH, BALANCE, or CONTAINER schemas. However, this critique becomes even more incisive in the embodiment perspective. How people experience schemas emotionally and what motivates them to act on them depends on complex representations closely tied up with a particular social setting. We, then, need a refined understanding of how image-schematic aggregates in conceptually and sensorily rich, contextualized settings guide action and how they are subjectively 'felt'.⁵⁰

(4) As a direct consequence of the previous point, an added emphasis on subjectivized methods is called for. The neglect of situative factors is an embodiment related issue, because it directly results from a lack of embodied 'participant experiencing': The ethnographer's sensitivity for contextual effects comes mainly from having gone through the field experiences of community, joy, affliction, or initiation, the "I-witnessing" as Geertz (1988) calls it. True, ethnographical writing often leaves it open to speculation how exactly even the most excellent ethnographers arrive at their interpretations of what people feel. Yet, sharing embodied states with the people studied is being increasingly recognized as a sine-qua-non by several fieldworking authors (Stoller 1989, Laderman 1994) and has recently been forcefully reclaimed by Galina Lindquist (1995) for cognitive theory in the article *Travelling by the Other's Cognitive Maps or Going Native and Coming Back*. As a fruitful complement to cognitive analyses of embodiment, we need to include the strengths of the ethnographic experience into cognitive studies. Our aim should be the combination of systematic micro-analysis, cognitive theory, and the sensitivity that is the outcome of subjective experience.

⁵⁰ Related to this point, if cognitive linguistics wants to be a genuine social science, it has to put more effort into elucidating the following two issues: First, an equal emphasis on different symbolic media is indispensable, perhaps together with a theory of how they interact. Language, movement, sounds, and visual symbols are rarely covered by linguists, although the sensitivity for this need is currently growing with respect to pictorial metaphor (Forceville 1998), gestures (McNeill 1992, Cienki 1998), and sign language for the deaf (Wilcox 1993, Taub 1997). In other important respects, such as material metaphor (Tilley 1999), sound metaphor (cf. Roseman's 1991 study of musical healing and Nuckolls 1999 review of phonological sound symbolism) or general habitus (Bourdieu 1977), only anthropologists have delved into the matter so far. Second, cognitive linguistics has long tended to disregard large-scale cognition, contextuality, and the typical anthropological concern for 'pragmatics'. Happily, this state of affairs is beginning to change. Discourse-pragmatic aspects are now being slowly included by cognitive linguists (Irvine 1995; Palmer and Brown 1998) and so is the mutual embedding of models. Kövecses (2000: ch.6, p. 184) demands more attention to model-clusters surrounding cultural concepts. He also programmatically calls for including social, cognitive, bodily, and discourse pragmatic factors as equally important (p. 189). Large-scale structures are also beginning to be included, as recent publications on metaphor and narrative show (Werth 1999, see also Semino 1997 and Steen 1994).

(5) An inadequacy more on the theoretical side is that cognitive linguistics fails to differentiate kinds of conceptual objectification. The first difference that is left too implicit is that between concepts we have of things 'in the world' and concepts in which we imagine our own body or physiological processes. Clearly, metaphors like *ANGER IS A HOT FLUID IN A CONTAINER* and *THEORIES ARE BUILDINGS* differ with respect to how people actually 'feel' something in their bodies when thinking of them. The conceptual metaphor *THEORIES ARE BUILDINGS* is not directly felt in the body and has its imagined locus in the outside world. Another problem is that many cognitive linguists treat concepts that *are* localized and felt in the body in a too blanket way. Kövecses (2000: 176, 186), who studies emotions, is the only cognitive linguist to my knowledge to mention different possible degrees of 'conceptualness' / 'embodiedness'. He clearly sees that pride and hope are probably less motivated in the body than anger, fear, and lust.⁵¹ The degree of embodiedness is, then, dependent on the extent to which the metonymic bodily basis of an emotion is emphasized.

(6) Finally, the role of the emotions is left undertheorized by cognitive linguistics. This point relating to embodiment follows from the neglect of participant experience. To be fair, the otherwise productive linguistic work on emotion has only one very specific limitation: On the asset side of the balance Lakoff and Johnson (1999) present a firm basic recognition of its importance, based on findings such as Damasio's (1994). Johnson's work on morals and ethics (1993) points in the direction of emotion analysis and Kövecses' (2000) recent work is successful in showing that the way people think about emotion has an amazing amount of conceptual structure. Yet, in all this the role of lived emotion – accessible more through the participant observer's empathy than through systematic analysis of concepts – is given but scant attention. While linguists systematically analyze the external manifestations of emotion language in order to infer conceptual models underlying the words, they fail to incorporate the non-conceptual aspects of emotion. They deal with how people talk and think about emotions, but they do not ask how subjects *experience* them before they become an object of the mind. Again, for getting at aspects of emotional experience not reflected in words participant experience is required as complementary method to clues from emotion language. I hold emphatic identification with body states to be based, to a large extent, on subtle cues by body language, sensory impressions in context, and shared body techniques in ritual, work, sports, sex, and leisure practices.

These critical points are not to suggest that only linguists should learn from anthropologists. The reverse is also true. Instead of going through a similar list of anthropological limitations, I will just briefly recall a more general comment that applies to

⁵¹ Haskell's (1989: 272), although a psychologist writing on metaphor and not a cognitive linguist, suggests a useful model of analogic transforms, which distinguishes various levels of sensory schematizing also perhaps corresponding to different levels of embodiedness.

embodiment as well. The strong points of anthropology lie in the holistic approach, while its weak points are its too fleeting concepts and often the neglect of cognitive research. Consequently, what I will do in this chapter is to review the central notions of the anthropology of embodiment and try to recast them into a language that is compatible with the cognitive linguistic framework.

TERMINOLOGICAL PROBLEMS WITH 'MIND' AND 'BODY'

If embodiment is really to become a new paradigm in the cognitive sciences, serious questions about our ingrained ways of talking about thought follow. I want to briefly address the relationship between the traditional view of cognition as being in the 'mind' and 'embodied cognition'. It is increasingly being realized that the two views are but the two sides of the same coin. A trend that points in this direction is the theoretical integration of emotions and other phenomena previously not classified as straightforwardly conceptual into the cognitive sciences.

I think we should take the argument seriously that the separation of mind and body cannot be taken for granted as an ontological principle. With a view to non-European concepts Csordas (1993) says that, if we do not wish to succumb to our own cultural bias, we are well advised to set out from a yet undifferentiated *mind-body*, even though terminology will not easily shed its objectivist bias. In a similar spirit Varela, Thompson, and Rosch (1991) do not only argue for a terminological, but also for a methodological synthesis between the 'mindfulness tradition' of Buddhism of the Middle Way and the cognitive sciences. Their idea is suggestive, if not wholly convincing, the upshot being the 'strangification-effect' that occurs where different methodologies, such as neuroscience and meditation, intersect. Be that as it may, I would argue that the terms mind and body can be accepted as a heuristic, once we abstain from claiming a principal ontological distinction. However, to assume ontological sameness of mind and body on principle would be just as misguided. In the phenomenological analysis *The Absent Body* (1990) Drew Leder shows that the body receding away from attention is also a natural experience. As long as we go on using terms such as 'mind' and 'body' for lack of better alternatives we need to be careful about ontologizing them. What we, then, should strive for on the basis of this loose and heuristic distinction are two things: On the one hand the causal modeling of systemic interrelations between mind and body in an observer's theory is important, including evidence from the neurosciences. On the other hand we should take folk-models of the mind and body seriously, conduct phenomenological analyses as well as cross-cultural research here, and test for convergences or clashes with our own cognitive experts' theories.

Medical and feminist anthropology, which are faced with a multitude of differing folk-theories of the mind-body, build on yet unmade concepts and operate in an ontological

'construction space'. I take this as an essential strength, because the biases inherent in our habitually used terminology are critically reflected: The inadequacy of scientific concepts that are but an extension of European folk-theories for speaking about non-Western cultural experiences is obvious enough. That in turn should also raise questions about the adequacy of our analytical models, such as the mind-body dualism or the assumption of an universal human body. While cognitive linguistics with its theory of experientialism avoids the major Cartesian pitfalls, it still starts from a universality heuristic (cf. Keesing 1992). It assumes significant transcultural commonalities in how people experience and interpret their bodies, with some evidence to back this up and more still missing. While I believe in a certain degree of bodily universality, most obviously as concerns some physiological symptoms (Levenson et al. 1992), a plethora of ethnographies goes to document an amazing variety in how people *experience and interpret* their bodies. Overall, the relation between embodiment and culture remains unclear and suggests wariness. It is, then, for a strategic reason that I advocate the medical anthropology approach in the study of embodiment: Its inherent openness and high self-reflexivity about ontological claims guarantees checks against prematurely reified concepts.

SYNESTHESIA, EXPERIENTIAL METONYMIES AND THE ORIGINS OF METAPHOR

A point of entry into embodiment theory is the notion of *synesthesia* (from the Greek word for 'feeling together'), which can be defined as embodied linkages between sensory modalities, i.e. vision, touch, hearing, taste, smell, and proprioception. The phenomenon of synesthesia points to a very basic level of embodied meaning and perhaps the origin of the nexus between the embodied and the conceptual. In the following I will distinguish primary synesthesia from culturally acquired synesthesia:

What I call primary synesthesia is an important bodily precondition for the recognition of many metaphors, or perhaps the crudest form of metaphor itself. It occurs in many metaphorical expressions blending two sensory modes, e.g. "a sweet melody" or "a hot rhythm". However, it is based in something more primordial than language. Synesthesia refers to those similarities closest to the sensory-perceptual level. Take as an example that 'loud' is readily likened to 'bright' and 'sharp', rather than 'dark' and 'dull'. Even small children are capable of sensing such equivalences between sensory modes. There is nothing enigmatic about these similarities if we consider that high-pitched sounds are like bright lights, in that they activate a higher neuronal discharge rate, i.e. they are perceptually salient. Marks and Bornstein (1987: 59) hypothesize that several cross- or multi-modal equivalences of this sort are hard-wired in the sensory system through polysensory neurons and link visual, tactile, acoustic modes, etc. According to these two authors, experimental evidence reveals that some types of synesthetic couplings, such as 'loud' and 'bright', are universal at

a few months of age, while others are only learned until the age of ten or twelve, such as the equivalence of 'big' and 'deep'. The latter experientially acquired type of synesthesia may also be called metonymic, because it is learned by co-occurrence of two attributes in a common context. Note that even though the equivalences are not innate, they may still be near-universals, since their motivation is not arbitrary: Obviously big hollow objects have a deep resonance all over the world.

What is the relevance of synesthesia? First, it is of basic importance for human orientation in the physical world. Developmentally, only synesthesia enables infants to acquire object constancy by linking sensory modes. This capacity to associate what the baby touches, sees, and hears is already well developed in the first months of life. In this way synesthesia enables stable perceptions within sensations that are always in flux. Thus, it imposes a basic structure of belonging together onto the human world of things. In other words, only by virtue of synesthesia children are able to select discrete chunks from the experiential flux in a meaningful way. Synesthesia is a contributing factor to the process of ontologizing the world into separate objects with different properties. Additionally, it seems likely that the more sensory modes corroborate a phenomenon, the more real it appears. Marks and Bornstein (p. 63) suggest that experience with synesthesia may become paradigmatic for the further exploration of the world:

"Once children know they can map one (sensory) opponent process onto another they presumably can extend the process to nonsensory categories (...) Physiological mechanism of the same sort that subserve sensory dichotomies can also mediate more abstract semantic features, to which the properties of order, gradation, and polarity may also apply."

If it is true that synesthesia engenders the first recognition of polarity, this seems of particular import. It is my hypothesis that such mappings may produce the first clear notion that the world is divided into distinct domains (in this case the various sensory modes), together with a recognition that these domains may be systematically linked. Synesthetic mappings may thus prefigure metaphor.

In metaphoric language synesthesia is abundantly present. Frequently linguistic labels map onto preformed sensory equivalences, such as when we speak of a "sharp noise". Especially poetry relies on such basic cross-modal similarities given in sensory experience to enrich its imagery. Furthermore, it seems reasonable to believe that synesthetic hard-wiring is responsible for observed directionality preferences in metaphor. For instance, to speak of a "sweet silence" makes intuitive sense, while a "silent sweetness" is more difficult to grasp (see ch.3).

It is undisputed that – sometimes quite powerful – embodied states are evoked through synesthetic vocabulary, such as when we speak of a "dull sensation" or a "sharp pain"

regarding our own body, or a “mellow day”, a “bitter experience”, and a “soft person” regarding things outside it. Hence, the phenomenon of ‘feeling tone’ in metaphor is partially accounted for by synesthesia. Synesthetic associations figure prominently especially in what Wheelwright (1962) and McCormac (1985) call *diaphor*, i.e. linguistic metaphors characterized by a predominantly evocational effect. (Not surprisingly, many such diaphors employ synesthetic vocabulary.) The same idea is expressed by James Fernandez’s (1986: 29), who contrasts metaphors whose emphasis is primarily on the correspondence in feeling tone with conceptually more complex metaphors. Interestingly, the very primary level of cognition is central to his inquiry. ‘Feeling tone’ is perhaps a workable gloss for what he (1977) calls ‘the inchoate’ in culture, i.e. preconceptual and not yet objectified experience. With that term Fernandez emphasizes that our everyday system of semantic categories is not the original point of reference for many metaphors. Instead sensory immediacy is evoked.

The phenomenon of synesthesia is a good point of departure for demonstrating that there already is some structure in immediate evocations. There is a lucid definition of synesthesia by Brenda Beck (1978: 84) as “protosynthesis of sensations at a more primary level of motor and emotional consciousness”. This highlights that synesthetic metaphor pertains to more than to visual, acoustic, olfactory, or haptic concepts objectified and located in the outer world. Instead, emotions and images of how something feels in the body are part of synesthesia from the start on. Synesthetic language is built on immediately ‘felt’ qualities. A certain body posture, muscle tension, movement, readiness, or metabolic state is connected with a particular emotional quality, and vice versa.⁵²

Haskell (1989: 273) argues that the findings on synesthesia and metaphor can serve as the point of entry to an entire epistemology. He starts from the observation that immediacy and integral consciousness are typical of synesthesia-like couplings. In this respect, Werner and Kaplan (1963, paraphrased in Haskell, p. 261) show that, at an early developmental stage, there is a relatively undifferentiated affective-sensorimotor whole in which sensory schemata and symbolic referents are nearly fused. Words are still heavily sensuous, not abstract. On this basis Haskell proposes a theory of cognitive sensory schematization in deep cognition, which emphasizes both the developmental role of synesthesia-like cognition and the role it plays in prefiguring equivalences. One interesting finding is that the early

⁵² For example, the couplings between emotions and posture may be used in acting. A comparative study of acting techniques in the West and India by Schechner (1986) provides some fascinating evidence for this. It shows that professional actors can either produce the appropriate emotions by performing the precise body movements that usually accompany them or produce the appropriate bodily reactions by inducing the accompanying emotions in their mind. Both techniques yield the same results and work equally well.

conflation relation is partly retained in some later forms of thought. Onomatopoetic language, poetic processes, vivid metaphor, dream symbolism, and imagery are examples “in which affective, sensuous, motoric, and symbolic vehicles of language and imagined productions are relatively undifferentiated” (p. 262). In other, more developmentally differentiated cognitive forms the structural pole remains, while the original affective and sensory properties figure less prominently. In literal language, logic, and mathematics the distance between symbolic vehicles and affective sensorimotor schemas has increased to the degree where they become functionally autonomous from the embodied basis.

This notwithstanding, Haskell emphasizes that deep cognition, throughout its various developmental stages, has an invariant underlying pattern, which he collapses into the single generic term of ‘analogical transform’. This includes a large number of phenomena:

“stimulus generalization (neuronal and learning theories), cross-modal transfer (e.g., synesthesia), assimilative schematization (e.g., physiognomic expression), perceptual constancy (shape and size), metaphor/analogy (e.g., linguistics), transposition phenomena (e.g., changing keys in music), transfer of learning (e.g., education), analogical reasoning and similarity relations (e.g., logic) model (theory construction), and isomorphic relations (e.g., mathematics).” (p. 258-259)

Towards the end of this work I will explore analogical transforms within the framework of image schema theory and reclaim it as a touchstone for a theory of multimedial cognition, which integrates the notion of cross-modal couplings with research on imagery.

What is the relationship between inborn structures, universal experience, and culturally specific experience in cross-modal linkages? Some synesthetic phenomena may be universal, such as a drooping posture going with mental states of depression (primary synesthesia). By contrast, secondary synesthetic linkages are not innate; they are shaped through experience, especially in early childhood. Here, cultural experiences involving repeated co-occurrences of body sensations, emotions, and associated qualities result in a synesthesia-like coupling. (Note that primary synesthesia can function as a basis for later, more complex cross-modal linkages, whereby the hardwired neural linkages are dynamically reinforced, reshaped, or extended.)

As I will presently show, synesthesia results in both some arguably universal and some culturally highly specific metaphors. As mentioned in chapter 3, the cognitive scientist Joe Grady (1997a) has recently argued for a stock of basic metaphors that are presumably found across cultures. Grady’s theory of primary metaphor posits that, since many embodied experiences in the world are universal, there are corresponding primary metaphors that are universally acquired. These include such examples as affection is warmth, intimacy is closeness, and RELATIONSHIPS ARE ENCLOSURES, which emerge from the early experiences in the parent-child relationship. Others derive from basic experiences with objects like

UNDERSTANDING IS GRASPING, MORE IS UP, or IMPORTANT IS BIG. Finally, some of the most basic ontological metaphors are acquired as the child learns to move, like TIME IS MOTION, STATES ARE LOCATIONS, and PURPOSES ARE DESIRED OBJECTS. The basis for the conceptual metaphors in adults may thus also be described as 'experiential metonymies', borrowing a term by Shore (1991).

Lakoff and Johnson (1999: 46ff, 55) integrate Grady's theory with other recent cognitive work that suggests that particular strong neural connections are established in early childhood through the repeated coactivation in everyday experience of the neural networks representing the source and the target domains of a primary metaphor.⁵³ In particular, there is evidence by Christopher Johnson (1997) for a conflation stage in early childhood during which source and target are not yet differentiated into distinct domains. Since the domains are not experienced as separate, semi-permanent cross-domain links can emerge and thus create metaphoric predispositions for later life. Systematic cross-domain linkages can also be found in the involuntary capacity of some people to see music in colors or smell sounds. This is an effect of intertwined brain topologies that are either innate or result from brain lesions. Experiences of this kind also occur in connection with psychedelic drugs. This fact seems particularly suggestive for the study of ritual, where synesthetic metaphors evoke holistic effects often together with trance and drugs. The fusion between sensory worlds brought about by such sensations may be very powerful. Thus, synesthesia provides a clue to the integrative nature of ritual.

Experiential metonymies are not only created through universal childhood experiences, they can also be shaped by culture. Bradd Shore (1991) gives us a flavor of how acquired blends of experiential features are created through culturally distinct orchestrations. His fieldwork on Samoa illustrates how equivalences are acquired through an exposure to conventionally encountered clusters of sensory concepts. In Samoa, high rank is symbolically equated with a series of physical referents: (1) shiny skin, (2) light complexion, (3) large size, (4) resting posture, and (5) centrality, for example in the seating order in the house or the order of the house sites in the village. These five aspects are clearly distinct from the hard-wired sensory equivalences that I characterized above as primary synesthesia. Developmentally they occur much later and only to the degree that the child progressively acquires the conventions of her culture. They are mediated by complex contexts, such as the

⁵³ A possible outcome of repeated coactivation is that entire sense modalities are linked. It was indicated above that conceptual metaphors such as SEEING IS TOUCHING (as in the linguistic metaphor "to lay eyes on") are part of a more general notion that the visual domain can be better conceived through the tactile domain. In other words, there is not only a local synesthetic linkage between two concepts from two domains, but also a systematic linkage of the domains themselves. Such a generalized equivalence results from a *metonymic spillover* from more specific synesthetic linkages.

presence of a high-ranking personality, through which they are associated. However, Shore argues that, once these equivalences have been acquired through exposure to culturally predominant clusters of sensory concepts, they come to be experienced as naturally associated, in the same way that children universally associate acoustic pitch and size or color and temperature. This new type of sensory equivalences is created through the contiguity of attributes within a culturally orchestrated context. In other words, the attributes cohere metonymously. Such sensory metonymies can, but need not be lexicalized and they may form part of a more general concept. (Shore argues that the Polynesian concepts of *mana* and *tapu* are related to high rank and that the discussed experiential cluster co-defines them; see this chapter further below.)⁵⁴

Let me note in a short aside that it would be worthwhile to reexamine Victor Turner's (1967) theory of ritual symbols in the light of experiential metonymies. Turner was struck by the fact that the symbols of ritual so very frequently evoke primary experiences like breast-feeding, nurturance, and birth. His theory focuses on how these connect with abstract social meanings like motherhood and matriliney. As Shore, Turner shows how many primary links are drawn on, so that new links of a more culturally specific kind may be forged.

Overall, I believe that the study of experiential metonymies of a culture through developmental data provides an indispensable background for all further analysis of metaphor. The reason for this is two-fold: Only on the basis we can find out (1) how a cultural world is carved up into domains, i.e. which (analytical) domains are strongly conflated and which are strongly distinct, and (2) which cultural contexts are prototypical for understanding further metaphors.

PROCEDURAL AND SEMANTIC MEMORY

Recent neurobiological work suggests the existence of two functionally and anatomically fairly distinct memory systems, one that is *procedural* and one that is declarative or *semantic* (Beck 1987: 24). Procedural memory deals with behavioral everyday functions and habitual activity and it stores schemas for repeated action patterns. It embodies knowledge in the most direct sense within the sensorimotor system. A good example for the possible complexity of procedural knowledge lies in the faculties of dancers or athletes, who come to know elaborate sequences of action 'in their muscles'. Likewise, the participants of complex rituals often will not be able to give an adequate account of what they are doing when prompted, but at the same time excel in performance down to the minutest detail. The semantic system, on the other hand, is the domain where language and language-like

⁵⁴ It should be noted that, while experiential metonymies are often embodied, they also encompass a pole where sensory and perceptual cross-wiring is replaced by *conceptual* blending. Hence, experiential metonymies are not always dominantly embodiment-related.

thought is situated.⁵⁵ It is necessarily symbolically mediated, whereas the procedural system contains some kind of 'immediate' knowledge.

Usually procedural and semantic functions closely collaborate, so that normal everyday behavior results from an interaction of the two systems. For example, cognitive theorists speak of 'activity signatures' that inform the understanding, and indeed the definition, of objects parallel to semantic knowledge. To give a simple example cited by Beck (1987: 24), the notion of "chair" is distinguished from other things one can sit on by the muscular habits involved in sitting down and getting up again. In other words, we neither remember what a chair is only through a mental symbol or only through an image of a chair, but through our own bodily behavior with chairs as well. Nevertheless, it is important to see that the procedural system can handle a large amount of information by itself. It is worth drawing attention to this widely neglected fact (cf. Bloch 1998), especially with scientists whose lifeworlds almost exclusively revolve around symbolic knowledge (or so they like to think).

Furthermore, there is no reason to believe that sensorimotor knowledge in the procedural memory plays only a role in dealing with simple physical experiences, whereas 'cultural knowledge' operates by symbolic cognition in the semantic system. This point was first made by Bourdieu (1977), who, through his notion of *habitus*, develops a theory of how culture as knowledge is embedded in the procedural memory. Let me give a few examples: It matters greatly for our sense of self and our roles whether our ceilings force us to bow our heads, whether our dress allows only moderate freedom of movement, whether our language demands high self-control of the voice apparatus in the articulation process, whether laughing is appropriate, or whether dynamic movement is valued or if the physical articulation of aggression is restrained. All these parameters of culturalized body behavior and many more involve repeated muscular patterns that become so imbued that they circumscribe cultural goals, values, and restrictions. This happens without necessarily involving any semantic representations. Another point raised by Bourdieu, and one that he is particularly adamant about, is that patterns of *habitus* do not strictly determine the individual. Their job is to give a feel to culture and to constrain action within certain bounds. *Habitus*, then, delineates a field of options and motivates actions at the same time. The two major points I wanted to raise with reference to Bourdieu's approach is that (1) body knowledge is culturally shaped and that (2) it guides action. I will take up Bourdieu a bit further along to show that the notion of *habitus* can, in fact, form an entire research paradigm through which to analyze the central dimensions of culture.

⁵⁵ Frequently the two systems are also associated with the activity of one brain hemisphere, the left hemisphere being the semantic one in right-handed people. Studies of amnesia reveal that the capacities of one sphere can be impaired without the other being affected. Aphasic brain damage may result in similar selective impairment.

2. Embodiment as a paradigm in medical anthropology

Now that some basic ideas have been related, medical anthropology's view of embodiment can be introduced. My leitmotif question is this: How broad should the range of aspects subsumed as 'embodiment' be and which functional, conceptual, and typological distinctions warrant attention?

By way of introduction, I want to present an overview that differentiates aspects of embodiment, while at the same time giving attention to their real-life interrelations. Major groundwork for this has already been done by Nancy Scheper-Hughes and Margaret Lock (1987). Their widely influential survey on work on the body identifies three strands of thought associated with *embodiment* in anthropology. These relate to 'the individual body', 'the social body', and 'the body politic'. Even though these three types of bodies studied overlap in practice, as theoretical viewpoints they emanate from rather disparate epistemologies and methods. Let us consider these in turn:

It is the perspective of phenomenology, recently revived in anthropology, that focuses on the body as lived experience. Marcel Mauss was perhaps the first anthropologist to embrace this perspective in his work on *techniques of the body*, which function as experiential triggers for culturally desired ends. Another perspective is that of structuralism and symbolism, for which the work of Mary Douglas is a prominent example. This view focuses on the human body as a source of symbolism with which to think about nature, culture, and society. For example, the body in health offers a model of organic wholeness of the society. Finally, the body has been identified as the locus of social practice and regulation. This viewpoint has been inaugurated by post-structuralism, pioneered by Michel Foucault's analysis of the body as instrument of (self-)control, of surveillance, of regulated work, and of reproductive and sexual regulation. An equally important impetus came from Pierre Bourdieu's theory of practice, notably from the notion of habitus understood as the unselfconscious orchestration of practices through embodied knowledge. Kirmayer (1992: 324) is well justified in saying that the tripartite distinction undertaken by Scheper-Hughes and Lock points "not so much to three bodies as to three types of text produced by scholars. In any real event they form a single system." Nevertheless, I would add that this analytic separation is one that we can profit from in framing questions. An inquiry into the specific interrelations between the three levels stimulates insights into how particular symbols evoke emotional dispositions and into how the inducement of particular moods, in turn, contributes to social control or other collective ends.⁵⁶

⁵⁶ Let me note in passing that the previously developed views on metaphor nicely accommodate all three perspectives. It suffices to recall that (a) much metaphor springs from the embodied reality of our kinesthetic being in the world, that (b) all metaphor effects a symbolic linkage between domains of representation or different sensory modes, and that (c) metaphor can be a powerful regulative, for

The task of the following sub-sections is to survey the embodiment approach in anthropology. It is the relation between the embodied and the semantic, the order of the body and the order of the text that lies in focus. I will begin with presenting recent critiques of the Western 'representationalist' bias and then go on to suggest an alternative focus on 'presentational' kinds of knowledge.

CRITIQUES OF REPRESENTATIONALISM

The phenomenological paradigm of embodiment amounts to a turn against what has been called the 'representationalist' bias. This still very dominant bias harks back to René Descartes, who disembodied the human mind by making a transcendental 'ego' the ultimate ground of his inquiries. However, the sole focus on 'representation' has recently been subjected to a two-fold criticism. First, there is opposition to making representations the dominant research preference, i.e. a strategic bias to theorize conceptual knowledge and neglect the development of methodologies that approach pre-conceptual knowledge. Second, critics also take issue with making representation – taken as an entire mode of knowing – the pivotal point of epistemology. The ground for this second critique has notably been prepared by Foucauldian and feminist discourse, where particular reifications of gender, sexuality, biology, emotion, and self have come under heavy attack. This has led to a newly growing sensitivity for the problematic relation between the existential immediacy of bodily experience and our objectified categories. What is more, this sensitivity allows new ways of self-reflecting the process of making science.

The general awareness of methodological problems in cultural anthropology raised by the trenchant self-critique of the 1980s and 1990s (see Clifford/Marcus 1986) is inseparable from the issue of embodiment and experience in fieldwork. Instructive in this respect is a matrix of differences between the mode of social practice and coherent anthropological discourse presented by Cruces and de Rada (1993). The disjunctive relation between field experience and writing ethnography implies that we first have to bridge the gulf between integrative experience, 'total fact', embodied reality, ambiguity and fuzzy categories, multiple coding, localness on the one hand and a propositional, analytical, serial, and pan-optical mode of expression on the other hand. Generally, the awareness of the role of the senses and sensuality in the field is growing in anthropology, as reflected by Paul Stoller's (1989) book *The Taste of Ethnographic Things*. More generally, the role of the ethnographer as experiencing subject in producing ethnographies has become an issue of its own. There is now a distinct genre of writing 'reflexive ethnography', spearheaded by Paul Rabinow (1977). This post-modernist turn sees ethnographic activity not as the production of objectivity, but

example by channeling emotion and inciting action, by framing problems and by limiting or creating a field of discourse.

as an emergent outcome of an interaction between experiencing subjects. It has thus been called into question whether *representation* of other cultural realities is at all possible, i.e. if a re-description as 'evocation' would not be more appropriate, as Stephen Tyler (1987) has it. In a similar if less radical vein, two papers on 'experience near ethnography' by Unni Wikan (1991, 1994) suggests that a mode of 'resonance' between ethnographer and the studied subjects should replace aspirations to an objective gaze. Similar points have also been raised by the cognitive anthropologists Maurice Bloch (1991) and Galina Lindquist (1995), who are far from any postmodernist outlook. Both make reference to cognitive research on procedural knowledge and the inherent problems with putting it into words.

Historically, an important relativization of the representationalist paradigm stems from the social phenomenology of Alfred Schütz (1962). In his view objects are only constituted by a specific mode of attention, or, in his characteristic coinage, a particular 'tension of consciousness' (*Bewußtseinsspannung*). Thus, we enact a different self, depending on whether we are consumed in prolonged mathematical thought, we pursue our everyday activities, we engage in intersubjective confrontation, we sleep, we savor a religious mood, we are in pain, we experience ecstasy, etc. As a further consequence it is only in some particular modes of consciousness that a sense of objects 'out there' is created, while in others the subject-object split is not a part.

Another noteworthy and early incursion on traditional representationalist ground was launched by Charles S. Peirce's semiotics at the turn from the 19th to the 20th century in his theory of sign-types. His perspective goes beyond a mere focus on signs that use a conventional signifier to stand for the signified (*symbols*). He accomplishes this by extending his purview to include signs that participate in the structure of what they signify (*icons*) and signs that directly point to the object they signify (*indices*). This broadening of the conventional meaning of 'sign' is justified in that all three sign types can be seen as carrying meaning. As we shall see, especially the notion of icon has been deployed in recent anthropological work to signify an immediate kind of participation in knowledge.

The most promising attempt to meet the deficiencies of a purely representationalist approach lies, in my opinion, in the recent revival of phenomenology. Two central claims that we have to take seriously originate in Maurice Merleau-Ponty's *Phenomenology of Perception* (1962). First, he shows the world is not pre-given but only constituted in perception. It is wrong to say that an indeterminate world impinges upon the passively receptive subject. A more fitting formulation is that she enacts her world. Consequently, how perceptions are objectified varies individually and culturally. Second, Merleau-Ponty claims that there is bodily knowledge of a pre-objective kind that constitutes the existential ground for us.

In recent cultural anthropology, it was primarily the aforementioned work of Pierre Bourdieu (1977) *Theory of Practice* that redirected the field's view to go beyond representation. In Bourdieu's view, a large part of cultural practice can be understood as directed by embodied knowledge. Through the notion of *habitus* he argues for the primacy of the socially informed body as ground of all social life:

"(T)he habitus could be considered as a subjective but not individual system of internalized structures, schemes of perception, conception, and action common to all members of the same group or class and constituting the precondition for all objectification and apperception (...)" (Bourdieu 1977: 86)

Habitus promotes the "non-selfconscious orchestration of social practices", as Bourdieu's celebrated phrase has it. The embodied principles of habitus, codified as procedural knowledge, are beyond the grasp of consciousness. In addition, Bourdieu sees habitus as neither given to unpredictable novelty nor to simple mechanistic reproduction, but as a particular mode of perception with a particular scope and focus, a mode which is inseparable from social enactment. As such, habitus is inherently evaluative. For example, the capacity to taste is grounded in the body. Culture or social milieu determines what a person has learned to enjoy or even learned to perceive consciously. At the same time, taste is an embodied means of social distinction, for example between the upper and lower classes.

One central function of habitus is to define social roles, especially gender roles: For example, in Kabyle society masculinity and femininity is a fundamental principle of division of the social and symbolic world. Sexual identity emerges in the child when "it constructs its image of the sexual division of work between the sexes, out of the same socially defined set of inseparably biological and social indices" (p. 93). There is a "political mythology which governs all bodily experiences". A central instance of this is the opposition of the male centrifugal to the female centripetal orientation, which is visible, for example, in how men and women walk. The female virtues of modesty, restraint, and reserve direct women downwards, towards the inside and the house in walking, whereas male excellence orients men upwards, outwards, towards other men. Likewise, sexual potency is inseparable from social potency. In virility as an enacted and felt embodied mode male sexuality is public but sublimated, while female sexuality is secret. Bourdieu's main argument is that social and cultural aspirations are often expressed by body techniques, both through their symbolic and their disciplinary or motivating aspect. Of course, aspects of habitus often also become the subject of discourse. Especially, claims to national or class superiority are frequently consciously based on bodily and emotional restraint and commented on. Examples include the proverbial Prussian discipline, the *countenance* of nobility, or the restraint of the prototypical Victorian gentleman who keeps a stiff upper lip, occasionally lifting an eyebrow when disturbed. In conclusion, the major impact of Bourdieu's work lies in showing explicitly

and in an ethnographic context which important social and cultural functions forms of procedurally encoded knowledge fulfil.

A NEW FOCUS: PRESENTATIONAL KNOWLEDGE

"The body's influence in thought is more presentation than representation, given in substance and action than imagination and reflection." (Kirmayer 1992: 325)

The case for embodiment can be stated in a fairly concise formula: The phenomenon of meaning cannot be reduced to signs that represent, i.e. signs that stand for something other than themselves. In cognitive philosophy this point has been made by Johnson (1987: 176f) in his trenchant critique of Objectivism. Johnson contends that meaning applies to all possible levels, be it the meaning of life, of a historical happening, or of a word or sentence. Meaning in this sense also includes bodily meaning. Analytic distinctions, as surely are possible, give way to a multiple usage of 'meaning', which makes sense because all 'meanings' function jointly and serve a single end. A similar concern has been voiced by a number of phenomenologists who say that meaning is existentially isomorphic with, and not only a representation of, experience. We should be aware that what counts as meaning depends on the foundational metaphors of our epistemology. The crucial role of such paradigm-creating metaphors is brilliantly illustrated in Rorty's critique of epistemology in the Cartesian tradition of Western philosophy (1979). Extending or breaking the representational paradigm is only possible by introducing a new key metaphor. In this sense our presentation metaphor is the (or one) rightful counter-image to the canonical mirror- image between subjective knowledge and the external world, which Rorty describes and criticizes sharply.

Phenomenology suggests new ways of talking about being which question our usual thought practices. The phenomenological view asks us as researchers to step out of our usual position as objective scientists, in which others are experienced analytically and from the outside. Instead, we are being asked to put ourselves into the shoes of the subjects studied. Once we relate to things the way the experiencing subject does, the following key idea of the phenomenology of embodied knowing, which is wholly unfamiliar to classical science, can begin to make sense: On the inchoate level of being there is a continuum of experience in which a reflexive subject does not yet stand out as separate. This means that perception does not automatically have a subject-object format, i.e. a way of being in the world that rest on a distinction of the cognizer and the cognized, an objectivizing stance. The subject-object way of being and perception is the natural format of everyday knowledge. Yet, it is non-existent in mystical experience, and only to a lesser degree in trance and some dream states. While is clear that in standard science, the subject-object format forms the basis of descriptive language – describing a state of affairs qua state means already having

imposed a subject-object distinction – other ways of speaking, even though opaque by everyday standards, exist, such as in Buddhist philosophy.

Saying that cognition does not immediately imply a subject-object format only restates what has been said with regard to the grounding of metaphor in embodied or pre-conceptual knowledge. As counterpart to the term ‘representational’ I will also adopt the term ‘presentational’ here, as a growing number of authors are doing in accordance with Merleau-Ponty’s usage. Furthermore, since we cannot neatly distinguish mind and body, I will occasionally adopt the terminological usage to speak of ‘mind-body’.⁵⁷

A critical analysis of the time-honored Western epistemology reveals further important aspects: It has been repeatedly observed that Cartesian epistemology is biased by the metaphor of KNOWING IS SEEING and a corresponding devaluation of other modes of knowing. This metaphor is, to a large part, responsible for creating a subject-object distance and a sense of passive receptivity, while cutting us off from the other senses at the same time (cf. Lyon/Barbalet 1994: 61). By contrast, it is primarily the haptic sense that includes the whole body with its entire surface and that implies immediate body presence and activity in exploring the world. Since exploratory sense organs and performatory motor organs are anatomically identical, the haptic sense is also strongly linked to what has been called the ‘sixth’, the proprioceptive sense.⁵⁸ This is the sense of having an integral body, being an embodied entity distinct from other entities, and having a center of awareness. A pertinent counterbalance to the visual metaphor of epistemology is given in Thomas Csordas’ (1993: 152) argument for an expanded concept of sensory imagery, which discontinues the traditional dichotomy of mental images and physical sensations:

⁵⁷ As our language cannot be other than fundamentally dualistic, we need not have too many qualms about this ultimately inadequate term, which does not go beyond dualistic terminology, albeit referring to it negatively.

⁵⁸ Cf. Scheper-Hughes and Lock (1987: 14), who argue that “all humans are endowed with self-consciousness of mind and body, with an internal body image, and with what neurologists have identified as the proprioceptive or ‘sixth sense,’ or sense of body self-awareness, of mind/body integration, and of being in the world as separate and apart from other human beings.” This is not to imply a quasi-universal basis of the bodily that can be isolated as a universal substrate of culture. The specific way this proprioceptive sense will be instantiated can vary greatly. It can either be endowed with particular cultural salience and become the object of intense discourse or be left implicit. Likewise, it can link up with various ideologies of individualist, familist, socio-centric, or holistic kinds. Therefore, the proprioceptive sense has to be sharply distinguished from any reified social conception of ‘person’ or ‘self’. Also note that, in a phenomenological perspective, proprioception is only one mode of attention among several, because often human consciousness is fixed on objects external to the body, while body awareness fades into the background. With *The Absent Body* (1990) Drew Leder devotes a whole book to this issue. More about this anon.

"We would then be taking a methodological step away from an empiricist conception of imagination as abstract representation to a phenomenological conception of imagination as a feature of the bodily synthesis, which Merleau-Ponty (1962) described as characteristic of a human consciousness that projects itself into a cultural world."

Taking a step away from the idea that imagination is abstract representation can follow from attending to tactile and kinesthetic sensation and other kinds of body feeling. In other words, by according the other sense modalities equal status with the visual we get a more diversified picture of human knowing.

Of course, Johnson's (1987) experimentally well-supported argument that image schemas guide much of our thought is in excellent keeping with all this. First, image schemas are multi-modal and permit transpositions, say from the auditory to the visual. Second, they are of kinesthetic origin and hence grounded in preconceptual knowledge *ipso facto*. By virtue of this grounding relation conceptual schemas can be transposed into proprioceptive feeling states and vice versa. Image schema theory is well suited to accommodate the mentioned phenomenological caveats to classical epistemology, because it deals even-handedly with conceptual and preconceptual forms of knowing. I will get back to this double nature after a general discussion of the methodological problem of how we can get to know what people feel in their bodies.

METHODOLOGY AND CONSUBJECTIVITY

A major impelling force for the abiding concern with embodiment in medical anthropology is of course the striking contrast of many non-European medical systems to the Objectivist and representationalist bias in Western biomedicine. There is a stark contrast of modes of knowing between the 'medical gaze' in biomedicine first described by Michel Foucault and the ways of approaching the patient characteristic of other medical systems. A fine ethnographical example is cited by Csordas (1994a) referring to E. Valentine Daniel's (1984) article *The Pulse as an Icon in Siddha Medicine*. In the Siddha medical system of South Asia the healer, in diagnosing the pulse of a patient, synchronizes her own pulse with it and experiences shared pulsations. This engenders a more immediate kind of knowledge about the client's health state than any rule-governed objective diagnosis by distanced observation, more typical of a Western doctor's mode of attention, would do. What is more, an altogether different kind of sign is used here: In the terms of Peircean semiotics the pulse example involves a sign that participates with the signified, so that when one compares the relative power of indexicality and iconicity in Siddha medicine the iconic aspect is much more emphasized than in bio-medicine. The sign is not external to the observer any more. The 'objectivity' of Western medicine is replaced by 'consubjectivity' (p. 144).

Csordas proposes that a number of well-known anthropological issues can be given a similar reinterpretation. For instance, in *couvade* the experience of throes in men can be understood as attuned bodily sensations of the father to that of the pregnant woman in birth-labor. Thereby, *couvade* is reconceptualized as phenomenon of embodied intersubjectivity instead of imitation or charade. The men actually feel the pain rather than only enacting it for the audience. As an example of consubjectivity from our own culture Csordas mentions the phenomenon of transfers from client to therapist in psychoanalytic therapy. Csordas expresses the interesting view that this kind of consubjectivity can serve as a guideline to anthropological analysis as well and thereby instate a new paradigm of an embodied science.

Similar inroads have been made elsewhere recently. With regard to the anthropological debates about methods of doing ethnography I have already mentioned a suggestion by Unni Wikan (1991) above. When she speaks of 'resonance' between the anthropologist and her informants, Wikan espouses a similar mode of consubjectivity as a basis of understanding. Furthermore, there is a suggestion by Varela, Thompson, and Rosch (1991) to include meditative methods in cognitive studies of the mind. Although clear-cut methodologies are not in the offing, the idea that subjectified methods should become part of science is currently on the rise.

3. Culture, body, and meaning in a cognitive framework

A TYPOLOGY OF CULTURAL SIGNS

I will now set up field of differentiations that clarifies the various aspects of 'embodiment' in relation to culture. A useful metaphor is taking culture as a semiotic 'text', i.e. a fabric of signs (cf. Peirce). In an embodiment view the use of 'sign' as a key concept requires a broad definition of it, which incorporates conceptual and preconceptual signs alike. These fall into at least three classes and allow a series of foci:

(1) I will start from a notion of culturally shaped signs (i.e. carriers of meaning). These stand opposed to universal forms of physiology, although even in physiology variation is conceivable to an interesting extent. Be that as it may, physiology only becomes meaning through the way it is 'lived' or 'interpreted'. Thus 'objective' biomedical measurements, such as blood pressure or respiration, are excluded from the typology here or only mentioned at the margin, because they imply a wholly different perspective altogether.⁵⁹

⁵⁹ Needless to say, in an epistemologically cautious perspective biomedicine must be treated as a limited construct. It is based on some assumptions that are all but self-evident to anthropologists, e.g. that cultural thought is simply superimposed on an invariant and universal body. For this reason, mainstream biomedicine cannot be the touchstone of critical theory. Despite (and precisely with regard to) its universalist rhetoric, it is one of many culturally shaped medical views to be analyzed in their

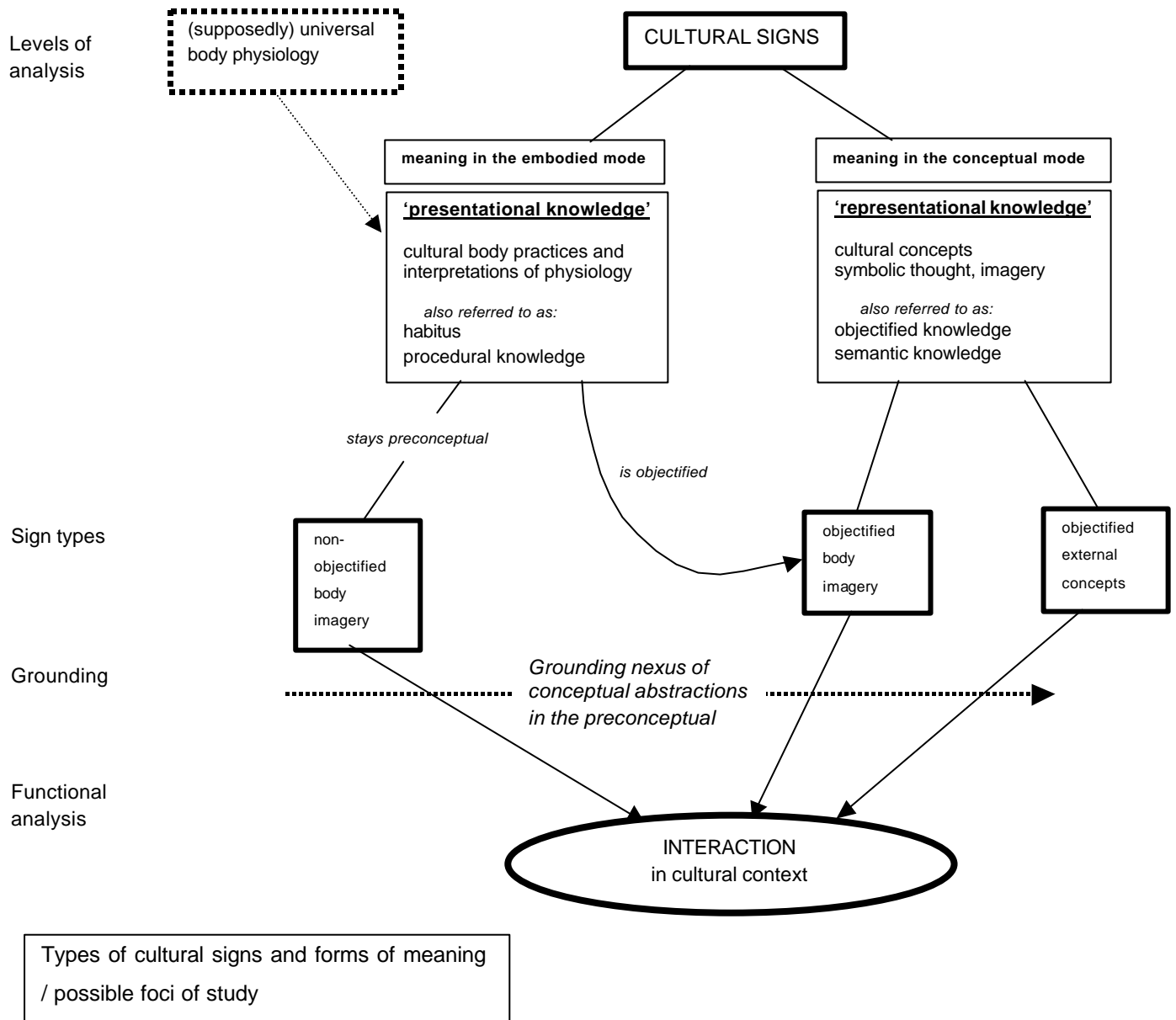
(2) In a next step, cultural meaning so defined can be heuristically split into signs in the embodied mode and in the conceptual mode. In the conceptual mode the majority of signs stand for a thing outside the human body. These I call *objectified external objects*. Conversely, in the bodily mode signs are, more felt than cognized, i.e. they remain 'presentational' and non-objectified. These signs I call *non-objectified body imagery* or, alternatively, *proprioceptive body awareness*.

(3) In addition, one distinctive subclass on the conceptual side arises through the objectification of bodily states, i.e. when an actor sees her own states through a conceptual model and, as it were, from the outside. I call this third mode, which crosscuts the other two, *objectified body imagery*. It follows from what has just been said that signs in the embodied mode, i.e. immediate presentational states of body awareness, may either remain non-objectified or be objectified into concepts in addition.

(4) We can also look into how these modes are functionally coupled in cultural practice: Proprioceptive body awareness is often objectified in addition to being just felt, so that the felt aspect and the conceptualized aspect can be orchestrated to function together. On top of this, both of the prior aspects can be integrated with conceptual representations of things outside the body. This triangular nexus I call the interaction of non-objectified body imagery, objectified body imagery, and objectified external concepts.

(5) Furthermore, the nexus of 'grounding' can be examined, as in image schema theory as laid out by Johnson (1987) or in Haskell's (1989) 'analogical transforms'. This type of inquiry focuses on how preconceptual knowledge prefigures conceptual knowledge. *The above types of knowledge together with their functional nexus are depicted in the graph below:*

epistemological presuppositions. While its universalistic claims on physical similarities between cultures are obviously not totally off the mark, they must be carefully reexamined in a broader epistemological framework.



DUALISMS RECONSIDERED: THE DIALECTIC OF TEXTUALITY AND EMBODIMENT

After this introductory game plan I will now pursue the idea that a culture can be described as a semiotic system and see what follows from an embodiment point of view. Most prominently, Paul Ricœur (1991)[1971] and Yuri Lotman (1990) have proposed viewing culture as a semiotic system. In cultural anthropology this perspective has been most eminently espoused by Clifford Geertz (1973: 448ff), who spearheaded the rise of interpretive anthropology and a programmatic focus on entering into the dense lattices of public symbology. Its virtues notwithstanding, such a viewpoint of culture as semiotic fabric of *concepts* tells only half the story. There is an embodied counterpart to conceptual signs (which we may call pre-conceptual signs).

Our aching, craving, or sick bodies remind us that there are at least two intrinsic orders to experience. Lawrence Kirmayer (1992: 323) expresses this with poignancy when he says that “(w)ith language we construct fictions, but not all experience is fictive, subject to the limitless power of the imagination to transfigure and invent.” However, there are also interesting parallels between textual fabric and embodied experience. Thomas Csordas (1993: 135, citing Barthes 1986) likens embodiment to the semiotic concept of text, which designates “an indeterminate methodological field that exists only when caught up in discourse, and that is experienced only as activity and production”. Just like a text, the body as material entity has to be caught up in activity to author embodiment, which is defined as a mode of presence, not as a substance.

In view of all this, there should be clarity about one point that Csordas expresses in another paper (1994a: 12), namely that “the purpose of elaborating a paradigm of embodiment is then not to supplant textuality but to offer it a dialectical partner.” Such a dialectic view has crucial implications for our epistemology. Kirmayer (1992: 324-325) emphasizes that a mature paradigm of the human sciences needs to acknowledge that the semiotic and the bodily are neither easily collapsed nor separated:

“There is an inescapable circularity between the order of the body and the order of the text. Past infancy, bodily experience is most conspicuously elaborated and communicated through language. Language, in turn, is grounded in common experiences that provide common referents for a lexicon and in the organization of bodily action that provides a prototype for syntactic structure (...). Any attempt to give autonomy to the study of either body or text, divorced from the other order of experience, is epistemologically naive.

Despite the rhetoric of holism, the epistemological circularity of body and text does not imply the two orders can be readily dissolved into one. Body and text (like body and mind, from which this modern duality is transposed, cf. Kirmayer 1988) stand in dialectical relationship to each other. And if the text stands for a hard-won rational order, imposed on thought through the careful composition of writing, the body provides a structure to thought that is, in part, extra-rational and disorderly. This extra-rational dimension to thought carries important information about emotional, aesthetic, and moral value.”

It is often the body that initiates this dialectic. The experience of pain and death have the power to insist that we “finalize or temporary constructs”, to commit ourselves to some view of reality (*ibid.*, p. 325). It imposes the necessity of interpretation and impels the search for meaning. In such experiences the body inexorably throws us back on ‘reality’. In torture the incontestable reality of control over a subject is imposed via the body. Yet, even if our body has primacy in much experience, human existence is always a process back and forth between the semiotic and the body (cf. the general model proposed by Shore 1991, 1996).

Heavy emphasis needs to be put on the following fact: *Embodied knowledge is inherently shaped by culture in the same way conceptual knowledge is*. Pre-conceptual does not necessarily imply pre-cultural. Our example of pain illustrates this: Even if, in the eyes of many, the example of pain seems to lend itself to a universalist conception of the body, pain has to be suffered, and suffering is a culturally mediated act.

A basic idea developed above relates to the immediate kind of knowledge, sometimes referred to as primal, inchoate, pre-objective, or pre-conceptual. There is intrinsic meaning to this level. For instance, there is the primal experience of embodied satisfaction. Quenching thirst or satisfying hunger or the sexual drive is meaningful at a bodily level. But phenomena at this level never exist in isolation. The specific significance of the physical gratification is at least to some degree given by the kind of social or cultural meaning in which it is embedded. For example, which means are appropriate for sexual conquest and what social significance it is given is in recognizable ways a culturally mediated issue, at the same time that sexual drive is something quite shared at another level. With this, our focus on preconceptual meaning is given a cultural twist. The body may speak for itself, but never in a sense of the pre-cultural. *Context, notably of the cultural kind, is always necessary for disambiguating bodily experience.*

IN WHAT WAY IS EMBODIMENT CULTURAL?

The body is appropriated by culture in two ways. (1) *There are culturally elaborated ways of attending to the body and (2) there are cultural ways of objectification*. Let us start with the latter. Cultural objectifications of the body have been traditionally included in the study of ideology, of religious beliefs, and of world-views. On the one hand, they include metaphoric body symbolism, such as saying that “society is an organism” or using blood, semen, feces, or milk as a symbol. On the other hand, they also include cultural discourse on what happens to the body in trance, prayer, pain, sex, including descriptive, causal, or evaluative dimensions. All these are ordinary cases of conceptualizing external objects, except that people’s bodies and physiological processes are used as a conceptual source instead of non-human entities.

While work on conceptual knowledge is hardly new, it is a lot more puzzling to hear that the way people attend to their body is also shaped by culture. This idea does not fit into our cultural view of the body as universal, a substrate separate from the mind, and from culture. Yet, Michael Foucault has provided abundant proof in his historical work that this view is itself a cultural construct, rather than an unquestionable given. This deconstructive enterprise in philosophy is also borne out by much substantive empirical evidence. The lived body as a cultural entity is illuminated by an extensive body of literature in medical anthropology. A good, if slightly dated overview of the evidence on culturally formed body perception can be

found in Scheper-Hughes/Lock (1987: 17). One group of examples relates to psychosomatic phenomena, like the often-debated German fixation with the bowels and its nexus to cleanliness and anality. This schema is not completely conscious, but may well be felt and enacted: In a depth-psychological perspective the implications include self-surveillance and self-control, and a preoccupation with orifices and boundaries in cleanliness training. Other research indicates how body conceptions and patients' 'choice' of symptoms are related. For instance, people, who subconsciously consider their skin as armor to protect their vulnerable inside, are prone to develop rashes when feeling attacked or under duress. Moreover, body parts are frequently considered the seat of ailments, such as the liver in several Romance countries, with the effect that people localize and actually feel the pain there. (Note, however, that here objectifications in public discourse also come in.) So-called 'culture-bound syndromes' such as running amok in Indonesia, the fits of 'el calor' among central American women, or Victorian hysteria have also been well documented. Further related fields are culturally specific ways of healing, like trance and shamanism, or witchcraft related phenomena, such as voodoo death. Overall, many ways of imparting meaning to the body are primarily unconscious enactments. (The fact that they may often enter into discourse in addition I will turn to below.)

There is a suitable recent terminological suggestion by Thomas Csordas (1993: 138) for bringing culture and the lived body together. Csordas, who is a leading figure of phenomenological anthropology, introduces the term *somatic modes of attention*. By this he means the threefold nexus of culturally elaborated ways of attending to one's own body, to the bodies of others, and to other people's attention to our body. Frequently modes of attention are intersubjectively embedded, part of an inseparable context, such as in dance, team sports, and sex. Some modes of cultural awareness attribute special significance to bodily processes, such as pregnancy or menopause. Csordas also mentions conscious techniques of somatic attention, such as the imaginary rehearsal of body movements by athletes or attention to breath in meditation. Finally, there are characteristic somatic modes of attention in pathological somatization disorders, such as hyper-vigilance in hypochondria or tolerance for self-mortification in anorexia and bulimia. Note that the Foucauldian 'body-politic', i.e. the social means of power asserted via body practices, is part-and-parcel of somatic modes of attention, for example in view of the diet-craze promoted by life-style magazines setting the standards of female beauty.

'BEING A BODY' VS. 'HAVING A BODY'

There is a deeper anthropological reason for the above split into two ways of understanding embodiment as cultural, namely that the way people relate to their bodies has an inherent double-nature. The basis of my discussion is Thomas Ots' (1994: 117) distinction of two

aspects of the body, identified through the two German terms *Leib* and *Körper* (both translate into English as 'body'). This distinction goes back at least to Helmuth Plessner's philosophical anthropology and closely corresponds to Levy's (1973) distinction between *being a body* and *having a body*. Levy mentions the experience of pain to illustrate the differences between the two viewpoints: While the foot feels pain it is I who experiences the pain.

For a clearer cognitive characterization of the two aspects I suggest the distinction of *proprioceptive body awareness* and *objectified body imagery*. Proprioceptive awareness refers to the intuitive and pre-objective feeling of being a body that is a container with inward and outward dimensions, extension, motor properties, posture, etc. It includes kinesthetic awareness manifested in aspects such as movement, motor readiness, muscle tension, metabolic flow, bladder, bowel, and blood pressure, pulse frequency, and respiration. It also encompasses things we know about our body when it is in rest, like a sense of limb position, our focus of attention within the body, or the absence or presence of pain. Objectified body imagery, on the other hand, refers to the aspect of realizing the possession of one's body as a container in an abstract body representation as seen by an observer. Perhaps a representational body concept first arises through the experience of being objectified in an instrumental relation by others. As soon as we learn to see ourselves from the others' point of view, we also acquire the ability to view ourselves instrumentally. The externalizing of awareness, i.e. an objectifying shift to an allocentric perspective, is preconditional for seeing ourselves in an instrumental relation to the world. For understanding ourselves as instrumentally related and contextually oriented we have to construct a projection of our mind-body that is externally placed among other things and people.

Whenever aspects of the body (i.e. not external objects) are in cognitive focus, neither objectified *Körper* nor proprioceptive *Leib* can ever occur to the complete exclusion of the other. However, the presence of conscious objectified body imagery may vary by degrees depending on the kind of phenomenon studied and the automatization of the cognitive task in question. For example, it makes a difference in terms of the conscious effort and objectified body focus, if we compare a soldier who is marching in file on the one hand and a meditating person who wills herself to start an imaginary journey through her body on the other hand. Marching can be experienced as a purely proprioceptive state (i.e. conscious thought may wander at the same time), whereas meditation, in all likelihood, cannot. The habitus of everyday motion is also relatively low in conscious objectified imagery, although tacit metaphoric cues for habitus and reflections of it are ever-present in culture (cf. Bourdieu 1977). The two brief examples here point to the conclusion that the notion of objectified imagery is closely tied to the presence of a conscious process and of focal attention. Objectified imagery should, then, tend to occur with novice learners or during tasks that are inherently too complex for complete automatization. Thus, as a recruit learns to march, he

will perhaps have to go through the movements consciously in the beginning. After some time, however, the effort becomes smaller and less conscious as the proficiency in the task increases. In other words, the task is automatized as soon as the previously objectified imagery becomes transformed into a sediment of procedural knowledge.

Now for a discussion of the social or cultural function of objectified body imagery (*Körper*) and proprioceptive body awareness (*Leib*). The two aspects may stand out at different times, and are divergently emphasized in different cultures. The relative dominance of proprioceptive awareness and objectification can vary across cultural ideologies, as Thomas Ots (1994: 131) points out with reference to Mary Douglas and Victor Turner. Douglas (1970) makes an observation to the effect that in societies of a highly structured social dimension the *Körper* takes precedence over the *Leib*. At the other extreme stand millenarian movements. In part resonating the work of Victor Turner, Ots asserts that the majority of millenarian movements are intimately connected with an intense awareness of *leibly* states. In millenarianism it is especially ecstasy and tance that are prevalent. In revolutionary movements – Ots mentions the Chinese Yellow Turban uprising of the second century A.D. and the Boxer rebellion of the turn of the century – certain types of acute *Leib*-awareness are connected with feelings of invincibility and a complete disregard for self-preservation in battle. While the objectified, socially defined *Körper* is a function of social structure, *leibly* exigencies may be linked to Turner's notion of anti-structure. Anti-structure may be enacted in three possible ways: by a retreat into the private, as anti-systemic millenarianism to sweep social structure away, or as regular institutionalized enactment in collective rites of *communitas*.

The distinction between *having a Körper* and *being a Leib* also often mirrors the split between ideology as dominant public discourse and ideology as private discourse that especially occurs in transitional periods. Ots' own analysis of a popular new, yet controversial form of Chinese *qi gong* in the 1980s provides an apt illustration. In stark contrast to the traditional techniques this form gives wide berth to spontaneous, emotional outpourings, which run contra the cultural ideal of tranquility and harmony. According to Ots, that spontaneous *qi gong* may have to do with repressed emotions is left unmentioned in the rich official discourse on the phenomenon. This tendency is in keeping with the Daoist concept of emotion as something outward to be kept from entering the person, which in turn is part of the ideology of quietness, relaxation, and control. However, after some time in private, some practitioners admitted to Ots that they experienced a relief of pent-up frustration and that it was only their own spontaneous body reactions that had allowed them to become aware of their emotions and to see behind their own social mask. The example makes evident that cultural frames may diminish or even restrict the awareness of the state of the *Leib*. Moreover, in the special situations when the *Leib* is set free from its cultural constraints, this

happens in culturally recognizable ways rather than in an arbitrary fashion (Ots 1994: 133). Thus, more traditional forms of *qi gong* underwent a transformation, which took account of the exigencies of the modern Chinese *Leib*.

In this sub-section I have suggested rephrasing 'having a *Leib*' and 'being a *Körper*' into 'proprioceptive body awareness' and 'objectified body imagery' for the purposes of a more mainstream cognitive terminology. In addition, I would recommend partially collapsing the two in the cognitive notion of image schema. Here is why I think this can be done: Image schema theory builds on the claim that humans are capable of intuitively sensing the isomorphism between immediate body awareness and objectified imagery of cultural models and metaphors. The realization of having a *Körper* is perhaps the first instance of creating an isomorphous projection out of *leibly* awareness. In this sense the primal act of self-objectification is the seed of later metaphorical objectifications through CONTAINER, BALANCE, UP-DOWN, CENTER-PERIPHERY, etc., which are originally aspects of *leibly* awareness. When they are transformed into objectified concepts, they are first used to conceptualize one's own body as seen by others (i.e. as a *Körper*) and then used for conceptualizing a host of non-bodily relations in the external world.

CULTURAL WAYS OF OBJECTIFYING (1): BESTOWING EXTERNAL CAUSALITY TO BODY EXPERIENCE

We have seen that inchoate bodily experience is (partly) cultural. Now we can turn to the second route in which culture enters the picture, namely through the objectification of inchoate experience. I will discuss two related aspects of objectification in turn: First, I will deal with the way cultural experts such as healers attach *causal interpretations* to their clients body experiences, which are then taken over by the clients. Then, I will describe how predications of cultural discourse, e.g. through embodied metaphors, can be actually felt in the body. I propose to call this phenomenon *retrojection*.

Thomas Csordas' (1990, 1993) work on Charismatic Christianity in North America provides a good example for causal objectification. His informants are participants of a Pentecostal healing session, in which evil spirits are cast out from several among them, for example the evil spirit of masturbation. As the spirits are expelled by a healer they produce spontaneous physical manifestations of their departure in the congregation. The case study of Csordas provides a relatively neat distinction between demons as reified cultural objects and their experiential manifestations. It is noteworthy that it is initially not the participants who perceive a demon inside themselves. They sense a particular thought, emotion, or behavior outside their control. It requires a healer, 'an expert in objectification', to diagnose the distress as case of spirit possession. In an observer's view, we may say that they experience a transgression of their threshold of distress tolerance. The event has an authentic pre-objective element, since participants experience it as spontaneous and without preordained

content. This is not altered by the fact that most of the participants probably already believed in the existence of spirits before the healing. What is more important is that all of them share the experience a distressing loss of control in their sexual behavior, again a cultural but – prior to the healing – not heavily objectified emotion.

In my reassessment of Csordas' data there is an intimate relationship of presentational and representational. We have seen that, as demons are reified as cultural objects, a semantic interpretation is conferred on the act of healing. But more importantly, there is also a pre-objective, yet culturally determined element in the process. The spontaneous manifestations emerge from shared habitus and take on only a limited number of forms. For example, when a particular spirit departs from the possessed body with the scream of a hyena, Csordas interprets this as the effect of the bloodcurdling shriek, which is a deeply ingrained somatic component of the experience and symbolism of evil in North America. A second example points in the same direction. When the spirit of masturbation is expelled the arms are collectively flung in the air as a powerful gesture of 'hands off'. Again, the gesture is spontaneous, yet in Csordas' view the *cultural bodies are expressing themselves autonomously* in a shared symbolic act.⁶⁰

In other respects the spiritual healing can only be understood in relation to cultural *discourse*, which is to say that the pre-objective alone cannot account for them. In the North American context phenomena of obsession relate to a discourse of interiority/exteriority, a discourse about a self-contained and bounded self in which demons transgress body boundaries and invade a person. Demonology is a mirror of the culturally ideal self, reifying its negative attributes as evil forces of intentional character. Significantly, the objectification as *healing* and *release from possession* dissociates the distress from the self in the inside/outside dimension. Thus, the objectification as a delivery from bondage may be seen as embedded in a cultural discourse to which it responds. The motive of delivery from bondage is linked to the strong cultural goal of self-control in North America, be it moral, sexual, occupational, etc., which is stressed in the Christian world-view. In short, exteriorizing

⁶⁰ A deliberate theory of body as an autonomous agent of protest, refusal, and social critique is laid out by Scheper-Hughes (1990). She examines the symptoms of nervous trembling and seizures of Brazilian sugar cane workers working under unendurable conditions as metaphoric enactment of their legs giving way beneath them. It is important to add that the individual and cultural perspectives have to be jointly considered, even though the individual aspect is not elaborated here. With respect to healing through metaphors and suggestive techniques, Sharma (1996: 261) speaks of „an active appeal to images which are of both cultural and personal relevance“. They are both a product of the personal imagination, since some images work for one person and not for another, and a product of shared cultural experience.

the loss of control takes the burden of responsibility and guilt from the person by attributing it to something other than the self.

CULTURAL WAYS OF OBJECTIFYING (2): RETROJECTIVE IMAGERY

In the previous example I have described how body awareness can be cast into an objectified cultural model. The reverse is also possible: Part of the power of objectified imagery inheres in the fact that it can act back on our immediate body awareness. As a complementary phenomenon to 'projections' from embodied to conceptual states, I will call this 'retrojective imagery'. Recall the above graph, in which I divided the category of conceptual representations into *objectified external concepts* and *objectified body imagery*. The latter class is cognitively special in a highly important respect: Body concepts from public discourse can be retrojected into the experiencing body. The body thus becomes a map on which imagery is inscribed. An image retrojected is thereby felt in body awareness. (By contrast, normal conceptual imagery is projected outward 'into the world' and cannot be sensed in the body.) We can either retroject imagery that directly conceptualizes cultural views of the body, or in the case of metaphorically evocative symbolism, imagery that bears an intuitive topological similarity to body concepts.

Cognitive linguistics usually fails to recognize that conceptual mappings can be retrojected. Paradoxically, the genuinely presentational dimension is also overlooked in much of medical anthropology. When one reads, for example, Scheper-Hughes and Lock (1987: 16) on what they call 'body imagery', although under the heading of the lived body, one cannot avoid the impression that they are talking only about discursively objectified representations, e.g. of localized character traits or localized diseases. The thrust of their writing misses the point that objectified imagery also has presentational reality to people.

Only the notion of retrojection of imagery explains why objectified images can shape body awareness in a culturally recognizable way and why discourse has the power to 'go under our skin'. Experiences connected with muscle tonus, kinesthetic readiness, metabolic 'flow', focus of somatic attention, relaxation, or arousal are produced through a conceptual overlay. In this way retrojection funnels words or images into feeling states. What is more, retrojection explains one major avenue of how children acquire the habitus and the modes of somatic attention characteristic of their cultural group through an exposure to discourse. (Another way of acquiring habitus and somatic modes of attention, of course, is by mimicking the procedural schemas directly observed in others.) When children learn about body practices through discourse, retrojection enables them to apply cultural metaphors to their own body and feel the power of words within them. Thus, the notion of retrojection highlights the insight that our cultural choice of conceptual schemas shapes not only our image of our bodies, but also our body awareness.

Importantly, the nexus between embodied and conceptual body images is inherently a two-way street. Embodied states shape conceptual schemas, and conceptual schemas create felt body states. I use the term 'projection' for the process whereby feelings and images in proprioceptive body awareness are objectified and give rise to conceptual schemas. Conversely, I use the word 'retrojection' when objectified conceptual schemas already acquired through discourse, but not yet experienced in body awareness, create a feeling image in the body. Thus, retrojection and projection are the two sides of the same coin.

The principle of retrojection makes it possible that the body expresses conceptual knowledge autonomously, as in Csordas' Pentecostal healing example through the body in the 'hands-off' gesture and the shriek. Note also that many situations of self-reflection are characterized by a process of dialectical interaction, in which embodied states give rise to concepts and linguistic manifestations, and these are then again fed back and projected into the body, and so on.⁶¹

Here is an example for the retrojection of discourse into the body, whereby I extend on some past linguistic findings on English morality metaphors. According to Lakoff and Johnson (1999: ch.14), Johnson (1993) and Lakoff (1996) morality relates to images of a strong, upright, balanced, and delimited body. First, there are the two widespread metaphors of MORALITY IS PHYSICAL STRENGTH and MORALITY IS RESISTING A PHYSICAL FORCE (Lakoff

⁶¹ Typically, a body state cannot totally constrain which objectification of it ensues, nor does a single pre-given concept simply tell us how our body feels. Instead, there is a complex negotiation in which objectified concepts and non-objectified body awareness are mutually attuned to each other. The reason for this is that our cultural or personal stock of ideas usually suggests more than one possible way to perceive our bodies through the tinted glasses of a conceptual schema: If, for example, my inchoate state of the mind-body is that I feel vaguely dissatisfied, I can come up with a variety of plausible hypotheses: I haven't eaten properly, I need movement, I'm sexually frustrated, I am catching a cold, I'm only being a hypochondriac, something's bugging me (perhaps old psychic problems surface once again), my neck is getting stiff from too much work in front of my computer terminal, I want to dodge tomorrow's obligations and take a day off, there's too much electromagnetic pollution around, etc. And, surely enough, depending of which of these explanations I choose, the vague feeling will be funneled into a clearer feeling that focuses of the embodied aspects that are compatible with the chosen objectifying model. If I decide I'm sexually frustrated, I'll stop feeling my stomach; if my stiff neck is the problem, a few movements and deep breaths will hopefully give me respite; if I'm catching a cold, my tonsils and my temples will move into focus; if I decide I'm being a hypochondriac, I will try to draw my attention away from my body; and if I'm being psychosomatic I will start thinking real hard about a possible general problem bugging me as a reason. Whichever I decide, in a next step the chosen interpretation will have to stand the test of my body awareness again, and so on in a dialectical loop.

1996), both an extension of EVIL IS A FORCE (“She was driven to do it by temptation”). The moral self maintains control over evil through exerting energy. Another aspect of moral strength is BEING GOOD IS BEING UPRIGHT (“He has an upright character”, “He showed backbone”), and conversely BEING BAD IS BEING LOW (“a real lowlife!”), DOING EVIL IS FALLING (as in the biblical fall). Morality means resisting the ‘pull’ of gravity downwards.

Kövecses (2000: 195) also shows that the folk-model of morality derives from a more general metaphor of BECOMING EMOTIONAL IS GIVING IN TO A FORCE. In other words, there are indications that the emotional self is opposed to the moral self, at least in the more conservative view (cf. Lakoff 1995). Being moral is equated with rational control here. Both emotionality and morality correspond to imagined states in a system, where forces vie for domination.

My point now is this: It would be unwarranted to understand moral strength solely in representational terms. It is an embodied quality – it is situated and indeed sensed in the body. Retrojective images hold responsible for this, with implications on actual body control. We maintain our posture, keep our chin up, stay put, keep our poise, we do not flinch, we pull ourselves together. In other words, the embodied-cum-conceptual metaphors encourage body control practices and ways of self-monitoring. In retrojective imagery we can bring together metaphor analysis and Bourdieu’s concept of habitus “as unselfconscious orchestration of practices”. Note that my hypothesis goes further than Johnson’s (1987) notion of ‘grounding’ of metaphors in kinesthetic schemas in important respects. Not only the basic parts of metaphor imagery are ‘assembled’ based on these schemas, the whole metaphor, resembling a very multifaceted schema, actually works on the body. Retrojection explains how morality or other schemas are encoded in terms of the lived body.

Additional retrojective mappings other than moral strength can be found. These are balance, boundedness, and unified location. The metaphor MORALITY IS BEING IN BALANCE (“He has an unwavering character”) focuses on stability in the same location. Boundedness appears together with a particular version of the PATH and the EVENT metaphor. As Lakoff and Johnson (1999: 304) demonstrate, moral action is seen as a movement constrained within permissible areas and along permissible paths (“Your behavior is deviant”, “She strayed from the right path”, “Keep your impulses in check”, “Do not let your emotions run free”)

Let me suggest the following hypothesis: The aspects of boundedness and unified location in morality discourse can be retrojectively mapped onto the CONTAINER image of our body. Our bodies are spatialized and (in everyday states of the mind-body) clearly bounded entities. As a consequence, the realization of having committed an immoral act lets the embodied feeling of composure disperse. This is also in keeping with the metaphor of morality as physical strength. Through retrojection the body as a bounded container

becomes the perceived locus of this physical strength. By consequence, the realization of being immoral (in a person who is trying to be good) often entails an embodied felling of physical weakening. There is more evidence that we make the lived body the seat of morals: At the conceptual level people often locate morality in the body on the basis of an aspect of the self model called the MORAL ESSENCE metaphor. Character is conceived in terms of essences that are located in the body, as manifested in "She has a heart of gold", "He doesn't have a mean bone in his body" or "He's rotten to the core" (Lakoff/Johnson 1999: 306). Again, retrojection is possible to the effect that immorality is actually felt as being located inside the body.

The neighboring system of self metaphors also influences the morality system. This is SELF CONTROL IS BEING UNIFIED IN A PLACE ("Keep your composure!", "Stay put!", "He's pretty scattered", "Pull yourself together"), as shown by Lakoff and Johnson (1999: 276). Attentional self control is having the self together. 'Subject' and 'Self' need to be in the same place. Here retrojection is possible in the sense of the embodied centeredness and balance that is achieved in self control. Finally, centeredness is also linked to moral strength, which then would imply proper spatialization, locating our feeling-thoughts in the right space.⁶² In sum as moral actors, we keep ourselves strong and in balance. We maintain our outer boundary as clear and stable. We keep ourselves unified and the self contained within in its right place. Imagining our bodies as such helps behaving morally. Thus, we *are* the container of moral goodness, at the same time that we cognize it. It is felt in the body because particular experiences of the proprioceptive and kinesthetic senses emerge from representational imagery that is retrojected into the body.

The image inscribed into the body is more powerful than a symbolic image of any other external, inanimate, and non-subjective entity, because it affects body awareness and physical body states. For this reason, retrojective objectification can be used therapeutically (as well as for propaganda and other manipulation.) For example, a parable about another person told by a healer can result in immediate effects of the body states of the participant, perhaps without her consciously noticing the process. The heard narrative is directly

⁶² The Victorian paragon of moral superiority is illuminating here, though a slight caricature. While bodily restraint maintains the 'container of superiority', Victorians maintain a clear definition of their self contained within. The realm of the self-contained individual has a clear boundary from everything outside. In exercising emotional and sexual restraint an order untainted by the forces of chaos is bestowed upon the self. The prototypical Victorian maintains a balanced personality by repressing drives and affects that threaten the perceived self. Affects can and should be productively channeled (Stearns 1994). In short, there is embodied experience of morality of one's self possessing a clear boundary, being a balanced entity and an ordered system. As in the previous example, these conceptual aspects can be funneled into proprioceptive and kinesthetic sensations.

projected into the own body. Conceivably, curses, voodoo death, and medical placebo effects work in the same way.

Before we turn to another issue, I would like to suggest the idea that the causality concepts discussed in the previous section form a larger system together with the retrojective imagery. Given that CAUSES ARE FORCES people can hold an overall imagistic model that incorporates both their inner self as container space (Lakoff/Johnson 1999) and morality as force relations (Kövecses 2000), and at the same time the image of an external causal force impinging on the self or irrupting into the self, e.g. in possession, in order to change it.

INTERACTION OF MODES (1): ORCHESTRATING SYMBOLISM AND EXPERIENCE

There is more to interaction between the embodied and the conceptual mode than the discussed twin phenomena of projected body imagery and retrojected conceptual imagery. In the majority of conceptual representations the body does not function as screen, yet, through symbolism, the conceptual imagery of external objects also interacts with body awareness in significant ways. Especially in ritual the conceptual mode and the embodied mode are jointly dramatized. This is nicely shown by Benjamin Colby's (1991) work on the Japanese tea ceremony. The objective of the article is to show that, although the loci of representational and presentational imagery do not exactly coincide, the two modes produce powerful synergies and complement each other. Ultimately, the article reveals that the main theme of the tea ceremony act of *incorporation*, and its two complementary facets: symbolic and physiological.

The tea ceremony has been frequently held to be the epitome of Japanese culture. Its importance derives from its dual nature as a ceremony that is refreshing in the most direct bodily terms, while also achieving symbolic control over the world. The ceremony takes place in a tea hut in a garden that is designed as an idealization of nature. The path to the hut is designed in the model of a mountain trail and the hut in the model of a mountain hermitage, both with emphasis on simplicity, naturalness, and unobtrusive blending into the surroundings. The guests are lead from the mundane world to a setting that provides the opportunity to relax from worldly affairs. Upon entering the hut, the guests symbolically shed their social roles. The atmosphere that the tea-master has studiously created is silently admired: there is a view of the garden, the smell of incense, and flower-arrangements. The tea making is carried out in analogy to nature. The modulations produced by the singing kettle are meant to evoke perhaps a cataract, the breaking of waves, or a rainstorm. The tea itself has qualities that resonate with the garden outside. Its frothy green is coincidental with the garden green. It has a special herbal smell, which links to the smell of wet leaves and earth (brought out more by sprinkling water around in the garden just before the ceremony). The tea is made from pure water, which links to the spring in the garden for washing hands

and mouth before entering the hut. These three garden elements, in turn, can be linked at one more remove to the natural world beyond the garden. In consuming the tea, the participants make themselves symbolically one with nature. Coherence between the natural and the social world is established by the act of incorporation. This is expressed in the words of the tea master Soshitsu Sen, “In my own hands I hold a bowl of tea: I see all of nature represented in its green color. Closing my eyes I find green mountains and pure water within my own heart. Sitting silently alone and drinking tea I feel those become part of me.”

At the same time that there is oneness with nature, there also is oneness of guest and host. While Japanese etiquette in everyday contexts functions as an accentuation of hierarchic relations, an expression of ‘knowing one’s proper place’, in the ceremony etiquette is rendered pure form. The emphasis is on nature, while human presence is articulated only by artifacts or material things. This gives the guests an opportunity to gain respite from the anxieties of social interaction. In this anxiety-free model the rigorous etiquette of everyday dealings is transformed into art. Apprehensiveness is removed both by ritualization – which is more accentuated than the usual everyday ritualization, self-serving, and *l’art pour l’art* – and a heightened emphasis on the ecological world, both natural and artifact (p. 252).

This example suggests that, in the study of culture, symbolic and directly embodied aspects cannot be separated easily: On the one hand, the participants achieve symbolic control of the world. This is achieved by a symbolic act of ingestion. It is both the natural as well as the controlled and materialized social world that is incorporated into the body. The natural is incorporated through synecdoche: Tea is both metonymically part of and, as culturalized object, metaphorically similar to nature. The social is incorporated by the admiration of artifacts: the simple beauty of the teacup or an artfully calligraphed scroll on the wall are taken in by the senses. More than that, the ceremony as a skillfully structured sequence embodies culture, being a cultural artifact that is taken in. Its etiquette is art of pure form, not function. Hence, the society that causes anxiety is symbolically re-appropriated into the body, and thereby the self. In a somewhat Heideggerian vein one could say that “bodily within-ness is my-ness”. This pertains to food and drink, just as it does to focused sensory impressions, which are both ‘taken in’.

At the same time, a soothing and relaxing mood is incited by the substance itself, to which the anxiety-free context contributes. The whole ceremony establishes a state of mind that is contemplative and receptive to the idealization of nature. The focus of attention is on the senses, not on social roles or mundane concerns. The stillness of the garden setting produces a serene mood, which is aided by contemplative sitting as well as the control and artful brevity of movements exercised by the tea master.

Tea as a substance illustrates particularly well how the conceptual/representational and the embodied/presentational are interwoven. In Colby’s words, it stands at “the nodal

intersection of symbolic network and mood inducing substance.” Tea has high salience both in physical attributes and physiological effect. It was originally used as a medicine, and there is a symbolic contextualization of tea in Japanese culture that it is beneficial for health through the reduction of stress. Already through being a part of the discourse about health tea is, both, embodied and symbolic. In the ritual context, tea stands for nature by contiguity with the garden and similarity in taste, surface, and color. On the other hand, the symbolic could not be more concrete. The sensory is linked with the symbolic by tasting and smelling the frothy green liquid, which is in turn linked to nature as a whole by taste and smell. In ingesting the warm and soothing liquid in stillness there is attentive wholeness and refreshment. Incorporation as the remaking of symbolic wholeness becomes part of a sensory and kinesthetic style of attentiveness, or what Csordas (1993) termed a somatic mode of attention.

In summary, Colby’s analysis grasps the reincorporation of the world as a dual technique: embodied as sensory experience and through conceptual symbolism. The tea ceremony is about regeneration in the double sense, first in the sense that the everyday is transcended and social roles doffed, and then in the sense of experiential immediacy.⁶³ Note that both

⁶³ There is the interesting observation by Victor Turner that cultural meta-discourse often comments on this double-nature. Religious practitioners often have an awareness of this dialectic, which may play a major role in some cultural traditions. Sages and poets periodically express it. And, it becomes the bone of contention in the political arena every once in a while. The necessity of the to-and-fro between outer structure and inner experience is a grand social theme. One of Turner’s examples is the protest launched by Viracœaiva asceticism against the Hinduist orthodoxy of tenth to twelfth century India (1974: 281-84). Viracœaiva thought relates to the fact that Indian temples were originally built in the image of human bodies. For them the metaphor then faded, the original blueprint was forgotten, and the temple became a static thing that rich Brahmans believed religion was essentially about. The opposition of these views was expressed by the reformers as one of standing versus moving, of having (riches) versus being (spiritual). Viracœaiva thought, in this situation, called for a reversal and for the reinstatement of the human body as a temple. But the protagonists were also aware of the continuous transformation, which is expressed as metaphoric cycle between two states. In a consciously expressed metaphoric interaction, temple became body and body became temple. The metaphor in this experts’ discourse is one between meaning as static CONTAINER OF SOCIAL FORM and meaning as living CONTAINER OF EXPERIENCE. This reconciliation of the experience and structure was expressed in a similar way by Confucius, when expounding the correct understanding of the relation between *jen* and *li*. In this dual pair *li*, roughly, stands for social propriety and rites, *jen* for benevolence, love, and humaneness. Confucius describes *jen* as *li*’s inner dynamic, not as opposition. Ideally, one goes with the other (Turner 1974: 284): “Confucius seems to be saying that if men operated within and according to the norms of the structure without seeking to subvert those norms to their self-interest or factional goals, then the result in terms of peaceful, just, social coexistence would be similar to those produced by spontaneous, existential *communitas*.” Thus a conscious balance

aspects of Victor Turner's famous notion of *communitas* are given consideration. The mainspring of Turner's work is the dialectic of social structure and *communitas* and designates a particular social purpose to each phase of the ritual cycle. Social structure is more representational in that the actors feel suspended in a fixed symbolic web that keeps the urge to enact their true self at bay. Conversely *communitas* corresponds to the presentational pole where embodied immediacy flows freely.

INTERACTION OF MODES (2): LEARNING CULTURE THROUGH MULTIPLE CODINGS OF PROCEDURAL AND SEMANTIC MEMORY

After this treatment of the integration of symbolic and physical experience in ritual let us now focus on the acquisition of cultural models through multiple coding between embodied and conceptual modes. The embodied and conceptual modes are two levels of knowledge that correspond to two memory types: the procedural and the semantic. Setting out from this point, Shore (1996: 259) produces a fascinating study of how the two modes interact in a complex ethnographic setting. His basic assumption is that the foundational schemas of a culture will most likely exploit both layers of memory. In other words, they are encoded in multiple versions in order to achieve the status of a 'total cognitive fact'.⁶⁴ Shore gives an enlightening account of double-coding in a very detailed treatment of the Murngin aboriginals of Northern Australia, which he bases on a reanalysis of ethnographic materials of Warner and Nunn. The material focuses on a set of initiation ceremonies and deals with the ceremonies' relation to a key narrative that underlies them, the creational myth of the Wawilak sisters. The Wawilak narrative is never told as a coherent whole to novices, indeed nobody except a few elders knows the whole story. Instead, its content is revealed to the novices in a piecemeal fashion in conjunction with the principal age-grading rites. Murngin

between embodied states and congealed social text is a millennia-old concern, which lies at the basis of many of the so-called Great Traditions. The examples also highlight a significant point about the fate of many metaphors in history. The presentational aspect of a religious metaphor, much alive in the original double-understanding, tends to become *representationalized* so that the immediate bodily meaning is lost and only semantics remain.

⁶⁴ Some terminological confusion may arise concerning a third frequently mentioned memory type called *episodic memory* (cf. Donald 1991). Episodic memory is the memory of specific events and rarely lends itself to general cultural models. While detailed episodic memories are the rough material that cultural schemas are made of, most meaning is the outcome of selecting patterned features. Meaning is not so much a product of unique memories than of similarities across events, which are encoded in scripts or scenarios, or similarities of symbols, which are encoded as image schemas. When people interpret their episodic memories, the background noise will be suppressed and structures selected by virtue of expectational schemas. Hence, episodic memories require the transformation either into semantic or into procedural memory.

age grading rites encompass four ceremonies that take place at different points in the initiation cycle of male youths. For the purpose of presentation, however, it makes sense to start with the narrative.

As a unifying theme of the foundational schema, the story of the mythical Wawilak sisters presents a general schema for the acquisition of knowledge. On their journey through Murngin country the sisters perform various acts of separation or externalization. Their journey moves them from deep, 'inside' country outwards to the shore. In doing so, they move from 'inside' or 'deep' knowledge of creation to 'outside' or camp knowledge and lose their grasp of the original understandings. The sisters perform separation in acts of naming species, languages, countries, and groups. In particular, they create the two exogamous moieties. Separation also occurs as the younger sister gives birth, while the elder sister recently has given birth. The male form is created, and in consequence the two sisters are deprived of self-sufficiency in procreation. (This is symbolized by yet another separation: the outflow of menstrual blood from their bodies. Coagulated blood is believed to be life-producing. Therefore, with menstruation male semen becomes necessary to block the outflow, forcing it back up the uterus and causing it to clot.) Externalization is also symbolized by the sisters' expulsion from the belly of the father snake Yurlunggur. These acts of externalization remind of the necessity of making distinctions to order the cosmos and getting the relation among parts right.

Next, a reversal of the acts of separation happens, which is a celebration of the ultimate 'inside' unity of all that had been externalized (p. 222): The named, killed, and cooked food species leap out of the fire and then return to their state of origin by jumping into the totemic well of the snake Yurlunggur. In the final state they overcome the opposition between life and death. The ambiguously male (because uncircumcised) infants, which have just been separated from the mothers, are ritually killed and steamed before they are reborn as full males to their clan fathers. Likewise, the children are separated from their mothers, only to be swallowed by the snake Yurlunggur again. Through all this Yurlunggur becomes the original father of the dreamtime state of unity and, at the same time, a maternal uncle of the differentiated and moiety-ruled social order. Through his different roles in the narrative Yurlunggur is a true polytrope (p. 223), representing on the one hand the distinctions between father and brother, father and maternal uncle, female and male, and on the other hand the possibility to overcome these distinctions. The same foundational template, which expresses this dialectical process, is present in various parts of the narrative:

"Animals are made separate, only to return to a primal wholeness. Sons are externalized into the world from a maternal womb, only to be reincorporated into an avuncular one. The snakes sort out their separate Dua [moiety] identities, only to be reincorporated into the head of their father Yurlunggur." (Shore 1996: 227)

This recurrent template conveys a deeper general meaning. Genesis in the narrative is, in fact, a model of epistemogenesis. At first all things are one, but indistinct and inaccessible to humans. Knowledge then unfolds, as species, languages, countries, and kinship groups are given their names by the Wawilak sisters. Only thereby the complex relations of rule-governed social exchange are created, which are characteristic of the real world. At the same time the narrative proposes that all analytical knowledge is a kind of death, because knowledge of the parts is only possible by sacrificing a direct apprehension of the wholeness of things (p. 230). The view proposed here is a kind of transformation within repetition, similar to the threefold Hegelian notion of *aufheben* (canceling out, encompassing, and lifting up at the same time). The individual emerges from a dreamtime state (the well of Yurlunggur of the narrative) into a differentiated world and will in the course of life return to the source of all that is sacred. Yet, this return to dreamtime is different from the condition of never having left it. Although the narrative is in one way a creation tale, it suggests that the sisters simply give voice to animal and language names that have always been there. Similarly, they do not compose the songs they sing, they appropriate them, as if they had always been there for the performing (p. 228).

As is constitutive of dialectical figures, there are two perspectives presented in the tale, one of society and of unchanging rules that govern the world, and one of the individual who comes into the world:

“So just as the narrative proposes an outward journey that in the end goes nowhere at the same time as it proceeds on its outward track, it also describes a set of primal events that are also nonevents or preexisting facts. They are foundational models of reality that have no origin in the external world but do have a history in the consciousness of each initiate. These anomalies, which appear in the narrative structure of the myth, are thus central to the theory of knowledge that the story is proposing. They suggest that this narrative presents a story simultaneously from two perspectives: an ‘outer’ perspective of a fixed and timeless set of laws and an ‘inner’ perspective of a young boy’s coming to awareness of those laws. The Murngin have, in a most remarkable way, represented in a single complex narrative form the two births of culture.” (Shore 1996: 228-229)

Interestingly, Shore argues that the double perspective view of epistemogenesis in the Murngin cosmology (inside-out and outside-in) is paradigmatic for his own view of how public models are transformed into mental models (p. 250).

While the narrative can be presented in the way done here, it is not learned in this way by Murngin novices. In practice, the Wawilak narrative is refracted into a series of abstract themes in each of the ceremonies, into sub-models with variable meaning. None of the rites is a full enactment of the myth itself. The different rites constitute distinct retellings of the narrative, framed in different keys. It is only from the old men’s perspective that the myth

narrative is reproduced in the ceremonies. In fact, only very few elders know the whole narrative, and it is rarely, if ever, told as such. To the novices there is no coherent narrative. From their perspective, the myth is gradually produced out of the rites (p. 248). A public cultural model is gradually transformed into a mental model of the novices through their experience of the rites. Instead, through repetition of the same narrative sequence in different versions a sequence of memorable 'snapshots' is produced which freeze scenes into archetypes, much in the same way as done in Alfred Hitchcock's technique of freezing key scenes to imprint them in the viewer's memory. There is a gradual extension of the multivocal key metaphors, as new layers of signification are brought to the fore in each of the ceremonies and as earlier meanings are deepened in a dialectical fashion.

Shore's final analysis of the orchestration of different memory systems deserves detailed paraphrasing. Initially, only episodic memory is effective. On the one hand, the narrative is (partially) presented to the novices as a repetition of a literal journey undertaken by the two sisters, which emphasizes the concrete details of place, action, and personality. On the other hand, memorable events performed on the boys at key moments of their lives convey the complex model. As the rites proceed in time, two significant transformations occur. First, the specific events of the Wawilak narrative become abstracted and generalized into archetypes through repetition and ritualization. They become schematized as a foundational pattern with strong kinesthetic association, which recurs in different sequences of the rite. In this way, the patterns become grounded in the procedural memory as a kind of knowledge that is more generalized and less conscious than the episodic memories of particular events. The second transformation of episodic memories exploits the semantic memory faculty: The rites also result in discrete symbolic units being extracted from the narrative, which can be used as a code of general scope. Events, places agents, and objects such as the snake Yurlunggur, the well, the sisters, or the acts of naming and killing become language-like symbols. These units are multivocal, i.e. they can take on many different meanings, and they are recombinable into codes for numerous messages. (Even if they do not approach the flexibility and abstractness of natural language, they are comparable.) Shore (1996: 259-260) concludes:

"It would seem that the cognitive power of dreamtime learning is tied not simply to the symbolic content of the narrative and the rites, but also to the ways in which the myth-ritual complex exploits the various types or 'layers' of memory. Beginning as events, accessible through episodic memory, the foundational schema emerges as a form of knowledge through (1) the construction of psychologically primitive motor-schemas, and (2) the simultaneous transformation of events into a self-conscious and manipulable code for the creation of complex propositions about the world. Moving into opposite directions as a bridge between structure and event, the narrative is translated simultaneously into both

procedural and semantic memory. Paraphrasing Marcel Mauss, one might say that the semantic and cognitive power of the walkabout schema is linked to its status as ‘total cognitive fact.’”

In a nutshell, Shore’s model of dually-coded learning is this: The purpose of the procedural transformation, on the one hand, is the deep grounding of knowledge, which makes it enter into the pre-conscious and possibly bears upon habitus. The function of the semantic transformation, on the other hand, is to make for multivocality and recombining of units of meaning.

IS THERE PURE PRESENTATION WITH ‘EMPTY SEMANTIC CONCEPTS’?

Adopting a cognitive terminology also helps settling old debates in anthropology, whose embodiment-related nature was sensed, but not properly theorized. Classical cases in point concern the Polynesian notion of *mana* or the Algonkin *manitou*, which whole generations of anthropologists have had considerable difficulty in grappling with. Why is this? The puzzling thing is that the central cultural importance of the concepts cannot be doubted, yet they appear to be, on the face of it, without clear empirical referents, internal structure, or a single clear-cut representation. The representationalist bias of the past has led many anthropologist to hypothesize ‘empty concepts’ pure and simple whenever they failed to nail down a clear referent. Yet, this is not a far cry from thinking them nonsensical and again raises more questions about the nature of meaning than it actually answers.

A survey of recent contributions to the debate about *mana* illustrates this problem: The concept of *mana*, which has for a long time been considered as central to the Polynesian worldview, has been variously glossed as ‘power’, ‘potency’, ‘efficacy’, and ‘luck’. It has been linked to gods, chiefs, and, depending on the region, of Polynesia to men as opposed to women or as brothers as opposed to sisters. *Mana* includes physical attributes of large size, brightness, and shininess.⁶⁵ However, how *mana* is conceptually understood has long remained elusive and hotly debated.

⁶⁵ Many classical positions advocated the view that *mana* was something like a cosmological substance or a metaphysical principle. This tendency was put under critical scrutiny in the 1980s. According to Keesing (1984, 1987) and McClancey (1986), *mana* started out as a stative verb with the meaning of ‘being potent’ or ‘being efficacious’ and was used across topics of conversation, both, political and apolitical, supernatural and natural, mystical and practical, symbolic and pragmatic. McClancey points out that *mana* was first of all an explanatory concept for events, especially for explaining essential unpredictabilities and inequalities between people. From his Vanuatu fieldwork he comments that “[w]hen ni-Vanuatu use a *mana*-notion, something has occurred for which they wish to account” (1986: 52). It is therefore used as inferentially concept, similar to the concept of causation. This role as explanatory concept alone would invalidate the explanation of an “empty concept” offered by Pascal Boyer (1986). This would be just as wrong as saying that ‘luck’ is an empty concept.

Pascal Boyer (1986) argues that exemplary social events provide an understanding of what *mana* and related vague concepts that have been variously discussed by anthropologists mean, such as the North American *orenda* and *manitou*. Kirmayer (1992: 338) summarizes Boyer's position:

"Social interaction (including, for example, responding to emotions in the faces and gestures of others at ritual occasions where *mana* is immanent or manifested) shapes the meaning of *mana* to give it instrumental significance. A variety of discourses – from informal gossip to technical discussions and the expression of expert opinion – supply meaning to the 'empty' term not through ostension but through its use."

As Kirmayer notes, this is very close to Wittgenstein's position on meaning subsumed under the notion of 'language game'. To Wittgenstein learning the meaning of a word is learning the proper occasion and techniques for its use. Boyer suggests that what *mana* is, is learned through the participation in a succession of situations where *mana* is known to be present. One has to be influenced by *mana* to know what it is – the experience of (being subjected to) potency. Kirmayer proposes to couch the argument in terms of presentational knowledge, thereby extending Boyer's account that uses social pragmatics as explanatory frame without thinking about the kind of experience involved:

"To Boyer's social account we might add that if the preeminent feature of *mana* terms is their evocations of potency or efficacy then their meaning may reside in affective processes like those that

Furthermore, McClancey criticizes the error to infer a substance from a substantive. In a similar spirit, Keesing (1987: 104) cautions against attributing 'entity' too readily, because the sense of relations and processes is lost. Therefore, the best translation of the concept *tapu*, which is canonically a stative verb and has been subject to a similar debate, would be 'off-limits', since this implies an agent, a particular perspective, and a context. In other words, its meaning is defined by being embedded in a social situation, not by abstracting away from it. Both authors validate their critique by a survey of the literature: For Tikopia, Raymond Firth states that there is no connotation of an isolatable principle, a power, or a metaphysical abstraction. Likewise Douglas Oliver, an ethnographer of the Society Islanders, notes that there is no evidence for a generalized, all-embracing, energetic and animalistic view of the universe. Although most anthropologists have greatly overemphasized the substantive forms at expense of verbal forms nominal uses of the term *do* exist: Particularly in eastern Polynesia, *mana* was substantivized to designate an invisible medium of power that could be possessed by people. This coincided with the emergence of an aristocratic class in Polynesia and some parts of Micronesia and with the emergence of theologians in the chief's entourage who elaborated the cosmological implications of *mana* as metaphoric 'power'. In Melanesia, where the concept originally emerged, it was seldom a validation of chiefly rank, but more probably designated a secret cultist knowledge that was a source of power.

give rise to E-P-A on the semantic differential (Osgood, May, and Miron 1975). Specifically, *mana* is potency in E-P-A – pure affective meaning that does not require further cognizing as propositional network or imagistic representation to be used to think with. The point remains that meaning can be presented in the word *mana* without any representation of the concept.” (p. 343, footnote 7)

Mana draws together disparate events such as death, disaster, and success into one explanatory frame, so that they become comparable on a certain affective level. In Kirmayer’s view, concepts such as *mana* are not empty concepts but presentational and determined by a particular affective signature. The referent of the term is, then, a body state or an emotion, rather than a thing. Such ‘empty linguistic concepts’ can be designated as metaphors because they put an affective reality into language. Although Kirmayer can be applauded for this insight, he remains vague about the term presentational in various respects. What is missing here is that the affective dimension is also embodied and socially learned through motor schemas.

Bradd Shore (1989, 1991), a leading cognitive anthropologist and ethnographer of Samoa, offers an illuminating cognitive reanalysis of the matter. He proposes to synthesize *mana* into a cultural schema with the associated notions of *tapu* and *noa* and does not so much focus on the internal feeling associated with *mana* than on the motor practices that shape it. The feelings in question are not simply internal phenomena that somehow arise in individuals who are exposed to potency. They are part of a cultural schema and specifically linked to a style of movement. Let us see what Shore’s intention is when he proposes to understand *mana* in relation to the concepts *tapu* and *noa*. *Tapu* has been variously glossed as ‘sacred’, ‘dangerous’, ‘set aside’, ‘marked’ or ‘bound’. *Noa* is the opposite to *tapu* and has been translated as ‘secular’, ‘profane’, ‘nothing’, ‘unmarked’, ‘free’, and ‘unbound’. *Mana* and *tapu/noa* are “culturally orchestrated experiential schemata involving simultaneously the most intimate organizations of bodily experience and the most abstract political and religious principles” (1991: 17). In this triangle of notions *tapu* and *noa* are alternative conditions with relation to *mana* understood as generative potency. *Mana* is linked to a set of distinctions on the level of bodily schemas that go with either *tapu* or *noa*: Specifically, the *tapu/noa* opposition involves distinctions between inside/outside, stasis/movement, as well as muscular control/muscular relaxation. This encompassing schema is manifested in the form of seating postures, dance styles, and important ritual activities, which share certain embodied aspects among them:

“The imposition of *tapu* on people or objects involves experiences of binding, containment, immobilizing, and centering in the interest of rendering these people or objects intelligible and redirecting personal potency for general cosmic ends. Because this schema physically embodies central cultural conceptions, it is related to a family of sensory concepts.” (ibid.)

Shore proposes that power concepts are grounded in experience through such conventional micro-practices as posture, movement styles, and even the orchestration of smells. *Tapu* and *noa* are embodied in early experience. They are constructed in practice long before they are articulated as abstract concepts. For example, children after a certain age are encouraged to sit in what is called the *fâtai* position, with legs crossed and arms resting on their thighs. *Fâtai* is only one of several postures that embody motor control, the containment of limbs, and withholding impulsive movement. The same opposition between formal containment and the intimate expression of motion informs a wide range of aesthetic and political practices, ranging from dance styles, postural attributes of different kinds of chiefs, and gender styles. Hence, all embodied motor schemas of this family are grounded and contextualized in certain social situations and practices. Furthermore, the schematic distinction between motion and rest triggers a series of more abstract associations: For one thing, this is reflected in linguistic conventions, such as when the village is equated with a sitting maiden in ceremonial poise. In addition, it is also articulated in highly abstract and sophisticated theories of powers expressed by intellectuals.

By consequence, the cultural schema is dually grounded in a set of abstract concepts and of embodied experiences at once. When *tapu* and *noa* are constructed in childhood through embodied practices, the subjective experiences are always partly idiosyncratic. On the other hand, these experiences have objectified counterparts in conventionalized public representations. Crucially, bodily imagery is metaphorically mapped onto social institutions. An example is the Samoan center-periphery dimension. Being in the center of a house or village is associated with social importance and with the experience of embodied centeredness. For example a high chief's dance and sitting styles are characterized by careful centering and graceful containment of limbs as observable features. Sensory features associated with high rank, such as shiny and light skin, size, or spatial centrality, also come into play. Furthermore, high rank is equated with an appropriate physical response on the part of a person who encounters a chief of great *mana*. In his presence one must stand with muscular control, containment, and without impulsive movement. Both the perceptual features of high-ranking chiefs and the customary embodied attitudes to be in their presence form part of a general cultural schema. Thus, social perception and body proprioception are integrated into one cultural schema through which they are partly associated. There is a schema of containment and centering that is embodied and conceptual at the same time. Testifying to my above comments on how the projection of embodied imagery and the retrojection of conceptual imagery interact, the dialectic between social and individual embodiment in Samoa goes both ways:

"The relation between conventionally and empirically motivated meanings deriving from internal meaning-constructing processes is complex and dialectical. Thus, for example, the embodiment of

concepts works in both directions. Not only do conventional cultural symbols derive some of their psychological force through physiognomic apprehension, but conventional symbols often appropriate bodily experience, projecting it as body symbolism in social representations.” (Shore 1991: 21-22)

In summary, *mana* illustrates a complex interaction of several cognitive mechanisms:

(1) A part of what *mana* means is learned in situations where *mana* is present through the sensory image and behavior of chiefs, including perceived motor schemas of high chiefs sitting centered and gracefully containing their movements. A part of *mana* is thus an objectified external schema or, from the chief's position, objectified body imagery of his own body.

(2) The meaning of *mana* is also associated with subjective motor schemas. A part of its meaning lies in the proprioceptive body awareness that goes with the *fâtai* sitting position or related postures appropriate to official settings. Kirmayer's (1992) suggestion that *mana* draws together a specific affective signature is quite compatible with this. A second part of *mana* is thus a proprioceptive and pre-objectified schema.

(3) Finally, the action of sitting in a contained and immobile way, both as observed in others and as subjectively experienced, is projected onto public conceptual representations, e.g. the village as sitting maiden or the village plaza as a center. In this way the concept is further integrated.⁶⁶

4. Image schemas, metaphors, and embodied culture

I now want to narrow our focus again in order to make the relevance of the previous observations for metaphor theory more tangible. The question whether image schemas are universals was dealt with in chapter 3. Now I will develop further considerations relating to the nexus between complex schemas, emotion, and motivation. I will close with an interesting new framework and findings of metaphor research by Kövecses (2000) about the relation of physiology universals to cultural variation.

THE DOUBLE NATURE OF IMAGE SCHEMAS

As scientists interested in generalizing models we often picture image schemas without an actor and the situation in which the actors uses it. This notwithstanding, a cultural perspective requires us to take the fact seriously that image schemas are invariably embedded in contexts that give them a significance beyond their generic meaning. This

⁶⁶ The one aspect left unexplained here is that, according to many accounts, *mana* draws together disparate events such as death, disaster, and success into one explanatory frame, which suggests some causal schema. Here again, perhaps a major goal is that the causes become comparable on an affective level.

means emphasizing discourse-pragmatic ‘performance’ at the expense of more abstract ‘competence’. There is an inherent double-nature to image schemas: *They are transcontextual mental entities, yet they are also contextual entities*. I agree with Andrew Strathern (1996: 188-189) that a detailed phenomenological analysis of embodied metaphor can go hand in hand with and a comparative recognition of generic image schemas:

“Demonic possession, for example, begins with an inchoate (pre-objective) feeling of loss of control over the body and its intentional movements (its sensorimotor coherence). This is objectified by a healer in terms of what Johnson calls the ‘container schema’ and is diagnosed as an intrusion across a boundary, to be corrected by a suitable form of embodied action in response. *What emerges, then, is both something quite particular and also something comparable to other contexts in which the container schema is similarly activated [my italics]*. We are not dealing here only with semantics either, since we are looking at ritual actions undertaken as a therapy to alter a person’s consciousness and therefore social relationships that flow from this consciousness.”

On the one hand, the cultural pragmatics of metaphor are captured in the ethnographic analysis of how the healing metaphor is enacted. On the other hand, it remains a suggestive and significant finding that the CONTAINER ontology appears across contexts.

This double-nature of image schemas bears upon their relation to emotion in an interesting way. That cognition and emotion can neither be separated from each other, nor from perception and action, has been repeatedly observed (Bruner 1986, D’Andrade 1981) and most impressively buttressed by recent experimental findings in cognitive science (Damasio 1994). Gary Palmer (1996: 107) ventures the noteworthy claim that “[a]ll concepts are imbued, to varying degrees, with emotional values that constitute part of their imagery.” A somewhat similar view is supported by Osgood (1964) who maintains that there is a universal evaluative dimension in cognition. Mark Rollins (1989: 57f), in his turn, argues that emotions have a physiological-cognitive character. The problem we seem to encounter here is partly terminological. When we define emotions in terms of subjectively felt qualities, it may seem somewhat difficult to imagine how they can be part of imagery.⁶⁷ However, as soon as we recast the problem by defining emotions as the subjective counterparts to particular cultural image schemas and introduce the concept of embodiment as a mediator we can come to grips with this terminological conundrum.

I have suggested in chapter 3 that the term image schema has two legitimate senses: as a basal schema and as a high-level Gestalt unique to a cultural setting. I now want to substantiate the claim that this split relates to different meanings of the term ‘embodiment’. In

⁶⁷ Although this is a catchall definition of imagery, we can profit from it as long as we take care to differentiate the internal structure and format of the different imagery types that result.

one sense ‘embodiment’ can serve to explain the developmental origins of basal image schemas. Here, the basic set of building blocks of cognition is identified with simple kinesthetic experiences that shape them, i.e. the FORCE, CONTAINER, and BALANCE schemas. However, in another sense the term *embodiment may legitimately refer to highly complex cultural schemas*. Shore’s (1991) Samoan above example of a complex culturally transmitted motor schema is typical. Recall that the elements of posture, graceful movement, rest, and boundary maintenance all contribute to the very same associative network that includes the emotional significance of *tapu* and *mana* (which prominently share the image schema of bounding). I maintain that a multi-dimensional image of social and bodily experience is inseparably linked up with the emotional profile of the concepts. The culturally idiosyncratic compound of *mana* schema, drawing together the more basic CONTAINMENT, REST, CLOSURE, CENTEREDNESS, and BALANCE schemas, evokes an emotional image or is co-defined by its ‘feeling signature’.

From the contrast between basal image schemas (understood as generic building blocks) and complex image schema compounds (understood as situated social knowledge) a highly consequential hypothesis follows: *The more culturally embedded, the more complex, and the more specific a schema is, the more emotional imagery will emerge from it or resonate through it*. In other words, emotional imagery is a characteristic and even defining element of the Gestalt. Mark Johnson’s (1987) basal image schemas, on the other hand, are probably too general to be heavily infused with a very specific emotional image. Complex and emotionalized imagery is tied to the equally complex social settings in which the schemas are acquired. Support for this can be found in Palmer’s (1996: 109) definition of emotions as “complex configurations of goal-driven imagery that govern feeling states and scenarios, including discourse scenarios.” In other words, a view of emotions as pertaining to pragmatic and situated social action identifies them with specific mental scenarios of which they form part (cf. p. 123). Furthermore, Palmer relates the view that emotions are organized in pragmatic and associative networks of meaning to a proposal made by Catherine Lutz in her study of the emotional life on Ifaluk (1988). Lutz gives a cultural-pragmatic definition of what it means to understand the meaning of an emotion concept, which is again reminiscent of Wittgenstein’s definition of word meaning.

“to understand the meaning of an emotion word is to be able to envisage (and perhaps to find oneself able to participate in) a complicated scene with actors, actions, interpersonal relationships in a particular state of repair, moral points of view, facial expressions, personal and social goals, and sequences of events.” (p. 10) (cited in Palmer p. 108)

We can characterize emotions as being directly a part of a schema in use. With a view to the felt aspects of the emotion Lutz is correct, while Kövecses’ findings on the generic aspects of

the imagery in emotion concepts seem less relevant for this issue. Thus, emotions should not only be defined as subjective complements to mental images. We need to take into account that they are part of a social purpose or an individual intention, or both, that they have a motivational character and are of profoundly cultural nature. Far from being peripheral to it, emotions may actually form the central ground for situated cognition. Emotions constitute perhaps the closest interface of the actor and her world. This lived sense of emotional engagement is also reflected in Michelle Rosaldo's (1984: 143) memorable words:

"Emotions are thoughts somehow felt in 'flushes', pulses, 'movements' of our livers, minds, hearts, stomachs, skins. They are *embodied* thoughts, thoughts seeped with the apprehension that 'I am involved' (...) Emotions are about the ways in which the social world is one in which we are involved."

Kirmayer (1992: 330) perspicuously elaborates that emotions are about practical cognition in the sense of determining the most pressing needs in a given situation. While not being about the logical course of action itself to be taken in the situation, emotions are an inextricable part of human rationality that intertwines thought, motivation, and action. Impressive support for the nexus between emotion and cognition comes from recent studies on selective impairment in neuroscience. Damasio (1994) demonstrates that people who have lost the capability to be emotionally engaged in their lives also lose the ability to reason about social and moral issues and the ability to act.

In sum, I just reverted to my earlier argument that we need to attend to, both, transcontextual basal image schemas and complex image-schematic configurations. As a corollary, I proposed that felt emotion occurs as co-signatures of the latter, while the former are too abstract to connect with a specific emotional image. Thus, a framework that captures emotion as imagery should rely on discourse-pragmatic contextual analysis of complex schemata, possibly including methods of subjective empathy.

BODY PHYSIOLOGY, CONSTRAINED CONCEPTS, AND CULTURAL CONTEXT

It should be obvious by now that embodiment theory does not support a strongly universalist outlook. At the same time, it is just as obvious that people in different cultures do not experience their bodies in completely incommensurable ways, a fact that in turn motivates intercultural similarities of metaphors. I agree with Kirmayer (1993: 186) who stresses the need for a theory of a middle ground:

"The recognition that metaphoric constructions are grounded in archetypal patterns allows us to preserve a measure of universality in our theories. But body-felt feelings, however simple their origin, are shaped by cultural and social factors from their inception."

It was said before that the universalist assumptions of biomedicine must be rejected in embodiment theory. It is true that the typical, physiology-centered methods are inadequate on their own. However, the measurement of physiological reactions can usefully complement the comparative study of embodiment. Studies on universal physiology should not be dismissed if done properly, as long as we acknowledge that they do not directly entail conceptual universals.

To clarify the issue I strongly advocate adopting Kövecses' (2000) analytical *separation of (1) objective physiology, (2) conceptualized physiology, and (3) metaphors*. His comparative study of anger furnishes a fine example:

(1) As concerns objective physiology, Kövecses cites the study of emotions by Levenson et al. (1992) who measured their physiological counterparts in the autonomic nervous system among Americans and the Minangkabau of Sumatra. It turned out that, at least between these two groups, anger produces measurable reactions of a similar kind, such as changes in the skin temperature, blood pressure, pulse rate, or respiration. Relevant parallels in objective physiology do, therefore, occur.

(2) There are also interesting parallels in physiology as it is conceptualized across languages. Some basic metonymies for anger are a good indicator for conceptualized physiology, because they describe salient perceived aspects of the physiological phenomena. Kövecses' (2000: 156ff) data from English, Chinese, Japanese, and Hungarian reveals that metonymical expressions relating to anger include body heat, internal pressure, and redness in the face and neck area in all of the four languages.

(3) Finally, in the domain of anger there are, again, very similar metaphorical expressions of anger, which point to a conceptualization of an angry person as PRESSURIZED CONTAINER. The aspect of heat is not present in the Chinese example, though in the three others it augments the image and creates ANGER IS A HOT FLUID IN A CONTAINER. The metaphors, unlike the metonymies which originate from externally observable features, represent salient aspects of the subjectively experienced nature of anger and capture it in a complex structural metaphor that highlights diverse features.

In evaluating the evidence Kövecses (2000: 159-160) draws cautious and very sensible conclusions on how bodily universals might shape metaphors:

"These findings give reason to believe that the actual physiology might be universal. The universality of actual physiology might be seen as leading to the similarities (though not equivalence) in conceptualized physiology (i.e., the conceptual metonymies), which might then lead to the similarity (though again not equivalence) in the metaphorical conceptualization of anger and its counterparts

(i.e., the CONTAINER metaphor) (...) It is not suggested, however, that embodiment actually produces the PRESSURIZED CONTAINER metaphor but that it makes a large number of other possible metaphorical conceptualizations either incompatible or unnatural. It would be odd to conceptualize anger as, say, softly falling snow, an image completely incompatible with what our bodies are like and what our physiology does in anger.”

According to this view, physiological responses do not automatically produce metaphors, although they constrain them. It could be seen from the Chinese example that body heat is not elaborated everywhere as a salient aspect of anger. (Similarly, the native American language Chickasaw has the expression “I am hot” which can mean “I am angry”, but it does not have a rich elaboration of heat in relation to anger.) At the same time, the physiological responses of internal pressure and heat make the pressurized container model quite likely and natural.

Without reference to the broader cultural context Kövecses’ notion of constraint is not very high in its explanatory power, though. Other cultures recruit their anger metaphors from completely different ontological categories, in which objectivized body feelings are not a part. Kövecses cites Catherine Lutz’s (1988) famous study of the prevalent folk model of anger on Ifaluk. This folk model does not only highlight other concepts than the physiology related CONTAINER image, but actually downplays it. The Ifaluk concept of *song* strongly emphasizes that anger does not have the person or the body as its ontological locus. Instead, it is something happening in the public field, with moral and social implications. This makes it most evident that the choice of metaphors even for domains so strongly motivated by physiology as anger is just as much shaped by the cultural context and ideology it is embedded into.

In sum, Kövecses proposes an integrative and culturally responsible model of metaphor analysis, which should be widely adopted. It includes several elements:

“(possibly universal) actual human physiology, conceptualized physiology (metonymy), metaphor, cultural model (with its schematic base structure) and the broader cultural context (...) [T]he cultural models of anger and its counterparts are the joint products of metaphor, metonymy, (possibly universal) actual physiology, and cultural context.” (p. 162)

SUMMARY

This chapter has presented unfamiliar ways of talking about embodiment to cognitive scientists. I have shown that concepts from medical anthropology can be introduced into cognitive theory and partly rephrased for it. (What was left unmentioned here is that other disciplines, such as cognitive psychology, too, may have a lot to say about embodiment.) A series of relevant issues for a cultural theory of metaphor, imagery, and embodiment were broached. My overall claim was that, with regard to a number of linguistic limitations, the

embodiment debate in anthropology improves our understanding of preconceptual cognition and broadens the scope of research in pertinent ways:

First, the terms 'preconceptual' and 'presentational knowledge' were fleshed out and a series of phenomenological approaches presented. Most generally, I criticized the misconception that grounding in embodiment is only a process in infant knowledge acquisition, while adult cognition is mainly conceptual. Various strands of research from the last thirty years show that the embodiment complex can be studied, either for understanding the source of cultural symbols (Douglas), the source of power relations (Foucault), or the source of lived bodily experience in culture (Csordas), while these perspectives also hang together.

Second, with regard to the general philosophical background of embodiment, I discussed the anti-Cartesian epistemology of the 'presentational' paradigm, with the purpose of extending the notion of cognition beyond conceptual representations. I argued that the subject-object format of cognition is only one among several. Also, phenomenological concepts are bound up with a subjectivized methodology. Subjective techniques are needed to complement analytical ones, a position that is not only defended by postmodernist and 'experience-near' anthropology, but also emphasized by the cognitive anthropologist Lindquist (1995). From my point of view, the micro-analysis of cognitive linguistics and a more holistic emphasis on participant experiencing should go hand in hand.

Third, it was strongly emphasized that the body is inherently cultural in two respects – as inchoately felt body awareness and through objectified body concepts. Both aspects together enable the body to store cultural styles of behavior as *habitus*, i.e. as procedural schemas. Fascinatingly, the body can become an autonomous expressive agent of cultural knowledge, as indicated by the Pentecostal healing study by Csordas (1990, 1993) and the work on Brazilian rural laborers by Scheper-Hughes (1990). The issue of universals was briefly touched on to the effect that physiologically uniform body may exist in a basic sense, but when it comes to the subjective interpretation of physiology extreme variation is the rule, most visibly in culture-bound syndromes like hysteria, *el calor*, *amok*, or soul loss.

Fourth, various kinds of conceptual schemas and their relation to preconceptual schemas were analyzed. As a general framework, a tripartite distinction was suggested between (1) *non-objectified body imagery/proprioceptive body awareness*, (2) *objectified body imagery*, and (3) *objectified imagery of external entities*. However, as the studies by Benjamin Colby (1991) on the tea ceremony and Bradd Shore (1989, 1990) on *mana* indicate, these analytically distinct cognitive types work in parallel in the typical ethnographic setting. Shore shows how one fundamental, if complex, image schema connected between all three above-mentioned levels of imagery, whereas Colby shows how the substance of tea can become the hub for merging conceptual symbols of nature and an embodied awareness of nature. It

was concluded that enacted metaphors characteristic of important ritual settings are crafted to strike all these chords in unison. Furthermore, as a specific theoretical tool for understanding the various cognitive transformations I suggested the complementary principles of *projection* and *retrojection*: When a piece of knowledge is first acquired through body practice, it can later be projected into a conceptual image and thereby become objectified. When knowledge about a culturally appropriate way of bodily conduct is first acquired in discourse, i.e. as an objectified body image, it can later be retrojected into the body to produce proprioceptive awareness. In a practical perspective, the projective objectification of body states is often used therapeutically by experts. In Csordas' case study, masturbation was – by making it an evil spirit that has invaded the body – objectified and cast outside the lived body, whereby the individual conscience was eased.

Fifth, I argued that a cognitive and cultural perspective on embodiment greatly adds to our theory of knowledge acquisition. Specifically, the different memory systems used to create complex cultural maps were discussed. Semantic (objectified) and procedural (embodied) knowledge are often combined to achieve a maximum effect. The Aboriginal walkabout example by Shore (1996) demonstrated how repeated enaction makes for the deep grounding in body knowledge of the knowledge structures most cherished by a group. In addition, his Samoan *mana* example clarified that cultural metaphors can be formed on the level of embodied knowledge in children a long time before they become subject to discourse. Culturally potent metaphors may be acquired through repeated enaction. The upshot is that both the theoretical concept of preconceptual knowledge and the study of procedural schemas are indispensable to a cultural theory of learning.

Sixth, embodied image schemas were depicted as complex and contextual. Treating image schemas as basal constituents (i.e. building-blocks) of embodiment instead of dense *in actu* compounds permits only a very partial picture. While having criticized before that this approach creates a filter for universal aspects and neglects variation, here I took issue with the deficiency that lived emotion is often missing in the building-block view. Based on Gary Palmer (1996), I argued that complex image schemas, which are usually tied to a specific context, include emotion imagery. Thus, complex imagery makes children learn concepts together with the emotions appropriate to the context. To the extent that we devote our attention to situation-bound image-schematic Gestalts, together with the pragmatics of discourse and procedural schemas used in body techniques, emotion will come back into view.

Finally, the points developed here lead to a further clarification of the vexed issue of cultural variation in metaphor and cognition. In chapter 3, I already pointed out that the issue of universals in metaphor is vantage dependent: Our perspective yields universal aspects to the extent that we seek analytical abstractions and have a broad and general stock of

metaphoric building-blocks in mind. Universals also enter into view when speaking of general 'cultural competence', i.e. transsituative knowledge skeletons in which the lived body and the emotions are less implicated. Yet, the more we focus on the experiential and performative level of a metaphor, which is linked up with a specific context, with embodiment, with emotion, and with intentional behavior, the fewer overlaps are found between cultures or individuals. A closer look at the embodied dimension reveals that seemingly universal metaphors allow for a significant degree of variation, depending on (1) whether the conceptual part of the metaphor is retrojected into the body or not and, if so, which kind of proprioceptive awareness it produces there, (2) which emotions and contextual memories the metaphor is loaded with, and (3) which kinds of behaviors are enacted on its basis.

Chapter 5:

Thought Styles and Imagery

The following chapter is about high-level templates in cultural thought. My aim is two-fold. First of all, I want to espouse a stronger focus on a scantily treated level of inquiry in the study of worldviews: I submit that empirical research can eventually lead to the exploration of cultural 'thought styles' at large, which can be defined as cultural preferences for general mental tools from the universal human endowment and the tendency to demote others. Based on this definition I would then like to explore to what extent there is a relation between 'thought styles' and the way mental imagery is employed.

The following inquiry is often tentative but produces highly pertinent research questions and guidelines for cognitive scientists interested in cultural comparison. I will begin with a definition of what I call a 'thought style' or 'cognitive template'. Then I will survey some influential theories of the past that explain historical worldviews in terms of these. Finally, I will single out five basal cognitive dimensions that relate to how embodied and imagistic thought is used, albeit without laying claim to a comprehensive list.

1. Worldviews favor specific cognitive tools

Cognitive approaches to culture often restrict their attention to the description of particular cultural representations. To be sure, this lies in the interest of methodological rigor, since fleshing out the matter and substance of a given culture's thoughtscape is only possible through a 'bottom-up' approach. At the same time, I believe that work in cognitive anthropology and linguistics can legitimately address a more generalizing level. The interesting question in this respect is whether particular implements of the universal human mind-kit are given precedence or, conversely, downplayed by a particular cultural group. Such a course of inquiry is not wholly new, and I adopt Mary Douglas' (1970, 1996) popular term of 'thought style' on purpose here. However, I lend a particular twist to this endeavor here. While showing at which elementary level questions about cultural ontologies should be posed, my major aim is to explore how thought styles influence *how* people make use of imagery, rather than which specific images they use.

What is a 'thought style' or a 'cognitive template'? I hesitate to equate a template with terms such as 'foundational schema', 'key concept,' or 'cultural theme'. While all of these previously posited cognitive structures permeate various social contexts, there is a level on top of these which is more general and still less content related. I choose the name 'template' for this supra-level. To see why this line of inquiry makes sense let me briefly distinguish three levels of studying of cultural patterns of cognition: At a fairly specific level we can seek to describe well-formulated folk- and expert-theories of the cosmos, the self, ontology,

epistemology, and social norms. This is done by cognitive linguist, cross-cultural and social psychologists, and comparative philosophers. At an intermediary level, we can turn to either characteristic types of formative experience, such as are studied by ethnopsychology, or to key concepts that flexibly structure cultural knowledge across many contexts, such as are studied by some cognitive linguists and cognitive anthropologists. At the highest level anthropologists and philosophers have striven to isolate culturally dominant cognitive *styles*. Thought styles encompass many sorts of preferred perceptual and conceptual strategies of a general nature: They include styles of reasoning and framing knowledge (Shweder 1994), ways of memorizing (Whitehouse 1995, Bloch 1998), preferences for a specific sensory modality (Wober 1966, 1976), learning and teaching stratagems (Goody 1977), dominant mediating devices (Wertsch 1991), or even strategies of task sharing (Hutchins 1995). For example, sensory experience may be highly valued or alternatively deflated; visual information may be preferred to auditive information, externalized written memory may be preferred to internal memory, learning by rote to individualized understanding, sensory austerity to change and sensory multiplicity, etc.

Thus emerges my basic hypothesis: Worldviews are shaped to an interesting extent by culturally variable dispositions for tapping into some capacities of the basic human cognitive endowment more regularly than others. In other words, thought styles bias people toward selectively using tools from the universal mental toolkit. At the same time other tools are avoided, marginalized, denigrated as techniques of knowing, or reduced to low ontological status. Therefore, on the view I propose here cognitive variation cannot be reduced to a simple matter of some people believing *this* while others believe *that*. There is more to variation than divergent mental *belief-content*. In short, the analysis of representations and beliefs proper needs to be supplemented by the analysis of *operational tools*. After these prefatory notes let us turn to a survey and a discussion of some of the literature on the subject, which shows how risky arguments of the proposed sort are.

2. A selective survey of the ‘thought styles’ literature

With the advent of cognitive anthropology and linguistics we have seen a welcome orientation towards rigorous micro-analysis of folk- and expert-theories/models. In earlier anthropology, philosophy, and history an overly generalizing style of seeing cultures as being characterized by dominant thought styles has a long pedigree, with many approaches deserving skeptical scrutiny from a present day perspective. Most non-cognitive approaches not only lack empirical rigor, but can be rebuked for too overarching claims or typological simplification. In taking a middle position I will argue that ‘thought styles’ are productive working hypotheses that should not be thrown overboard without urgency. At the same time the present lack of adequate empirical data about cognition across domains in any culture

suggests caution. Both, recognition of the universal human endowment and sensitivity for historical and situational context is called for.

Most of all, we should be wary of the exoticizing dichotomies between the 'West' and the 'rest' that often come in the wake of the notion of thought styles. Lévy-Bruhl's now seasoned claim about 'how natives think' in terms of mystical participation rather than contradiction, which he takes to be characteristic of civilized societies, is a case in point. However, above all it is studies of inference patterns originating from the two recent decades that resulted in problematic conclusions, in spite of a more conscientious outlook. A host of approaches pioneered by Cole and Scribner (1974) employ problem solving tasks from experimental psychology with a strong bias toward Western thought in their design and phrasing. Even more problematic to the point of blatant ethnocentricity are Hallpike's (1979) contentions. Put in a nutshell, Hallpike applies Piagetian notions to argue that 'primitives' think 'pre-operationally', but in doing so he builds on unreflected value judgments, violates several principles of the ethnographic method, and employs the highly loaded analogy between children's thought and the thought of 'primitives' (cf. Hamill 1990: 31). Recent research indicates that all cultures use a common logical base, but it is not simply co-terminous with abstract textbook logic. It is neither neutral, dispassionate, or decontextualized nor necessarily a superior means of problem solving. Moreover, this common base is used to ends that are always embedded in cultural styles of pragmatic social factors and a characteristic perception of tasks, i.e. what is relevant about a situation (Hutchins 1980, Hamill 1990, Shweder 1991).

Also, recent studies of Western everyday reasoning reveal that the identification of logical rigor with European culture is to a large extent wishful thinking and self-idealization. With a deconstructive thrust, Jean Lave (1988) shows that not even Western school mathematics is ordinarily used for paying in supermarket situations. Folk-models operative in everyday tasks seldom confirm to the standards of textbook logic. Other studies argue with some conviction that 'primitive magic' is not a trait of the 'primitives', but alive and kicking in Western society (Tambiah 1990). A good example is the experimental study on the irrationality of contagion fears, tested for example with dead and disinfected locusts by Rozin and Comaroff (1990: 212ff). Much evidence suggests that the belief in essences and the belief that they are incorporated into the body and the self in physical terms is a cultural universal. (The hysterical reaction to AIDS is a case in point.)

If that debate teaches us anything it is that, at first blush, all cultures profess patterns of 'primitive cognition', yet if contextualized and understood relative to real-life exigencies all make sophisticated and economic use of what the universal human mind-kit affords, especially if measured against the yardstick of adaptation to the cultural and natural environment. Although we may surmise that, say, essentialist thought is to a degree

universal, this does not permit predictions. As so often, we have to take the middle road between complete arbitrariness and complete predictability and look for experientially motivated uses of the mind's universal endowments.

There is no kind of evidence I know of to indicate that cultural thought styles differ so radically that some basic cognitive operations are on principle available in some cultures and unavailable in others. What cultural styles do is to accord preference to certain life domains and their cognitive techniques, while other domains are deemphasized. When the non-preferential operations occur, as they will at least occasionally, they are accorded inferior ontological status.

THOUGHT STYLES AND ROOT METAPHORS

Many of the early attempts to isolate thought styles focus on philosophical systems, rather than everyday cognition. First in a row of several historians of philosophy, we find an early work of Karl Jaspers (1919). Jaspers performs a contrastive analysis of worldviews in the history of Western philosophy, which introduces as leitmotif the distinction between sensory immediacy and a level that many would call ideology. In his terms the major watershed runs between more 'enthusiast' (i.e. experientialist) and more 'cognitivist' worldviews. By this he expresses the observation that some thinkers try to order the world into a general formal system while others take momentary realities for what they are in themselves without setting them against a heavily structured theoretical backdrop. A similar view, which is now however extended into the realm of the social at large, emerges Pitirim Sorokin's diachronic socio-historic comparison of Western cultures in *Social and Cultural Dynamics* (1985²). Sorokin's extensive study tries to operationalize different attributes of cultural epochs, such as legal and political system, art, morality, religion, frequency of war and social unrest, so as to place them on a continuum stretching between a 'sensate' and an 'ideational' pole of cultural orientation. Again, either the world of the soul and the mind is given prominence or the material world of the senses. In the field of cultural anthropology, Ruth Benedict's (1946) distinction of 'Appolinian' and 'Dionysian' cultures, again points in a similar direction, which now revolves around the integrative notion of cultural ethos. In another classic of comparative culture theory, Mary Douglas contrasts 'thought styles' (1970), although the analytical apparatus she develops centers on the two scalar dimensions of group cohesion and self-autonomy, both with relation to cosmology, yielding her famous 'group' and 'grid' dimensions and an overall matrix of four ideal-types of culture.

Other approaches focus less on broad distinctions on a bi-polar scale than on complex thought patterns that transcend any such model. The landmark study to win the broadest acclaim is arguably Michel Foucault's *Les mots et les choses* (1966), which embraces a diachronic perspective on science and philosophy, as reflected in the sub-title "an archeology

of the humanities". Foucault strives to uncover the depth structures of knowledge, albeit of a historically contingent kind, and, in doing so, comes up with the postulate of ordering templates characteristic for the *epistēmē* of an epoch. (These templates could also be called root metaphors of epistemology.) In the Renaissance this template is determined by the principle of iconicity and the idea that reality becomes knowable through a pre-existent analogy between things and things, signs and signs, and even between signs and things. The classical age then turns to artificial taxonomies and grammars as ordering principles, which are now no more natural givens, but impose a man-made cognitive order on concepts, even though these *tableaux* are conceived as nature's mirror-image. The modern age, finally, breaks this optimism in 'home-spun' systematicity. Instead, the modern epistemic style chooses as its fundament of knowledge the principle of self-reflection, which entails the conception of man relative to his situatedness in language, and in his social and economic system, a situatedness that Schleiermacher, Marx, Nietzsche, and Freud exemplify in their search of hidden principles and underlying logic of mankind. Situated self-reflexivity, of course, is a far more complex schema and may elude a simple description as a basic thought template. Therefore, Foucault's theory thwarts any straightforward attempt to place it within a parsimoniously dimensioned cognitive terminology.

The idea of templates with a genuinely cognitive bent was perhaps first laid out as a systematic theory by the philosopher Stephen Pepper (1942), and has been exerting some influence in Anglo-Saxon academia ever since. Pepper attempts to describe the history of philosophy as a competition of four root metaphors, each of which is autonomous and, in the absence of a rival theory, self-evidently and indubitably corroborated by experience. None of them explains all the facts of the world, but all of them are powerful enough to act as a true 'world-hypothesis' with nearly unlimited scope. None of the four root metaphors is intrinsically superior; instead Pepper thinks that they are simply incommensurable because they are based on different axioms expressed through a root metaphor.

It is worth going into root metaphors in more detail, especially because it is a tremendously useful basis for understanding the relevance of image-schematic models in thought styles, which form the reference point of this work. The following summary of Pepper's approach by Harrell (1982: 224) highlights the very point I hold to be crucial, namely that philosophical systems obtain their specific profile by promoting one specific cognitive mechanism to a paradigmatic status:

"Pepper, in his original work, found only four basic systems of knowledge in Western thought: *Formism* – in which the basic operation is classification and the relationship of the particular to the general – is a world hypothesis based on the intuitive recognition of similarity. *Organicism* – in which the basic operation is to compose a structure and the primary cognition is the relationship of parts to a whole – is a hypothesis derived from the recognition that an organism is somehow more than the sum of its

parts. *Mechanism* uses correlation as its basic operation, especially in the sense of causal implication: cognition identifies the relationship between particulars. Its metaphor is a simple machine, as in the lever. Finally, there is *contextualism* in which the fundamental operation is the act of attention; cognition is concerned with figure-ground relationships. The basic experience from which contextualism is derived is that the identity of a particular thing or event is altered by its context. Pepper calls the root metaphor here 'the historic event' in which it is recognized that the event is embedded in a complex network of facts and forces."

Even if it seems imprudent from an anthropological perspective to go along with Pepper's assertion that other root-metaphors than these four are relatively inadequate either in scope or in precision – the two supposedly inadequate root-metaphors he discusses are 'animism' and 'mysticism' – he can be credited for outlining some basic cognitive operations that have profound repercussions on the socio-cultural sphere. Importantly, Pepper's argument is not that the four relatively adequate root metaphors ignore the cognitive mechanisms of the others; rather they do not accord them ontological priority, but see them as derivative instead (1942: 142). In a cognitive view the mechanisms are, then, not per se mutually exclusive in all relevant respects. It seems fair to say that the four root metaphors are a matter of which cognitive operation is promoted to the status of master mechanism around which many other models cluster. I would suggest that a historical opposition arose perhaps mainly because root metaphors tended to be harnessed to particular socio-political philosophies in which they were over-systematized as explanatory theories of the world at large. In terms of the cognitive folk-models actually used by non-philosophers I am not convinced that a similar dominance can be historically traced, nor that scope and precision are the most fundamental categories for a successful cognitive style in everyday thought (cf. Sperber 1996 on the importance of the accumulation of situative micro-mechanisms for the spread of beliefs).

One argument in Pepper's work I strongly disagree with concerns the eclectic mixing of the four root-metaphors, which he considers to be essentially confusing. So far as I can see, this assertion sits very uneasily with the historical evidence he refers to, and stands in tension with his own nilly-willy admission that eclecticism can be dynamic and innovative. Perhaps Pepper's attempt to construct four neat categories falls prey to the same dangers as Foucault who has been criticized for overemphasizing the radical nature of historical progression and the neglect of parallelism.⁶⁸ If he fails to make a convincing case for the

⁶⁸ In fact, the fear of mixed metaphors harking back to Aristotle is a trait of Western discourse that is perhaps more grounded in a style of esthetics than in truly cognitive or functional considerations. For example, Dale Pesmen (1991: 230) argues that mixed metaphor appears as constitutive in Kuhn's work on scientific revolutions. In a critical reexamination of Pepper's claims about mixing prohibitions in philosophical systems Fernandez (1986: 172) states with respect to ritual and religion: "Religious movements, if not any act of cultural revitalization and returning to the whole, always mix metaphors."

mixing-prohibition as prerequisite for the stringency of philosophical systems, this claim must surely fall short of thought more generally, as Billig et al. (1988) demonstrate with regard to ideological dilemmas or as Strauss/Quinn (1997: ch.8) show with regard to dissonance in life narratives. In a view on cognition in everyday cultures we have to bear in mind that all of the basic operations described above are universals of the human mind, especially as concerns categorization and figure/ground relations. Part-whole relations are also omnipresent, but may conceivably vary to a great degree in their cosmological importance. Perhaps least universal is the tendency to conceive of the cosmos as integrated system, even though it is extremely widespread. By and large however, I believe that all four basic cognitive operations can be found in one or more relevant domains of any culture.

Bill Harrell, in the highly original article already quoted above, comes up with some interesting suggestions on how to apply Pepper's theory in comparative cultural analysis. He notices an interesting convergence of Pepper's work with the comparative *grid and group* model proposed in Mary Douglas' acclaimed *Natural Symbols* (1970). Douglas tries to correlate types of social structure with particular cosmological beliefs. Her approach combines the two parameters of grid and group to create a matrix of four ideal-type societies depending on the degree of role ascription to the individual (grid-dimension) and the strength of community boundaries (group-dimension). In particular, both approaches show that the cultural preoccupation with boundaries differs culturally and seems to correlate with certain cosmological strategies. In Pepper's theory, it is all so-called *formist* philosophical systems that are concerned with clear-cut categories and the maintenance of boundaries. Correspondingly, in Douglas' theory, it is societies characterized by a strong emphasis of the group dimension that create a sense of community and identity by associating impurity, evil, danger, and chaos with those outside the group. Interestingly, both theories include descriptions of the dilemmas that the different types are prone to slip into. In the case of strong group societies the social strategies to deal with internal conflict involve *externalizing* the conflict by creating scapegoats and staging witch-hunts or pogroms or, alternatively, *exorcising* the source of spiritual empoisoning from the afflicted individual in an act of casting out an evil, which is conceived as an essence.

Mechanism in Pepper's typology is characterized by the idea that only particulars exist and that there are no necessary natural (or social) laws apart from observed statistical correlation. Entities and things which do not have a concrete location are not accredited as real, neither are transcendental forms or laws. There is no metaphysical truth. Truth is defined as what enables an organism's behavioral utility as she negotiates the physical environment. In Douglas' perspective, such a system of mechanistic individualism is

Also see Sylvia Junko Yanagisako's (1987) work on mixed metaphor's among Japanese niseis that reflect the historical transformation of gender and kinship notions vis-à-vis their parents' generation.

characterized by little importance of the community and the pursuit of egoistic interest (strong grid/weak group). Social relations will be instrumentally understood. There is no strong common moral commitment in the sense of a covenant that would limit the degree to which others may be instrumentalized. Social interactions are inherently contractual and based on mutual exchange and benefit, which reflects the mechanist root metaphor of correlation. There are no transcendental obligations carried out for their own sake.

The reader will perhaps have noticed the similarity of Pepper's mechanism and the one thought template most frequently takes to characterize Western culture by scores of other authors, namely *atomism*. This tendency is given lucid expression by Frank Johnson (1985: 113-14), together with its ontological and epistemological consequences:

"Perhaps foremost is the tendency to see reality as an aggregation of parts: that is, to see objects as potentially divisible combinations of yet smaller objects. Such parts are not only presented in visualized, "real" things (e.g. trees, persons, stars), but are presumed to constitute the structure of immaterial "things" (e.g. thoughts, ideas, memories). Long before confirmation through the physical sciences, philosophical support was presented for the conviction that material reality – although not visible to the material eye – also was structuralized and particulate. The belief was that parts could be divided into yet smaller parts and pieces – molecules, atoms, elementary particles. This endorsement of a particulate universe of material objects is important given the western tendency toward an emphasis on "taking things apart" – i.e. analysis – and on the consequent process- *deduction*. A tendency accompanying the analytic mode is toward the objectification of "external" objects as existing separately from the observer. Observation and measurement of external reality categorizes these objects as "out there somewhere" rather than simultaneously "out there" and (internally and perceptually) "in here." In contrast to various eastern philosophies and religions (Nakamura 1964), western differentiations between "inside" and "outside" versions of reality tend to accentuate the differences and separation between external objects and internal representations. Western personality theories have also tended to accentuate the boundary between the domains of intrapsychic and extrapsychic realities – most prominently in traditional psychoanalysis."

However, the second half of the quote makes it apparent that, apart from the tendency to privilege parts at the expense of wholes, there is also a connected tendency to impose boundaries in epistemology, which should theoretically be typical of Pepper's formism. What this goes to show is that no cultural thought style can be only nearly reduced to a single psychological Gestalt when thoroughly analyzed, at least not with regard to a typology of four closed style elements. Objectivism and atomism went together for historical reasons in a at least one dominant Western thought style, but not of necessity.

We may draw two conclusions from all this. First, the argument here does not so much claim the complete exclusion of one thought style at the expense of the other, but hierarchical ordering in ontological evaluation and in usage preferences. Second, the number

of relevant thought-styles must be considerably higher than the four or six proposed by Pepper, and these are not so much exclusive or closed systems rather than individual elements and cognitive choices that, while subject to constraints, are combinable in more than one way. (Mutually exclusive systematizations and systemic closure are with much greater likelihood to be found in philosophical systems than in the cultural experiences underlying them.) Before we go into a (very incomplete) list of cognitive dimensions, let me say a few words about the relation between thought styles and experience.

PREFERRED MODES OF BEING

A wholly different approach to thought styles, and one I look upon very favorably, comes from the social phenomenology of Alfred Schütz (1962). I mentioned above the graded ontological status given to modes of cognition. This evaluative stratification, making some sorts of experience more real than others, and yet others 'illogical', 'merely rhetorical', 'superstition', 'figments of imagination', and 'only dreams', can be well understood in Schütz's framework. Although not intended as a comparative enterprise, it has the virtue of focusing on typical cultural stances towards *modes of experience* rather than toward beliefs in the narrow sense.

Central to Schütz's theory is the notion of the multiplicity of social reality resulting in numerous partially autonomous lifeworlds. The differences between these lifeworlds are understood in terms of the specific 'tension of consciousness' that is characteristic for each them. These 'finite provinces of meaning' put different accents in the construction of reality. The most important ones include the world of everyday life, the world of dreams, the world of religion, the world of playing, the world of art, the world of science, etc. The lifeworlds are relatively autonomous in the sense that they do not overlap to great extent and that a 'leap' between modes of consciousness is required to move between them.

Equipped with Schütz's theory, I would say that a defining feature of ontology is the hierarchical or otherwise evaluative order among experiential realms. Ontology's main function is to assign each of these types of experiencing a particular status. For instance, some societies highly value dreams, while others do not believe in their revelatory nature. Some value science, some religion. Some value play and art, others only the everyday reality of work, etc. It follows that ontology must also include particular cultural attitudes toward different cognitive mechanisms, which in part mirror the differing lifeworlds and their characteristic modes of consciousness. Not infrequently one state of consciousness forms a single cultural paragon of knowing, such as the characteristic mix of sober detachment and everyday realism in modernity.

The distinction of consciousness types is not only reflected by the evaluation of extant experiential categories. Prior to that the specific fragmentation of consciousness in the cultural field determines how people move between lifeworlds. For example, cultures that

regard the dreamworld and the world of being awake as something connected will most likely not experience an as incisive leap between the two modes of consciousness. In cultures in which the everyday is deeply imbued with the religious and the typically concomitant states of consciousness the split of reality into the categories of the 'sacred' and the 'profane' is less likely. On these grounds we may also venture the hypothesis that people in other cultures perhaps do not experience Schütz's leap between modes of consciousness as incisively as we do, and sometimes slip between them unnoticed. Corresponding to the shutting off of the 'sacred' into rarely accessed spatial and temporal precincts, in modernity the same may hold for irruption of the archaic, which has been progressively removed and banned from day-to-day life. For example death, quite apart from personal loss, is experienced as a fundamental shock through the irruption of something eerily real, yet unreal according to the standards of everyday materialism, youth fetishism, and the 'happy consciousness'. Western culture may be regarded as a prime example of a fragmented culture where parts and moods of life that were commonplace some generations ago are displaced and lifeworlds dissociated. The growing social division of labor points in a similar direction.

EMBODIED THOUGHT STYLES

More at large, the fact that particular modes of experience are favored is also true with respect to bodily knowledge and abstract knowledge (i.e. what we called 'presentative' and 'representative' modes in chapter 4). Notably with the rise of Western science the 'objective' disembodied and re-presentative mode was endowed with high prestige and has enjoyed this status for a long time. Foucault has given ample illustration for this, notably in his works on the clinic, the asylum, and sexuality, where he shows how the power of the jail-keeper, the doctor and the self-monitoring superego emerge from the disembodied and objectivized mode of being.

In an embodiment approach 'moods' and embodied states of being in the world must be seen as the precipitate of cognitive styles, if not a dialectic counterpart on an equal par. Cognitive styles are effective triggers for socially promoted or counter-cultural 'moods'. The mood of simplicity, for example, is conducive to peace of mind, contemplation and inwardness. Conversely, complexity and semantic multiplicity, laden with rich but elusive meanings, is conducive to the play and change of moods rather than a single emotional focus. A double causality is operative here. Emotive styles become externalized into symbolic products – 'instituted models' in Shore's (1996) parlance – which, in turn, are internalized to engender emotive associations with moods of situations, periods or epochs. Symbolic self-conceptions characteristic of epochs or classes grow from such colorations of mood and, in their turn, again spawn these moods in an incessant dialectic (see Berger/Luckmann 1969).

What Pierre Bourdieu (1984) calls ‘distinction’ is a universal principle on the social, the cognitive, and the sensory level alike. Evidently, every culture creates (and is defined by) marked style differences – between social classes, between sexes, between age groups, between ritual and everyday settings, between ‘us’ and ‘them’, etc. – and cultural beliefs about these differences. Based on this need for distinction Bourdieu identifies different perceptual and sensory styles, i.e. physically inscribed realities, between social classes. Taste is not only what one thinks about taste or how one evaluates tastes, but what one is literally *able to taste*, e.g. which flavors a person has learnt to distinguish.

3. Some examples for cognitive templates

I have chosen five differential dimensions of thought styles for an exemplary analysis. They all at least partly relate to imagery and unfold along the following axes:

- (1) cultivating conscious and elaborate tropes vs. cultivating a ‘plain’ style,
- (2) iconically replicating coding structures on ever-new levels vs. enriching thought content on a given level,
- (3) using concrete imagery vs. using abstract schemas,
- (4) preferring sensory homogeneity vs. preferring sensory salience, and
- (5) using modular thought patterns vs. integrating the mental landscape into unique wholes.

My main goal that I want to achieve through these examples is to demonstrate that thought styles relate to imagery, some more in the sensory and embodied sense and some more in the conceptual sense. Moreover, I want to demonstrate that imagery and its emotional dimension inherently constitutes and reflects socio-political and cultural trends.

(1) TROPISM AND ANTI-TROPISM

One of the basic cognitive characteristics of a culture or an epoch can be seen in its implicit and not seldom quite deliberate stance towards tropes. This can regard the cultural evaluation of artistic, aesthetic, or rhetorical means in general, a particular way of using analogy and metaphor as conceptual devices, and other aspects.⁶⁹ In what follows the

⁶⁹ A dimension I only want to skirt here regards the broader ontological interpretation that metaphorical activity is given. In their comparison of the alchemist style of metaphor use and that of modern science Gentner and Jeziorski (1993) show that there are a number of culturally dependent similarity types throughout European history. Unlike for modern scientists, for the alchemists analogy implied essential identity. They ascribed causal powers to metaphors, so that like was seen to influence like. Also, they did not use analogy as a rigorous mapping between two domains in a one-to-one correspondence. So

argument will be that the rejection of trope as a rhetorical or aesthetic means is a trope in itself, or rather what may be better termed a meta-trope. For instance, Yuri Lotman's (1990: 40ff) semiological work puts repeated emphasis on the role of tropes as basis of style formation:

"There are cultural epochs, we should remember, which are wholly or largely oriented towards tropes and in which tropes are the obligatory markers of all artistic discourse, and indeed even of all discourse. On the one hand there are whole epochs when the *rejection* of rhetorical figures is artistically significant, and when, for speech to be perceived as *artistic*, it has to reproduce the norms of non-artistic speech. Examples of epochs oriented towards tropes are the mytho-poetic period, the Middle Ages, the Baroque Age, Romanticism, symbolism and the avant-garde." (Lotman 1990: 40)

Rhetoric complexity and artificiality can be the basis of a particular cognitive style that grows into a powerful cultural template. Via experts discourse folk-models are presumably also influenced.

With respect to the history of Western culture Lotman (1990) traces how a purposeful cultural distinction of tropical from non-tropical or rhetoric and anti-rhetoric has been drawn. The graded distinction in fact produces what could be called a meta-trope, namely the style of non-tropicality. This includes favors simplicity, artlessness, little meaning surplus, and straightforward contextual cues, and a limited resonance of neighboring domains. Non-tropicality is just as much a style as its opposite. Lotman perceives an underlying dimension of a universal kind, which can serve as a parameter of the cognitive analysis of culture (p. 44):

"[R]hetoricism does not belong exclusively to any cultural epochs: like the opposition 'poetry/prose', the opposition 'rhetoricism/anti-rhetoricism' is one of the universals of human culture. The terms of this opposition are mutually connected, and the semiotic activity of one of them presupposes the actualization of the other. (...) Against such a background the 'anti-rhetorical text', consisting of elements of direct, non-figurative semantics, comes to be perceived as *meta-trope*, a rhetoric figure which has undergone a secondary simplification, with the second language being reduced to zero. This 'minus-rhetoric', which is subjectively perceived as resembling reality and simplicity, is a mirror image of rhetoric and includes its aesthetic opponent in its own cultural-semiotic code. For instance, the artlessness of neo-realist film in fact contains a latent rhetoric, activated against a background of the worn-out rhetoric of pretentious pseudo-historic epics and high society comedies, a rhetoric which has ceased to work. In its turn the cinematic baroque of Fellini's films rehabilitates rhetoric as the basis for constructing meanings of great complexity."

the way of using metaphor and analogy and the ends of their usage differed markedly from modern science practices.

We may guess that this meta-trope is often also inscribed into the disjunction between specialized esthetics and everyday in a mutual distinction that pits an elaborate 'high culture' against a 'low culture' emphasizing simplicity.

A pivotal point hardly to be over-emphasized emerges in this analysis: Every cognitive cultural template is a figure chosen against a ground of other possibilities. Sometimes the ground is only an implicit potential, but more often than not the contrast is one that is perceived and a conscious marker of cultural self-perception, perhaps best glossed as the culture's 'ethos'. An argument to that effect is made by Roy Wagner (1986: ch.6) who embraces a historical perspective. Wagner claims that the central meanings and core symbols of an incipient historical epoch acquire their profile against the background of previous epochs. He illustrates this with regard to the European transition from the Middle Ages to the Renaissance and eventually the Age of Enlightenment. In this process present core symbols act against past symbols, much in the same way that different parts of a society, such as kinship, marriage, birth, death, social exchange relations, and cosmology may synchronically stand in a dialectic relation. Where the tropological style of an epoch is concerned, only the diachronic whole accounts for the culture's meaning system (as far as the past is remembered at all and necessarily filtered and distorted by a specific appropriation of history, I would add.) Both Lotman and Wagner underscore that the cognitive style of a ritual stage or an epoch functions as a recognized marker that demarcates an event contrastively against other stages or other times. Bourdieu's work on distinction and sensory styles also fits in here. Distinction is a culturally enacted and perceived fact that shapes the identity of a class vis-à-vis the others. Each ritual style, art style, or embodied-sensory style corresponds to a cognitive style that is always seen in relation to other cognitive possibilities. There are, so to speak, meta-maps of the mutual interdependence and relational significance of various styles of cognition that have become a part of the cultural stock. Although I would be reluctant to argue that past styles are absorbed into some kind of diffuse 'cultural subconscious' and are simply stored there, it seems to be the case that in many cultures – especially such with a historical consciousness and a presence of historical artifacts and writings – a present style is perceived against the background of what is *thought to be* a past style. Folk-theory always includes a dialectic genealogy of the present in the past, of the social classes in each other, or of oneself in ones neighbors. A degree of recognized contrastivity is thus inherent in every cultural style.

(2) SEMANTIC ENRICHMENT AND THE ENRICHMENT OF CODES

A related parameter for inter-, as well as intracultural comparison of thought styles can, again, be found in the work of Yuri Lotman (1990). He observes that it is a customary feature

of cultural sign systems to operate, both, on the semantic level proper and on a level of reference to the code. In his somewhat idiosyncratic formulation he posits a secondary mode of communication beside the so-called “I-s/he” mode, which has been vastly undervalued in the past, the “I-I” mode. This phenomenon, which may also be called autocommunication of a semiotic system, does not only serve the purpose of mnemonics as in inner speech. In the “I-s/he” mode information is transmitted and the message’s code is kept constant while the act of communication goes on. In contradistinction to this, the “I-I” mode is defined as an increase of the information of the message on a parallel level by the *introduction of new codes* for the same message. Lotman points out that different kinds of formal structure can serve as such code, for example in iconic phenomena. It is possible through the patterns in the spatial medium that a surplus value of meaning is introduced, for instance by the printed form of a manuscript, the layout of a poem etc. Alternatively, it is possible through patterns of a temporal kind, as in music or rhythmic texts as Goethe’s *The Forest King*, which in its language simulates acceleration and hoof rhythm. Alternatively, a double coding can employ indexical signs, which only point to another meaning that has to be known in advance. An example would be words reduced to indices like in early Koran scripts that could, due to a complete lack of diacritic signs for vowels, not be read unless known by heart. Folklore, such as the magic tale, would be often wholly redundant, were it not for codes on this supplementary level. This closely corresponds to what Lévi-Strauss dubbed the “musical nature of myth”, and understands myths as purely syntagmatic, a-semantic texts which are in fact schemas for organizing thought. However, contra Lévi-Strauss, Lotman asserts that both modes are needed, that actual cultures invariably oscillate between the two modes but with different weights. In fact Lotman ventures the opinion that relatively stable cultures diverge neither too far too from the one nor the other extreme, without furnishing proof, though. Concerning iconicity, there is widespread linguistic evidence for this phenomenon of double coding. More pertinent as a working hypothesis is Roy Rappaport’s (1979) claim that the culturally deepest meanings of religion are usually not encoded as conventional semantic symbols any more. Instead they reside in experiences that stand for themselves.

(3) CONCRETE IMAGERY AND IMMANENT COSMOLOGY

One culturally determined tendency in thought that is of great consequence pertains to *how* the tropes and imagery that are used in conveying cosmological ideas are instantiated. The distinction that is relevant here relates to analog and digital representational formats, which was introduced at the beginning of this work: the analog formats rich images and image-schemas were contrasted with the digital format of so-called propositional thought. I endeavored to show that different metaphors employ analog and digital codes to variable degrees. Perhaps most interestingly, in depicting cosmological ideas cultures display varying

tendencies to employ image schemas in isolation. This can be shown in a comparison of Chinese and Western cosmology/theology.

It appears that there is a strong inherent tendency in Chinese thought not to rely exclusively on abstract characterizations of thought. Instead Chinese culture is well-known for its proclivity to put ideas into images and words with associative power and its ingenuity in doing so.⁷⁰ As has often been pointed out, this tendency is very much inherent in the ideograms of Chinese language itself where abstract terms have multiple concrete associations while the imagistic quality of the original core is (at least partly) preserved in the act of reading a character as abstract. In the perception of the visually rich Chinese characters these dimensions cannot be but co-present, due to the iconic nature of the ideograms. The so called-radicals of the 'characters', i.e. recurrent basic sign-elements for identification which frequently hint at a part of the meaning, are responsible for this characteristic.

The abstract-cum-concrete two-dimensionality is by no means a gratuitous feature of Chinese writing or literary knowledge, it is intertwined with an ontological view of how the abstract related to the concrete, or the 'transcendent' to the 'immanent'. I mean to propose the following hypothesis: The fact alone that cosmological thought is presented in imagery with high associative power carries considerable meaning in itself. This cognitive choice reinforces the central concepts. The manifest preference for similes and images in much Chinese philosophy indicates that this mode of thought attaches much importance to concretion. The message is as clear as it is simple: in many major strands of Chinese cosmology, such as (Neo-)Confucianism, Daoism, and, most of all Buddhism, it makes no sense to abstract away from immanent reality. Every general principle is only effective in its concrete manifestation in the world and not as principle as such. For instance, the important Neo-Confucian concepts of *qi* ('energy-matter') and *li* ('pattern') are not usually thought of as remote supernatural beings or as ultimate principles devoid of and situated beyond material reality. Instead, they are conceived of as an immanent and pervasive causal matrix that is manifested, both, as material reality and in the spiritual and mental world. Thus, transcendence is, with few exceptions, not affirmed as any ultimate principle beyond change, process, and form, but in a sense of 'transcendence in immanence'. Transcendence is a 'plus-quality' in phenomenal existence, an existence without which transcendence does not make any sense to begin with (Olds 1991: 16).

A similar perspective on the imagery of traditional Chinese medicine is taken by Hsu (1999: 211). She shows this with regard to the well-known medical doctrine that is cast in the imagery of the so-called Five Phases (named Fire, Water, Earth, Wood, and Metal respectively). In this metaphoric system a maxim such as 'Metal gives Birth to Water' read on

⁷⁰ Tambiah (1990: 100) suggests the same for the Indian tradition.

its own tends to be empty, vague, or even meaningless. On the one hand, it is clear that there is a high degree of generality in the maxim, such that it can be attributed various distinct meanings in medical practice. On the other hand, the multiple 'knowledge-grains' in 'Metal gives birth to Water' are always linked to rich imagery and associations. This is the case despite the fact that, on the more sophisticated level of expert medical knowledge, the Five Elements do not even correspond closely to conventional everyday associations connected with the terms used, but refer to certain ways of changes instead. For example, the principle of 'Wood' centrally evokes a multi-purpose image-schema of something extended that is flexible and can be bent (Hsu, personal comm.) Yet, for the doctrine to be meaningful the level of rich imagery and associated knowledge must also resonate together with the abstract principles designated.

From all this the conclusion emerges that using metaphors rich in propositional associations and imagery conveys a message in itself, a message that is in keeping with the cosmology as a whole. The metaphoric effect which is responsible for this may be expressed as RICH IMAGERY IS ONTOLOGICAL CONCRETION ('IMMANENCE'). Thus, thought disembedded from experience is not valued in Chinese tradition. This is the case despite the highly sophisticated powers of abstraction and generalization that are equally cherished in Chinese learned writing. Therefore, it would be completely misguided to conclude that the Chinese are either less capable of abstraction or less preoccupied with it. They only seem to think that abstraction *alone* is not worth much.

This contrasts strikingly with the millennia-old Western efforts to transcendentalize religion and cosmology, a tendency often brought into connection with the emergence of Judaism. Richard Niebuhr (1944) called the process that took place at that point in history the creation of 'radical monotheism'. In fact, it is not misguided to describe this as the most revolutionary cognitive innovation in the history of Occidental thought. We may speak of this incisive change emanating from this period as the *image-schematic revolution*. If we follow Niebuhr, radical monotheism's great achievement is to abstract from a concrete first principle and to posit the first principle *as such*, in its inherent unknowability and utter transcendence, as essence of the world. Transcendence as concept is grounded in the explicit instruction not to get implicated in concrete imagery, or at least not ascribe the highest form of reality to it when it occurs. To speak the true name of God (now in capitals) or invoke images of Him is explicitly prohibited in orthodox monotheistic religions, the strictest being orthodox Judaism. The crucial point is that this is only accessible to thought by conceptualizing God and his power by a purely image-schematic structure. One fundamental aspect of this commitment to radical transcendence I shall explore later under the heading of foundational structure, and show how it fundamentally rests on the imagistic conception of force transmission from the topmost 'source' of a stratified tree of being. With some superficial changes this structure

remained the underlying element of cosmological thought for three thousand years of Western tradition, spanning religious and secular worldviews alike. A second aspect of radical transcendentalism will be described later under the heading of abstract essentialism, for which I shall argue that it also rests on imagining the image schema container without a concrete content. For now it must suffice to mention these two aspects of monotheist tradition without entering into a closer analysis simply to underscore that Western thought has always exhibited a powerful tendency towards non-concrete thought and therein run counter to the Chinese propensity to concretize. Interestingly, the radical transcendentalism of Jewish and Christian religion was reinforced from other quarters as early as late antiquity, as an almost identical way of thinking is reflected in Greek concepts of noumenal essence. Not surprisingly, the cognitive predilections of monotheism perfectly blended into ancient Greek attempts at abstract logic. Grasping transcendence as principle was a seemingly exercise for people who valued mathematical abstractions as Euclidean (pure) space or, centuries later, set theory and irrational numbers. In both decontextualized image-schemas rule as highest reality. It is not by pure chance that the Platonist realm of pure idea forms could occupy such a central space in the world-view of early Christian Gnosticism. It came in as the unifying notion of sciences and religion, both of which put emphasis on disembodied mental forms rather than experience of this world. Thus, the underlying metaphorical effect, in contrast to the Chinese example, is NO PROPOSITIONAL STRUCTURE IS ONTOLOGICAL ABSTRACTION ('TRANSCENDENCE').

One final point is worth noting. The success story of monotheistic religions may be in part due to the high adaptability of abstract image schemas whose concrete structure is, of sorts, left blank. While it was seldom the case that average people remained true to 'radical monotheism' and so completely avoided 'propositional elaborations, it seems nevertheless the case that the avowed preference for pure image-schematic thought put less emphasis on particular images and so allowed God to become the *noumenon* or universal *logos* of philosophy while retaining the basic schematic thought structures. The same historical resilience characterizes a different but related example: It is quite striking that the logic of the excluded middle, which is of monotheist origin, lived on in secular Western philosophy until recently.

(4) A-STRUCTURE , PRESENTATIONAL PREFERENCE, AND THE TEMPLATE OF COGNITIVE SIMPLICITY

Another, and related parameter of cognitive dispositions that are culturally or ideologically defined relates to different sensory styles. Victor Turner's (1974: 267) interest in anti-structural sects and separatist movements provides rich material for the discussion of this issue. I want to spell out some implications, which are implicitly present in Turner's text, about how such movements cognitively function and how they orchestrate a marked and

deliberate contrast to the mainstream ideology. When Turner describes such movements as anti- or a-structural, this does not only mean that they are opposed to the social mainstream. More than that, the concept of anti-structure is closely linked to the notion of *communitas*. As Turner defines it, *communitas* occurs under conditions of altered states of consciousness in which cognitive structures relevant to everyday concerns dissolve temporarily. In other words, *communitas* is a type of experience that answers to the deep human need to doff social roles, masks, attires and insignia in order to enter the deeper reaches of ones humanity. Here all are equal and may unfold, free from such constraints that are normally imposed by the exigencies of social life. Typically, *communitas* is manifested in mystical and 'oceanic' group experiences of sharing.

The experience of *communitas* is often ritually institutionalized as a process of social regeneration. However, in other cases where social structure has become too rigid, it is millenaristic and mystical movements that endorse this agenda. Values of everyday structure are inverted: the weak are strong spiritually, secular power is without import. A distinct example of a 'weak' local culture that institutionalizes this process as a means of spiritual survival is found in Barbara Myerhoff's (1974) account of the religion of the Huichol of Mexico, who regularly enact a-structure in ritual. The Huichol, who by standards even of the impoverished rural population are poor, ritually gain access to their essential, sacred selves, which are so different from their everyday plight. The ritual involves the ingestion of the psychedelic substance of the peyote mushrooms. In this peyote pilgrimage the Huichol feel themselves not only to approach the Gods, they *become* Gods.

Liminality, Turner's betwixt and between phase in the ritual passage from everyday to an altered world, dissolves structure: social and cognitive. Liminality is in some cases not only enacted in ecstatic ritual but a permanent condition in a historical epoch. In millenaristic movements the condition is one of pervasive liminality, as Mannheim (1929) cogently shows this in his analysis of the anabaptist movement of the 15th century. In the eyes of the participants the edenic, millennial world is impending and immediately at hand. Mannheim regards the same tendency typical of the transitional period of late antiquity, when many sects of Christian and Gnostic origin promoted such expectations. In such a 'prophetic break' things may be seen in novel and unprecedented ways. Often, the family as structural atom of the society and its loyalties comes under attack, mendicancy is propagated, gender differences are downplayed, as to bring to the fore the deeper humanity of each, sometimes 'group marriage' is practiced. In particular cases, a-structure comes to stand for the repudiation of the sensate, the bodily, and the pleasurable. This is the case when structure is identified with a-spiritual hedonism and the true inward dimension is conceived as immaterial, such as was the case in Neo-Platonic Gnosis and Christianity.

On the basis of these examples several cognitive aspects of anti-structural movements can be highlighted. Experiencing and thinking a-structure mesh, once again. Significantly, metaphors of FLUIDITY become prominent (Turner 1974: 246). Property is 'liquidated' and 'pooled' to erase the structural cleavages that separate men in everyday life. Turner even hypothesizes a possible connection with water symbolism, such as in baptism. The metaphorical momentum in the case of fluidness concepts lies in the fact that the dissolution of structure is enacted and analogously conceptually represented. Moreover, the idiom of a-structural movements is that of indigence, which symbolically comes to stand for renouncement of the world and its ways. Poverty is used as a metonym for a-structure, the disavowal of social goals. Not only riches are renounced, much more than that, there seems to be a general *template of simplicity*. Consequently, such movements strip their practices of ritualism and visual symbolism. Speech becomes simple and unpretentious. Elaborate, dramatic, and erudite ways are avoided. In short, all perceptual salience is abhorred, especially of such kind that was habitual in the tradition from which one has seceded. In such a case, the underlying metaphorical schema is perhaps INWARDNESS IS LACK OF SENSORY SALIENCE. Conversely, OUTWARDNESS IS RICH STRUCTURE, outwardness standing for worldliness. In the inward orientation, in contemplation and mystical practice, deeper reality is situated. Note that we have metaphors here at the very primary level of cognition. A whole new sensory orientation is imposed upon the experimental field. In the (a-)structure of the field a whole body-mind orientation is encoded. Simplicity means awareness and an inward focus. The anti-structure that is found in monastic life is, in this sense, best understood as the pursuit of cognitive simplicity. Buddhism, building on the anti-structural monastic paradigm, makes a special point of it in prescribing to do what one does with concentrated devotion and nothing else. The tendency that simple forms predispose us for mental awareness is in all likelihood a universal of human cognition.

Another closely connected basal metaphor is EQUALITY IS SENSORY HOMOGENEITY. If nothing about any person's outward appearance is especially salient, there are no distinguishing features of high prestige and nobody enjoys social prerogatives. Brotherhood of man is now made externally visible, such as was oppression and dominance before. It deserves to be underscored that this metaphor is at the same time an immediate trigger for the autonomous neural system and a symbolic trigger. It is a direct trigger because no salient structures are visible. This is, for example, expressed in the interior of Calvinist churches in a conscious contrast to Roman Catholic pomposity. Sensory homogeneity is, at the same time, a many times precedented symbolic representation of the kind that if we all dress alike (or run nude all alike) we are equal. On this symbolic level the prevailing social conventional links between dress, etiquette, and ritualized behavior on the one hand and status on the other is rejected, while on the general cognitive level a style of according social preference

through special insignia is repudiated altogether. It is for this last reason that I believe that cognitive simplicity can be a general template, a general cognitive style universally pursued. As Turner acknowledges with an oblique glance to the work of Lévi-Strauss, the medium is the message here, i.e. deeper sensory codes are imbued in the individual, so that “the deep structure of culture and indeed of the universe” (1974: 240-41). A better characterization of what a foundational template is about is hard to find.

In summary, our discussion of anti-structural movements unveils two interesting facets: Cognitive styles symbolically reject the dominant social structure simply by way of contrast, while more specifically bringing a particular choice of thinking and feeling about the world into focus through the deeper social meanings encoded in thought templates. By virtue of this double-effect, once again the presentational reality and the representational understanding of a metaphoric orientation converge. The metaphors discussed here do not so much link domains on the conceptual level as primary and secondary levels of cognition (as defined in the introductory chapter on metaphor): any style of embodied perception and action already prefigures social thought that can be analyzed by looking at representations.

(5) MODULARITY AS THE CULTURAL TEMPLATE OF MODERNITY

A third case where a basic cognitive style becomes a cultural template is explored with verve by Bradd Shore (1996: ch.5 and 6): the modularity schema in North America. Modularity is what Shore calls a foundational schema. As such it is not dedicated to a single domain of social life, but underlies and organizes a number of more specific cultural models that are roughly analogous in form. By giving a common underlying form to superficially diverse cultural models a foundational schema “contributes to the sometimes ineffable sense of ‘style’ or ‘ethos’ characteristic of a culture.” (p. 117)

Modularity, according to Shore, “virtually defines the cognitive landscape of modernity and has a lot to do with the emergence of a recognizably post-modern mentality.” Modularity is a ‘design strategy’ that breaks complex wholes into elementary units that are understood as recombinable into a variety of different patterns. The examples to be examined include several or all of the following characteristics. First, the standardized units, which are employed in a building-block fashion, do not produce an irreducible and stable nature of wholes, they differ only as various arrangements of their basic atoms. Only surface arrangements are of interest, whereas there are no salient interior structures that would give the atom a characteristic signature of a certain type. Second, the fact that a virtually endless number of recombinations is permitted encourages an attitude of experimentation and changing and an interest in producing variation. Third, the modular system has an egalitarian bias, since there is no basis for preferring one configuration to another (p. 151). In short, the values promoted by modularity are efficiency, flexibility, expandability, and easy control.

As the wealth of the following examples shows, modularity allows a full panorama of modern American culture: Modularity is a central feature of modern house architecture, as well as the planning of shopping precincts, which both display an all-purpose, reconfigurable use of space. It is equally constitutive of modern furniture design, which has been facilitated by the advent of certain materials, most notably the ever-transformable vinyl. Hamburger technology also grounds its success on simple and reconfigurable components. The structure of television shows falls into simple atomic image blocks, while broadcasting and commercial times are likewise sold as commodity to be bought in chunks. The most popular entertainment shows typically employ amusing non sequiturs that can be arranged and rearranged in slots, with a small number of stereotyped characters. Successful show formats are cloned endlessly, sitcoms use 'guest appearances' of familiar actors of other series and successful characters can even 'spin off' into a linked series. The consumers' habits as well as the program structure of TV and multimedia result in sensory fragmentation, which is especially abetted by channel surfing and the spread of channel-formats pioneered by MTV. On the whole, the various media are becoming increasingly interchangeable in format (recently some popular U.S. newspapers have been designed like printed color television programs).

The advent of modern information technologies draws its huge success from modular designs and philosophies. Many attempts at computer-modeling language have built on the Chomskian claim that syntax and semantics can be separated, with the result that language needs only be broken down into its basic (but intrinsically meaningless) units that are recombinable following a set of syntax rules. Likewise, modern text-processing permits the constant reshuffling of parts, of chunks of information. Information space has no natural topology. The anti-hierarchic and acentrist structure of the internet is perhaps the most characteristic development in this respect. An endless number of tracks may be chosen to navigate through the net, an aspect which is also present in interactive fiction and computer games. The absence of a narrative center is typical of interactive hypermedia. Many authors have highlighted this as symptomatic and pointed out that it relates to the loss of the narrative center and the 'master narrative' in postmodern culture as a whole.

When we look at the field of modern American university education, students are encouraged to see themselves as consumers of interchangeable information chunks. The conception of educational structure as an integrated whole or the idea of essential constituents prevalent in earlier education philosophies has given way to a largely free choice of modules. Content and quality-based criteria are increasingly de-emphasized, and the limitless combinations of course modules can only be measurable quantitative 'credits', 'units' or 'grade-point averages'.

The fact that all these developments were spearheaded by the United States fits in with the classical American virtues of mobility, flexibility, and innovation. While social and political atomism has been noted as a feature of American society, this intermeshes with the economic development of the country from the 19th century on. For economic history, the assembly line is the epitome of modular approaches with its successful attempt to break down a complex process into simple parts of a task, which can be carried out by easily trained and easily replaceable unskilled workers. Shore points out that the path to industrial modularization was paved by a tradition of political atomism without traditionally embedded social relations and hierarchies. Instead the belief in voluntaristic association “made modular technology seem right at home” (p. 134)

Importantly, modularity is also reflected in the American conceptions of what constitutes a person. Traditionally, personality or ‘soul’ referred to an enduring essence at the center of a person’s being. With the impact of the modular revolution personality is increasingly defined in terms of an economic commodity and the social effectiveness of how one stages oneself. This has in turn spawned an interest in ‘impression management’, self-help books, a technology of ‘personal growth’ and psychotherapy, the idealization of youth and beauty (e.g. the slimming and body-building craze). More generally, this has created the concept of ‘lifestyle’ as the construction of identity by orchestration of surfaces, most notably regarding dress, activities, companions, and consumer goods. The loss of a dominant reality in virtual media is here mirrored by the increasing virtuality of personality, once it is defined in terms of exchangeable and commodified attributes.

On the other hand, Shore ventures the opinion that there are distinct limits for modular models to successfully serve as resources for human meaning (p. 158). Even though the question as yet stands open, I am inclined to go along with this, especially in the light of world-view fragmentation and the widespread crisis of meaning in modernity. Moreover, Shore raises well-justified cognitive points that militate in favor of the limits of modularity. For one thing, it is critical that, in the endless swirl of recombinable units, there are no organic contexts any more, whereas meaning construction requires relatively stable mental models or schemas to provide orientation and cognitive efficiency. It is also crucial to acknowledge that many of our basic perceptions only occur as experiential Gestalts, that is as whole configurations, and are meaningful as such. Against this basic property of human meaning the digital revolution has transformed everything into a unitary and simple code, which carries in itself no meaning unless it is retranslated into analogous perception. Shore mentions that the inherent dangers in the developments of modularity have also not been lost on a number of philosophers of modernity. We can understand in this sense Walter Benjamin’s warnings about the loss of ‘aura’ that accompanies the transition from hand-made objects to mechanical mass-production. In a similar vein, Jean Baudrillard has

addressed the postmodern dilemma of meaning in the production of an endless flow of copies that have no original. Even more fundamentally, modularity is an outgrowth of the objectifying and reshaping cultural attitude typical of the West. Misgivings about the characteristic attitude that underlies modern technology have also been voiced by Martin Heidegger, who opposes the reductive attitude of seeing the world in terms of resources to be harnessed to or to be manipulated for human ends to his poetic notion of 'indwelling' in the world, which is progressively being lost in the age of modernity.

CONCLUSION: THOUGHT STYLES AND IMAGERY

I believe that each dimension of cognitive style explored in this chapter features preferences in imagery use, although I did not explore this in great detail. I take all five differential dimensions (and a series of others left unmentioned) as indicative of an important problem: To understand cultural variation we need to ask *how* imagery is generally employed by a social group or in an epoch at large, not only which specific images are found.

A general remark I made above was about sensory distinction as described by Bourdieu. Sensory distinction is a ubiquitous cognitive mechanism and a social practice reflected in discourse, which encompasses a great variety of sub-dimensions. Distinction, in my reading, refers to embodied styles of awareness. These go before conceptual phenomena, since they define what a person can consciously or elaborately perceive. Nevertheless, distinction relies on mental or bodily imagery in a basic sense. Children learn to taste, smell and see what they enhance through mental repetition. The link between sensory style and conceptual style may play an important role as well. Refinement and restraint in embodied practices such as eating or moving prefigure ways of negotiating the mental landscape (see chapter 6). The evaluative dimension of taste styles, however, cannot be explained in an imagistic framework, at least not in a straightforward manner. Perhaps there is a complex image compound seeped with social and esthetical values such as superiority or refinement, in which many sensory images are blended together with other forms of knowledge. I am also not fully prepared to say whether the system of contrasts implied in the social code of taste strongly relates to imagery. However, it would be worth exploring Krzeszowski's (1993) work on axiological parameters in imagery (and perhaps Osgood's 1964 study on the semantic differential technique) in this respect.

The general theoretical issue of evaluative imagery aside, let me render more precise the connection of my differential dimensions to the use of imagery:

(1) Tropism was defined as a preference for a non-plain style of discourse with many artistic markers. In my view, while this obviously has to do with the elaboration and complexity of the surface language, at the mental level it is mainly the outcome of a predisposition for connecting imagery (and propositions) from different domains in complex

ways. I would argue that it refers to the complexity of blends, innuendo, subtleness, creativity, and multivocality. Related to this, high tropism implies a number of levels of meaning something is given (such as evoking metonymic, metaphoric, and ironic references simultaneously), while low tropism conveys a clear-cut message that the intended domain of reference is fixed, given, and uncontroversial. My hypothesis is that tropism creates multiple contexts of meaning, e.g. when people are encouraged to look for more fanciful or less obvious meaning nexuses, such as 'non-literal readings'. They are also encouraged to accept a possible tension between different readings. Another hypothesis worth exploring here is that tropism promotes rich imagery for its own effect more than non-tropic style. According to this, tropism uses colorful language and casts meaning in memorable images. These presumably encompass numerous facets rather than a simple core image schema only. Being signifying in multiple ways, a tropic construct also depends more on nuances of contextual expectations and has a less fixed core meaning. However, tropism is an extremely complex issue and only shorthand for a multifaceted array of operations, so that I can only hint at a research agenda here.

(2) Lotman's work raises the issue of semantic enrichment and the enrichment of codes. Semantic enrichment refers to a treatment of meaning on a single level, mostly that of content, while the 'message of the medium' remains imperceptible or prosaic. The enrichment of codes, according to Lotman, means replication through iconicity between levels, such as content and structure. Why this is an imagery related issue I will not argue here. I refer the reader to the last chapter instead, where a very detailed argument is presented that iconicity is in fact a mapping of image schemas of two different kinds onto each other, namely between such evoked through content and such perceived in structure.

(3) By comparing Niebuhr's work on Judaism and its historically novel thought style to thought in Circummediterranean Antiquity and China I tried to highlight that concrete images may play a larger or lesser role. Image-schematic thought can be either eliminative of or enriching for concrete images. The preference for image-schemas at the expense of concrete imagery means relegating concrete imagery to a lower ontological status or discouraging it for certain purposes. One possible effect is that important domains such as talking about supreme beings rely more on image schemas than concrete images, as was illustrated by the imagery strategies espoused by Judaism. I argued that this carries an immediate meta-message, namely that concrete and sensory knowledge has no bearing on a subject such as God. Transcendence is thus created. In my terms it means thinking about something without concrete images and moved away from sensory data. Experiential immediacy, on the other hand, is emphasized by worldviews that do not privilege image-schematic thought and denigrate concrete imagery. As I tried to show through Chinese philosophy there are also traditions that emphasize the mingling of concrete and abstract,

which again carries an ontological meta-message as to how we should approach reality. In effect all this has to do with cultural ways of choosing and reading metaphors. First some linguistic metaphors seem to evoke stronger sensory imagery, while others use the linguistic exemplar only as a vehicle for an image-schematic skeleton, so that the choice of metaphor has an effect. Second, there is an evaluative dimension telling people how to read given metaphors. Entities such as 'God' are described through many metaphors and most of these can be read very differently. In Judaism readers are discouraged from taking concrete images of God as faithful to His highest reality. Not to put a too fine point on it, theology is an entire meta-evaluative industry pronouncing on how old texts ought to be read. Thus theologians are, to an important extent, not only promoters of a simple interpretation, but through their interpretations also promote cognitive styles.

(4) The major elements in Turner's and Mannheim's work on millenarianism were strong attentional focus, embodied presence, perceptual simplicity and homogeneity, conceptual fluidity, and inwardness. Perceptual simplicity is striven for to create attentional focus on the spiritual. A lack of sensory salience, as far as pompous rituals or insignia are concerned, also promotes the idea of brotherhood of simple people. Experiential immediacy is put into the place of conceptual structure, presumably linked to social conventions. In addition, fluidity metaphors promote the dissolution of structure. In an imagistic analysis the relevant dimensions emerging from these characterization are these: (a) attentional spread vs. attentional focus, (b) abstract conceptualness vs. embodied and sensory immediacy, and (c) sensory salience of single units vs. sensory homogeneity between units. Most importantly, simplicity and focus are sought. Perceptually (in churches, rituals, external linguistic features) this entails a preference for clear Gestalts. This characteristic can be recast in the terms of figure and ground in imagery. It means a precise figure without much blurring ground around it, which could divert one's attention and create other foci for closer inspection and reflection. A focus on abstract concepts through complex theology or other abstract buildings of meaning is downplayed to begin with. Reification into permanence of complex conceptual Gestalts is eschewed. What there is conceptually is treated as fluid, so that embodied presence, which is more sensory and perceptual, takes the place of pure concepts. Within the modality of experiential presence a complete attentional and emotional focus is sought. Mental inwardness and embodied presence go hand in hand here. (Embodied and experientialist religions frequently feature both aspects, although techniques of meditation are often stronger on the mental aspect than trance versions of 'presence'). As to inwardness, every man and woman is encouraged to seek a clear spiritual focus of attention in his or her mental life. As to presence, this can be defined as a preference for embodied imagery. In meditation, for example, this plays a great role. The inwardness focus also includes imagery of the kind I called retrojective earlier, i.e. conceptual images projected into

one's own body, where they are both felt and cognized. The required focus in all cases is on the inner world of a human being, either on her mental processes or on her embodied states. In view of a continuous mind-body these are two sides of the same coin.

(5) Shore's analysis of the modularity schema in the United States can also be recast in the theory of Gestalts. In a nutshell, modularity is a constraint on building complex Gestalts and reifying them into patterns that cannot be reshaped. Reification would mean that only the Gestalt as a whole can make sense, while sub-Gestalts lack meaning. It also means memorization of the configuration as a whole and the belief in an organic relationship between parts that cannot be ripped apart. Modularity is the opposite of that. Every complex Gestalt is only temporary and allows for decomposition. The template is effective for two levels. The social perceptual environment is constrained in such a way, but the conceptual environment of modernity is, too. No doubt, the constraint on permanent reification conveys a strong meta-message about the indefinite nature of actual and mental entities. For this reason mainly I argued that the postmodern tendency of deconstruction is an anti-holistic trend and means allowing that the parts of Gestalts may be put into new frameworks foreign to them for critical analysis, instead of treating meaningful entities as wholes that cannot be taken apart and used in de-contextualization.

Chapter 6:

Image-schematic world-principles

In this chapter I intend to demonstrate how imagistic metaphors contribute to the basic categories of conceptualizing the world, the self, and the nature of understanding. I also illustrate the fact that image schemas are used for putting together philosophical models of reality. The two sections of this chapter study thematic structures that (1) either flow into many or all domains of a culture as background defaults or (2) shape central and complex cosmological or epistemological models. World principles can be defined as generic image-schemas that form a background expectation for other schemas across domains or enter into these as basic parts.

1. Basic structures of experience and image schemas

In this section I will scrutinize basic elements of how event structure, intentionality, social purpose, teleology, and the human self are understood. These can be found in data from many cultures and languages and are possibly as close as we can get to universals in thematic imagery. They are basic experiential constituents in worldviews and effective as defaults in many or all cultural thought domains. Comparable to the Kantian *a priori*s they are what makes it possible in the first place to think many other things; they form its necessary basis.

PATHS AND EVENT STRUCTURE

Among many others Tilley (1999: 178) has observed the marked frequency of paths and path images in thought and ceremony throughout cultures. To begin with, the passing of time is conceptualized as a path. Thus, history may be seen as a path. Following life may be seen as following a path. Destiny may be a given path one is meant to follow. Related to that we can see each person as following her proper path, thus letting the path also refer to personal identity. Finally, paths may refer to proper conduct, reflected in phrases as 'remaining on the path of virtue', not being 'led astray'. Notably, expressions like these conceive paths as straight. This has the implication that the goal of proper conduct must always remain ahead and before one's eyes, that the movement should be continuous, and that one must not waste one's strength by digressing into other directions. This prevalence of path images indicates perhaps one of the most likely candidates for a transcultural universal, namely the event-structure metaphor (see Kemmer/Verhagen 1994). It organizes the understanding of purposeful action. This metaphor in which PURPOSES ARE DESTINATIONS is based on the PATH image schema and the metaphor STATES ARE LOCATIONS. The initial (unsatisfactory) state is location A and the final (desired) state is location B. The action sequence to bring about the

desired state is the movement from A to B. In this understanding, causes are forces, changes are movements, means are paths, and difficulties are impediments to motion. (For numerous linguistic examples organized by this conceptual metaphor see Johnson 1987: 114, Lakoff 1987: 277, Lakoff 1993: 220).

In what follows, I would like to show how the event structure metaphor is of basic importance to the understanding of worldviews. It sheds light on the understanding of time, on the way man copes with contingency, and, at the same time, on the way we conceive of our own purpose as human beings.

Most basically, the temporal flow of life is best understood as a movement in space. It imparts direction and allows for sequential understanding. Research on time metaphors by Alverson (1994), Lakoff (1993), and Yu (1995) present suggestive evidence that understanding time as movement and humans as moving in time is universal. In some cases the movement of or in time is understood as unidirectional and endless, in other cases the circular or cyclical notions are preferred. In some languages such as Chinese, human behavior may be understood as keeping pace with time, being ahead of it, or lagging behind it.

Secondly, fate, contingency, and human telos are made sense of as purposeful movement in space. The metaphors FATE IS A PATH ("My path in life was predestined") and FATE IS A FORCE ("I could not escape my fate") yield FATE IS A PURPOSEFUL MOVEMENT ON A PATH. This is probably a very widespread conceptual metaphor. In attributing intentionality to fate, man copes with existential contingencies. Through the understanding of fate as a force (and perhaps as a strong person) man's movement on the path is invested with an external intentionality. The German sociologist Günther Dux (1982) raises a serious point when he characterizes intentionality as the subjectivized deep structure of everyday life. In Dux' view, a central characteristic of religion is that it thematizes this deep structure by positing an intentional creator or an abstract intentional logic of history. It seems plausible enough to assume that all sorts of teleological understandings of history are based on a path schema with a final state that is perfection.

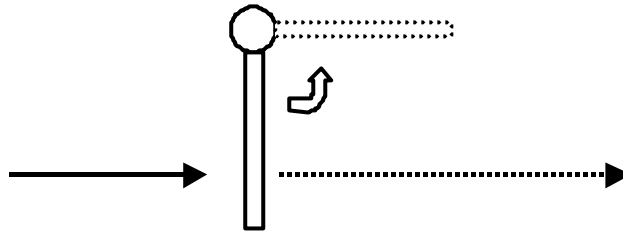
In addition, this subjectivization template is also experienced in acting upon the surrounding objects, as it is prototypically encountered in work. Therefore, this is the complementary second aspect of the subjectivized deep structure, which makes man the shaper of his world. The analysis of English language shows that there is a parallel system for conceptualizing change, purpose, means, and problems. This dual system is based on the metaphor of states as objects, rather than locations. For example, expressions as "I'm in trouble" or "I have a headache" describe a problem as being in the same location as the person or they describe the problem as possession. What follows from this dual system is ACHIEVING A PURPOSE IS REACHING A DESIRED OBJECT: "He's hungry for success", "I'm hunting

for a job”, “I reaped some rewards” (Lakoff 1993: 226-227). In some way the same basic image schema can be said to underlie both versions of the dual, since both locations and objects involve movement and the increasing coinciding between a trajector and a landmark. The difference is that in the one case we move into a container and in the other we move something to our body and incorporate it into ourselves as container. Correspondingly, the two duals discovered for English language by Lakoff and his students – and there probably are further ways of conceiving intentionality in other cultures – have two different implications with respect to man’s conception as agent or patient within the web of life. In the one case of the schema the agent is in motion and external events are the objects she encounters and has to interact and cope with. In the cargo cults of Melanesia, redemption will come from outside, just as in Christian or Jewish millenarianism. Maybe this is typical of more traditional forms of religious beliefs. In modern forms of ideology it is man who acts, who strives toward the goal. In this view, reality is ours for seizing and for incorporating. It is not coincidental that a humanist version, for example in Marxist garb, denies that man is to suffer fate as a passive patient. Instead, it is his to shape according to his needs and desires. In a manner of speaking we could highlight the difference like this: Are we the movers of reality or are we moved by reality?

The basic intentional structure of life is also reflected in cultural discourse and enacted in ritualized practice. Purposeful journeys are a universal worldview topic, be it periodic journeys like Christian pilgrimage, Islamic *hajj*, and the aboriginal walkabout, or historic events, such as Mohammed’s *hejira*, Bodhidharma’s coming to China, the Mayflower landing in Massachusetts, or Armstrong stepping on the moon’s surface. Thus, in different ways the basic message that life involves going on a journey is transported as a central understanding of humanity. It is in this sense a rough basic schema which not only allows for, but actually encourages and needs, cultural elaboration. The rough schema leaves unspecified whether the movement is circular or directional, what the phases of the journey are, what its purpose is, what the likely impediments will be and how to overcome them.

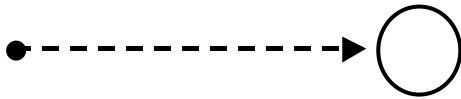
PURPOSEFUL ACTION

One more basic part of the complex metaphor of purpose-as-destination and purposeful-action-as-straight-movement-in-a-direction is the schema of FORCE ENABLEMENT. A movement in space is enabled when there is no impediment to applied force, or when a hypothetical or existing impediment is removed.



(Johnson 1987: 47)

In the absence of barriers the actualized force vector can be abstracted into a vector of sensed potential force. It derives from the corporeal experience of a felt sensation of power. It is directed in the sense that we kinesthetically know which way to direct our force, say when lifting something.



(Johnson 1987: 47)

This generic image schema of enablement lends itself to a metaphorical use as world-causal principle. As Johnson (1987: 53-54) puts it, there is a basic notion of a 'permission granter':

"In the domain of social obligations and expectations the relevant forces are exerted upon us either by other people, by institutions, or by what we might call a 'universal voice'. That voice is typically understood as conscience or moral law. (...) I would note that there is a philosophical tradition that implies the existence of a permission granter, even in the epistemic realm. In many Western philosophical treatments of knowledge, rationality, and truth, there is an underlying metaphorical conception of a universal voice that grants permission to move from premises to validly derived conclusions. This is the voice of pure reason. To reason correctly is to speak in agreement with this universal voice. In certain theologically oriented traditions this voice is identified with the 'Mind of God', so that reasoning well is being in tune with the Divine Logos. In nontheological traditions this voice is reinterpreted as that of universal reason, which provides a *logos* to which our reason should conform."

Reason comes as the universal logical FORCE, permitting no other conclusion. The universalist notion of logical and spiritual force is then often the immediate precursor of actual force in proselytizing those who recalcitrantly defy it. Also, especially because this enablement is an embodied notion, the force of knowledge and the experiential force of belief merge. Force may be a presentational experience of overwhelming immediacy and a representational FORCE schema in one.

In experiences of conversion or in rituals that reinstate and strengthen belief the question about the causal origin quite naturally leads to the notion of an enabler. The notion of an

enabler as preexisting entity is additionally underwritten by the intensity of religious experience and its intuitively evoked sense of primordial realness. This easily produces the conclusion that the force one experienced must have been there before, even if the access to it was blocked.

Biodynamically speaking, the body contains conduits for the flow of energy, a flow of energy which is positively experienced especially in religious practices. (This is compatible with the psychologist Abraham Maslow who speaks of embodied 'peak experiences' as 'flow'.) Not surprisingly, the associated representations also make use of the CONDUIT image schema, especially in the context of ENABLEMENT. In many religious views belief lets spiritual force or energy flow free. Belief is the enabler of life energy, unless blocked by evil forces. An experience is understood metaphorically in terms of force enablement and the resulting inner energy or balance is understood as a result of this enabling force. Receiving grace is a good example for a cultural notion of being the recipient of force, while saying grace amounts to directing one's own force ('faith') towards another entity.

For example, in the case of Christianity the force-enablement schema merges with that of the conduit, in order to circumscribe a material substrate within which the force flows: The human body or soul is the conduit, Satan or an evil spirit the intruding impediment, and faith or God that which enables the force of goodness. The body as container is the terrain of this flow (cf. an ethnographic example from Togo and Benin by Fernandez 1986: 166). It is not by accident that the metaphor THE BODY IS A VESSEL OF SIN could become so influential. By committing certain carnal acts the body was conceived to provide access to Satan. The body as container became Satan's abode, where he was free to block the flow of divine goodness. In this view, only by exorcism, especially by making the body uninhabitable for a personalized agent of evil through sustained physical punishment, the impediment could be removed to free the soul.

THE SELF

Mark Johnson elaborates a third important use of image schemas on the worldview level, namely that of *self*. The self can be included, in a flexible understanding, in this list of world principles, because I assume that the universal human action structure outlined above invariably has a strong perceptual focus in the individual body.⁷¹ This naturally given

⁷¹ In the vast anthropological literature on the subject there has been much confusion about the term of the self and what its relation to other concepts, such as person, individual, personality, and self-representation, might be (for critical assessments see Spiro 1993, Harris 1989). As far as such a heuristic split will take us, this section is largely concerned with the cognitive consequences of being a centered, embodied, perspectival, and subjectivized agent, while some other important aspects are explicitly excluded: the self as social ascription and social actor, the self as coherent life narrative, the

epicenter needs to be conceptually related to everything else that exists, if only for the one reason that our bodies are rather clearly bounded entities. I wish to emphasize that the short characterizations to follow are by no means either an exclusive or even a full account of self models. However, they may be a reasonable starting point for understanding what may be widespread or perhaps even universal constituents of these complex key-notions.

One of the most basic experiences of being-in-the-world is that we are contained in rooms and spaces; it is equally basic that our bodies contain air, blood, feces, or invisible but felt entities like energy. The notion of mind and soul as acting within a vessel seems to intuitively suggest itself. Hence, to view our perceptions, thoughts, and feelings as contained within us seems a likely candidate for a cultural universal. It is equally intuitive to view our social relationships as something that contains us, just as we are spatially contained within our family's space. Both of these aspects have tremendous repercussions on what it means to be a human and a social person, i.e. on the 'self'. Thus, it seems natural, at least in the usual everyday modes of consciousness, to see ourselves in terms of layered containers with a center.

One fundamental self-model in the Western world may be depicted as follows: We usually superimpose a CONTAINER SCHEMA on the CENTER-PERIPHERY schema, which gives rise to a graded INNER-OUTER schema. Within the mapping, the inside of the container is a realm of (possible) control, which corresponds with the embodied experience that we have an actional radius. It is also a realm of sensation, which we naturally locate in the body and which has a causal radius of which we know that events within it will directly affect us. Center-periphery and container are combined to support the imposition of a subject-object orientation (Johnson 1987: 125). In such a representation the true self, our essence, is seen as the innermost part. This is the epicenter of our consciousness. It lies "deep-down", "at our very heart", "at the center of our being". Successive layers have to be uncovered to reach into that core.⁷² Such a schema ipso facto also imposes a BOUNDARY on ourselves, demarcating the line where we end and the world begins. In this way a very basic distinction between self and

self in conflict between multiple social role expectations or between the idealized self-image and the actual self. Despite (or because of) this selective focus we have to remain acutely aware that all these aspects mesh in practice. Consequently, we should refrain from positing divisions of the self in a crudely ontologizing fashion.

⁷² The folk-model of the self that has an essence is accommodated by the self as container in yet another way. As I shall argue at length later, any container can be imagistically actualized as containing a continuous substance. This operation can be used to convey the idea of an essence by simply reasoning that the substance is responsible for its properties. This essentialist view of the self is based in experience with everyday substances much in the way that the substantive nature of water causes things to swim or extinguish fire.

'other' is created.⁷³ The operation of self-objectification, first described by G.H. Mead, in this view means shifting the perspectival center outside of the container to view it from the external 'perspective of the generalized other'. Putting one's self in another's place, just as objectivizing one's view of one's self, quite literally means a mental switch of the imagined viewpoint to an external position (see Langacker 1990b on the change of perceptual field and perspective in mental constructs).

Moreover, boundary setting has profound consequences for action. The consequences of a relatively fixed boundary on behavior and ethics is ingeniously observed by Varela, Thompson and Rosch (1991: 246):

"The self is seen as a territory with boundaries. The goal of the self is to bring inside the boundaries all of the good things while paying out as few goods as possible and conversely to remove to the outside of the boundaries all of the bad things while letting in as little as possible. (...) Some selves (altruists) and many selves in some roles (parents, teachers) may get (immaterial) goods by helping other selves, but they will become disappointed (even disillusioned) if those selves do not reciprocate by being properly helped."

What we want we incorporate, what we hate we shunt to the periphery or even relegate to the outside of our space. This shows that the Western self model, and probably any model in representing an epicentered form of consciousness, is highly conducive to notions of a privileged control space or personal sphere that affects the person more than other more distant, peripheral persons, objects, thoughts, or events. In addition to that, the fixed boundaries lend themselves to the concept of rational man whose primary intent it is to maximize the net gain in his systemic interactions, including other selves.

A further aspect of the self as experiential locus of attention is the notion of a loss of center (cf. Lakoff/Johnson 1999: 276). Diverging or alternating perceptual or inner stimuli are quite naturally spatialized, in that they usually impinge on the subject from different directions in the environment or come from different nerves of the body. Subjective control over one's attention means having conscious focus, i.e. on one task or idea. In conceptual terms this is reflected in the container being fragmented when there are a lot of diverging demands on

⁷³ We can note in passing that Foucault's notion of the cultural 'Other', which is at the same time the self's displaced alter, builds on the same multifaceted template. According to this model, meaningful cognition starts where a primal distinction is imposed. The realm of meaning is engendered by this imposition of a boundary, but only as operation of contrast from that which is alien and meaningless. Of course, these felt and thought boundaries are by no means unbreachable. In sex, ecstatic ritual, and meditative practice the everyday self-boundaries may either be extended in scope or dissolve altogether, leaving no 'Other'.

one's attention or when one is upset. That self is no longer in one single place is linguistically reflected in 'pull yourself together' or 'scatterbrained'.

In many respects the image-schematic model suggested here is supported by the extensive analysis of the Western and Japanese self systems based on linguistic metaphors presented in Lakoff and Johnson (1999: ch.13). They postulate that the self cognitively distinguishes a landmark and a trajector, which they term the subject and the self, and that self-metaphors describe the relation between these two in various ways. Four out of five of the self metaphors analyzed by Lakoff and Johnson are compatible with the preceding ideas on a container-logic based self.⁷⁴ First, the self as an object that can be manipulated by the subject ("I held myself back", "You are pushing yourself too hard", "Don't lose yourself"). Second, the self as a location the subject is in ("I was beside myself", "He's down to earth", "You need to step outside yourself"). Third, the self as something with an essence that the subject either corresponds to or not ("That wasn't the real me yesterday", "She went to India to look for her true self"). Fourth, the projection of the self onto someone else ("If I were you, I'd feel just awful too"). How are these metaphors compatible with our model here? The first two metaphors are natural aspects of the container schema, which embodies both the abstract structure of an object and of a location. In order to see the container as an object one has to externalize the perspective first, but then it makes perfect sense to think of 'restraining oneself' as one would an object that is escaping. In the container as a location the perspective can either be from inside or from outside. The third group of metaphors corresponds to the idea of the container-center as true self (or, alternatively, as hidden negative self, which usually has the somewhat different implication of valuing the superficial parts as more real). The fourth group can, in fact, be seen as an extension of the self as location combined with the basic human faculty to shift perspective. In projectively entering into the other, whom we usually see as a container from the outside, we can do what we would do to check our own self's inner state. To empathize with the other's feelings or values we only have to fill the relevant cognitive slots with our knowledge about the other person's beliefs or feelings.

In an anthropological perspective a lot more is to be said about the central model of the self as container. Obviously, the centered container can appear in other and more complex configurations. Especially the notion of boundary may be conceived in varying ways concerning its location and its permeability. Typical of many traditional societies, self-boundaries in China used to extend into the family, according to Johnson (1985). This

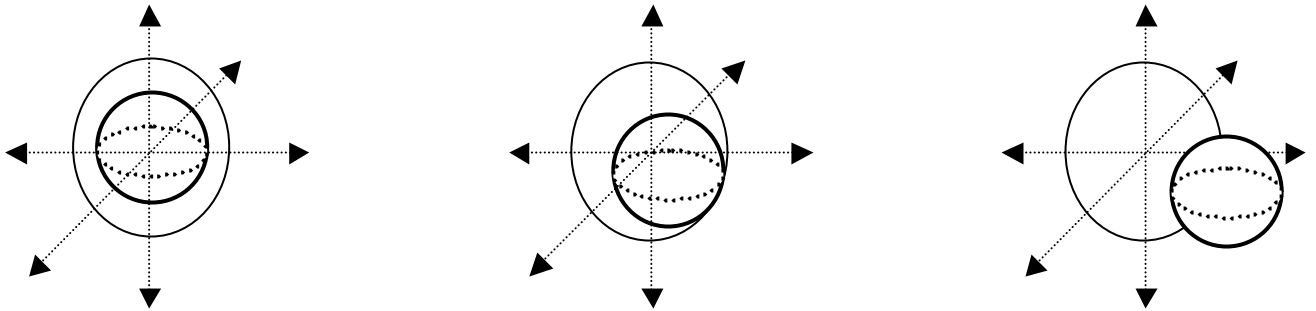
⁷⁴ The fifth group of metaphors concerning multiple selves and interacting social selves (reflected in metaphors of contending, communicating, obliged, or caretaking relationships of the subject to the self) require another model, which is less likely to be image-schematic in a simple sense, as it extensively draws on our complex knowledge of social relations.

extended self was felt to be a more basic reality than the individual in isolation. The family was not only seen as the fundamental unit of society in Confucian theory, the family as a social reality imposed strong interpersonal ties. This, it is argued, gave rise to a sense of extended self-boundaries or at least to highly permeable boundaries, leaving no autonomous entity to be jealously guarded. Confucianism articulated this in its tenet that significant others deepen the own selfhood.⁷⁵

Colin Turnbull's (1983) ethnography of the Mbuti pygmies of former Zaire reports a similar but more complex notion of self, which extends the center-periphery schema (cf. Cohen 1994: 29ff). The Mbuti self is connected with a theory of 'psychological equilibrium', in which the self is conceived of as a balanced sphere. Ideally, the sane person should always be in the middle of her sphere. Decentering happens when a person moves too fast or too violently either in body or in mind. The equilibrium will, in this view, gradually be restored as the sphere of a person catches up with her, given time. In the extreme case a person may pierce her sphere and lose her self by entering into the other, wrong world outside of it. Thus, in Mbuti psychology the balanced state in one's sphere is a precondition of authentic selfhood. By extension, balanced individuals are seen as a precondition of social integrity. More systematically, what we have in the Mbuti world-view are the following image schematic elements: there is a sphere (three-dimensional CENTER-PERIPHERY) that CONTAINS a center

⁷⁵ Here I am, of course, moving on shaky ground. Similar claims of a purely transindividual self have undergone severe criticism, in particular Dumont's (1970) contrast of Western 'individualism' and Indian 'holism' and Geertz' (1973) view of the Balinese self as purely publicly defined. I wholeheartedly join with Spiro (1993) and Ewing (1990) in their rejection of the claim that some cultures have no concept of individual self, which usually comes in tandem with the notion of a fundamental split between the West and the rest. There is no conclusive evidence that any non-Western culture should be completely lacking the concept of subjective agency, of an individual center of experience, initiative, and judgment. The claim I am trying to make is clearly more modest. While humans everywhere have a motivational center of will and judgment, a distinct notion of personal agency, and a locus of perception and feeling, their embodied sense of being a container for all this may gradually differ in two respects. The differences both pertain to ideological emphases on how pronouncedly the boundary is conceptualized and at which range the boundary is profiled *in a given context*. This is inherently a matter of degree, since it would be misleading to assume that a cognitive model could be identically present in all contexts. For example, in early childhood, in ecstatic ritual, or in sexual ecstasy the epicentered consciousness is blurred or lost. Living in an extended family will engender a shared sense of identity and responsibility, so that in *some* relevant situations the profiled boundary will include the family with regard to *some* respects of the self, but not in others. Finally, lest we commit the fundamental mistake to conceive of cultures as homogeneous, we also have to concede that ideologically promoted representations and individual experiences of the self may be in conflict with each other.

that has to be in BALANCE. The sphere has an ordered INSIDE where the self belongs and a chaotic OUTSIDE where there is alienation from the true self. The self has a realm, within which there are graded degrees of proper location depending on the distance to the center, and a boundary defining where true self ends.⁷⁶



This model is more complex than the ones viewed before, since the superimposed balance schema kinesthetically maps the disruption and restoration of order and thus includes a notion of change in time. Negative values, such as haste and violence, are proscribed by the Mbuti by means of this schema. The normative center is an attractor, a basic state, in the spatially conceived schema. In other words, the model is more complex than those discussed before, because it consists not only of a static schema but includes image-schematic transformations and their reversal, by which the Mbuti spatialize changes of the self between its sane and insane states.

It is also worth noting that there probably is a conceptual universal of the sort that centeredness is *esthetically* appealing. If this is the case, the image-schematic metaphor for positive norms is grounded and bodily motivated in an intuitive understanding of order. From such a point of view, aesthetics, basic body sensation, and moral order enter into a rather intimate relationship (cf. Johnson 1993). Hence, a relatively simple model is used with profound social implications. In this sense, a functioning society for the Mbuti depends on its members moving cautiously and deliberately, so as not to lose their center. Since the self as balanced sphere model encodes one of the central cultural values of the Mbuti, it becomes obvious that in a sense spatial order is also (partially) moral order. Let me note in passing that this MORAL IS ORDER SPATIAL ORDER metaphor may be one of the most widespread basic metaphors in the various cultural ideologies of the world (cf. Bourdieu 1977 on spatial *hexis* and behavioral *habitus*). Of course, this understanding appears in all kinds of specific variants, perhaps with models of hierarchy and center-periphery being the most conspicuous

⁷⁶Data on spatial self models in English can be found in Lakoff/Johnson (1999) and Kövecses (2000), which include a similar landmark-trajectory relation between what they call Self and Ego. Other metaphors of the self as a layered sphere are equally common (Hsu 1985). For example, Americans define friendship as their innermost self being shared (Kövecses 2000: 90f).

candidates, because these two are suitable for representing graded relationships and in this way easily accommodate scalar mappings of the value dimension.

In conclusion we may say that, while an embodied consciousness of ourselves as centered containers may be fairly universal, this is only a rudiment of the usually very complex notions of self. Container-like self models clearly diverge in four respects: First, how permeable the boundary is, i.e. how autonomous the self is, is understood in considerably different ways. What influences impinge on it from the outside and how the model interacts with others is of course extensively culturally determined. Secondly, where the boundary is situated varies. Thirdly, what models are superimposed on the container or how it is embedded in a world-view is highly divergent. And finally, the extent to which alternative models play a role for the members of a culture or an individual influences the relative importance of the container schema. For some the schema might not be very salient, even if it is plausible. The cultural imperatives issuing from the self model as container profoundly depend on all these specifications.

2. Western epistemic models and image schemas

More evidence for image schemas in basic epistemology can be found with a number of authors outside cognitive linguistics and anthropology. Although they are not expressly framed in image schema theory the approach is promising in explaining many philosophical models, where epistemic concepts are most recurrent and most explicit. It may be assumed that these quite frequently also exert their influence as folk-models that average people act on.

FOUNDATIONAL STRUCTURES

In many of the world's religions there is a metaphysical conception that has become known as the 'Great Chain of Being' and that defines reality in hierarchic terms of being and value (Olds 1989, 1992a, 1992b). Before we look at this metaphysical model in more detail, it is useful to observe that it is metaphorically rooted in an everyday model concerning the relation of humans to 'lower' forms of being. Inanimate substances, plants, animals, and humans are placed on a vertical scale of properties, with the human species uppermost. While a rock has only substance, a chair adds to this a functional part-whole structure. A tree has both of these and in addition life. An insect has self-propulsion in addition to all these. Higher animals like dogs add interior states like desires and emotions to that, as well as limited cognitive abilities. Finally, humans have all these properties, plus reason, morality, aesthetics, communication, and a highly developed consciousness. At any level the highest properties are held to be distinctive of a species; each level is defined by the attributes and behaviors that distinguishes it from the next level below. This ordinal schema seems to be motivated by everyday knowledge in three ways. The higher levels are more complex, they

are less generally accessible to our perception and understanding, and they are more powerful (Lakoff/Turner 1989: 167-169).

This basic model exists in a wide variety of cultures, although it is by no means universal, as animistic religions with their non-patronizing relation to nature indicate. In the West a much more elaborate model was developed that created wide social and cosmological implications. The basic model of hierarchy was extended into these two spheres, where each level reflected the structure of the chain as a whole. For example, in the same way that God's authority stood above Christ, followed by the archangels, the seraphim, the cherubim, etc., the pope's authority as God's viceroy on earth stood above the cardinals, followed by the archbishops, the bishops, etc.

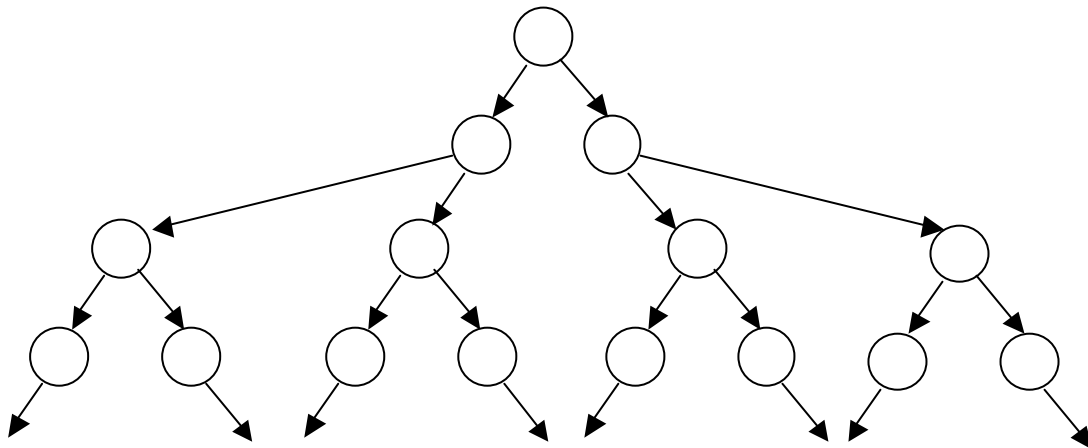
In what follows I want to focus on a yet more elaborate version, which has a specific characteristic beyond the UP-DOWN schema by adding a superimposed ENABLEMENT schema. In this extended version The Great Chain of Being is what may be called the root metaphor of the perennial philosophy tradition that has recently come under attack⁷⁷. The Great Chain of Being presupposes a hierarchical ontology, in which reality is construed in terms of levels of being and value that is characterized like this by Linda Olds (1992b: 403):

"The hierarchy's apex or source represents the transcendent God-head beyond form, from which all other levels descend in degrees of lesser reality, being, and goodness down to the level of matter."

Value accrues from the degree of proximity to the ultimate source of being. Everything else emanates from this supreme source. Of course, the God of the monotheistic religions exemplifies this. But what we have here is a conceptual structure that is potent in a variety of applications far beyond traditional religion. With respect to the entire project of Western philosophy this conception is present in what Rorty (1979) criticizes as the 'foundational project'. Foundationalism in the secular version refers to something quite comparable to the Great Chain of Being of religion. What Rorty designates as foundationalism is principally a conception of epistemology as hierarchical system that is structured according to first principles from which the subordinate levels emanate. It refers to an epistemological root metaphor which rests on the implicit presupposition that privileged concepts which create knowledge exist, and, more fundamentally, that a basis of objective knowledge is possible. Truth in this sense is conceived of as grounded in something ultimate, it is neither fleeting nor circular. In this way, the notion of truth as something *pro facto* absolute is part and parcel of the foundational project.

⁷⁷ See the contributions in *Listening: Journal of Religion and Culture* 24, 1 (1989): The Great Chain of Being and World Religions

Without any doubt, the foundational project has been a deeply implanted template for understanding thought in religion and philosophy for centuries. After its theological demise it carried on in philosophical garb. In fact, the cognitive structure was so deeply ingrained that it was difficult up to the 20th century to conceive that there should not be any absolute fundament of truth and knowledge. Perhaps the first influential opposition to it appeared with Nietzsche's revolutionary characterization of truth as a 'mobile army of metaphors' in *Truth in the Ultramoral Sense*. As indicated before, this epistemology-cum-ontology was additionally underwritten by isomorphic structures of religion and politics. God and the Sovereign occupied the summit of a hierarchy, and both were at times quite consciously identified with the uppermost principles of knowledge and wisdom. This notion affected the thinking about knowledge as well as that about hierarchy in this world and the hereafter. It is rather obvious that a common structure underlies these different domains and it is not difficult to see that the isomorphism is image schematic. It can be depicted as follows:



As a result there is an integrated Gestalt of foundationalism. As indicated above, it is characterized by a causal ENABLEMENT schema, as depicted by the arrows, that is superimposed on the structural UP-DOWN schema. Thus, it can be simultaneously imagined that God is high up (i.e. inconceivably remote, difficult to reach and by virtue of KNOWING IS TOUCHING OR GRASPING therefore beyond everyday understanding or logic), and that He is the causal principle of creation, responsible for the world, and the inexhaustible source of love. These two aspects are better conceived of as a single Gestalt, because it does not require separate thoughts to grasp the principle. Since they are understood as one they constitute a prime example of image-schematic superimposition.

Especially the superimposed part is of further interest. Even if we bypass secular epistemology and look at religion only, ENABLEMENT as abstract image schema can serve a variety of mappings. What God as apex emanates can either be creation, control, wisdom, grace, love, or revelation. Today, contending versions of modern Christian theology, with a

few notable exceptions, all employ the same basic model, while simply filling out the unspecified slots differently. (Notably there are what could be called the two opposed control- and love-factions, corresponding to Christian conservatives and liberals.) Note also that the metaphorical conception of SOURCE can have embodied connotations, such as refreshing, reinvigorating, or energizing, and that the bestowal of divine love or epistemic insight may actually both be felt as somatic flow experience, as characterized by Abraham Maslow.

Even though there is one rough general schematic Gestalt for both fields, differences between the religious and the philosophical versions must be conceded. It may be the case that in secular modernity the ENABLEMENT part of the schema has undergone a partial shift that reflects the humanist orientation and the replacement of rationality for revelation. In the philosophical tradition, at least since Locke's egalitarian bottom-up epistemology, the human intellect can actively advance, whereas the religious tradition often considers this presumptuous (see Ezrahi 1996: 74, 85 for a similar argument). For many religious people it is God's revelation that must radiate downwards into the nether regions of humanity that has fallen from grace. The differences of the secular version, namely man as active inquirer, may be understood as result of a third superimposed metaphor, which merges into the enablement schema. This is the KNOWING IS MOVING metaphor, as in "being initiated into knowledge", "we leave old ideas behind us" or "we delve into a matter".⁷⁸ In the case of foundational structures gaining knowledge is a movement upwards.

PAN-PERSPECTIVISM AS A SOURCE OF OBJECTIVE REALITY

Now I would like to demonstrate that both the folk-theory and experts' theory of 'objective reality' can be explained through image-schematic construals. It would be ludicrous to think that laymen all hold an explicit theory of this, but obviously most people in West live by a notion of objective reality, quite similar to that expressed by philosophers. In social philosophy we have the notion of the extrapolative or regulative idea. Likewise, in much epistemology the concept of the thing in itself, the *noumenon* from Aristotle to Kant, plays a major role. While this can be called the epistemology of 'Objectivism' for philosophy, I will use the term 'naive realism' here, which pertains more to everyday thinking. (The term naive is not meant disparagingly here, since it is preconditional for successful coping with the exigencies of everyday life.) In naive realism there is a notion of reality, not in experiential terms but as a regulative idea of what would be in principle accessible to knowledge. That is,

⁷⁸ Since force enablement is a version of the path and force schemas, the metaphor KNOWING IS MOVING quite naturally maps onto it. The knowing is moving metaphor is corroborated by other metaphors. It neatly maps onto the metaphor by which reaching a purpose is moving toward a spatial destination, onto the conception of life as a journey, and by extension onto the social accumulation of knowledge as a journey.

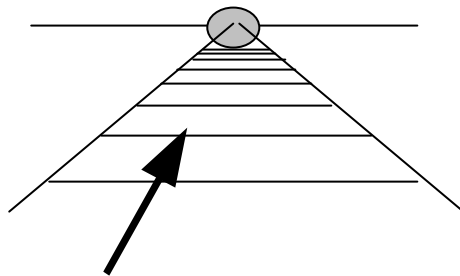
the totality of possible knowledge if we had a 'God's eye-view'. (Nietzsche calls this the postulate of a 'Hinterwelt', i.e. a 'backworld' or 'otherworld'.) This by itself gives rise to the understanding that the world has a definite external structure. Now, how does this sense of reality come about? I believe that it is an everyday experience that there are parts of the world not accessible to our senses at a given moment, which only reveal themselves as we change perspective in space. Likewise, we grow into a world where it is obvious that others have knowledge of parts of reality we do not (yet) have, parts that are progressively uncovered as the child learns. Reality is what we would have if everybody who ever lived and will live could pool their knowledge together, and we could discount sense delusions and other human limitations.

The everyday viewpoint that we experience in vision is directional. It has a limited scope, boundaries, and a center of focus. It excludes other things from view. If we change perspectives, new things move into our view but others pass out of it. The notion of objective reality has to overcome these limitations. In objective reality we imagine a construal of the worlds from all perspectives simultaneously or a superordinate perspective combining these. I propose that the folk-model of subjective perspective is a generic viewing arrangement that has image-schematic elements (Langacker 1987). If this is correct, the notion of objective perspective can be understood as a complex blend in which all possible perspectives are added on top of one another. Objective reality is, then, a mental construct of an encompassing multi-vantage position, such as a single human being cannot simultaneously hold. Such a mental construct of pan-perspectivism can be called a 'marginal concept'. I propose to define a marginal concept as a concept used whenever we posit a perfect state that cannot be reached in experience.

MARGINAL CONCEPTS AND THE MOTIVATION OF UTOPIA

Another form of marginal concept constructed in the mind is typically found in political theories as an underlying logical principle. Like the epistemic notions considered above political theories are inherently structured by imaginary perspectives. This is most evident in how people understand social and political goals of the Utopian kind. They project an ideal state of the world functioning as a regulative idea that motivates action. Franz Hinkelammert (1994) presents an intriguing analysis of the common logical topology that social theories of diverging provenience share. His work covers conservative thought, neo-liberal thought, anarchism, Soviet ideology, and even Popper's extreme anti-Utopianism as a Utopian ideology in itself. He shows that all of these theories depend on the assumption of one particular kind of theory-constitutive state that has to be attainable at least hypothetically. These theory-constitutive states are (1) the perfect plausibility of a traditional worldview in Neo-Conservatism (e.g. Peter L. Berger), (2) the perfect spontaneous balance in economy in

Neo-Liberalism (e.g. Friedrich Hayek), (3) the perfect spontaneous order in social relations in Anarchism, and (4) the perfect planning of social and economic relations in Marxist-Leninist ideology. On a meta-level even (5) Karl Popper's argument against substantive Utopias shares the very structure of the theories he criticizes. In other words, it assumes the possibility of perfect non-Utopianism and thus poses a hypothetical rationale. In all five cases marginal concepts organize the conception of political and social worldviews and the primary goals they strive for. I propose that this indicates a common cognitive principle of organizing their complex parts and a specific core-metaphor that condenses their logical legitimacy. The condensing argument may be subsumed in a spatialized metaphor or, more precisely, in a viewing arrangement: The viewing arrangement constitutive for the understanding of social ideologies is a movement before the inner eye towards a horizon that recedes as the subjective perspective moves ahead.



Why this image makes sense can be seen if we ask how a marginal concept works. A marginal concept is similar to a transcendent principle, with the important addition that it is never really reached. Based on the conventional metaphor of PURPOSES ARE DESTINATIONS, a marginal concept involves the spatial consideration of distance that cannot, in principle, be overcome completely. The question is how the principle of distance and 'unreachability' might be represented. One obvious possibility is a HORIZON image-schema. The horizon schema, in itself, is experientially most strongly motivated with regard to vision. However, sounds and tactile vibrations also intimate some of its structure. Sounds and other vibrations fade away in the same way as the distance between equidistant lines diminishes as they approach the horizon's point of convergence.

The horizon image schema builds on PATH, LOCATION, and FORCE schemas. First, a version of the path metaphor is used that we could call POLITICAL GOALS ARE DESTINATIONS. The mapping of states on containers supports this metaphor. Consequently, UTOPIA (= A STATE OF PERFECTION) IS A SPATIAL REGION. This metaphor is, for instance, reflected in the use of spatial concepts for states, such as 'realm' in the Marxist slogan of transition 'from the realm of necessity to the realm of freedom'. In conformity with the conceptual metaphor, a realm here is a space where a wholly different constitutive rule is effective. This part of the metaphor leads to the understanding that our POLITICAL IDEALISM IS EFFORTFUL MOVEMENT ON A PATH. This again is supported by the mapping of the world's evils, or more specifically of

adversaries or opposing ideologies on impediments of motion. Only a strong cause (note the polysemy in English!) fed by great conviction and fervor (motivation is combustion energy!) can overcome the impediments. Secondly, the path schema is superimposed on the topology of the horizon schema, which gives us the metaphor UTOPIA IS A SPACE DISAPPEARING ON THE HORIZON. Utopia metaphorically is a point in space we are striving towards. But our actions are movements directed towards a spatially conceived goal that recedes at the same pace as we move towards it.

Does this model have only an analytical status or a truly cognitive status in the minds of actors? Admittedly many participants of Utopian movements think that their objectives are at hand, and not far removed at the horizon. This is notably true for millenarian movements. Yet, it would be unwarranted to argue that social theorists and critics of Utopianism consciously use the horizon schema, while the average political actor is blind to it. I propose that with many adherents of ideologies a conscious use of a horizon schema becomes their very *raison d'être* in the face of adversity. To know that a goal can be reached in principle fires the spirit of Utopia, even if this location consistently eludes us in reality and attempts to change the world at once are frustrated.

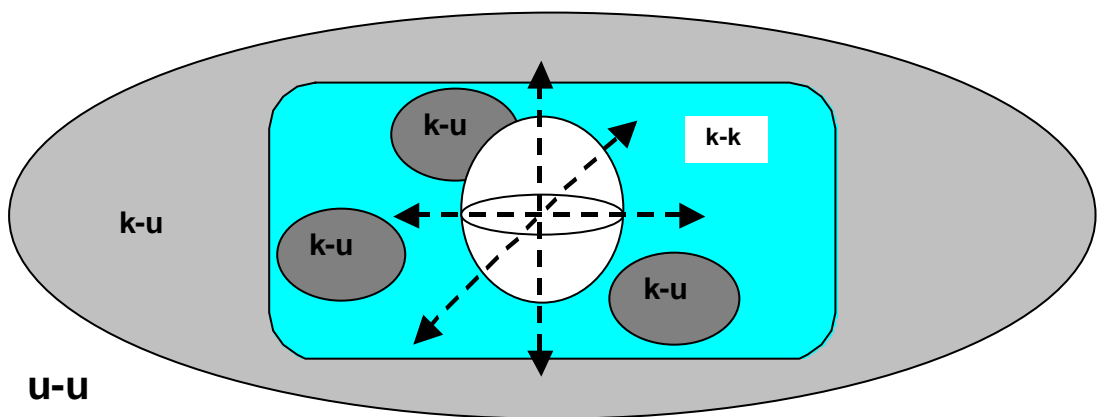
From the point of view of philosophy there is also a principled reason why socio-political images which aim at a complete and redeeming transformation of this-worldly evil are structured as marginal concepts: If we do not attempt to reach the unattainable we will not attain the possible. Without a regulative idea of the marginal kind most people lack motivation for action. As shown above, a similar imperative of orientation arises in the case of epistemology, where a 'God's eye-view' postulate of unknown, but in principle knowable, reality provides a touchstone for us that enables inquisitiveness about the unknown.

EVERYDAY MODELS OF KNOWLEDGE AS HORIZON AND CENTER-PERIPHERY

As we have seen, an important model for the self in Western culture is structured according to a center-periphery schema with a strong concept of innermost or essential self. This schema is compatible with, if not logically linked, with the horizon schema. (The difference between them, if imagined visually, is that the center-periphery schema is visualized as seen from the outside and that in the horizon schema we put ourselves in our natural position of a viewer who is the center of converging visual sensations.⁷⁹ Center-periphery and horizon schema involve an interesting switch of perspective that parallels George H. Mead's dual of 'I' and 'me' (= seeing ourselves from the other's perspective, see also Langacker 1991).

⁷⁹ Center-periphery is multi-modal, as it has the same structure in the sensorimotor, acoustic, and visual modes. Whether the horizon schema is also accessible to non-visual schemas is anybody's guess.

We may hypothesize that the combination of CENTER-PERIPHERY and HORIZON can be used in meta-representing human knowledge. This interesting idea is that the individual has a sense that her knowledge is structured as a space with a center and a horizon (Gerhart/Allen 1984: 62). Her knowledge encompasses three levels that radiate outwards: First, there is the known-known, which means that questions can be raised and answers given to them. Then, there is the known-unknown, the cases when we are aware of a question and can even propose ways of solving it but do not know an answer yet. Finally, there is the unknown-unknown. We can only extrapolate the existence of an unknown-unknown from past experience of questions or problems that we had not been aware of at first and that then began to rise into awareness. For this reason we always expect further such previously unconsidered questions to appear in the future and derive a general model of the unknown from it.



k-k = the known-known
k-u = the known-unknown
u-u = the unknown-unknown

For the basic model see
Gerhart/Allen (1984: 142).

Here we have a folk-model of how knowledge functions. That a central part of this model is image-schematically represented seems likely. The representation of knowledge realms (or layers if we go inwards) is imposed on a center-periphery model, which also harmonizes with the center-periphery model of self. Thus, we may expect cross-buttressing and, more probably, projective superimposition between the self-model and the knowledge-model. This would work as follows: Definite knowledge, which is coextensive with our own location of epistemic self, is situated at the center of awareness. Possible knowledge is situated not in the center, but within reach. This is in accord with the conceptual metaphor KNOWING IS GRASPING. Transcendent knowledge is situated at the horizon-periphery. This understanding emerges from the entailment of the spatial metaphor just mentioned which could be called ELUDING KNOWABILITY IS ELUDING SIGHT.

Part II:

The Scope of Imagery in Culture

Part I aimed at a rapprochement between anthropological theorizing and the framework of cognitive metaphor theory. The ambition of Part II now is to bring to anthropological fruition another main tenet of the cognitive linguistic approach, which plays a major role in the study of metaphor, but also extends beyond it: The view that human thought, concrete and abstract, is firmly rooted in imagery. While there is a growing recognition of this general idea, I believe that the scope of schematic spatialized imagery in cognition is rather being underestimated, possibly by a long shot. The working hypothesis animating my inquiry, therefore, is that several previously unconsidered phenomena in cultural cognition are amenable to an image-schematic reading.

The purpose of chapter 7 is to provide a comprehensive definition of image schemas and to give an example-based introductory account of the many symbolic media they can be found in, including language, but also material symbols, such as emblems and artifacts. In chapter 8, I will enter into a general theoretical discussion of George Lakoff's (1987) 'spatialization of form hypothesis', which proposes nothing less than that multi-purpose mental tools, such as categories, feature-bundles, event-schemas, etc., also operate on the basis of abstract image schemas. For these tools I will introduce the technical term 'image-schematic co-signatures', since they complement, organize, and facilitate sets of more specific mental images. The spatialization of form hypothesis raises a series of important questions: First, what sort of empirical and theoretical evidence is there to support the momentous claim that sees human thought at various levels rooted in imagery and substantially challenges mainstream trends in the cognitive sciences? Second, what sorts of phenomena can Lakoff's hypothesis account for? Third, how can the relation between 'normal' small-scale uses of imagery, as they are usually discussed in metaphor theory and cognitive grammar, and more generic (i.e. tool-like) schemas be understood? After this theoretical groundwork, in chapter 9 I will propose a theory of ontology based on highly schematic imagery. First, I will introduce Ronald Langacker's (1987) Gestalt theory of the dynamic mental images that create language. By applying Langacker's basic concepts to ethnographic evidence, I will then go through a number of recent issues raised in cognitive anthropology, such as essentialism, the transition between metaphor and metonymy, or figure-ground phenomena. I will also extensively discuss the difference between substance and process ontologies. In chapter 10, I will extend this analysis and study dynamic ontologies, e.g. through rituals that make us see the world differently. In chapters 11, 12, and 13 I will enter into a discussion of image schemas that represent action sequences.

As in Part I, a common thread running through this Part is the call for a disciplinary merger between anthropologists and linguists, and beyond. A rapprochement in methods and embracing a broad field of study is a precondition for reaping the full benefit of imagery theory. In the spirit of a research program as inclusive as possible, chapters 7 and 9 through 12 will assemble evidence for half a dozen symbolic media, in which image schemas play a dominant role. Based on an ethnographic case study about a ritual, the concluding chapter 13 will then present an integrated analysis of most of the previously discussed imagery modes and will suggest first steps towards a cognitive theory of multimodality based on imagery.

Chapter 7:

More on Image Schemas

This chapter has two objectives: First, I want complete the task started in chapter 1 by giving a full theoretical definition of image-schematic cognition on the basis of existing work in cognitive linguistics and psychology. Then, I want to delineate the amazing scope of cases in which the human mind uses schematic imagery, also including, and with special emphasis on, non-linguistic symbolic media. Together with the role of imagery in proprioception, which has extensively been treated in chapter 4, the evidence assembled here circumscribes an interdisciplinary paradigm of imagery studies. While no single field can be deeply entered into, I intend to give a near-comprehensive idea of where to look for imagistic phenomena other than in semantics. Together with a further extension of the field in the remaining chapters, this will set the ground for a model of how various image-schematic media interact and how, therefore, image schemas help us to understand multimedia cognition (chapter 13).

1. A definition of image schemas

“The term imagery highlights the fact that concepts originate as representations of sensory experience, even though they may subsequently undergo complex processes of formation and recombination.” (Palmer 1996: 46)

EXTRACTIONS OF SKELETAL FEATURES FROM RICH IMAGES

Two decades of cognitive semantics and a host of supporting findings in cognitive psychology substantiate the claim that much of human knowledge is not propositional (= sentence-like) or static. Instead it is structured by patterns of dynamic imagery resulting from the sensorimotor interactions of our body with the world. These patterns are called image schemas and emerge as experiential Gestalts as we manipulate objects, move our bodies through space, and direct our perceptual focus for various purposes (Johnson 1987, Lakoff 1987; for an excellent summary see Gibbs and Colston 1995: 347). Cognitive linguistics has taken a leading role throughout the recent years in demonstrating the crucial importance of a series of very basic image schemas and of dynamic transformations that these can undergo before the mind's eye. It is difficult to find any aspect of everyday thinking, reasoning, imagination, or social action that does not employ schematic structures such as CONTAINER, PATH, LINK, FORCE, UP-DOWN, BALANCE, CENTER-PERIPHERY, CYCLE, and many others, including new Gestalts that result of combinations of these. In addition, these structures can be mentally manipulated by a series of dynamic transformations: by ‘zooming’ in and out on a mental image, by scanning images in the same way we scan perceptual objects, by changing perspective, for example from an inside view to an outside view, by superimposing

two or more images, by switching between two images or merging them, by picking out particular segments from an image and highlighting ('profiling') them, or by switching between figure and ground of such an array. Since the rest of this work will be devoted to an analysis of these image schemas and image schema transformations in ontological and epistemological contexts, it will be good to review a number of important features of these mental operations.

It is best to start a tentative definition of image schemas with a clarification about what they are not: (1) they differ fundamentally from so-called propositional structures;⁸⁰ and (2) they differ at least in degree from rich mental images.

First, what does it mean to say that image schemas are non-propositional mental structures? The basic metaphor defining the notion of 'propositional' is the sentence in language (for six definitional aspects of the term 'propositional' see Johnson 1987: 3). Thought is considered to be analogous in form to a sentence. In other words, it is seen as made up of a string of arbitrary discrete chunks that represent one thought atom each (their 'semantic' content) and are linked by rules (the language's 'syntax'). Thus, propositional structures are held to bear no commonalities with their perceptual origins and to be encoded in a completely new representational language. This involves a transduction process from inputs into a neural system, in which symbols have arbitrary relations to the perceptual states that produce them. Propositional structures are what Barsalou et al. (1999: 209f) call 'amodal'. Image schemas, by contrast, are a perceptual symbol system and therefore 'modal'. Here perceptual states are not transduced into a completely new representational language. Instead, subsets of perceptual states are extracted to function symbolically, so that the extractions stand for referents in the world. They are transferred into memory, support higher cognitive functions, and enter into all forms of symbolic computation (ibid.). Because the symbols have the same structure as perceptual states, though more schematic, they can also be called 'modal'. Image schemas are no sequential subject-predicate structures. They bear resemblance to perceptual states. And their coding format is analog, not digital, since they are extracted from perceptual states or creatively recombined from memory to simulate the structure of a possible perceptual state.

Second, *image schemas are not rich, concrete images* or mental pictures. A rich image or mental picture is always of some particular thing. An image schema, by contrast, contains only the structural features. It is a non-mimetic representation of entities. Another difference is that a rich image is always linked to one or more specific perceptual modalities, being either visual, acoustic, kinesthetic, haptic, olfactory, or gustatory. By contrast, image

⁸⁰ It must be left open to future advances in cognitive science whether it actually makes sense to speak of propositional structures at all, or whether they can be collapsed into some complex array of analog cognition.

schemas are not tied to any single perceptual modality, although visual schemas seem to predominate, at least in our culture. It is crucial to recognize the role of image schemas in connecting structurally similar experiences across several modalities. They are what makes us recognize the similarity of an upward movement, path, or cycle that we see and an upward movement, path, or cycle in a piece of music. (The modalities offering the richest possibilities for image schemas are vision, hearing, and kinesthetic awareness, since these can also easily accommodate the recognition of extended temporal sequences. With respect to smell, taste, or tactile impressions image schemas of advanced complexity presumably occur only with few people.) Johnson (1987: 29) defines what a schema is, while at the same time explaining its functional role:

“(I)n order for us to have meaningful, connected experiences that we can comprehend and reason about, there must be pattern and order to our actions, perceptions, and conceptions. *A schema is a recurrent pattern, shape, and regularity in, or of, these ongoing ordering activities.* These patterns emerge as meaningful structures chiefly at the level of our bodily movements through space, our manipulation of objects, and our perceptual interactions.”

So what are image schemas then? They are *dynamic analog representations that extract skeletal structures from perceptual images or from rich mental pictures*. Image schemas can take on any number of specific instantiations in varying contexts.⁸¹ They contain structural features common to many objects, events, body movements, and other activities. Image schemas are structures emerging through activity of the mind-body. Johnson (1987) purports to demonstrate that the knowledge of image schemas emerges out of bodily, kinesthetic activity. For example, even young babies pre-conceptually know the experience of being a CONTAINER for food, air, feces, and blood and being contained in other containers from the womb on. Later this pre-conceptual structure stored as knowledge of the body is used conceptually to structure abstract notions, such as categories.

⁸¹ Ultimately, the learning process leading to an abstract conceptualization is based on rich images and progressive moving away from their details. I would like to formulate the hypothesis that the overlaps between many rich images provided in illustration of an idea ultimately lead to abstraction. The notion of a mathematical set may serve as an illustration. When the teacher gives the image of a basket full of apples, then a basket full of pears, then of oranges, etc. as a means of explaining what a set is, the subsequent projected overlay of imagistic foils creates the image of a container with a number of objects inside of no particular kind. Beyond that, when the teacher explains that a container with two items inside is just as much a mathematical set as a container with fifty items, the student even learns to abstract away from concrete number and create a schematic image of an indiscriminate number of objects.

Although image schemas are first learned as structural abstractions of percepts or rich images from the memory, they soon start to lead a life of their own. The patterns, after having been learned, may be stored independently and matched with new rich images when these are encountered or used purely in the abstract, as in mathematics. Even children are able to imagine a container, or the concept of balance, or a force in abstract without any perceptual input from which to abstract the structure.

The fact that *image schemas are analog* rather than digital mental structures is of some further relevance. Image schemas commit us to a specific perspective, just as is the case with real-life perception, although we may, in turn, imagistically construe the same situation from varying perspectives. The influential cognitive linguist Ronald Langacker (e.g. 1987a,b, 1990a,b,c, 1991) attempts to show that language and thought generally operate on analog representations. If his theory is accurate, there can be no neutral or absolute perspective of thought, as the philosophy of Objectivism would have it. The detached and outside perspective on things is just a perspective like any other. Thus, image schemas always presume a sort of viewing arrangement.

Furthermore, *image schemas occur as Gestalts*. This means that even though their parts can be subjected to an analytical process of decomposition, in our mind they are stored as one whole that is more primary than its parts. For instance, the inside, the boundary, and the outside of a CONTAINER cannot be considered in isolation. In the case of such a basic schema the topological properties are mutually defining and constitute a whole relative to each other. When several simple image schemas such as CONTAINER, CENTER-PERIPHERY, and SCALE merge, this more complex construct again is stored as a Gestalt. Although such a compound image schema allows for analytical decomposition into parts that may be still familiar image schemas, the compound is presumably also recalled as an integral whole from memory, once it has been learned as a unit to optimize access speed. Such a process of increasing condensation into a Gestalt results when the participant schemas have repeatedly co-occurred in our experience. For example, recent experimental findings indicate that expert chess players store thousands of typical chessboard configurations, each of which can be economically accessed in a single image. From what we know about the powers of human cognition, this process of incremental aggregation can be continued to the highest levels of cognitive complexity.

Image schemas are defined more by structure than by quality. The principal reason why schematic shapes can be so helpful is that much of thinking is not concerned with the sheer matter or substratum of things but only with their structure (cf. Arnheim 1969: 129). On the gradient scale between rich images and image-schemas, the latter are by definition elevated to a higher level of schematicity, so that detail structure is cancelled out. Since qualia (= quality-related percepts) become ipso facto more dense the more concrete and sensory an

image is, as a consequence image schemas can only have a low measure of qualitative features by comparison. And when they do have some quality to them, they reduce rich quality to what may be called a common 'quality structure' that is shared across various instances of usage.

Image schemas are, at least very often, value-laden. Krzeszowski (1993) argues that many image schemas operate in polar pairs, such as WHOLE-PART, CENTER-PERIPHERY, BALANCE-IMBALANCE, and LINK-NO LINK. Cienki (1997: 5) extends this list and adds ENABLEMENT-BLOCKAGE, FULL-EMPTY, NEAR-FAR, MERGING-SPLITTING, and STRAIGHT-NOT STRAIGHT. Based on these polar opposites one parameter is frequently positively loaded and the other negatively. For example, the standard European mindset defines BALANCE, STRAIGHT, and LINK as positive, and their opposites as negative. Even less obviously polar schemas carry values, such as when in the PATH schema the goal is normally positively valued. Some evaluations such as the CONTAINER schema can depend on context. Thus, being inside can imply protection, but also breaching a taboo.

Furthermore, *image schemas can be metaphorically extended* from the physical to the non-physical. We can follow an argument just as we can follow a path or we can enter a state of anxiety just as we enter a space. We also perform *inferences on the basis of image schemas*. For example, the force of an argument is metaphorically conceptualized as compulsion, just as physical force constrains us in a certain direction (for an analysis of modal verbs in English as force images see Sweetser 1987). Similarly, categories conceptualized as containers allow inferences based on spatial logic. Classical container logic cases are transitivity or the law of the excluded-middle. If A is contained in B, and B in C, then it transitively follows that A is also contained in C. D must be either inside the container E or outside it, both at the same time or a bit of both is logically impossible. Therefore, we can say that image schemas embody particular patterns of spatial logic perceived in physical reality.

Arguably, at least part of the phenomenon of *synesthesia must be accounted for by image schematic similarity*. A classic experiment in Gestalt psychology shows that the word "MOLUMO" is associated with round images, whereas "TAKETE" evokes sharp, angular visual images. It seems that the sound structure of the word is iconic. Not only the sounds of the words taken on their own, even the movements of the speech apparatus required to produce them conform to this pattern. This is apparent in the necessity of swift and angular changes of the tongue-position for saying "TAKETE" compared to the rather round and flowing transitions in "MOLUMO" or the roundness of the mouth in producing the O-sounds in the latter. Some kinds of such synesthetic phenomena are culturally universal, as was argued in chapter 4, either by virtue of universal ecological topology or else by hardwiring (e.g. 'loud' is universally likened to 'bright' and 'sharp', rather than to 'dark' and 'dull'.)

It has been said that image schemas are analog but non-mimetic representations; they contain less detail than percepts. How can the relationship between image schemas, rich images, and perceptual data be described then? First, the difference between mimetic and non-mimetic representations, say between a more detailed and a more abstracting copy of a visual image, is always only a matter of degree. Despite the differences described above there are some similarities between rich mental images and image schemas. Gibbs and Colston (1995: 356) point out that experimental studies show mental images to be typically less detailed than the principled contrast to image schemas formulated by Johnson (1987) and Lakoff (1987) would imply. They are no veridical copies of what has been perceived. Furthermore, there is evidence that visual images themselves are typically constructed on the basis of underlying concepts a person is already familiar with. As Palmer (1996: 47) says, existing "conceptual schemas prime our senses to respond to a limited range of sensory experiences, as when we scan a book looking only for certain topics." Such schemas are like tinted glasses filtering reality. Therefore, the sediments of schematic knowledge from past experiences play a role in novel acts of perception. All this points to the conclusion that there is no strict separation between rich images and abstractive image schemas. Rather, they are situated on a sliding scale and an abstract image can often be effortlessly enriched by attending to it more closely, just as a rich image can become more skeletal as it recedes into the background of our attention. (For a good introduction to this see Palmer 1996: 47-51, and for a comprehensive overview of two decades of psychological research see Finke 1989).

Although the richest body of evidence exploring image schemas comes from the study of language, image schema structure can be found in all sorts of different elements of our experience. In what might be, loosely speaking, called 'direct' perception there are physical objects, sounds (including iconic and phonological structures of language), and the sequential structure of events or movements that contain image-schematic structure. Concerning perceptions of the kind that draw on symbolic background cognition more heavily there is the imagery that is (indirectly) evoked by the semantic meaning of words and other language-like systems.

AN OVERVIEW OF BASIC IMAGE SCHEMAS

According to Johnson and Lakoff, image schemas are embodied structures that are present in preconceptual experiences of our body. A few examples can show what sort of very commonplace and universal experiences give rise to image schemas, even in very young children. Parts of the descriptions given here can be found in Lakoff's (1987: 272-76) introductory overview and Johnson's (1987: 126) listing of schemas. Alan Cienki (1997) offers a more comprehensive list together with considerations of how they form compounds:

The CONTAINER schema defines the basic distinction between in and out and is constituted by the topological elements of 'interior', 'boundary', and 'exterior'. It is experientially motivated by experiences of the body as a container and of the body as contained in rooms and other spaces. It may be linked with the PART-WHOLE and the CENTER-PERIPHERY schema.

The PART-WHOLE schema comprises the elements 'whole', 'parts', and 'configuration'. The schema is experientially motivated by the perception of our body and other objects as wholes with parts. In order to get around in the world we have to filter meaningful entities from the perceptual blur and thus distinguish particular configurations in our environment.

The CENTER-PERIPHERY schema comprises an entity with a 'center' and a 'periphery'. The first motivating experience is our own body, which has central part, such as the trunk or head, and peripheries, such as fingers, toes, or hair. The centers are more important than the peripheries, because injuries to our vital organs affect us more fundamentally than those to the peripheral organs, i.e. we can go on living as the same entity when we cut our fingernails or even when we lose a limb, but not when we lose our head. Moreover, the periphery depends on the center, but not vice versa.

The LINK schema consists of two entities A and B, and a link connecting them. It is experientially motivated even through our first link, the umbilical cord. Throughout our infancy and childhood we learn to hold on to our parents and objects, either to secure our location or theirs. A more refined version of the schema construes it as a CONDUIT through which things can pass from A to B. Thus it is also related to the PATH schema.

The SOURCE-PATH-GOAL (or simply PATH) schema includes a starting point, an end point, a sequence of contiguous locations connecting the two, and a direction toward the destination. Every movement of our bodies starts from a place, moves into a direction, covers a trajectory, and lets us eventually wind up in another place. This schema may be linked with the FORCE schema and the LINK (or CONDUIT) schema.

Other important schemas shaped by our kinesthetic and bodily experience relate to FORCE dynamics and include BLOCKAGE, internal ENABLEMENT, COMPULSION (either as PUSHING or PULLING), COUNTERFORCE, RESTRAINT-REMOVAL, and ATTRACTION. The schema may occur within more complex ones, such as MOMENTUM, and it may be combined with other equally basic schemas, such as CONTAINER, to yield PENETRATION or EXPULSION. A related schema where force relations play a central role is BALANCE. The latter is also linked to PART-WHOLE and CENTER-PERIPHERY.

Still other schemas have to do with the relative position of two or more objects in relation to one another, yielding CONTACT-APARTNESS, FULL-EMPTY, UP-DOWN, FRONT-BACK, NEAR-FAR. In combination with PATH a series of objects may result in LINEAR ORDER. This in turn may be linked with UP-DOWN or FRONT-BACK. It is worth noting that particularly (but not exclusively) in this group the schemas can be realized in either a static or in a dynamic

fashion (Cienki 1997: 6). Most of these spatial prepositions in English refer either to location or to motion, depending on their context (cf. “He is standing over there” vs. “He is coming over”).

A large group of fairly complex image schemas capture the basic structure of movements, either temporal or spatial, such as CYCLE and ITERATION, MATCHING, SPLITTING, MERGING, COLLECTING, ENTERING, DIPPING, CLIMBING, FALLING, COVERING, ERUPTING, CONVERGING, EXPANDING, ABSORBING, THROWING, POURING, etc. Some dynamic schemas are general-purpose mechanisms employed with all sorts of schemas, such as SUPERIMPOSITION (= the combination of two or more schemas) and COUNT-MASS (also called MULTIPLEX-MASS), i.e. the ‘zooming’ into and out of cognitive detail of any Gestalt image.

As Cienki (1997: 6f) points out, image schemas can always be realized in a dynamic or static fashion. For example, a PATH schema is dynamic as we are moving on it and a static thing when we look back on the route that we have traversed. Likewise, FULL can either be realized as the process of filling or as the resulting state of a full container. In general, any processual image schemas can be construed with ‘end point focus’, meaning that the resulting state is highlighted. Thus, BALANCE, often understood as a process of maintaining equilibrium, can also be conceived as a state achieved. The relation between processes and states can be explained as that between a movement and its trace. The trace, in fact, is that of a mental scanning activity, i.e. the memory of a movement that once took place. Although some image schemas are more likely to be either manifested as static or dynamic, even these sometimes occur in the opposite manner. For example, the canonically static CONTAINER schema can also be construed from a motion of an object on a cyclical path, such as a sheepdog running around a herd of sheep and containing them. Conversely, the normally dynamic COMPULSION schema can be experienced as static when blockage and counterforce are present, e.g. when one is pushed by a crowd, but so stuck that one is unable to move.

Image schemas occur on different levels of specificity (Clausner/Croft 1997). Some are more detailed and others are more abstract, although, naturally enough, none are very concrete because that would exclude them from our category of schemas. Simply put, the higher the level of schematicity, the more other mental objects can be recognized as similar at the expense of reduced detail structure. As was shown in chapter 1, different cognitive tasks have an optimal level of schematicity. It is by no means infrequent that schematization goes on to an extremely abstract level. On this level we find schemas, such as ENTITY, PROCESS, STRUCTURE, or SYSTEM, also referred to as ‘ontological metaphors’. The enormous importance of these schemas will be a central focus of the following chapters. For the time being, it is of major importance to realize that schemas of high and low schematicity stand in a relation of inclusion rather than in a relation of contrast. That is to say that any more

concrete schema, say ENTERING, will ipso facto contain the schematic structure of PROCESS (and, of course, a good deal of more specifically elaborated detail on top of that). By the same token, SPLITTING, COVERING, and EXPANDING can be subsumed under PROCESS. The same relation holds for STRAIGHT, SCALE, and CYCLE which are governed by PATH, and FULL-EMPTY or CENTER-PERIPHERY which are governed by CONTAINER, etc. (Cienki 1997: 12). It is possible to say that on the highest level of schematicity what has been called schema corresponds to a basic operational type of imagery. Hence, the distinction between ENTITY and PROCESS emerges from a distinction of different types of scanning activity, one summary and static ('end point focus'), the other sequential and dynamic. According to Langacker (1987a: 145), we can process a complex scene as a single configuration in which all facets are conceived as coexistent and simultaneous or as a series of successively transforming states.

So it would seem that there is a stock of minimal image schematic elements, each of which emerges in embodied experiences of several kinds. Since any individual image schema resides in many kinds of experience, it makes little sense to speak of a specific source domain any more. It is more appropriate to say that once an image schema has been learned (and this happens in most cases within the first months after birth) it creates *generalized expectational patterns* for novel acts of perception and thought. Thus, the image-schematic patterns we use with such a tremendous frequency have become a fixed part of our stock of cognitive tools.

HOW CAN WE FIND IMAGE SCHEMAS?

The cognitive reality of image schemas can be demonstrated by several psychological experiments and developmental data (see the overview by Gibbs 1994: 412-417). Furthermore, image schemas can be inferred from linguistic data. Most importantly, they are powerful explanatory principles for understanding how the various meanings of polysemous words are related and for explaining schematic similarities responsible for metaphor comprehension. (In a later chapter I will present evidence that they can also suggestively explain the building structures of cognitive tools.) Finally, image schemas can be found in various sorts of non-linguistic data. These include studies of sign language (Wilcox 1993, Taub 1997), the study of gestural meaning (McNeill 1992, Cienki 1998), the study of emblems and pictures (Forceville 1998), the study of musical images (Cook 1990), and the study of action schemas (Bailey et al. 1998).

Much linguistic evidence on image schemas comes from the study of polysemy in spatial propositions, which of course describe the most directly kinesthetic and spatial domain. Claudia Brugman (1981/1988) and George Lakoff (1987) analyze the image schematic basis of the English preposition OVER. With regard to other English prepositions Susan Lindner

(1981) produces similar work on UP and OUT, while Rainer Schulze (1988, 1993, 1994) contributes a series of somewhat shorter articles on DOWN, (A)ROUND, and OFF. Lakoff (1987: 460) lists image-schematic analyses of semantic features by other linguists from Cora, French, Indonesian, Russian, Polish, and Dutch. A recommendable and comprehensive theoretical treatment of the combined cognitive principles necessary to process spatial prepositions can be found in Annette Herskovits (1988). Her contribution is valuable for understanding the complex interaction between prototypical ideal-types, factors of situational salience and relevance, tolerance-margins, and purely conventional use-types. Her article also includes an overview of the spatial Gestalt principles underlying the imagery through which prepositions are understood.

Gibbs et al. (1994) are successful at showing experimentally that the different senses of the English word 'stand' are motivated by different image schemas that arise from the bodily experience of standing. Gibbs and Colston (1995: 351-52) summarize this:

"Consider the word stand in the following sentences: Please stand at attention. He wouldn't stand for such treatment. The clock stands on the mantle. The law still stands. He stands six-foot five. The part stands for the whole and She had a one-night stand with a stranger. Some of these sentences refer to the physical act of standing (e.g., Please stand at attention, The clock stands on the mantle, He stands six-foot five) while others have non-physical, perhaps figurative, interpretations (e.g., We stood accused of the crime, The part stands for the whole, He wouldn't stand for such treatment.)"

In a preliminary experiment it was sought to determine which of a set of 12 known schemas reflected the participants' intuitions about their experience of standing. They were guided through a series of bodily exercises to make them think about their experience of standing more consciously. Then they were asked to rate the degree of relatedness of the 12 schemas to the activity of standing. The result were five schemas: BALANCE, VERTICALITY, CENTER-PERIPHERY, RESISTANCE, and LINKAGE. In a second experiment the participants were asked to sort 35 senses of 'stand' into groups. It turned out that physical and non-physical, figurative senses were often grouped together (e.g. 'stand at attention' was grouped with metaphorical senses such as 'let the issue stand' and 'to stand the test of time'). In a third experiment the participants were again guided through exercises and then asked to rate the degree of relatedness between the five image schemas found in experiment 1 and the different expressions using 'stand' from experiment 2. It turned out that the image schema profiles for different senses of 'stand' from experiment 3 corresponded closely with the similarity ratings from experiment 2 and could predict 79% of the groupings. This revealed that people's similarity judgments can be attributed to tacit understandings of how different image schemas motivate different patterns. This was also confirmed by a fourth experiment that cross-checked for context-effects due to similarities in social use and proved that these

do not play any important role. In sum, the experiments strongly support the hypothesis that the polysemous meanings of 'stand' are partly motivated by image schemas that arise out of the bodily experience of standing: different senses of the word are understood on the basis of an underlying image schema profile, which emphasized a certain portion of the experience of standing and backgrounded other portions. It is unfortunate that not more experimental studies of the same kind have been undertaken in the past. Due to the fact that, to a large extent, image schemas occur as a part of the cognitive unconscious guided experiments such as this, which evoke tacit knowledge, are extremely valuable.

IMAGE SCHEMA TRANSFORMATIONS

There is considerable experimental evidence for the fact that image schemas can be moved, rotated, projected, and otherwise deliberately manipulated in the mind, much as if they were physical objects. Research on mental imagery has shown how people can perform such kinesthetic *image schema transformations*. If subjects are asked to imagine simple geometrical shapes and rotate them in the mind, this transformation takes up some time in proportion with the rotation's degree. Even the congenitally blind can perform such transformations with ease, if a little slower than people with sight (see Lakoff 1987: 445). These transformations are experientially based, i.e. they reflect important aspects of our kinesthetic, visual, or auditory experience. Since a given schema may derive not from sight only, but also from hearing and moving, its format transcends any specific sense modality and can form the basis for the recognition of synesthetic effects. For a better understanding, you can try out several image schema transformations yourself. Mark Johnson (1987: 26) gives quite specific instructions for a few examples:

"a) *Path-focus to end-point-focus*: Follow, in imagination, the path of a moving object, and then focus on the point where it comes to rest, or where it will come to rest.

b) *Multiplex to mass*: Imagine a group of several objects. Move away (in your mind) from the group until the cluster of individuals starts to become a single homogeneous mass. Now move back to the point where the mass turns once again into a cluster.

c) *Following a trajectory*: As we perceive a continuously moving object, we can mentally trace the path it has traversed or the trajectory it is about to traverse.

d) *Superimposition*: Imagine a large sphere and a small cube. Increase the size of the cube until the sphere can fit inside it. Now reduce the size of the cube and put it within the sphere."

Because of its tremendous general importance a few additional words should be said about superimposition. In fact, superimposition is a basic feature of mental imagery. It needs to be understood in this context that when two or more simple image schemas can be mentally superimposed on one another to generate a single complex schema, this compound schema

again has the properties of a Gestalt. The resulting Gestalt features make possible the simultaneous grasp of what such a complex concept means. All sorts of complex mental schemas can be added to by superimposing another feature. A simpler schema will usually assimilate an additional facet into its Gestalt, so as to create a more complex schematic compound, whenever the added facet recurs across a sufficient number of the schema's usage events. Later we shall examine a second, cognate type of transformation in which the two images imagined are not really compatible, so that they resist assimilation into a simultaneous image. Yet they are combined in a way that projects part of their features together or alternates between images. This I will call Gestalt switch.

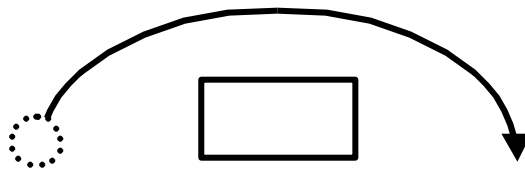
There are numerous other spatial transformations that can be performed before the mind's eye, some of which I will introduce later. Such transformations are present in many everyday cognitive tasks. The example of handling a herd of animals furnishes an example where several of these transformations interact (Gibbs and Colston 1995: 351). In order for a shepherd to successfully navigate a large flock of sheep, the prime objective is to maintain the cohesiveness of the herd. When one or several animals drift away from the flock, which is an instance of a transformation from a mass to multiplex, the shepherd must take corrective action. This requires her to ascertain the presumable trajectory and destination of the stray animals, so that the rest of the flock can be driven in a way as to reunite them. This task is an example of path-focus to end-point focus, where the shepherd has to calculate the position of two or more imagined paths in relation to each other and readjust the own path to counter the drifters veering off. The example of navigating an animal herd also shows that image schema transformations may interact with other image schemas. This is the case because the maintenance of the herd's cohesion as a mass requires the practical application of a BALANCE schema. When animals drift away from the herd the necessary equilibrium has been lost and must be restored. Presumably, an experienced shepherd has a schema of the optimal cohesion of a flock or herd, so that it can be swiftly driven without falling apart, a cohesion which she tries to maintain by countering all drifting movements that threaten the balance.

One of the most frequent image schema transformations is frequently referred to as 'profiling', following Langacker (1987a), but might also be called FOREGROUND-BACKGROUND. Profiling means picking out a segment of a mental image and foregrounding it as a focus of attention. The backgrounded elements remain present to a certain degree, but the foregrounded portions of the mental image determine the relative focus of the representation. The way central schemas create a unity of their derivative variants can be explained by different emphases of profile. Exemplary in this respect is Dewell's (1994) critical reassessment of Brugman's (1981/1988) and Lakoff's (1987) work on the cognitive semantics of OVER. Before going into details, it should be said that this body of literature

starts from the assumption that image schemas embody the core meaning of polysemous lexemes that are subject to extension and specification. Dewell gives a cogent demonstration how the different senses of the English *OVER* derive from an arc-path schema that semi-encloses a landmark below it. Through a review of Dewell's work I intend to show that many senses of *OVER* directly correspond to different image schema transformations of the central schema.⁸² The example will allow three important observations about image schema transformations:

- (1) The most basic *OVER* uses are differently profiled variants of a simple central schema.
- (2) In many other cases the schematic core, nevertheless, lies embedded in a more complex image.
- (3) Other variants split off from the central schema by introducing additional schematic features and dropping some original features, thus gradually transforming an image schema transformation of one particular kind into derivative or kin variants in a chaining process.

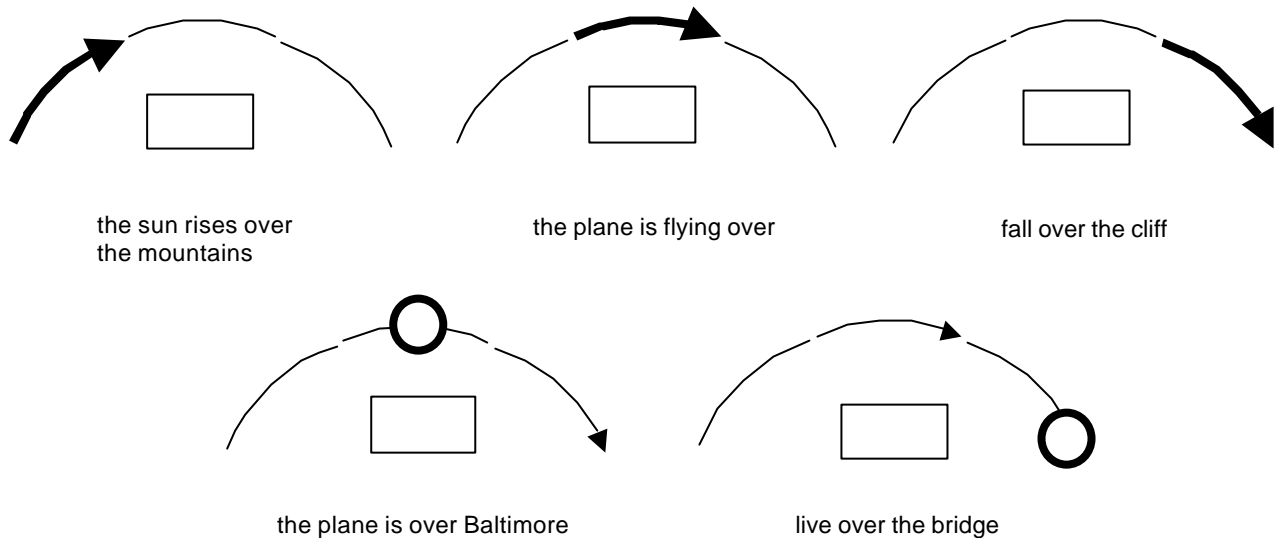
The basic schema is, if we follow Dewell, an arc-like trajectory of the following sort:



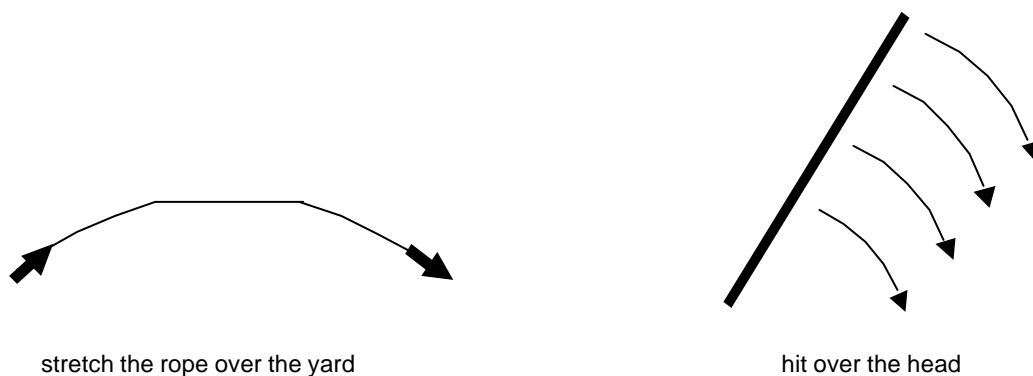
The following basic *OVER*-expressions merely differ by virtue of evoking distinct profiles of the basic schema from a two-dimensional side-view perspective. For instance, “The airplane is flying over” corresponds to a profiling of the central region near the peak of the arc. “Sam fell over the cliff” corresponds to a profile of the downward trajectory of the second half of the arc from the intermediate peak to the end point. Likewise “The sun came up over the mountains” profiles the first half of the arc up to the peak. (However, such uses of *OVER* are relatively rare, because such situations do not usually imply a continuation of the path word semi-

⁸² The reason why I prefer this analysis to its precursors is Dewell's successful demonstration that unnecessary explanatory features such, as the shape of the landmark and the presence of contact or sub-schemas (for *ABOVE* and *ACROSS*), posited by Brugman and Lakoff, can be done away with. Different image schema transformations – most importantly profiling – of a central arc-shaped image schema are sufficient to explain all the variants of *OVER* expressions. By eliminating the remaining propositional features from Brugman and Lakoff, Dewell's analysis embraces a truly imagistic perspective.

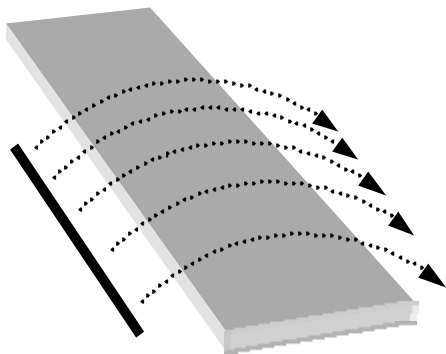
enclosing the landmark.) “The plane should be over Baltimore by now” pauses the focus in ‘freeze-frame’ suspension at the peak of the arc. Here *OVER* is nearly synonymous with *ABOVE*, except that it retains a backgrounded sense of continued motion. Other applications of *OVER* such as “Sam is over the bridge now” focus on the resulting end point of the movement. Although the somewhat different “Sam lives over the bridge” does not mean that he took the bridge to get there, a subjective mental motion that traverses the path over the bridge from a prior location is implied.



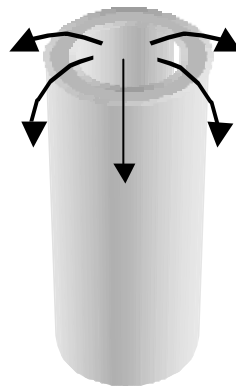
In other expressions *OVER* can denote a linear-extending trajector such as in “We stretched the rope over the yard”. Note that, in contradistinction to *ACROSS* it still implies a backgrounded curving motion of the rope’s leading point, e.g. a lifting and dropping action. In metaphorical expressions such as “watch over”, “power over”, and “grieve over” a diffuse covering movement over an object is implied. Some expressions do not focus on a leading point, as in the case of a rope, but on a leading portion of the trajector, so that a sequence of arcs corresponds to each point of it, as is the case for the cue in “She hit him over the head with a pool cue”.



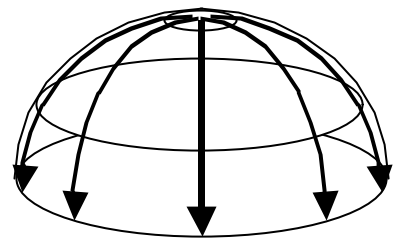
Arc-like trajectories are not limited to a two-dimensional perspective and an idealized side-view of the motion. A three-dimensional trajector with a leading edge is imagined in “He draped the sheet over the clothesline”. In the case of flowing substances the leading edge may be moving outward in several directions as in “She poured the syrup out over the pancakes”. The trajector is planar here and extends outwards in multiple directions, ultimately semi-enclosing the landmark in at least one of these directions. Expressions like “The beer ran over the sides of the glass” describe a similar multi-directional planar arc that is put over the glass like an over-turned bowl.



drape the sheets over

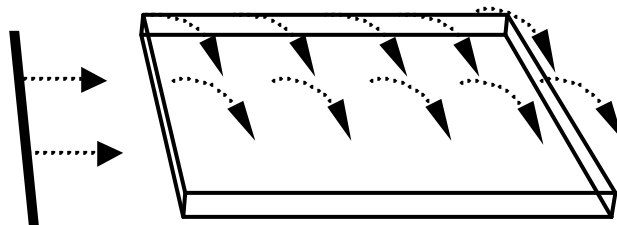


run over



pour over

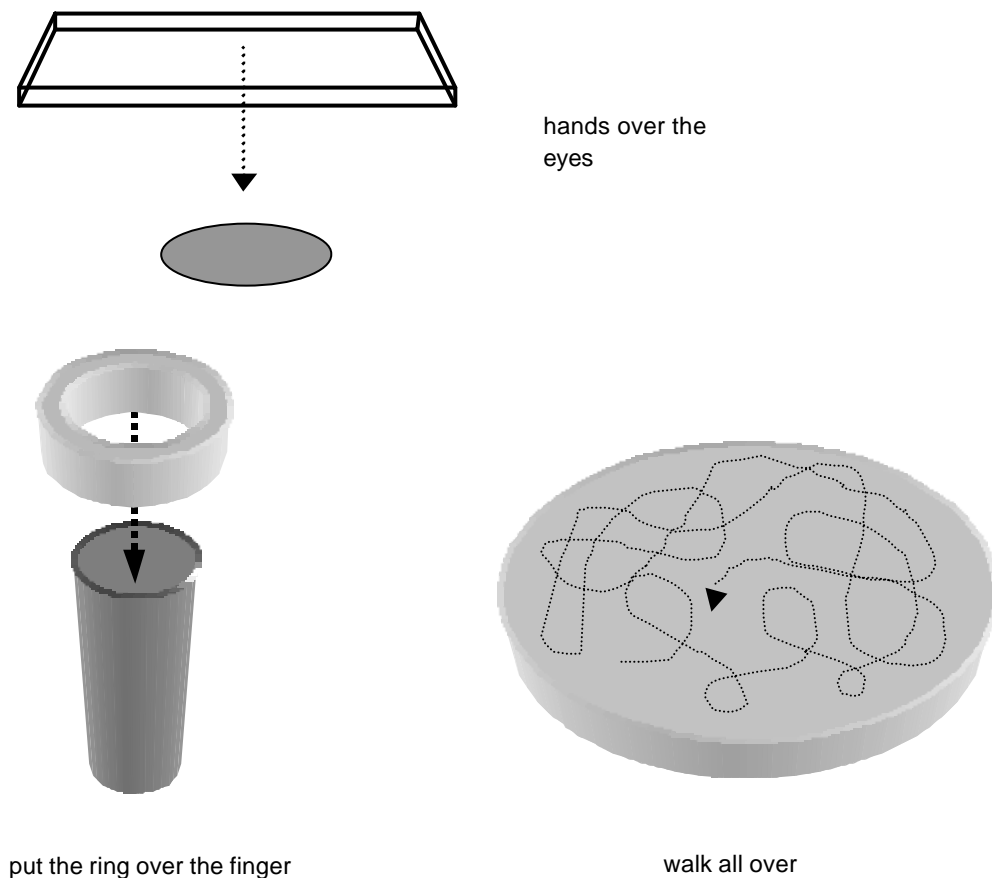
An alternative with some tendency to split off from the central schema can be seen in “We had to drive over a bad stretch of road” or “She walked over a field to get to the road”. Here, steps or the rotation of wheels are conceived as a succession of downward arc-like motions on a linear path, which are scanned as they unfold in time. Similarly, but less obviously than with rotation or steps, “He ran his finger over the scratch in the wall” evokes an oblique laying-down motion. It might be argued that this is a flattened version of semi-enclosure. Constantly exerted pressure might be kinesthetically conceived as a succession of downward arcs. This covering-path schema also occurs in temporal uses, such as “do it over” and “over Christmas”.



walk over the field

For some OVER-expressions the tendency toward diminished importance of the central schema reaches the point of making it marginal. Cases such as “He held his hands over his

eyes” and “She put the coat on over her dress” suggest additional accompanying images associated with ‘covering’. It might even be said that such planar senses of covering are in some respect inconsistent with the central schema. Instead of the vertical peak and fixed vertical orientation these senses are oriented only in relation to the landmark’s surface (i.e. the eyes or the dress). These expressions may be considered as related to the uses of planar motion discussed in the previous paragraph, but no longer very closely to the central schema of the arc that presumably was the original sense of OVER. The same sole orientation with respect to the landmarks surface is present in “He put the ring over her finger”, “He pulled his pants up over his navel” and “The water came up over her knees”. A similar example is “He walked all over the field”, where a single trajector traces a random multiplex of paths which may converge to ‘cover’ a landmark like an extending mass.



These split-off schemas notwithstanding, all OVER expressions can be said to share some sort of ‘family resemblance’ (Wittgenstein 1953). All variants relate to some other variants by sharing some image-schematic features with them, even if not all variants share all of the features. There seems to be at least one central feature that no variant of OVER easily lets go of. That the evoked sense of the trajector’s movement in relation to a landmark is crucial can be nicely illustrated when compared to ON and ABOVE. Because of this active sense of movement it is implied that the trajector ‘does something to’ the landmark. “A *band aid over a*

cut implies shielding it and obscuring it from view; a *band aid on a cut* is simply located there.” (p. 374). Likewise, in the case of a sign over a door there seems to be an abstract predictive relation from the sign to the door, a sense of ‘closeness’ or ‘influence’, whereas a sign above the door is simply placed on a separate, higher plane than the door without any predicative relation implied. Alverson (1991: 116f, 1994: 27f) independently makes the same observation. In his view, OVER retains a characteristic “sense of intimacy of intentional connection” between landmark and trajector that ABOVE lacks. Arguably, it is the inherent movement aspect in the OVER schema that creates a predicative relation: OVER always involves a scanning of either the trajector’s motion as a whole or of its extended shape with respect to the landmark (cf. “The tablecloth is over the table”). Another factor responsible for a sense of closeness is that OVER frequently suggest subjective identification with the landmark that is enclosed or that the movement converges on. For example, “The sky over us” invites a construal from the perspective of the people rather than the sky, so that an arch spanning the top of the oval visual field appears that conveys the feeling of covering.

Building on Lakoff (1987), Gary Palmer (1996: 72) specifies two different principles that are operative in the chaining process. ‘Instance links’ add detail to a schematic information: For example, “The plane flew over” is highest in schematicity, “Sam drove over the bridge” adds the two specifications of an extended landmark and contact, and “Sam lives over the hill” introduces an end-point focus on top of that. The latter are only more elaborated instances of the basic schema and are logically fully compatible with it. By contrast, ‘similarity links’ are links between slightly altered instances. For example, “The bird flew over the yard” is similar to “Sam drove over the bridge” because of the extended landmark, but different because there is no contact. They are imagistically not fully compatible.

Dewell’s re-analysis of OVER reveals yet another fact about image schemas that is of tremendous importance. Apparently, a profiled segment may come to stand for a schema of which it is canonically a part. For example, it can be sufficient to perceive or imagine a characteristic part of a trajectory to automatically reconstruct the rest of it. Often the final portion of a directed movement is capable of evoking the whole path that has been covered before. This insight seems to be of particular importance for understanding the cognitive force of static visual symbols. Most importantly it is only by virtue of this feature that a *static* object is capable of evoking a *movement* on a trajectory. A fine example would be an arrow on a signpost, which evokes the path that a real arrow ideally would have taken before the mind’s eye.

2. Image schemas in a plurality of media

After this theoretical introduction I will now attempt a first overview of the extraordinary scope of image-schematic thought. The aim is to show that spatialized thought is a stock item of our

cognitive repertory, linguistic or non-linguistic, and perhaps a touchstone of thought itself. Image schemas occur in many symbolic media spanning perceptual objects, mental objects, and embodied states. The evidence assembled here will prepare the ground for of a summary sketch of multimediality based on image schemas in the final chapter. I ask the reader for patience here, because a systematic account encompassing further loci of image schemas requires theoretical prerequisites from the chapters ahead. Let us start where we just left off after Dewell's case study, namely momentum schemas.

MORE ON TRANSFORMATIONS: MOMENTUM

Several studies point to the fact that mental imagery is constrained by the kinesthetic experience of moving objects. There is an important body of empirical research that studies the internalized representation of physical momentum (summarized by Gibbs and Colston 1995: 357-361). We experience visual momentum in observing the movement of heavy objects that continue their path even when they encounter other objects. Likewise, we experience kinesthetic momentum when we run at such a high speed that we cannot stop in time before an impediment or sharply change our direction at a corner, or when a massive moving object hits us. The building up of our body functions in a way that they cannot be stopped lets us experience internal momentum, e.g. our breath or our pulse accelerating, our bladder expanding, or the force of a seizure. We experience auditory momentum when thunder builds up to a crescendo or when the sounds of a steam engine accelerate. Both, crescendo in loudness and increase of tempo are frequently used in music to convey the idea of momentum. Thus, there seems to be a representation of momentum that is schematic and not linked to any specific modality. It is abstracted away from our experiences of seeing momentum, hearing momentum, and kinesthetically feeling momentum. We can presume that once the image-schematic expectation is formed and internalized into a transmodal image in the young child neither the visual is exactly derivative of the auditive nor the other way round, but both are stored in a format that correlates its similarities across sensory modalities.

In a series of studies conducted in laboratory settings sequences of static images were presented to the participants which appeared to be moving on a path, tilting over, or rotating. It was found in memory tests that the final position remembered by the subjects had undergone a shift in the direction of the implied motion in which an actual object with momentum might have come to rest. Such effects have been experimentally found for both visual and auditory stimuli. Parts of the evidence might be explained by the 'good continuation' principle, which is one of the classic features observed by Gestalt psychology. However, the quantitative differences, such as the fact that representational distortions increase with the implied velocity of the display, can only be predicted by a model based on

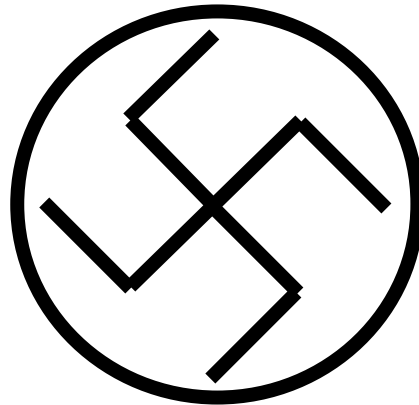
the specific real-world experiences with physical momentum. Presumably, representational momentum arises from the internalization of the principles of visual momentum, which form an automatic default expectation that leads to a phenomenon of 'seeing as' based on our experience. The presence of experience-based constraints on memory was further confirmed by additional experiments. If displacements between the phases of the presented objects would go beyond what could be realistically expected for real-world momentum, the effect would go away. Furthermore, it turned out that memory displacement was greater for horizontal movements than for vertical movements, which may reflect the predominance of vertical movement in our environment. It could also be shown that our experience of gravity affected the displacement. Objects going up had less momentum, presumably being slowed down by gravity, while objects coming down were displaced more, presumably being further accelerated.

It is not difficult to see that the MOMENTUM schema co-occurs in more complex Gestalts with other image schemas discussed before or can be created by the transformation of several such other image schemas, like LANDMARK, PATH, BLOCKAGE, REMOVAL OF BLOCKAGE, and GOAL. When we attend to a static object we first invoke a LANDMARK schema. As it starts to move we transform this into a PATH schema by also attending to the path of the landmark. If the movement is blocked by another object, which is then removed by the force (BLOCKAGE / BLOCKAGE-REMOVAL schemas), we can determine the likely end-point of the moving object. In this way we transform the PATH image schema into a MOMENTUM image schema and then into an ENDPOINT FOCUS or GOAL schema. In line with many experimental studies that show the primacy of moving and temporal events, we can say in conclusion that the study of MOMENTUM indicates that dynamic events are represented through Gestalts incorporating a series of image schemas. These are often the basic units of experience. We will now turn to an example where momentum occurs in a political emblem and takes on a particular socio-cultural meaning.

THE IMAGE-SCHEMATIC IMPACT OF EMBLEMS

Apart from traffic signs, ads, and logos, it is perhaps most notably political symbology that makes use of image-schematic dynamism of symbols. Take as an example the ancient Indo-Iranian symbol of the swastika, which was adopted and revived by the National Socialists. Arnheim (1969: 143) performs a cogent analysis of the reasons why the symbol was so extremely well-chosen to become the notorious Fascist emblem. For one thing the black figure in a white and red setting helped revive colors of the German empire and thereby appeal to nationalism. Apart from that, its clean geometry was in keeping with the modern taste for functional design. For the educated it evoked the Aryan race. It was of distinctness and striking simplicity. In all this, at least two image-schematic mechanisms appear to be

significant in the swastika, if we focus on its formal features, one of them with strong synesthetic associations. These two features are the swastika's tilted orientation and its angularity.



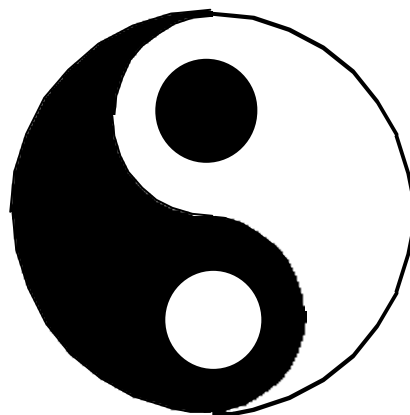
The swastika's tilted orientation was perfectly suited to convey the purported dynamics of the Nazi 'Movement'. (Incidentally, the Communist hammer and sickle and many other emblems have the same tilted orientation. Similar effects are used in the non-political branch of publicity, in advertising.) A momentum is visible in the swastika's shape, which follows directly from our prototypical experience with objects subject to gravitational pull. In contrast to a vertically symmetrical object, which is canonically perceived to be in rest and in a position of stable support, a tilted shape is in a position where, according to our everyday experience it must be unstable or falling if not suspended. Another association to do with momentum that is made possible through the emblem's tilted position is the figure of a runner. A final association responsible for the momentum is due to the wheel-like shape, which the swastika evokes by a combination of two features. The spokes of a wheel are there in the radial beams, so are 'movement lines' that emerge from perceiving the four angular crossbars as ensemble. Presumably, even cultures not knowing wheels (or spokes) would experience the symbol as dynamic on grounds of the latter aspect only. Given that the image is scanned from the central point of intersection and the bars are metaphorically construed as an inside-out path, this should be the case because the sharp change of direction where the beams meet the crossbars suggests velocity (much force is needed experientially to change an object's direction substantially). This again reflects the above observations about the MOMENTUM schema by Gibbs and Colston.

A second feature that is cognitively highly potent is the straight-edged angularity of the image. Again at least two aspects contribute here, both of which are synesthetic in nature, i.e. both are known from experiences in other sense modalities. The first association with angularity is a basic and possibly quite universal one. It says, "of edges be wary!" (note, for example, that danger signposts are triangular rather than round). Incisiveness and possibly aggression is evoked by an edge. On the other hand, if the image is put into the German

context of the 19th and early 20th centuries angularity might evoke an image of Prussian efficiency, a sharpness, simplicity, and directness together with the dynamism and vitality suggested by the tilted orientation. This, of course, was meant to evoke a military habitus as well as a particular ideological orientation of expansionism, conservatism, hierarchy, suprematism and strength that was traditionally further associated with Prussian angularity. For more evidence on the same in cosmology and art see the section below on primary shapes. A few additional aspects of synesthetic shapes can be gleaned from the article by Kennedy et al. (1993) on metaphoric devices in pictures, including a brief discussion whether these have intrinsic meaning or depend on social convention (p. 251ff).

The principles of yin and yang in Chinese cosmology can be analyzed in a similar manner. Yin and yang are two cosmological forces underlying matter and spirit alike. As Ohnuki-Tierney (1991: 167) states, yin and yang represent relative proportions or degrees of significance rather than separate and antagonistic qualities. The two are complementary to each other in the sense that neither is meaningful without the other. It is not necessary to provide a closer description of the characteristics associated with the two poles. Instead we can focus on the overall process of interaction between them and see how it is imagistically conceived. This is best depicted in the well-known circular emblem. (I would argue that the process between yin and yang is understood independently of this imagistic mediating device through the same spatialized model of complementary yet confluent forces.) According to Ohnuki-Tierney, this emblem of yin and yang stands for a universe representing

“a process or movement in which one principle grows in time into the other, and vice versa. When the small eye of yang in yin grows large enough, it becomes yang with the small eye of yin in it. The curved dividing line between the two halves of the iconographic image consequently is not a permanent line. Rather it represents a movement.” (ibid.)



Several aspects of the image can be isolated, although all of them can be simultaneously understood through the Gestalt image:

First, there are the two features of roundness and closure. Both create an image of wholeness. The black and the white shapes in the circle represent the two forces as a part of a whole. As argued above, the circle is the perfect representation of wholeness across cultures because it merges the Gestalt law of closure with a perfectly even distribution of attentional weights. Neither of the two forces asserts absolute hegemony over the other, they are in constant slow motion, gradually changing sides. Yin and yang represent as much a principle of synthesis as a principle of classifying, both at the same time and thus embody the notion of polar or dual opposites that are not dichotomous. They are dual but not separate meanings because they are always a necessary part of a larger figure. If one separates the black and white shapes the whole figure loses its closure. The necessity of complementarity is thus expressed.

Second, there is overall balance. Taken as a whole the emblem suggests balance because it is regular and its two sub-shapes are perfectly congruent. There is also an overall balance on the level of the whole circle, because its contour is perfectly regular. Furthermore, it might be relevant that the two sub-shapes suggest smoothness through their soft contours, which is perhaps associated with balance. Where there is abrupt change one is thrown out of equilibrium. Edges being absent, the subparts change smoothly into one another at any point.

Third, there is local imbalance. The overall balance between the two colors contrasts with the local imbalance between the small eyes and their ground. Both aspects are central in the Chinese conceptualization of the laws of the cosmos, which assumes that any temporary imbalance strives towards a larger-scale (or long-time) balance. The chromatic values of black and white represent two perfect extremes, while making them mutually dependent in the emblem. This codependency is quite visual because one constitutes the contrastive ground for the other. A black without white seems less extreme, or is indeed inconceivable.

Fourth, a relationship of complementarity and structural replication obtains between the sub-shapes. They have exactly the same shape, only diametrically opposed color values. They are part of the same law of form and they are perhaps meant to embody the prototype of formal principles as such, although this is in all likelihood not evident from the shape itself, but needs comment and explanation.

Fifth, there is mutual embedding of either figure in the other. This accounts for the great significance of the two small eyes. They indicate that yin always has a yang element and vice versa. The whole of one kind is always also part of the other kind. Note in this respect that the small eyes replicate the shape of the circle on a micro-level. Any partial figure contains the whole, again signaling that they cannot be ripped apart.

Sixth, it follows that the emblem calls up a dynamized image, even though it is only a static picture. There are forces and movement in it. Chinese cosmology believes that, in an eternal

ebb and flow, yin will become yang, and yang again yin. This is represented by the small eyes, which can grow larger, while the large shape (their ground) becomes the smaller figure. I would argue that ebb and flow are not only some associated pieces of knowledge; instead the dynamic features are suggested by the emblem itself! This becomes clear when we look at the force vectors it contains. The larger head of either of the two 'embryonic' sub-figures suggests a directed force and a growth vector, much like a raindrop. Perhaps it actually evokes our image of a drop of liquid that becomes ever larger at its lower end until it becomes too heavy and is suddenly gone, allowing the next drop to build up cyclically, and so on.⁸³ Conversely, the small tail suggests a receding motion, and the asymptotical approximation to the outer shell of the circle suggests fading into infinity. Note also that where the tail of one shape ends it already becomes the head of the other; its contours literally flow into each other. This is because the outer contour of each sub-figure is part of the outer contour of the whole emblem. Although, in an act of figure-ground separation, we can see them as separate, the larger figure continues to exert its influence. Because our Gestalt-like mind seeks to close the imperfect shape, we are lead from the black yin (female) onto the other side within the whole where the white yang (male) begins. Not only the continuous outer contour is of relevance here, but also the relative distribution of size at either end. The smaller the one shape gets, the bigger the other becomes. Thus, the mutual transformation of the two forces is given imagistic expression. Looking at the emblem one easily gets the impression that the two ends constantly slip into each other in a circular motion. It lets the viewer imagine a dynamization of movement through the one shape always 'curling' up in the other and being encompassed on its own pointed end. Or, one's attention may jump to and fro between the white and the black figures, suggesting the same sort of dynamization. What was figure the moment before now becomes ground, and vice versa, only to reversed again the next moment. Therefore, the image lets us perform constant figure-ground switches between the two colors defining the two sub-Gestalts.

Seventh, the internal complementarity between the two big shapes within the whole image can be given a temporal and dynamized reading as well. Arguably, our own temporal scanning of the emblem already prefigures this, as soon as we 'see into' the overall shape the constant metamorphic slippage, although this perception is probably only heightened through verbally acquired knowledge about the Chinese cosmos. If this is correct, a sub-shape with its little eyes represents a snapshot moment in time. The other end of the circle represents another frozen moment, in which the same thing happens, only with changed roles. At each moment there is a relative dominance of yin over yang or yang over yin, which

⁸³ Whether the shapes actually suggest the image of twin embryos with big eyes nesting in a womb to many people is anybody's guess. If this were the case the notion of growth (and by association even decay) would be additionally alluded to.

yet is never total (so that the eye persists to become larger again at a later stage). If the sub-shapes stand for phases, the fact that the two sub-shapes are part of this more encompassing imagistic Gestalt entails that there must be long-term balance between the phases. In this way the image as a whole can be understood as a diachronic or cyclic Gestalt.

Finally, a general ontological statement may be encoded through the hierarchical figure-ground relationship that obtains between the two levels of the emblem. The circle as outermost structure is the most encompassing, so that this may be taken as ontologically primary. It may be understood as defining an ontological hierarchy because it constitutes the precondition for the embedded phases, here spatially encoded as the ground of two other figures. Thus, balance, overall wholeness, and polar complementarization of opposites are circumscribed and suggested as primary principles. These principles have priority because they are the preconditional ground for the differentiated sub-shapes. The ground can exist without the figure (or with another figure), but the figure not without its ground.

EXPRESSING THE ABSTRACT

Very frequently image schemas serve to visualize the non-physical (or express it in sound or movement). This is most notably the case in religious similes and scientific models. An important distinction needs to be drawn here. Recall that we have defined image schemas as skeletal abstractions from rich images, especially ones arising in the mind when it draws analogies between several rich images. This notwithstanding, it is significant that image schemas may also exist in the mind independently from rich images. This is the case when image schemas have been dissociated from perception and rich images in the memory through repeated use as independently stored mental entities. The cue for calling up an image schema can come from a simple feeling of the body, from a thought, from a word or symbol, or from the direct sensory perception of something.

The perhaps most strikingly recurrent image is that of the circle and the sphere. For example, consider its role in religious and cosmological thought. Two major meanings in circles are cyclical movement and wholeness. As concerns movement, *samsara*, the wheel of rebirth in the Indian tradition, employs imagery of cycles, as does the theory of cosmological cycles. An unrelenting and ever-active force is depicted in this image. In Buddhism the cruel human condition is conceived of in this image that so closely matches the movement of a mill grinding substance into bits. With regard to wholeness several good examples from Christian mystical imagery are brought together by Linda Olds (1989: 59) in her treatment of Hildegard of Bingen's visions. Hildegard's visions frequently speak of God or the ultimate experience as a cosmic egg, a circle, or a wheel. The same metaphorical egg imagery is noted by Gentner and Jeziorski (1991: 464) as used the alchemists, which, taken

as a whole, symbolized infinity, the universe, and the Philosophers' Stone as a unifying principle. Arnheim (1969: 280) also provides ample evidence here. He comments on the nature of the circle as the primary image for wholeness:

"Roundness is chosen spontaneously and universally for something that has no shape, no definite shape, or all shapes. Parmenides represents the wholeness and completeness of the world by a sphere, which serves merely as a container for a homogeneous, indivisible mass of consistent density, unstructured except for its boundary."

Arnheim continues to write at length about circle/container imagery in Christian theology since the Middle Ages, and how it employs the relation between center and circumference for the illustration of abstract ideas:

"In its most static version, this relation serves only to illustrate the contrast between the very large and the very small. Thomas Aquinas, for example, compares God, the all-encompassing, with the boundary surface of the sphere, whereas the center point represents the insignificance of the creature. A German mystic of the seventeenth century, Johannes Scheffler, conceives of a dynamic interaction between the two: the circular boundary contracts towards the center when man encloses God within himself, and vice versa, the center expands into the circumference as man dissolves into God's greatness. 'When God lay hidden in maiden's womb,' Scheffler writes in one of his couplets, 'the point contained the circle.' (p. 280)

A related image schematic model of radial spread and/or growth further elaborates the central image. Here force vectors of directional growth or energy spread are added:

"The dynamic relation between center and boundary expresses itself often in the assumption that the sphere originates by growing from the center, and that the center remains the controlling agent. This is the view of Johannes Kepler, who says that the central point is the origin of the circle and gives birth and form to the circumference. Correspondingly he sees all the mobile powers of the planetary system as concentrated in, and issuing from the energy of the centrally located sun. An analogous model is found in Aristotle's image of the heart as the central organ of the animal body. The heart is considered as the embryonic core from which the rest of the body grows and which continues to function as the central source of all vital energies. The vessels that distribute blood in all directions demonstrate this. Inversely, the sensory messages converge from the circumference of the body towards the center." (p. 280-81)

It is also worth noting that such models can simultaneously map two or more relations. For example Kepler intended his image not only as an astronomical model, but integrated it with a parallel view of spiritual matters. The triune God is conceived as sphere, in which the Father is the central source of origin, whose power is transmitted through the intermediary of

the Holy Ghost, and spread and revealed by the Son, represented as surface, into all directions of the spherical boundary. God is personified as the sun, the source of light, life, and motion. Consequently, Trinity is seen as manifest in the cosmos. A second highly important general insight emerges from the example with respect to the relation of imagery and propositional attributes. Were it not for the metaphorical equation by virtue of shared structural relations between the model of God and the model of the solar system, it would not be possible to map further metaphorical attributes, such as light and the source of life, onto the model of God. Of course, these features are no more purely imagistic, i.e. they can be classified as propositional concepts by virtue of the fact that they draw on complex cultural knowledge structures. However, without the prior mapping between the imagistic structures of the two models a projection of a complex feature such as the source of life could not have been executed. The same effect can be seen in many examples to come: Propositional details are transported by means of imagistic similarities.

A great number of further examples of similar models could be given. For philosophy many can be found in Arnheim (1969) and Lakoff/Johnson (1999), for theology in McFague (1982) and Kjærgaard (1986), and for psychology in Olds (1992a) and in various contributions to the volume edited by Leary (1990).

Interestingly, many effects of imagistic similes are only effectuated by the explicit admonition to perform a particular type of mental scanning or image schema transformation. (This is similar to image schemas employed in understanding language, such as prepositions like OVER, which has been discussed above. However, in the cases discussed above explicit instructions how to construe the image may be necessary simply because similes do not have semantic principles and are not, as a rule, embedded as automatically triggered schemas in the cognitive subconscious.) With Kepler's sphere-model of Trinity discussed above there is an explicit admonition that the Father, Son, and Holy Ghost must be understood as inherent in each other. The central point is supposed to dwell in the circumference and the circumference in turn lies contracted in the center. In order to actually imagine these two imagistically separate aspects and construct a relation of identity between them the mind must perform a quasi-visual zooming operation by means of which the one is progressively transformed into the other. Thus, the admonition implying identity, which is phrased in words, is straight away implemented as an image-schema transformation to make sense of the implication within the format of the sphere-image. Another example for implicit scanning instructions, which I will treat at some length later, has to do with dialectical figures of thought. I shall argue that such figures emerge from theories that instruct to see something as contained in another thing from one perspective and as identical to it from the other (thus instructing us to superimpose the MATCHING image schema on the PART-WHOLE image schema, or switching between the two).

AUTONOMOUS VS. EMBEDDED IMAGE SCHEMAS

In this context we can address the issue of variations in the degrees of schematicity again. Frequently an abstract image schema is conveyed through a rich image. In such cases we can say that image schemas are embedded in rich images and appear by then being extract. While we should harbor no doubts as to the centrality of structural ideas, such as roundness, rather than attributes in these images, it is also plain to see that it makes a difference whether we speak in pure abstractions or not. We may hypothesize that the rich image has some crucial advantages over pure abstractions: it is more memorable, especially to uneducated people and people not much given to purely abstract thought. Couched in a real-life image the schema will also resonate with many associated concepts and a particular esthetic and emotional tone. (By contrast, the non-resonating esthetic style of complete abstraction may be called one of purity and its emotional tone one of detachment.) However, pure abstractions may also have an advantage over rich images with underlying schemas. They may be more readily applied to new, and unusual contexts, and may possibly become really independent from their source contexts. This is why they are so valued in mathematics, since mathematics purports to be a system of pure structural relations that is universally applicable. It might be noted parenthetically that a crucial distinction of cultural or personal styles emerges here. Some modes of thought prefer pure image-schematic thought to rich images, and vice versa. Often this reflects the rift between everyday wisdoms and expert styles of reasoning. Most notably, this is the case in the Western style of philosophical logic. However, it seems to be the case that any kind of sophisticated mathematical system rests on this base.

INTENTIONALITY, 'SEEING AS', AND THE UNITY OF PERCEPTION AND COGNITION

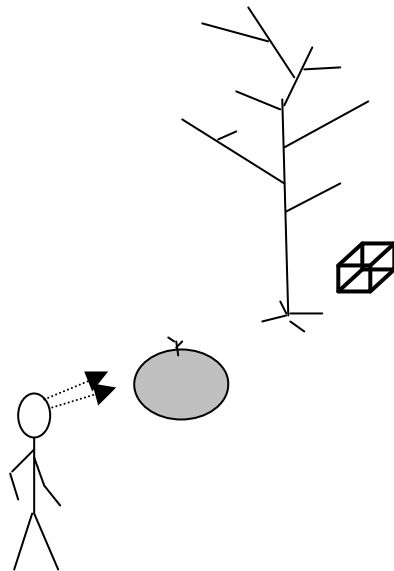
Image schema structure is not imposed only after the fact of perception. Things are 'seen as', 'heard as', or 'felt as' image schemas. In disagreement with the central tenet of empiricism, there is a fair amount of evidence to suggest that perception and cognition resist all attempts to tidily separate them. Arnheim (1969: 279) makes the following argument for primariness of image schemas in perception with reference to the forces we see in movements:

"The forces in a visible action are part of the percept itself, not something added later as explanation, as David Hume thought when he asserted that 'all events seem entirely loose and separate' and that they can be seen as contiguous in time and space, but not as connected."

A moving object differs depending on whether we choose to see it 'as' self-propelled, 'as' drawn or 'as' pushed. We 'see' a force vector into the movement. In a phenomenological way

of speaking we bestow *intentionality* on our perceptions. Seeing a glass half full *intends* it differently than seeing it half empty. When an action in space takes place we do not see it as a purely geometrical and neutral occurrence, we imagine an actor into it. Alain Michotte's well-known experiments show how time gaps influence the involuntary perception-cum-interpretation of movements. If a moving object comes to touch another one that is at rest, and if thereupon the second object begins to move within a certain fraction of time, the movement will be seen as being caused by the impact. Otherwise it will be simply seen as released by the signal of the contact.

Ways of intending the world may vary depending on features of the environment that we have grown up in. A study by Segall, Campbell and Herskovits (1966) shows that persons living in carpentered environment have habits of perception that differ significantly from persons accustomed to a natural environment with less regular and angular features (cited in Beck 1982: 95). For example, Bantu people brought up in a forest context are less prone to the Müller-Lyer illusion than those living in a carpentered environment (cf. Pinxten 1982: 176). Another part of the disposition of our nervous system to automatically interpret perceptual data is reflected in the deeply entrenched variations between cultures and languages. As Alverson (1994: 22f) demonstrates, any description even of a quite simple scene results from a selective expression of perceptual/cognitive cultural information, which both sees less than one *might* see and, at the same time, bestows an interpretation not provided in any direct way. By comparing Germanic and Romance languages to Bantu languages Alverson intends to show that the modalities of seeing are built into language. Imagine a spatial arrangement with a box, a tree, a pumpkin aligned in a row so that the box is positioned farthest from the viewer. Speakers from both language groups would agree that "the pumpkin is in front of me". However, Europeans would say that the pumpkin is in front of the tree and the box behind it, whereas Bantu speakers would say that the tree is in front of the pumpkin and the box in front of the tree. This reflects the fact that, for Europeans, the primary anchorage for spatial relations in this visual field is *relative object size*: Larger objects coordinate the location of smaller objects. For Bantu speakers the direction of the gaze serves as primary anchorage and the coordination is irrespective of object size. Foreign to Western thought, it is also possible for Bantu speakers to reverse the scanning direction and say that the tree is behind the box, the pumpkin behind the tree, and the subject is placed behind the pumpkin. The front-back dimension can be construed from the position of the object furthest away. The comparison of spatial thought in a dozen linguistically widely-distributed cultures by Pedersen et al. (1998) demonstrates that, in some other languages, this latter optional characteristic of Bantu is the obligatory way to construe spatial relations of this sort.



This example gives rise to the conclusion that we ‘see’ directionality vectors or force attractors ‘into’ what we perceive in a culturally specific manner. It is a particular image schematic construal of a situation that creates a specific cultural intentionality, which is encoded in language. Furthermore, the example makes evident that no description of a scene is neutral (that is: non-intentional), as empiricists would prefer. How is it, then, that cultural ways of perception are imposed by differing image-schematic structurations? According to Talmy (1983), the language of spatial perception testifies to the presence of a host of image-schematic parameters. First, there is a figure-ground contrast, i.e. something coordinates the space, while other things are perceived in relation to the coordinates. Profiling a figure and backgrounding the rest is one of the most primary image schema effects. Second, there is a biased topology, meaning that normative orientations (such as upright and overturned) and directionality are imposed within the front-back, up-down and right-left dimensions. Third, there are relationships of attitude and proximity. Proximity can also be a sort of predicative relation between two objects, i.e. one is construed as belonging to or influencing the other. Fourth, there is an imagined perspective on the scene. Perspectives can switch, as the above example from Bantu shows. Fifth, there is a specific distribution of mental attention from the perspective point. This distribution may closely parallel the figure-ground distribution. Sixth, imputed to the scene is a force dynamics explaining what makes the scene causally appear this way and what tends to happen next (such as dynamic movement in a direction). I would argue that all of these features are present in perceptions as well as the mental images elicited by linguistic descriptions, e.g. by spatial prepositions. The difference is that in elicitation from memory the features will be more skeletal and idealized.

Often it is words that elicit a particular intentionality. While the word “over” signifies a relationship between the reference landmark and the object, “above” does not. A fly is not

over the fireplace, but above it, whereas a picture hung on the wall there can be said to be over it, because it belongs there, will remain there, and is meant to form an ensemble.

Apart from the subconscious patterns of culture and language, perception is also mediated by conscious theories. However, the question as to how far perceptions and theories may be held apart is tricky. In a well-known debate the following question is at stake: Did Johannes Kepler and Tycho Brahe see the same thing when they stood together on a hill watching the sun dawn? After all, we know that Brahe believed the Earth to be the static center of the universe, while Kepler believed that the Earth revolves around the sun. Gerhart and Russell (1982: ch.2) contend that both were equally deluded into seeing the sun rise higher and higher above the horizon at a perceptual level, however one of them had the added awareness that what he was seeing was actually not the case. Gerhart and Russell clearly perceive that this is a conflict between direct and instrumentally mediated experience.⁸⁴ Mediated experience means that either an instrument or a theory intervenes before our perception and interpretation of something. The authors recognize that the world is inherently a world of projected imaginations, largely consisting of second-order mediated experiences.⁸⁵ This being the state of affairs, instrumental data may take precedence over data of immediate experience where the two sources of knowledge are in disagreement. Therefore, Gerhart and Russell argue, Kepler saw the same natural event as Brahe, although his theoretical knowledge made him think of it as an illusion. However, I do not fully share the conclusions of Gerhart and Russell's model that divides perception and conceptual activity into two stages where one simply overrules the other. I prefer to side with Norwood Russell Hanson's claim that the two men were seeing different things from the start (*Patterns of Discovery*, Cambridge 1972). Viewed in the light of the above observations on the unity of perception and cognition, it is not unlikely that Kepler immediately attributed particular force vectors to his perception. We cannot rule out that his theoretical knowledge was from the beginning brought to bear on the way he structured his visual field into a static center (the sun), a dependent and revolving satellite (the Earth he was standing on) and force relations of attraction between the two. Such a view is borne out by many findings in cognitive science which indicate that expectational patterns inextricably enter into the act of perception itself.

⁸⁴ A very simple example can be found in the well-known Müller-Lyer illusion where two shapes of the same length looking somewhat like >===<

and <===>

appear to be of a different length to direct perception, although if we redirect our gaze in an analytical attempt and compare the parts in a scaling scanning the illusion becomes evident.

⁸⁵ A 'culturalized' version of the same theory is presented by Robin Horton (1982: 228), who distinguishes universal 'primary theory' from widely divergent 'secondary theories'; which are heavily imbued with cultural logic and involve a massively theory-mediated sort of causality.

Clearly, a scientific theory with which one is equipped forms such an expectational pattern. The position that pure perception precedes evaluation does not make any sense. Image schema theory explains how it is that expectational knowledge shapes percepts. This claim would otherwise remain opaque, because the percepts and concepts could be simply seen as two stages that sometimes enter into conflict. While this may be possible in other cases, I believe that Gerhart and Russell overlooked an important alternative in their example.

The insight that visual perception habitually includes superimposed images of intentional vectors (whether cultural or theory-dependent) lends substance to the claim that no neutral data exist, and that the God's eye-view of empiricism must be rejected on principle. A unity of perception and cognition means that the interpretive act is just as subconscious, just as automatic and just as involuntary as the concept of sensory 'data' implies. It may also mean that the two acts fuse inseparably in the mind instead of being consecutive phases. Even though it seems legitimate to trace cultural patterns in this conglomerate, we have to abstain from seeing cultural interpretation as a *secondary* act staged on a universal ground of given data. Cultural perception patterns may be so deeply inscribed in our body and brain that they cannot be simply unlearned, i.e. they form an inextricable part of the culturally embodied mind.

MATERIAL METAPHORS: IMAGE-SCHEMATIC PATTERNS IN ARTIFACTS

Culture specific patterns of cognition are often reflected in objectified imagery of the public sphere. Such imagery has been called visual or material metaphor. This means that cultural artifacts are understood as bearers of image schematic structure and that subconscious (or perhaps even conscious) relations are drawn to image schematic patterns underlying other artifacts, speech patterns, or a kinesthetic style. In some cases artifacts are extensively used as metaphors of cosmology or as mnemonic devices that complement cosmological narratives.

An outstanding case study of material metaphors is Blier's book *The Anatomy of Architecture* (1987). Her work furnishes superbly documented materials of the variety of metaphors found in the houses of the Batammaliba, who live in the border area of Togo and Benin. The architecturally complex houses of the Batammaliba are condensed visual metaphors that encapsulate aspects of the cosmos, such as the Battamaliba cosmogonic narrative, or ideas about the hereafter and about the realm of the sacred. In addition to that, a diversity of other themes, such as the psyche, family, political expression, and theatrical performance, are conveyed through aspects of the house. Not only is her work of rich descriptive value, Blier also develops a workable typology of material metaphors (p. 36-37, also see Tilley 1999: 41ff). Her typology provides a good opportunity to introduce different

visual metaphor types and find out which of them predominantly employ image schematic similarities.

In what Blier calls *condensed metaphors* a larger idea or form is incorporated into a compact but essentially complete miniature of it. This is the principal metaphorical relation of the Batammaliba house to the cosmos by virtue of sharing basic shape and structural relations with it. The house incorporates the essential features of the Earth. Like the Earth, each house and each room is basically circular. Apart from this fundamental image-schematic similarity, the multi-storied houses and the cosmos share an overall structural part-whole relation of the same topological arrangement. Just as the cosmos is stratified into Sky, Earth, and Underworld, so is the house vertically divided into parts representing these three. Through this image-mapping between two similar relations in the up-down dimension other attributes of the cosmos are transferred on the house. Batammaliba architects strive for balance and evenness in the house, so that no main part would be larger than any other, just as the creator deity Kuiye – the original architect of the world – put emphasis on evenness and balance in the Earth's creation. There are also non-image-schematic similarities to reinforce those similarities, e.g. that the terrace roof is similar to the Earth in that it has a thick soil surface. The house also incorporates related metaphors in many senses not mentioned here. This includes references that have to do with directional alignment of the houses axis, silhouettes of house parts, and the embedding of forms.

One of the most frequently occurring metaphors is that of *nesting*, i.e. the superimposition of a series of elements or the positioning of elements inside one another. This happens in both architectural and ritual forms, in which a sequence or embedding of themes is suggested through such a nested structure. It is frequently the case that the nesting sequence mirrors the sequential ordering of ideas in the cosmogonic narrative that complement the architectural form or use it as a mnemonic device. In other words, the nesting of parts is iconic of a temporal or logical sequence expressed in narrative. Such iconicity rests on image schematic relations of similarity, as every kind of iconicity intrinsically does. In other words, the relevant information is conveyed through a focus on the structural relations of the parts nested inside each other. Such a structural relation may give rise to an interpretation of temporal or logical precedence and conditionality. Here the characteristics of the image schematic operation of scanning elements in temporal sequence are important. What comes first in the scanning, beginning from the outside and proceeding to the inside, must also come first as cause or as a preexistent background of the story that is necessary to understand the newly introduced elements.

Directional affiliation is also frequently employed as a means of cosmogonic expression. A form is metaphorically identified on the basis of its topological orientation, the direction of its openings, or the placement of its parts. For example, the narrative account of the sun's

movement across the sky has clear parallels in architecture and village planning. The house's axis is positioned along the sun's east-west course and marked by several architectural features such as two horns positioned over the entrance and the directional alignment of the terrace's crosspieces. Through this the importance of the solar and creative deity Kuiye is reinforced. Image-schematically the imagined path of the sun is mapped onto a line created by orientational landmarks and onto the perceived balance of the northern and southern sections of the house that gives it symmetry. Both directional paths are orientated in the same direction with respect to the surrounding landscape, which forms a common landmark. In this way the propositional attributes that the paths stand for are also likened. Perhaps both paths can be imagined as a single image where they are superimposed and where the attributes of the house and the attributes of Kuiye (the sun) are identified with one another. A similar metaphor of directional affiliation is the split of the villages into two clans who generally build their houses on opposing sides of the village. This split is consistent with the narrative's first two human men who were put into the sky by Kuiye to pull the sun back and forth. Just as there has to be balance between these two Gods for completing the daily cycle, there has to be a balance of ceremonial responsibilities and benefits between the clans, and all this is reflected in the visual balance of the village plan. Here a balance of a movement back and forth is mapped onto a balanced distribution of salient objects in a space. It may be necessary to point out in this context how it is possible that the spatial distribution of objects and force relations can be seen as imagistically similar. This is the case because the distribution of objects imparts force vectors and centers of visual gravitation to the space it is placed in (Arnheim 1969, 1982; Johnson 1987) and the distributional force vectors in the one image can be mapped on the equal path and strength vectors in the other. It is interesting to see that responsibilities and benefits are equally understood as forces and mapped onto this relation. This is most likely possible because social responsibilities are metaphorically understood as physical compulsion and benefits are seen as objects giving us strength.

Most interestingly, the repetitive movement of the sun is reflected in the repetition of architectural elements of the kind relating to the sun. Here image-schematic similarity arises because the repeated mental scannings necessary to visualize the same image of the sun along a time axis correspond to the necessity of repeated scanning movements over the house's surface. In addition, we can postulate a highly abstract schema for number through which the human mind can liken the multiplicity of scannings to a multiplicity of images seen as a static perception when the house is looked at.

In *silhouetting metaphors* an object is defined through its distinctive profile and mapped on similar profiles. The circular silhouette representing the Earth is the most frequently recurring one and is found in the shapes of houses, village designs, and tombs. The creator deity

Kuiye chose a calabash as the template for the Earth's silhouette. The roundness of calabashes, which are used as eating, drinking, and offering vessels, is associated with life, sustenance, and well-being, i.e. qualities the Earth plays a role in providing. (Calabashes are further associated with fertility, because a single calabash contains hundreds of seeds. Hence the essentially circular form of rooms and the house suggest fertility.) In silhouetting metaphors the role of image schematic structure is quite plain to see. The mapping of one circular image on another is again used to map the associated qualities, such as fertility, from the one object on the other.

Reversal metaphors are used to give ideas of transition concrete visual expression. A central cosmological reversal is that between life and death. As has been explained before, the calabash is associated with the Earth and life by virtue of its circular form and by virtue of embodying fertility. It is the case in some rituals that the calabash or similar round objects are turned over to represent death, that is, life's reversal. It is particularly intriguing to try to understand how the notion of thematic opposites is mapped by the reversal of spatial orientation. One answer may be that opposite qualities are, just as opposite spatial orientations, metaphorically understood in terms of vying FORCES that cancel each other out. This would reflect prototypical experiences with physical objects, e.g. 'up' is the force opposite of 'down' in terms of gravitational pull. If this is correct there would be an image-schematic representation of life and death as two opposing and struggling vectors.⁸⁶ One interesting kind of reversal occurs when somebody makes the transition from the exterior to the interior of a house. The Batammaliba link many gender activities to one or the other side of the house, which embodies parts of the female and parts of the male body, since the house is an image of the androgynous deity Kuiye. The left hand of Kuiye is associated with men and the right hand with women. Standing inside the house the proper orientation is westwards and the house's south part is therefore male and the north part female. Facing the house's facade from the outside the gender orientation is reversed. This reversal can be understood in terms of the image-schematic transformation from inside to outside perspective.

A further type of metaphor that is not in any direct sense image-schematic is *skeumorphic metaphor*. In skeumorphs a material other than the original is used for its model. Frequently one material is substituted for the other to represent a change in time, place, or status. Material texture and color are detail (rather than schematic) features of objects. However, the material change implied in the skeumorph seems to give rise to an abstract recognition of

⁸⁶ Another explanation might be that the collapse of a person is associated with her being dead and that an upright orientation is necessary for most life forms and objects to function properly. However, since, in this case, the reversal can only be used for the life-death relation, but not for other binary opposites, this explanation is wanting.

difference as such and an image schematic model of transition between different states. Only by an abstract schema a transition in quality (say, between mud and stone) can be recognized as similar to a spatial transition (say, the path from one place to another in a narrative). In order for this to be the case, the material change must presumably evoke a PATH schema from one state to another. In other words, states (or we might say: attributes) need to be metaphorically conceptualized as CONTAINERS first. Once this quite natural metaphor is presupposed, skeumorphs are imagistically understood as paths of transition in a second step.

The most simple, and at the same time most general, image schematic metaphors are what Blier calls *primary shapes* (p. 208-215). Batammaliba symbology knows four of these primary shapes, which are taken from related forms in nature and everyday life: the circle, the line, the fork, and the cross. Each of these shapes assumes a series of related metaphoric identities, by which they convey specific ontological qualities embodied by each type. Circular silhouettes and design employed in house architecture are intended to fulfill the triple role of container, protector, and renewer of life. The first two aspects are directly determined by the nature of the circle as boundary of inside and outside, while the third aspect is determined by associations with femaleness and fertility, because the woman, like the circle, is identified with enclosing life. Literally meaning 'bracelet', circles are also related to personal identity, since bracelets and other jewelry are associated with the personal identity of the bearer. Ritually recreating circular patterns creates enclosures that contain and give definition to its inhabitants: the circle provides protective identity. Moreover, the circle is linked with certain aspects of time and suggests the idea of continuity, apparently because its closed silhouette evokes the ongoing cycles of days, weeks, months, seasons, etc.

The second shape, the line, has the primary ontological function of a link between two places or forms. In its various natural manifestations as a path, a drawn cord, the path of an arrow, etc. the line conveys the combined aspects of mediation, movement, and transition. Again, a line or longish object may reach beyond its ends and create a path or end-point focus and symbolize movement in this way. Linear forms mark the vertical mediation between the upper and lower house planes. Also, pathway signs are incorporated into the house facade with the purpose to help deities and worshippers identify religious sanctuaries. Lines traced in ritual, such as by dropping the house horn, allude to the movement of the spirit to the world beyond.

The third shape, the fork, is associated with height and support, based on tree branches and supporting structures in architecture. The fork symbolically reaffirms the house's role in supporting and elevating the lives of the inhabitants. Social support is understood as physical support. This is also reflected by the fact that important elders, who play a major role in supporting their families as geomancers or healers, are metaphorically referred to as forked

supports. Furthermore, forks are associated with ladders used in ascending from one level to the next, and by implication with deities of the above.

The fourth significant shape is that of the cross. In nature the cross is defined most clearly by the form of two paths crossing and is thus seen to represent a marker, a meeting place, or a divider of space. The cross as an architectural symbol is meant to reinforce the role of the house as a juncture for men and women, adults and children, but also between humans and deities or living and dead family members. In ceremonies and healings cruciform shapes are used as a spatial marker for the soul where it should come to stay, which at the same time, again, defines a point of convergence between deities and humans.

It can be observed that all of these primary images, with the possible exception of the fork as a supportive structure, would be used in a very similar way in Western culture. This is not surprising, since they are motivated by much the same very basic spatial structures that are a part of human life everywhere in the world. Although we cannot undertake a cross-cultural analysis of primary forms here, we will probably not get any closer to any universal aspects of symbolic meaning than these simple shapes.

DO METAPHORIC IMAGES VARY IN IMPACT DEPENDING ON THE SYMBOLIC MEDIUM?

Sometimes images are assumed to play different roles depending on their symbolic medium. For example, Christopher Tilley (1999: 263) presents an argument for the necessity to differentiate between linguistic and material metaphors, in order to underline the unique power of the latter. However, strong caution is necessary against any such principled cognitive dichotomy. Let us follow Tilley's argument to see where he goes wrong. Although he acknowledges that linguistic and 'solid' metaphor are functionally complementary, he seems to believe that linguistic metaphor is fundamentally digital and does not allow the condensed and simultaneous recognition of complex textures. He argues that 'solid' metaphor as analogous and multi-sensory Gestalt permits a greater economy of form, whereas entire strings of words would be required for the same effect. While I do agree that objects can prompt rich multi-sensory textures of smell, touch, sound, and visual image, there seems, in my opinion, no reason to believe that language cannot elicit equally complex and multi-modal representations. The problem seems to follow directly from the fundamentally vague view about the cognitive effect of words which underlies Tilley's position. The inadequacy of this view results from only taking into account the *format of the linguistic medium* and ignoring the divergent *format of the representation* that is elicited by it. While it is obvious that spoken language comprises strings of discrete signifiers that unfold in time and sequence ('digital'), I have tried to demonstrate in this chapter that the same need not be true of the mental representations triggered by language. First, phrases and larger compounds of words evoke mental imagery in a way similar to the perceptual images of

material metaphors. One fundamental characteristic of the view of language subscribed to here is that digitally coded sentences are understood as analog mental images evoked by words.

In chapter 13 evidence will be summoned to demonstrate that entire stories or pieces of music can be mentally condensed into one central Gestalt image (although it goes without saying that much detail information is bypassed in the process and needs to be recalled as a separate entailment.) Another later argument is that the structure of a linguistic event such as a poem – or, for that matter, any other event – can be understood in a single analogic image. Thus, both the semantic and the structural features of language are not, in principle, processed differently than the sensory images produced by material objects so far as the digital/analog contrast is concerned.

A related, but different argument, which is worth evaluating, claims that mental images are empirically relatively unconstrained, whereas material representations are more constrained (Tilley 1999: 268).⁸⁷ According to this position, the image evoked by the word ‘fox’ or ‘moon’ may differ considerably across individuals, while the material image affords a common starting point, although Tilley admits that “we may still ‘see’ very different moons or foxes in it”. However, the argument for the inalienable quality of things which operate “physically, preverbally, emotionally, evocatively” (p. 272) takes a risky tack, if it means to imply any sort of immediacy of perception into which no process of selection or interpretation enters. Consequently, this amounts to subscribing to a sort of naive realism. It should be open to empirical question under which exact circumstances percepts of material objects elicit more constrained representations than words do.

Yet another factor has to do with the emotional impact of objects and words. Arguably, non-verbal sensory prompts often have a stronger immediate emotional impact than words, which require a greater degree of image evocations from our memory. However, I am not entirely convinced that it is always the case that ‘a picture is worth a thousand words’. I would venture the guess that this depends on the richness of the cognitive background into which the stimulus is embedded. For instance, if we hear a religious narrative that evokes a rich background of related images and stories together with strong feelings of holiness and embodied states, the emotional significance may be just as deep.⁸⁸

⁸⁷ This is also reminiscent of Lévi-Strauss’ claim that non-linguistic things are “good to think” (*bonnes à penser*).

⁸⁸ There are more reasons militating against a strong dichotomy of linguistic and solid metaphors. Just as linguistic images, objects also elicit scanning operations, especially if they are spatially extended, complex (such as pieces of art) or evoke imaginary movements (e.g. arrows). Of course, it is easy to be misled by the impression that in an object everything is co-present, just because it is so tangible. Yet, it is impossible to see an object from different perspectives at the same time. Approached from

LINGUISTIC CLASSIFIERS AND IMAGE-SCHEMATIC SHAPE

In some languages, words are explicitly classified according to the shape of the image they evoke. Semantic classifiers (usually prefixes, infixes, or suffixes) simply provide hints about the shape of a material thing or, in a metaphorical expression, about the shape it is considered most evocative of. Naturally enough, inasmuch as categories are groupings of many things of approximately similar shape or abstract entities evocative of it, their common underlying profile is schematic. Such classificatory markers can reinforce particular image-schematic aspects of words or create specific imagistic associations for abstract words. A well-documented case is furnished by Blier's (1987: 228-234) discussion of the noun classification system in the language of the Batammaliba just discussed. The Batammaliba identify each noun, i.e. any word designating a thing, by one of nine prefixes. The noun classes relate either to the shape or to the function of the thing designated by the noun. Rather than only reflecting given features impinging on the perceptual apparatus, the prefixes influence how the nature of the root words is perceived, e.g. whether a door is seen as relating to the transition from the outside to the inside or relating to the sacredness of the house it partakes of. This discriminative and additive function becomes clear from the fact that many noun roots may be combined with several prefixes depending on which aspect is emphasized.⁸⁹ These markers add the necessary supplementary details to specify an object's role in a particular mental scenario to the schematic primary image. In other words, the class-markers bestow a more specific intentionality on the perception: they make an *object* out of a simple thing by harnessing it to, and imbuing it with, a cultural function. Thus, classifiers lend a specific ontological profile to the representation of their referent by placing it in a particular class of things within the culturally ordered universe of the mind.

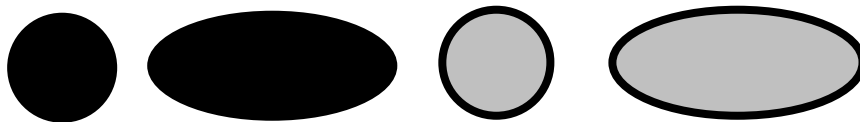
The Batammaliba classifier prefixes form thematic groupings, and at least some of them are defined by a straightforwardly image schematic pattern: The first prefix (*o* or *u*) designates nouns for people. The second prefix (*ta*) is identified with things either contained

the other side, while we can never simultaneously focus on all the details of a long text due to memory restrictions, we can hold some degree of complexity in simultaneous focus, just as with an object. For these reasons it seems that at least similar constraints apply to objects and language:

⁸⁹ Palmer (1996: 140, 142) notes the same thing for Bantu languages and Western Apache, where "different classifications of the same argument selectively profile various dimensions of the argument". In Bantu the classifiers highlight certain features of their noun complements. For example Kiswahili modifies the root *toto* as *m-toto* 'child' (person class), *ki-toto* 'childish' (thing class), and *u-toto* 'childhood' (abstract class). All other things being equal, in Western Apache it is the verb that is modified. For instance, in the expression for 'hand me the tobacco' the verb can either be modified with the marker for single elongated objects or for squarish and compact objects. In the former case tobacco will be understood as cigarette and in the latter as a pack of cigarettes or perhaps a pouch of chewing tobacco.

within something or enclosing something else. The third prefix (*fa*) designates things that are found outside and stands in many respects in contradistinction to the previous class. The fourth prefix (*ku*) designates places and states of being, things that serve as linkages between places or states of being, and surfaces. The fifth category (*li*) is tied to nourishment, fertility, and light or considered to be sacred. The sixth noun class (*bu/mu*) is linked to work, earth and plants. The seventh group classifies all distinctive spatial concepts, especially with their position and orientation in relation to the ground. The eighth class (*la*) groups things that are youthful or immature. Finally, the ninth class (*ba*) identifies fluid things. Among these categories it is apparent for at least five of them that simple image schemas define them. This is clearly the case for categories of enclosed/enclosing, non-enclosed/outside, places and states/links/surfaces, spatial relation concepts, and fluids. In all of these cases the prefix links a mnemonic reminder to the word root, as to which kind of image-schematic relation is relevant here. (By contrast, for people, for sacred things, for sun or fertility related things, for work or plant related things, and for immature things presumably more complex means of identification are required than a single relatively simple image schema would furnish. Here the mnemonic reminders indicate a more complex propositional array of knowledge.)

Palmer (1996: 126-147) carries together ample material to show that the classifiers of several other languages can be subjected to a similar analysis. The example in which categories are most clearly discriminated by image-schematic configuration are count nouns in Proto-Bantu (p. 129-132). The main spatial configurations are non-extended solid figures; extended solid figures; non-extended outline figures; and extended outline figures:



There are also image schemas for the plurals of these categories that conceive collections of these basic images (with the possible exception that the plural of outline figures has no differentiation of extended and non-extended). For Proto-Bantu mass nouns there are similar differentiations of whether they are cohesive or dispersive, solid or liquid, and structurally homogenous or differentiated, again three image-schematic pairings. All of the classes include concrete as well as abstract concepts. Interestingly, if we assume that categories are motivated on the basis of a common image schema profile, they allow direct inferences of what a given abstract concept is conceived as. For instance, whistling and life are dispersive substances that spread just as light, darkness, or sand do; night has differentiated internal structure just as bridges, canoes, or faces have; dreams have a non-extended outline figure

together with pots, bee-stings, or journeys; and musical melodies are extended outline figures together with a body side, a palm of the hand, or a spider's web (p. 130-31).

From his own ethnographic research Palmer reports that the Coeur d'Alene language of Idaho uses body part suffixes for creating image schematic classes. These include the suffix for head (for CONTAINERS), ear (for THINGS DISTRIBUTED ALL OVER), back (for SOLID, FLAT OBJECTS), hand (for BRANCHING STRUCTURES), belly (for VERTICAL FLAT SURFACES), and skin, hide, or blanket (for FLAT, FLEXIBLE OBJECTS). In addition suffixes for tree (for LONG, RIGID, CYLINDRICAL OBJECTS) and canoe (for OPEN OR CLOSED CONTAINERS) are common. The Bella Coola language, which belongs to the same group of Salish languages, uses a similar assemblage of anatomical suffixes plus a group of additional classifiers (p. 129). Intriguingly, these languages show that salient concrete images (of body parts) can function as the cultural prototype of the image-schematic category, and that, at the same time, the general postulate of the body as a template for the world is suggested. Generally, it can be seen that the different categories result from combinations of a few spatial dimensions. Coming to a similar conclusion, Palmer (p. 142) reviews data on the classifier system of Western Apache by Keith Basso who distinguishes a matrix of seven dimensions that define the thirteen class-markers of Western Apache. The classes can be reconstructed from the dimensions ANIMAL/NON-ANIMAL, ENCLOSURE, STATE (SOLID, PLASTIC, LIQUID), NUMBER, RIGIDITY, LENGTH, and PORTABILITY. It is important to see that these are analytical primitives which do not govern verb selection as single dimensions, but as combinatory schemas, such as 'single, solid, long rigid objects', 'masses or conglomerates of plastic material', 'uncontained liquids', or 'objects enclosed in rigid containers', to name a few.

These examples show a major way in which language ontologizes by identifying all things with respect to a very limited number of categories and assigning a particular nature to each word by placing it into a province of associated things that are alike in one respect. The prefix system does not only define the words' specific meanings, it also reinforces the identity of the category of concepts it belongs to in the very naming of each word.

This notwithstanding, Lakoff's (1987) treatment of Japanese classifiers, which also highlights the image-schematic value of markers, at the same time shows that we should not push our claims too far. Even though the Japanese system features imagistic markers, such as for LONG AND THIN or for FLAT, it also reveals more complex principles of classification in addition. A full explanation requires one-to-one linkages between similar or metonymically associated class-members, which are progressively chained into a network. There is no necessity of a general image that unites all members as instances of a single schema. In the same vein, Palmer (1996: 132f) argues that a fuller understanding of some of the above-mentioned Proto-Bantu categories requires such contextual cultural associations, while Lakoff (1987) goes even further in his analysis, presenting an example with the Australian

language Dyirbal where these metonymical links hold complete sway, with image-schematic similarities having little or no influence (see chapter 8).

IMAGE SCHEMAS AND HABITUS

Image schemas are not only found in artifacts, emblems, and linguistic imagery of various sorts, they are also found in the manner people move. Image schemas as dynamic, embodied, and kinesthetically based structures *par excellence* also account for the recognition of motor and movement styles. Image schemas in an action-oriented perspective are in fact what Bailey et al. (1998) call 'executing schemas'. These contain information about the movements and postures of different body parts and information about the setting of present objects. In this perspective, thinking a movement word (such as a verb or a preposition) and actually performing an analog movement is cognitively very closely coupled. That this is borne out by introspective experience is illustrated by the following brief example. When rehearsing movements in sports or dance in the imagination involuntary body movements linked to the imagined movements may occur, so that when someone imagines executing a step, posture, gesture, or routine her hand may flinch, and so on.

It seems quite plain that the concepts of *habitus* as laid out by Bourdieu (1977) and that of image schema are closely related (see chapter 4). I am also indebted to Rudolf Arnheim's seminal work *Visual Thinking* (1969), which was actually published some time before Bourdieu's concepts gained popularity. Arnheim's work reflects a thorough consciousness of the relationship between abstract thought patterns and patterns of movement. Recasting Arnheim's observations in the terms of Bourdieu's approach is not very difficult to accomplish. *Habitus* is Bourdieu's designation for the 'structuring structures' that are present in many aspects of culture, weaving a net of homologies, and are learned through a culturally determined and subconsciously embedded array of patterns.

The concept of *habitus* states that cultural ways of looking, gait, posture, gesture, movements of the speech apparatus, and onomatopoetic features of speech itself embody structural codes that shape social practice. A corollary thesis states that these structures stand in a relation of formal homology to the spatial division and alignment of public space, buildings, and artifacts. (These two aspects can be seen as testifying to the fact that proprioceptive body awareness and objectified imagery are immediately interwoven.)

I submit that all of these patterns of *habitus* are, in fact, image schematic to a large extent. I want to demonstrate this by means of a short but suggestive example given by Arnheim (1969: 117) on embodied patterns and their practical relevance for cultural practice. Further examples pointing in the direction will emerge in later chapters. Arnheim cites a study originally conducted by David Efron called *Gesture and Environment* (1941) to investigate the gestures of two New York City minority groups. Efron's study contrasts a group of

traditionalist ghetto Jews and a group of Italian immigrants from a rural background of low literacy. The study shows that the character of movement patterns, i.e. what today is included under the heading of *habitus*, varies in accordance with the style of reasoning typical for the two different groups. According to Efron, the gestures of the Jews exhibit a frequent angular change of direction in their movements, which result in an intricate zigzag pattern. This motor-style or *habitus* is related to their style of thinking influenced by the sophistry of traditional Talmudic thinking. By comparison, the Italian immigrants exhibit a style of movement in which the same direction is maintained until the gestural pattern has been completed. This is seen as the reflection of the Italians' clear-cut, less sophisticated, uni-directional style of thinking. Arnheim (p.118) goes on to point out quite explicitly the relation of image-schematic thought (which he calls 'structural resemblance') and *habitus*:

"Gestures will act out the pursuit of an argument as though it were a prize fight, showing the weighing of alternatives, a subtle attack, the crushing impact of the victorious retort. This spontaneous use of metaphor demonstrates not only that human beings are naturally aware of the structural resemblance uniting physical and non-physical objects and events; one must go further and assert that the perceptual qualities of shape and motion are present in the very acts of thinking depicted in the gestures and are in fact the medium in which the thinking itself takes place. These perceptual qualities are not necessarily visual or only visual. In gestures, the kinesthetic experiences of pushing, pulling, advancing, obstructing, are likely to play an important part."

Such a perspective implies that *habitus* is, in many cases, not a matter of pure cultural convention, but that it is motivated in terms of highly general basic image schema patterns. Recent studies also point to the image-schematic nature of human gesture and of sign language for the deaf (McNeill 1992, Wilcox 1993, Taub 1997, Cienki 1998).

Other examples, such as Bourdieu's (1977) characterization of gender differences in *habitus* among the Kabyle, indicate more complex image schemas culturally encoded in body postures. For example, the Kabyle association of femaleness and insideness is actually understood by the women in terms of their gendered *habitus* in an embodied way determined by a link of motor schemas and somatic states. Restraint and retraction may be aspects of a Kabyle version of the ENCLOSURE and STASIS schemas shaping embodied femaleness, while men's embodied identity is defined relative to the complementary NON-RESTRAINT and DYNAMICS schemas. In a developmental view, the objectified understanding, such as that the inside of the house is female and the world outside male, may be more secondarily elaborated only after and on the basis of embodied motor schemas, as noted in chapter 4 for Samoan *mana*.

Under the heading of *habitus* we might also include the fact that body proprioception and objectified images of the external world can be mapped on each other by virtue of image-

schematic similarity. This is, for example, used extensively in healing rites to affect the body's function through the manipulation of symbols. René Devisch (1993: 247-48) proposes a reanalysis of how the ENCOMPASSMENT image schema – or so I would call it – is effective in a healing rite originally described in Victor Turner's work on the Ndembu of Zambia (1967: 41-43, 1968: 52-88).⁹⁰ In the *nkula* cult a woman suffering from barrenness, miscarriage, menstrual disorders, difficult delivery, etc. is led through a ritual of redress and re-identification with maternal values. A spirit hut 'of the *nkula* shade' is erected behind the patient's house. There she is led to ritually adopt the virile behavior of the hunter and the warrior, as hunting and giving birth are considered analogous processes. Furthermore a calabash symbolizing the womb is used in which an infant's figurine is bathed in a mixture from red gum until it coagulates, much as menstrual blood should coagulate in the womb to form a child. Devisch then directs our attention to the relationship between the patient's body and the shade-hut, which Turner failed to recognize as a specific effect:

"Movements in and out of the shade-hut, putting medicines in the mortar, pot, or house, and extracting preparations from these containers and giving them to the woman to drink or splashing them over her body are metaphors both for purging the patient's body of intrusive elements and for making her an agent capable of inclusion and life transmission. The shade [which enters the body as a medical root potion identified with *nkula*] moreover articulates ties with uterine descent. The patient hereby experiences 'embodiedness' and embodiment, *feeling contained and herself being able to contain*. This logic intertwines the patient's longing to be a baby and to have one, that is, to relive a fetal condition and symbiosis with her mother, on the one hand, with her wish to becoming herself a mother, on the other." (p. 248) (my italics)

If Devisch's interpretation is correct, the ritual's success hinges on a complex cultural image schema of ENCOMPASSMENT, which brings together in a single mapping the body as container and the hut as a container for the body. The metaphor's enactive purpose then is to make the patient's body perform the same act of containing that is performed on it, while at the same time the woman is identified in a double role as infant and as mother, so that the theme of reproduction of society from generation to generation is asserted. The basis for the identification of both aspects is the image-schematic ENCOMPASSMENT relation: It relates the woman's proprioceptive sensation of ingestion and the ensuing images of being an agent of inclusion to the perception (and feeling) of being encompassed. Thus the desired habitus of childbearing is produced via an enacted image that is meant to work on the level of embodied knowledge.

⁹⁰ I am indebted to Tilley (1999) whose book brought the example to my attention.

IMAGE SCHEMAS AND PHONOLOGY

There is also a phonological dimension to image schemas. This includes embodied meanings based in movements of the speech apparatus of the producer and, in all likelihood, also acoustically image schemas evoked in hearing produced speech.

In a number of examples, the kinesthetic behavior of the speech apparatus used in producing sounds reflects some general kinesthetic image schemas. In a mantra a long “aaaa” will evoke a schema of continuity and soft progress. The spat out “ha” in the martial arts when beginning an action, however, evokes, a schema of quick and aggressive force. This is not only how these sounds are heard, this is also how the body of their producer acts image-schematically. In a “ha” there is a quick contraction of the diaphragm and a quick release and opening of the glottis and a forceful expulsion of air. In an “aaaaa” there is a slow and controlled release of air that lets the body vibrate, whereas the airpipe remains open to the same degree from the sound’s beginning to its end.

Janis Nuckolls’ survey of work on sound symbolism indicates a series of interesting phenomena. There is some evidence for an iconic relationship between intonational profiles and pitch that appears to be very frequent across cultures (Nuckolls 1999: 229). The increase in tension of the vocal cords (high pitch sounds) and the decrease of tension (falling or low pitch) have a near-universal tendency to be associated with the contrasting ideas of incompleteness and completeness. For example terminal boundaries of units such as clauses tend to be marked by falling pitch, while breaks in utterances as well as questions – i.e. situations where something will follow – tend to go with high pitch. Consider now the kinesthetic behavior of the speech apparatus. At least at the intermediate sound ranges lowering pitch requires less tension and effort of the sterno-hyoid muscle than high pitch (only at very low frequencies more effort is required again). Therefore, there is an iconic metaphor TENSION IS INCOMPLETENESS and RELAXATION IS COMPLETENESS, which is typical of human action in general. As long as an action is incomplete, we have to keep our bodies in active tension, when it is over we can relax.

Moreover, several studies on natural language and experiments with invented words indicate the diminutive symbolism of high vowels (p. 230ff). The concepts associated with high vowels include physical smallness, brightness or lightness, quickness, singularity or proximity, and attitudes such as affection, intimacy, disdain, and acquiescence. The factors most significantly affecting subjects’ judgments of vowel magnitude were articulatory position and resonance. When the high front vowel /i/ is pronounced, the tongue is raised and moved forward. This decreases the space between the front of the tongue and the roof of the mouth compared to dark vowels which require a large space. Again, it seems that this feature of the speech apparatus stands in image-schematic similarity to the semantic meanings relating to smallness, which are associated with the high vowels.

Furthermore, in languages which use consonant shifts, chiefly in noun and verb roots, to express diminutive notions, two articulatory features of the speech apparatus are found, namely tonality and hardness:

“Tonality involves the raising of consonantal frequency by a more forward articulation or by palatalization, which raises a consonant’s second formant. Hardness shifts involve a more forceful manner of articulation, involving more tension and muscle activity rather than a change in point of articulation.” (p. 232)

Regarding tonality, the reduced resonance chamber when pronouncing high vowels is “congenial with ideas of smallness”. While the relation of hardness to diminutiveness is less clear, an explanation may be “that extensions of diminutive concepts, such as quickness, brightness, and hardness, can be reconciled with articulatory hardness”(p. 232).

It is well documented that some phonesthemes can give rise to a conventional sound-meaning correspondence, such as the association of the English “glance”, “glare”, “gleam”, “glimmer” with something visual or the association of “ash”, “bash”, “dash”, “gash” with fragmentation, collision, or impact. I would like to suggest as partial explanation for this that image-schematic dimensions in the speech apparatus motivate some of these correspondences. For example, in English an initial ‘tw’ as in “twirl”, “twist”, “tweeze”, “tweak” suggests a twisting or pinching motion. Correspondingly, the contracting and releasing lip motion in producing the ‘tw’-sound requires the same kind of spatial movement used when we rapidly close our fingers in a pinching motion and then open them up again. If this observation is correct, the employed similarity is of an image-schematic kind.

In all the above examples it was argued that image schemas enacted by the articulatory apparatus are mapped onto semantically evoked image schemas. On top of this there is a second possible way how phonemic image schemas may be motivated, which is more disconnected from the speech apparatus itself, although it can provide an additional iconic layer to it: I would like to hypothesize the existence of image schemas residing in the ‘topology’ of the sound profiles themselves. Inspired by findings in musicological research (Cook 1990, see ch.12), we may assume that imagery is evoked by intonational profiles in spoken language as well: It was mentioned above that rising intonational profiles are connected to tension in the speech apparatus and thus incompleteness, while falling intonations suggest relaxation and completeness, by which they mark statements, assertiveness, and aggressiveness. However, there is the added possibility that an intonational contour evokes an imaginary sound space before the mind’s eye, including a base line relative to which intonational changes are imagined. A possible image-schematic explanation for the identification of falling profiles with assertiveness is that we see upward movements as incomplete and further extending, while downward movements suggest a convergence on

the base line. The imagined base line in turn suggests the finality of the notion, and thus assertiveness and authority. An experiential motivation for this may be the widespread conventional metaphor of MORE IS UP, in which a scalar schema is imagined, which is open in the upward dimension but has a definitive base line. Given the universal synesthetic identification of 'high' tones with spatial height, it seems natural that low pitches should map onto the base region of this schema and high pitches onto upward moving contours. Therefore, the metaphor DOWN IS FINAL is a quite logical corollary; hence low frequencies are being felt as being assertive.

IMAGE SCHEMAS AS CULTURAL THEMES

In summary, this *tour d'horizon* of image schema usage opens up a vista on understanding symbolic culture. Complex image schemas can become what has been called a 'thematic' or 'foundational' schema in a culture. In other words, themes central to a worldview, religion, or ideology may be condensed into one or several central image schemas. Several examples of schemas playing a key role in the making of worldviews have been discussed in chapter 6. Here, an additional aspect was introduced, namely the multiple levels of meaning that a single image schema can be attached to. One example was given above in the discussion of Kepler's cosmological dual model of God and the solar system. In cases like this, image-schematic similarities that span several cognitive domains are established. They close the gap between the domains by casting them into the same image-schematic model. Especially, the mirror relation between social ritual and natural processes is frequently due to image-schematic similarity. Pierre Bourdieu (1977: 146) observes this with utmost clarity:

"Rite is indeed in some cases no more than a practical mimesis of the natural process which needs to be facilitated: unlike metaphor and explicit analogy, *mimetic representation (apomimema)* establishes a relationship between the swelling of grain in a cooking-pot, the swelling of a pregnant woman's belly, and the germination of wheat in the ground, which entails no explicit statement of the properties of the terms related or the principles of their relationship; the most characteristic of operations of its 'logic' – inverting, transferring, uniting, separating, etc. take the form of movements of the body, turning to the left or right, putting things upside down, going in, coming out, tying, cutting, etc."

Of course, ritual and nature is only one possible thematic amalgamation established by multivocal imagery.

The search for multifunctional image schemas has significant methodological implications for the study of cultural cognition: When in one domain or research setting a single formative image schema is detected in artifacts, linguistic imagery (especially in cosmological images), phonology, and habitus, then the analyst can assume that she has found an important or even foundational schema with a culturally integrative function. In chapter 13 I will unfold this

idea into a theory of imagery-based multimedia. There I will study how a single image-schematic complex shapes a multivocal core-image of a ritual and how numerous different symbolic vehicles can be mapped onto each other for the effect of mutual reinforcement.

CONCLUSION

In this chapter I have drawn various theoretical strands and case studies together in order to define image schemas more precisely and to provide a first sketch of their ubiquity in cultural cognition. The definition of image schemas given here included a number of aspects. In a brief overview, these are:

- (a) modal (percept-like) conceptual images, which are non-propositional and use analog coding;
- (b) non-mimetic mental imagery with skeletal features on various possible scales of abstraction, but always more schematic than so-called rich images;
- (c) dynamic mental images that allow for transformations, e.g. superimposition;
- (d) combined to higher level Gestalts and often memorized as such;
- (e) intentionally construed from a vantage point and mentally invested with dynamic relations, e.g. force vectors in static images;
- (f) transmodal, i.e. pertaining to all perceptual senses, proprioception, and concepts;
- (g) grounded in sensorimotor experiences, either of the kinesthetic or proprioceptive kind;
- (h) frequently value-laden, as with axiological pairs (e.g. high-low).

Furthermore, it was shown that image schemas impinge on the mind through a plurality of cognitive media. Image schemas may be simultaneously activated as perceptual, conceptual and linguistic structures, or enacted by executing motor schemas. The explanatory scope of the notion of image schema for cognitive phenomena is remarkable. It spans conceptual models in philosophy and science, conventional metaphors, linguistic polysemies, classifier systems, phonetics and articulatory structures, pictorial representations and artifacts, as well as gesture, posture, and other motor patterns. Yet other phenomena, though perhaps more tentative, are amenable to an explanation through image schemas, but these require some preliminary discussion in the chapters ahead: Eventually, they will include condensed content images in narratives, so-called 'plot-genes', but also event and action structures, the defining images of ontological kinds (e.g. entities and processes), and the building blocks of all sorts of high-level mental tools.

Chapter 8:

The Spatialization of Form Hypothesis

Two assumptions seem to be uncontroversial in cognitive linguistics: (1) that the concepts underlying metaphorical utterances consist of spatialized imagery (Lakoff 1987, Johnson 1987); and more generally (2) that any small portion of thought, such as a word or sentence, evokes little mental movie-clips or storyboards, which again are put together from image-schematic components. These image-schematic skeletons, then, account for the functions of grammar (Langacker 1987). Both assumptions pertain to the micro-level of cognition. In this chapter I will submit the idea that spatialized imagery can in addition be found in highly generic schemas, such as event structure, causality, category structure. If this is correct, not only local content, but also top-level, trans-domain forms are shaped through a single mental faculty. Taken seriously in its consequences, this does not only recast traditional accounts of the conceptual underpinnings of language, it is the most far-reaching claim emerging from cognitive linguistics on the nature of human thought at large.

The generic dimension of spatialized imagery is the basic assumption the rest of this work builds on. I will begin by laying out the basic hypothesis as suggested by George Lakoff and discuss its ontological status. I will then survey some existing illustrations of the idea, add some new ones, and present a model of how form and content schemas work together. Finally, I will offer some empirical evidence as well as more tentative arguments for the hypothesis. Together this introduces a theory of generic mental tools, which I will call spatialized ‘co-signatures’ of events.

1. Defining the ‘spatialization of form’ hypothesis

Quite possibly the utility of image schemas vastly surpasses the spectrum previously covered. Before I specify the present focus, recall that my survey in the previous chapter presented evidence for at least three major kinds of image schema uses:

- (1) the meaning of words and utterances is represented before the mind’s eye and largely builds on image schemas, especially as indicated by the study of metaphor;
- (2) artifacts and emblems are given symbolic value because of their image-schematic structure;
- (3) movements and motor-schemas are laden with symbolic value, again by virtue of image-schematic structure.

All these image schema uses conform – if we exclude phonology for the moment – to what might be called ‘semantic’ uses. They go together in a common group because meaning *content* is conceived (i.e. small-scale, intra-domain and situationally bound representations).

The present chapter sets into relief an *entire new category* that I will loosely dub ‘image-schematic tools’.

IMAGE SCHEMAS AS MULTI-PURPOSE MENTAL TOOLS

What is at stake here? It is a defining hypothesis of cognitive semantics that syntax cannot be understood independently of semantics (Langacker 1987, Gärdenfors 2000). Semantic and syntactic functions of language both essentially rest on the same imagistic faculties of the mind, namely spatialized and imagistic thought, though at different levels of schematicity. Image-schemas, then, comprise a scale encompassing a predominantly semantic and a predominantly structural (or, if need be, ‘syntactic’) pole. Our prior focus lay at the more semantic end of this graded continuum. The type under scrutiny now sits at the other, more structural pole. Characteristic of the structural pole are (1) generic and extremely abstract schemas (2) that appear in many individual contexts within a domain or across entire domains and (3) function as a bracing scaffold for local meaning units. These image schemas comprise a *multipurpose image-schematic toolkit*, in that they can be set off from the innumerable images not schematic enough for cross-contextual use. At the same time, the crucial fact to be borne in mind is that the same mental format, i.e. the same imagistic capacities of the human mind, are deployed in both cases, albeit on different cognitive levels.⁹¹ While there is clear linguistic evidence that generic schemas exist (Lakoff 1993), the open question is to which extent this is the case. In particular it is unclear whether only single – if rather large – domains such as the emotions can share a master image schema (Kövecses 2000), or if on top of this even the most general mental tools, such as category ‘builders’, feature bundles (Lakoff 1987), grammar ‘builders’ (Langacker 1991, Deane 1996), or notions of substance ontology (cf. chapter 9), are equally image-schematic.

A first step is clarifying the pedigree and logical status of the claim. In his widely read landmark treatise *Women, Fire, and Dangerous Things* George Lakoff (1987) breaks new cognitive ground by putting forward a claim dubbed the ‘spatialization of form hypothesis’. Lakoff takes inspiration from Ronald Langacker’s thought expressed in the *Foundations of Cognitive Grammar* (1987a, 1991), which attempts an analysis of grammatical form in a kindred vein. Lakoff (1987: 283) characterizes mental operations that structure concepts as

⁹¹ For lack of space I will not go into the discussion as to whether this distinction is only a heuristic or more. For those who take this, at first glance, as a functional split going against the grain of cognitive linguistics, I want to underscore that this is only a *distinction of degree* within a unified and continuous human faculty. Whatever the finer functional distinctions between the two extremes of image schema usage, the present idea is far from reintroducing the obsolete dichotomy of ‘syntax’ and ‘semantics’ lying at the heart of structural linguistics, so that I do not believe myself to be fundamentally at variance with the broader cognitive theory this work is embedded in.

metaphorical mappings from physical space into conceptual space. It is the function of image schemas to structure what Lakoff calls 'idealized cognitive models':

"What I will be claiming is that the same schemas structure concepts themselves. In fact, I maintain that image schemas define most of what we commonly mean by the term 'structure' when we talk about abstract domains. When we understand something as having an abstract structure, we understand that structure in terms of image schemas. (...) spatial structure is mapped into conceptual structure. More specifically, image schemas (which structure space) are mapped into corresponding abstract configurations (which structure concepts)."

For a first flavor of what such tools can be, it is worth quoting the examples for spatialized forms that Lakoff lists:

- Categories (in general) are understood in terms of CONTAINER schemas.
 - Hierarchical Structure is understood in terms of LINK schemas.
 - Relational structure is understood in terms of LINK schemas.
 - Radial structure in categories is understood in terms of CENTER-PERIPHERY schemas.
 - Foreground-background structure is understood in terms of FRONT-BACK schemas.
 - Linear quantity scales are understood in terms of UP-DOWN schemas and LINEAR ORDER schemas."
- (ibid.)

Essentially, both Lakoff and Langacker explore the possibility that image-schematic elements lie at the basis of *cognitive operational formats* (= idealized cognitive models). It is worth underscoring what this means. People do not only understand the structure of particular concepts through image schemas, but also *the prototypical structure of general-purpose mental mechanisms that organize, relate, and integrate groups of conceptual images*. In other words, we make sense of (or build) our very mental tools on an experiential basis, and we achieve this to a large extent through the topological features of the skeletal abstractions of spatial knowledge we call image schemas.

I will adopt the shorthand term of 'image-schematic tools' for convenience and for distinction to content related image schemas.⁹² Technically, these can be described as

⁹² We can employ a physical object metaphor implying *fixity and substance* for tool formats because they are entrenched as *expectational patterns* for tasks of a particular kind (such as categorizing, bundling features, or understanding sequences and causal structure). Although the patterns are of maximum schematicity, and thus lack rich content of any kind, their overall structure recurs throughout experiences of various sorts. In other words, the rationale for speaking of tools is that they are multi-purpose devices. After having been learned across many slightly different experiences, they exist on a mental level independent of these experiences and their content, which is of richer detail. This is to

maximally schematic and generic multi-purpose structures at the topmost level of the cognitive architecture. Intriguing though the hypothesis may be, it has been excluded from scrutiny by the vast majority of cognitive linguists. The reason presumably is that the general but hidden nature of spatialized tools makes it methodologically very difficult to say much about them with authority. Even though I cannot conclusively prove the existence of such generic tools here, I will spell out some important consequences and adduce supportive evidence.

However, Lakoff's treatment of the spatialization of form hypothesis underspecifies critical issues due to the somewhat cursory nature of the relevant passages in his *chef d'oeuvre*. In a helpful attempt to clarify the situation, Langacker (1988: 391) specifies the two major possible ways of understanding the logical status of Lakoff's claim. It may be interpreted

"to mean that the analyst (e.g. a linguist or cognitive scientist) uses metaphors based on these schemas in order to describe the psychological phenomena of categorization, metaphor, and syntactic structure. However, this is not what L[akoff] has in mind – what he intends, I believe, is that these schemas are constitutive of the phenomena themselves, quite apart from any analysis."

Although I concur with the way Langacker reads Lakoff, this still leaves much open to debate. The only fairly secure estimate is that Lakoff intends to reach out further than a convenient observer's model.⁹³ What he seems to have in mind is a full-fledged cognitive theory describing subjective processes of the mind. Still, at least three different readings seem possible:

First, the hypothesis that we make sense of cognitive formats through image-schemas can be understood as the claim that the mind communicates to itself about the nature of its

say, they are independent even though the higher and lower levels of schematicity constantly interact and subsist in one another.

⁹³ Gärdenfors (2000: 5), in his work on conceptual spaces, distinguishes similarly between a 'phenomenal' and a 'scientific' interpretation of the idea that conceptual thought happens in a spatialized or what he calls a 'geometrical' format. Gärdenfors would have accomplished the only comprehensive book on spatialized mental formats to the present day, had he not written from an instrumentalistic and therefore anti-phenomenal perspective. He states this straightforwardly (p. 31): "What is the ontological status of conceptual spaces? I view conceptual spaces as *theoretical entities* that can be used to explain and predict various empirical phenomena concerning concept formation (...) Since my basic methodological position is instrumentalistic, I avoid questions about how real the dimensions of conceptual spaces are but view them as instruments for predictive and constructive purposes." Unfortunately, this is precisely not how I wish to restrict my claims here, nor what I believe Lakoff intended to say. I eschew the instrumentalistic position and propose to think about ways of testing the cognitive reality of spatialized thought instead.

operations in recursive representations, even if these representations are perhaps not exactly conscious in the strong sense. By this reading it is insufficient for mental tools (1) to work autonomously on the substrate level of the brain or (2) to work in a way unnoticed by the subject on the more representational level; they have to be subjectively 'understood' in some way, for whatever reasons and on whatever level of consciousness. This rather opaque line of argument is reminiscent of Lévi-Strauss' equally elusive belief that cultures subconsciously address (and enact) the 'deep structure' of human cognition in kinship systems, ritual, myth, and narrative.

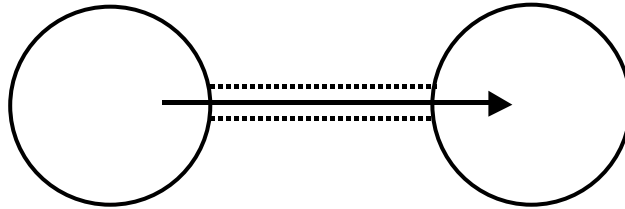
Another, a bit less controversial reading situates the claim at the level of the 'cognitive unconscious' (cf. Lakoff/Johnson 1999). The level of 'cultural theories', which people can describe recursively, need not be implied. Rather, this means that the mind uses image schemas subconsciously as 'building blocks' for multi-purpose schemas that sit at the top-most level of the mental architecture. Modeling the mind on the metaphor of imagistic 'building blocks' simply says that *highly schematic image schema structures are permanently entrenched in the mind and customized for a class of similar tasks*: Each type of these high-level schemas would be dedicated to a specific general purpose, such as categorization of one particular kind. For example, one tool might be dedicated to categorization into Aristotelian categories, another to categorization into fuzzy categories, and yet another to categorization into complexly chained clusters. All tools would be automatically executed, with only some becoming conscious folk-theories. When this happens, the conscious reflection of the cognitive process and the process itself have to be identical, so that a folk-theory does not offer a direct clue to the operative folk-model.

In the weakest possible reading the Lakoffian hypothesis may be understood as saying that in the brain (and not in mental representations) the physiological apparatus dedicated to spatial and imagistic cognition is also dedicated to multipurpose tools like the grammar faculty. Adherents of this minimal view would hold that the same local array of neural cells and synapses fulfils both purposes, without taking the discussion to the emergent level of representations.

If we invert their sequence, the outlined alternatives progress upwards in a hierarchical model of cognitive emergence rising from 'brain' to 'mind'. The three types run the gamut from observations about the neural substrate via inferred sub-conscious representations to more or less conscious theories. The point is that Lakoff's spatialization of form hypothesis may be conceived as relating to any level between conscious mental representations, subliminal representational information, and the brain substrate (or all of these at once). I cannot offer a conclusive solution to this puzzle lying deep at the heart of the most impervious, if persistent controversies about the relation between brain and mind, but I will get back to the issue later in this chapter.

For further illustration of the ontological and methodological implications of the hypothesis let us look at a possible mental tool left unmentioned by Lakoff, which I hinted at in the opening remark of the first chapter. I said that metaphor as a cognitive operation is itself metaphorically understood; i.e. that all metaphors are in a way image-schematically similar to our mind. Allowing for simplification, all metaphors have a common underlying minimal structure: There are two imagistic spaces standing for the two domains or two conceptual spaces, and there is a directional link between the two spaces standing for one or more mappings, i.e. CONTAINER, LINK, and FORCE schemas (for directional movement). Metaphors are thus understood as a CONDUIT-like image schema. The containers represent the two distinct domains; the objects transferred through the conduit are the relevant part of experience from the source domain.

At first glance the following diagram will hardly come as a surprise to anyone who works on metaphor. To get the provocative range of the claim it has to be entirely clear that the following does not describe an observer's theory, as experts on metaphor might consciously hold it. It is intended as an operational folk-model (or at least a core-part or prototype of it), which everybody uses subconsciously when formulating and understanding metaphors. Minimally, it is a central subpart of such a model, even though more spaces and relationships may be involved.



It is crucial to see that *this depiction is not only a visualized illustration of the sort of a chalkboard diagram, but that our mind uses a percept-like spatialized structure like it to make sense of what metaphor is in general and to comprehend specific metaphors*. In fact, it is not unlikely that the motley aggregation of phenomena identified by us as metaphor is precisely recognized through this common image-schematic basic structure of a transfer between two container-like conceptual spaces. If this hunch is accurate it means three things: (1) that our mind recognizes in a spatialized fashion whether two things belong to a common or nearby domain, (2) that, whenever they do not conform, our mind searches for a possible conduit to another domain to make sense of the metaphor, and (3) that we have some sort of sub-awareness that a quasi-spatial projection between domains is involved. Any specific operational mechanism is recognized by its schematic features and distinguished from other such mechanisms, say metonymies, in our sub-awareness (i.e. an intermediate field between the conceptual level and the next lower level).

The hypothesis of tool-schemas sets forth quite a strong claim on the nature of our thought. It implies that most relevant cognition occurs at an unconscious level. Most people might have not the least inkling about the deep structure of the metaphors they habitually use with considerable ease. Upon reflection, e.g. on their metaphorizing capacity, they may come up with wholly different theories. Yet, the argument is that they *in fact* use kinesthetic image schemas in their cognitive unconscious. Methodologically, this means that we should not take what people believe about their thought at face value, but rely on other clues instead. For a thorough discussion of the cognitive unconscious and its methodological implications see the first chapters of Lakoff/Johnson (1999). The intent of uncovering the *deep structure of generic mechanisms of thought* may be a risky move methodologically. Analyzing conceptual metaphors by marshalling clusters of linguistic manifestations sharing a common logic is easier with restricted examples like IDEAS ARE BUILDINGS or ARGUMENT IS WAR. For generic schemas linguistic evidence may be more difficult to uncover. Ideally, such high-level claims require a time-consuming bottom-up coverage of as many cognitive domains as possible. Yet, the enterprise seems not wholly unpromising if empirical studies in cognitive linguistics proliferate at the current pace. In addition to that, the hypothesis will have to prove itself at a theoretical level in competition with other micro-approaches to cognition. To my knowledge, it stands unchallenged to the present day.

2. Examples for imagistic tools

To see how claims about image-schematic tools can be confirmed let us review one of Lakoff's best-known case studies. It is about complex categorization and hints at how claims about generic cognitive models can be teased out of specific linguistic data. The conceptual structure about to be examined is referred to as *radial structure* by Lakoff and is not wholly unrelated to Wittgenstein's (1953) notion of 'family resemblance'. Radial category members cluster around a prototypical central concept to which they are connected either directly or indirectly. Lakoff's detailed discussion of the system of noun classification in the Australian aboriginal language of Dyirbal serves as an excellent illustration. As is the case with many other languages, Dyirbal grammatically classifies all nouns. All physical and abstract things are assigned to four mutually exclusive categories by distinct prepositional markers. Adding the appropriate marker is grammatically obligatory for any kind of noun. The categories seem to be rather arbitrary clusters of objects that have little in common at first glance. One category, for instance, includes women, fire, and dangerous things (hence the book's flamboyant title). Lakoff argues that these puzzling categories are by no means arbitrary, but are motivated by a few principles. The categories have central members, i.e. they specify which subcategories are most typical. In addition to the basic system there are principles of

extension and a limited list of exceptions.⁹⁴ In Dyirbal the central members for the first three categories are human males, human females, and edible plants, while the fourth is a residual category for everything that is not included in the former three. For the central members there is a basic opposition model that structures them with respect to one another, e.g. the opposition of male and female. Starting from this basic model there are associative chains by domains of cultural experience, mythological associations included:

- Since fish are in class I, fishing implements are in class I.
- Since storms and rainbows are believed to be mythic men, they are in class I.
- Since birds are believed to be female spirits, birds are in class II, except for those three species of willy-wagtails who are believed to be mythical men and are therefore in class I.
- Since crickets are believed to be 'old ladies', they are in class II.
- Since the moon is believed to be the husband of the sun, the moon is in class I and the sun is in class II.
- Since fire is in the same domain of experience as the sun, fire is in class II with the sun.
- Those things that are believed to be instances of fire are in the same domain as fire: the stars, hot coals, matches, etc." (Lakoff 1987: 99-100)

The overall structure of the model has three category centers that are each internally extended by chaining:

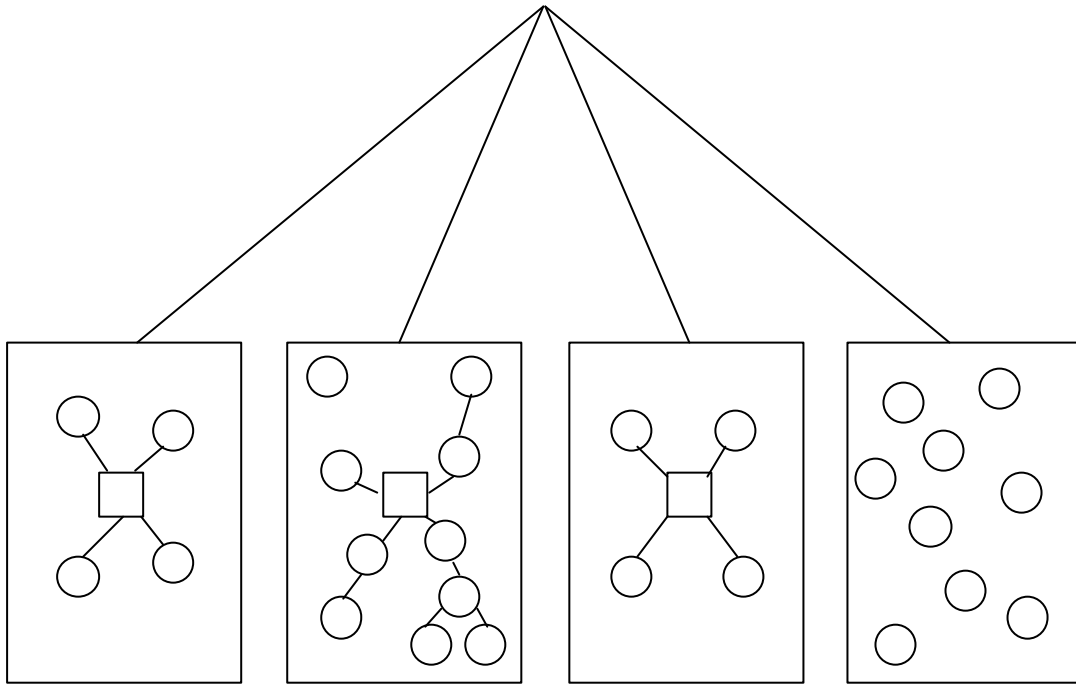
"Centrality: What we have called the basic members of the category are central. Willy wagtails and the moon are less central members of category I than are men. Stinging vines, gar fish and the hairy mary grub are less central members of category II than are women.

Chaining: Complex categories are structured by chaining; central members are linked to other members, which are linked to other members, and so on. For example women are linked to the sun,

⁹⁴ Even if the prototype and the family resemblance theory of categorization are sometimes treated as separate, the two category types are clearly related. (1) The prototype theory is more restrictive in its definition, insofar as less typical members of a category are defined uniquely in terms of similarity to a single prototype. As we can see from Lakoff, this can be plausibly understood as a CENTER-PERIPHERY container with a graded SCALE representing distance. (2) The family resemblance or chaining view, on the other hand, is only an extension of this. It makes it possible to conceive of more complex networks in which there are several local centers that join up into a more extended network or none at all. Here, it is quite possible that two local variants of a category are equally quickly and effortlessly instantiated or just as easily remembered and thus do not differ in prototypicality. In my opinion it is a mistake to disconnect the two views from one another. A complex network is often no more than several cognate local prototypes considered in an overall view and, conversely, a single prototype is only a 'zooming in' on one local region within a network that is, of necessity, more extended. A large network may have a most central prototype, but perhaps in most complex cases none will be clearly discernible any more.

which is linked to sunburn, which is linked to hairy mary grub. It is by virtue of such a chain that the hairy mary grub is in the same category as women. (...)

No Common Properties: Categories on the whole need not be defined by common properties. There is no reason to believe that the Dyirbal find anything in common among women, fire, dangerous things, etc. Nor do they assume, so far as it is known, that there is anything feminine about fire or danger, or anything fiery and dangerous about women. On the other hand, common properties seem to play a role in characterizing the basic schemas within a given category (edible plant, human male, human female).” (Lakoff 1987: 95-96)



The four classes of Dyirbal nouns with chaining in each group (from Lakoff 1987: 103)

All this would mean that a certain type of propositional association between two entities or sub-categories, such as women and sun, is remembered by an imagistic aid as something having to do with a spatial link. It would also mean that the necessity of many links between two entities, such as women and the hairy mary grub, is remembered by another imagistic aid as something having to do with spatial distance. In my reading of Lakoff this points to the fact that certain types of associations are doubly coded. On the one hand, they, no doubt, contain the association in itself with respect to the primary qualities involved, whilst on the other hand they identify the type of structural relation between them. This second kind of imagistic aid in our memory is what I will call a ‘spatialized co-signature’.

To take a second example given by Lakoff, Japanese has a similar and quite extensive system of classifiers for nouns, which are based on object shape (also compare the evidence for Batammaliba, Proto-Bantu, Apache, Bella Coola, and Coeur d’Alene presented in the previous chapter). Other nouns, especially abstract and event-like ones, are classified by

extending a given basic model. Extensions may be metaphoric or metonymic. For example, phone-calls, baseball pitches, and home-runs in Japanese receive the same object marker as thin and long objects. This is due to the image-schematic similarity of a trajectory to such objects (CONDUIT schema). Other connected words, such as rounds in sports and winning points, are given the same markers due to contiguity within an everyday domain, the prototype of the long-thin marker being swords and sticks of martial arts, or, more recently, baseball bats. The principles of extension to derivative variants of the long and thin object prototypes may be several. The crucial point, however, is that in the end they produce a chained network of radial non-prototypical category members grouped around a prototype of, say, things like a pencil. Again this network may be a spatialized structure. For readers who are interested in details on the extension of complex categories it is worthwhile to read Lakoff's (1987: 416-438) summary of the work of his student Claudia Brugman (1981/1988) on about one hundred related meanings of the linguistic concept *OVER* in English. It is argued that these are all linked in a chain of systematic extensions of one prototypical experience. According to Brugman the prototype is the configuration of one object being situated above another, according to Dewell's (1994) more refined argument described in an earlier chapter, they are chained variants and extensions of a semi-circular arc prototype.⁹⁵ Amongst other things, it has been questioned whether it makes sense in the highly complex case of *OVER* to speak of one or more central members in the whole network and whether the network is actually radial (i.e. with *CENTER-PERIPHERY*), since all sorts of 'derivative' variants are equally as common as the one meaning of *OVER* that was presumably the historical original sense.

These disagreements aside, the crucial point for the tool-schema argument is that the users of the discussed linguistic categories have at their disposal an implicit model to understand the structure of their categorization. And, this model is of an image schematic kind. In Lakoff's Dyirbal and Japanese examples the schemas of *CONTAINER*, *LINK*, and *CENTER-PERIPHERY* create an understanding of categories with radial structure. We may expect the categorization models of other languages to be structured by the same basic tools, which are combined in different ways to suit the needs of other languages. Obviously, there are differences too: For example, Japanese has over a dozen classifiers, while Dyirbal has only four. In Japanese the categories are not related in the simple binary manner that the male and female category centers of Dyirbal permit, which in turn stand in combined opposition to vegetal food. However, some Japanese classifiers, such as the one for long and thin and the one for flat objects, may well be cognitively paired as contrastive oppositions on the local level, even if there is no overall binary structure. By the same token, we may expect the classifier opposition between humans and machines or humans and animals to be more salient than that between humans and long and thin objects and thus to

⁹⁵ For a critical view of the theory of radial categories see Vandeloise (1990).

engender a local opposition. Additionally, just how complex the linking chains are may vary. The same goes for the general importance and function of the classifier system. These differences notwithstanding, on the radial categories account, systems of categorizations have two things in common: First, they use image schemas as structuring devices. Second, the image schemas occurring in a particular kind of operation, such a categorization, are fairly constant. Even if the models that they structure differ, their basic elements are alike.

Take as another example one basic aspect of grammatical structure: On the view proposed here, we would not understand the relation between sentences and the words they consist of if we did not understand them as wholes with parts that are linked by syntax. The nature of the propositional model of linking arguments into relations is only understood on this basis. Obviously this is not all it takes to understand the cognitive format of grammar. It involves whole series of imagistic models of basic relations. One contributing sub-model structures the class of nouns as radial category, with physical entities in the center and abstract nouns more peripherally situated. The same may be true for basic-level verbs like *run*, *hit*, *give* and more abstract verbs such as *nullify*, *circumscribe*, *defrock*, *embezzle*. As soon as we implicitly compare the status of these two classes, we can do this with a spatialized model that shows that some members are more experientially basic by placing them in the center. Lakoff (1987: 290) enumerates some other aspects of syntactic structure that are characterized by image schemas:

“- Hierarchical syntactic structure (i.e., constituent structure) is characterized by PART-WHOLE schemas: The mother node is the whole and the daughters are the parts.

- Head-and-modifier structures are characterized by CENTER-PERIPHERY schemas.
- Grammatical relations and coreference relations are represented by LINK schemas.
- Syntactic ‘distance’ is characterized by LINEAR SCALE schemas.
- Syntactic categories, like other categories, are characterized structurally by CONTAINER schemas.”

For a fuller (if very bulky) account of imagistically conceived formal features of grammar that includes a series of applications see Langacker (1991).

Another example are classical taxonomies, which are less subconscious than theoretical models employed on a conscious level (‘folk-theories or scientific theories). Taxonomies are idealized as a model that encompasses CONTAINER-like categories that are LINKED. In classification schemes, such as Linnaeus’ biological model, there is an UP-DOWN dimension and a PART-WHOLE relation: Each higher order category is a whole with the immediately lower categories being its parts. (In addition, what defines one category internally are again feature bundles, which are imagistically conceived as set members in a container, as Lakoff argues. See further below for details.) Lakoff (1987: 284-92) enumerates a score of other important model formats that are characterized by image schemas. They will be summarized further

below. But first I want to reexamine an example given above to make sure the difference between the semantic and structural poles of image schematic thought is entirely clear.

3. How form and content schemas work together

If image schemas shape the 'form' and the 'content' levels of language, it should be interesting to see how these two interact. I propose the following: Generally speaking the less schematic, but more local content schemas are fit into the more schematic but wider form schemas.

For an illustration let us take another look on Dewell's (1994) study of *OVER*, which was described in chapter 7. Dewell's example serves to accomplish two things: On the one hand I want to pinpoint the difference between semantic image schemas and image schemas used for structuring cognitive model formats. On the other hand I want to show how both aspects intermesh and present their interaction in a complex diagram. Let us return to my summary of Dewell's major variants of *OVER* and their connections (a few minor ones are left aside) which are partly versions of the arc-prototype and partly semi- and fully-independent split-offs in a chaining of 'family resemblances' (*CENTER-PERIPHERY* and *LINKS*). To see how the diagram should be interpreted I will briefly repeat my characterization of the different chain-linked constituents and describe their structural positioning and their links within their overall network. Bear in mind that the two image schema uses at issue here are, first, the individual semantics of a meaning variant and, second, its overall structural relation to other constituents.⁹⁶ In the diagram the arc-prototype is placed in the (or in one) center. It engenders its main variants as profiling versions of itself, which are grouped right around it. There is the upswing-profile for expressions like "The sun is rising over the mountains", the head-segment profile for expressions like "The plane is flying over", and the downswing-profile for expressions like "Sam fell over the cliff". In about the same distance to the central schema the freeze-frame variant for expressions like "The plane is over Baltimore by now" and the end-profile variant for expressions like "Sam lives over the bridge" are grouped. There also is an extended-trajector variant for "The rope stretches over the yard", which is a bit, but not far from the prototype. At about the same distance there is the variant for "She hit him over the head with a pool cue". A first main derivation is the link to a group of 3

⁹⁶ It should be emphasized that, even though the hierarchical relation in this example is fairly evident, the distinction between co-functional imagery and semantic imagery is not always clear-cut in absolute terms. We can speak of a general tool when the imagistic operation is sufficiently schematic to be entrenched as a multi-purpose mechanism for many instances. However, anything that is depicted in a given context as belonging to the pole of semantics rather than to tool-schemas may in another context become a tool-schema itself. Semantic images and structuring images of the co-functional sort are continuous with each other, subsist in each other, and can be transformed into each other.

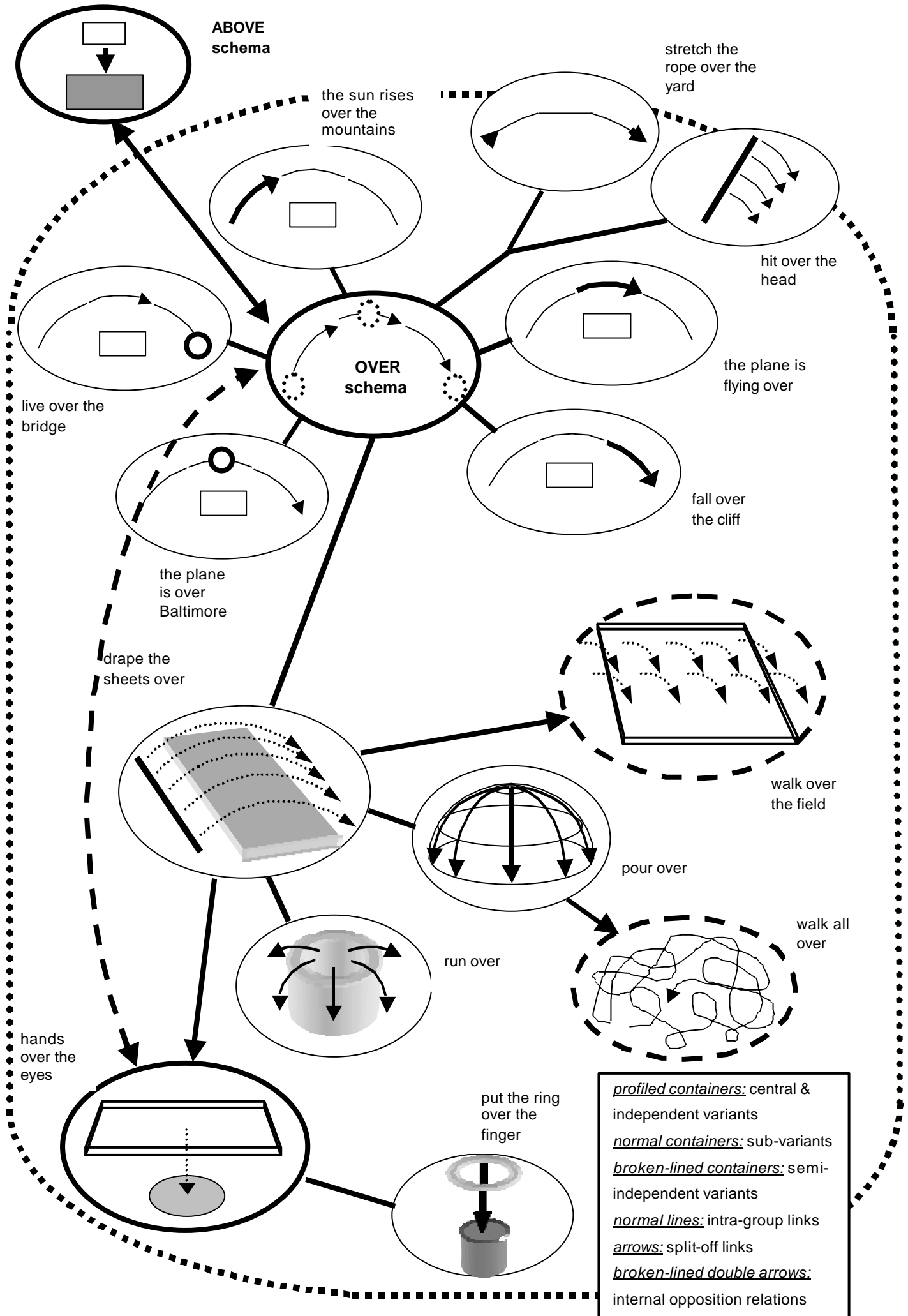
dimensional versions of the arc found in expressions like “He draped the sheets over the clothesline”. Here the trajector is an edge and the element of covering enters. Other linked versions are “She poured the syrup over the pancakes” and “The beer ran over the edge of the glass”, in which the trajector is multi-directional and planar. The version of covering spawns the first semi-split-off in which the arc is no longer present: “He walks all over the field”. However, a close similarity regarding the aspect of covering is present here and motivates the closeness and derivational link to the multi-directional planar trajector.

There is yet another semi-split-off variant for expressions like “He walked over the field”, where there are semi-circular movements over a plane, which creates some similarity to the arc-prototype, with the difference of the movements being repeated and the overall motion remaining planar. Both semi-split-off versions are marked by a broken-lined and profiled container. In addition, the partial and full split-offs are depicted by an arrow instead of a line to represent the notion that a stronger, more forceful movement of the mind is necessary.

The fully-split-off derivative of planar covering (“He held his hand over the eyes”) is marked by a profiled container with a full line. This version stands in some sort of internal opposition relation to the arc-prototype, which is marked by a broken-lined double arrow. This opposition arises because the arc has been replaced by a fully planar sense here. The planar-covering sense again forms a local node from which other derivative versions emerge, only one of which has been included here (“He put the ring over her finger”).

However, all of these versions of OVER form a polysemous group in relation to other words. This elicits a CONTAINER schema within which all meanings are placed, while without it nearby schemas with related but in important respects contrasting meaning prototypes, such as ABOVE, are placed. As ABOVE and OVER stand in a somewhat contrastive relation, this is depicted by a double arrow for emphasis.

So much for the description of the different versions of OVER and their chaining and opposition relations. As stated above, the purpose and utility of this example lies in the fact that, both, semantic and structural image schema uses are present in it. The more semantic uses are the small individual schemas in the oval containers. Calling them semantic means that, upon hearing the relevant phrase with OVER in them, the mind elicits a schematic image not unlike the ones in our diagram in which a trajector and a landmark stand or move in a particular relation to another.



Simultaneously, the over-all diagram specifies structural relations of similarity, distance, derivation, and opposition: *It specifies the form of thought*. It can do so by the use of image-schematic structures: The depiction, though without doubt highly simplistic, is not merely intended as a convenient observer's model – the claim is that people really think by means of such structural models! And, if the 'spatialization of form' hypothesis is right, the structural relations are image-schematic by nature, as the following will make plain. The structures used here include small CONTAINERS for the individual senses of 'over' and a large CONTAINER for the polysemous category of 'over' as a whole. They also include LINKS, which can be either strong or weak, and signify derivation or similarity. And, there are two kinds of OPPOSITION depicted by double-arrows. On the one hand there is an opposition of an internal kind between different senses of 'over' that form local nodes and group other senses around them. On the other hand there are external opposition relations between 'over' and other prepositions, especially ABOVE and ON. Finally, we have seen that there may be CENTER-PERIPHERY relations within the overall container for 'over', at least if the case for a strong central prototype can be maintained.

SPATIALIZED CO-SIGNATURES / CO-FUNCTIONAL IMAGERY OF STRUCTURAL RELATIONS

"Thinking treats space and time, which are containers for being, as the structural categories of coexistence and sequence." (Arnheim 1969: 129)

The 'spatialization of form' hypothesis carries a massive claim about the nature of human cognition in it. For this reason, it is necessary to investigate where the hypothesis could lead us. Let us presuppose its relevance for the time being and discuss its pros and cons a bit later. I will begin by giving the hypothesis of form image schemas a more explicit form under the heading of 'spatialized co-signatures', which I define as bracing structures of content schemas. Then I will briefly enumerate a few examples that hint at the hypothesis' possible scope in the analysis of complex real-life settings such as are studied in ethnographical accounts.

As a point of entry I want to spell out my elaboration of Lakoff's formulation step by step and introduce a theoretical terminology that clarifies what the claim implies for Cognitive Science as concerns the content-form relation. (Much of Langacker's work is evocative of such a view as well, although he has remained more modest in his explicit claims.) Take, again, the case of grammar. The cognitive linguist Leonard Talmy (1988: 165) characterizes the grammatical specifications of a sentence as imagistically evoking a conceptual scaffolding. The lexically specified conceptual material is 'inserted' into this skeletal framework where it assumes its assigned place. Thus, the knowledge of English grammar specifies the slots for subject, predicate, and objects of a sentence and orders the conceptual content of the lexical items by a default expectation about what constitutes a well-

ordered sentence. In accordance with Langacker (1987a) and Lakoff (1987) the idea is that this skeletal framework is conceptualized as a quasi-spatial image. The slots for subject, object, and predicate correspond to the ordered and linked parts in a skeletal image of a sentence-whole.

The major claim that I will elaborate in the further course of this work is that such conceptual scaffolds are by no means limited either to clauses or phrases or even only to linguistic phenomena. Phenomena that have traditionally been the subject matter of cultural anthropology are amenable to an analysis of the same kind. The idea that phenomena such as ritual may be structured by a formal subconscious 'grammar of thought' is by no means new in cultural anthropology, if we think of Claude Lévi-Strauss and his structuralist successors. It should be clear, however, that the specific structural formats debated in cognitive linguistics differ considerably from structuralist suggestions, are far more complex and manifold, and require corroboration by convergent evidence from cognitive methods.

Let me clarify my claims: Imagine somebody who is trying to understand a complex sequence of a social event, say, of a public speech. First of all, the audience has preconceived notions (perhaps very general, but deeply entrenched) about what will follow and against which to crosscheck the actual speech. At the same time it must pay close attention to smaller parts of the speech, the figures of speech, tone, the speaker's intentions, and so on. The hypothesis now is this: Parallel to the ongoing decoding and interpretation of words (and other, paralinguistic information) a second imagistic process is taking place, in which the audience tries to figure out how the perceived words fit into the general structure supplied by the knowledge about the event type or events in general. Because of the parallelism I will call this *co-functional imagery* or, interchangeably, *imagistic memory co-signatures*. My claim is threefold:

- (1) In order to understand complex sequences, there must be a level of general structure cognized parallel to on-line understanding.
- (2) This level operates on 'space logic'; it uses image-schematic devices.
- (3) The imagistic structure forms a skeletal grid into which to place the impinging propositional information and without which substructures would not make sense. We need a skeletal image of the ongoing whole to render the parts meaningful; the skeletal image acts as a *scaffold* for cognition. In a nutshell, the co-signature – itself being structure with slots to be filled – guides the coupling of structure and content.

Co-signatures are typically mental schemas in at least four important respects: (1) They most often occur as defaults, (2) they allow enrichment into more detailed schemas, (3) they influence, and are influenced by, experiential content in a mutual trade-off, and (4) they are amenable to dynamical orchestration, often on the basis of manipulating the defaults. First, it

is plausible to believe that such co-signatures are elicited as default-scaffolds in many social contexts. For example we may have an expectational pattern about the typical structure of an event as linear, even though this default does not always hold. When the default that one starts out with proves incompatible with the experience, it may be changed to accommodate the actual state-of-affairs or even be completely replaced by a new model. Second, image-schematic co-signatures occur at different levels of schematicity, so that a very abstract model may allow for the enrichment through further conceptual or experiential structures. Basic models can be elaborated and fleshed out once additional information is present. The more schematic a model is the more ways for elaboration are possible, so that a very rough schema can accommodate a great number of more detailed versions into its schematic skeleton. Third, the relationship between understanding the ongoing parts of an episode and expectations about the event as a whole could be best described as dialectical. One needs the other, and each constantly modifies the other. For example, initial defaults may be discarded and new ones adopted or specifying sub-models recruited, once the topic is clearer. On the other hand co-signatures also influence what parts of reality are actually perceived. Information that does not fit into any expectational slot may be totally disregarded, relatively neglected or partly misperceived. Fourth, defaults can be dynamically orchestrated. For instance, rhetoric can be used to surreptitiously change default expectations of the audience and arrive at a wholly different model in the end (a prime example can be found in Shakespeare's *Julius Caesar* in Marc Anthony's famous speech). I will treat dynamically orchestrated defaults of this sort in a later chapter.

The ethnographic examples of co-signatures that I will be giving depict them as abstract skeletons. This may give them an abstract flavor, but is well grounded in my theoretical aims. The sensory qualia or information which fill the slots of a co-signature in any real situation are not dwelt on in any detail. I bypass them on the assumption that they are real expectational structures, and as such true trans-contextual schemas. Of course, co-signatures can usually be concretized, but as soon as they become expectational structures after an initial learning phase they must be entrenched in the mind as non-concretized images.

Why do I say 'usually'? Co-signatures can conceivably be also used independent of any concrete information, so that they are not anymore co-functional to anything ongoing, but stand for themselves. This is the case when the nodal structure itself becomes the image for an abstract idea, such as INTERRELATEDNESS and HOLISM, or ESSENCE and SAMENESS. In other words, I propose that understanding some very abstract words involves the same image schema that is employed for doing real-life cognitive tasks. While folk-models tend to apply co-signatures in concrete contexts and probably do so unconsciously, philosophical systems rely heavily on making such abstract concepts conscious and injecting them into

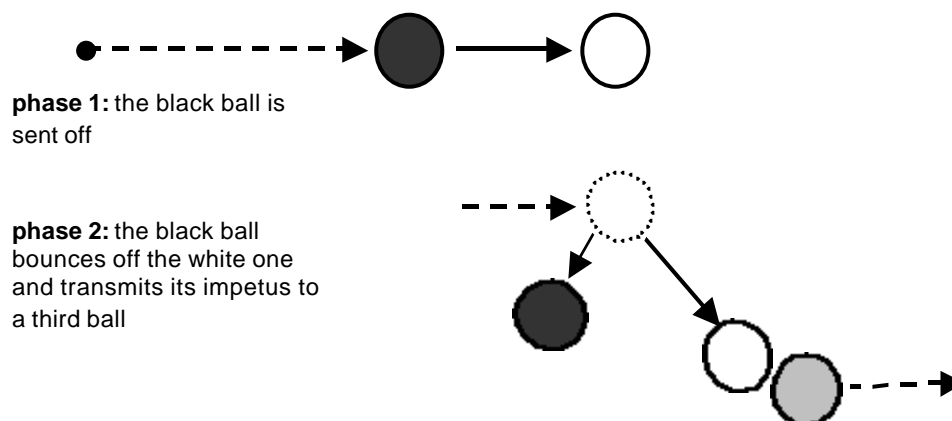
discourse. This leads to a fascinating hypothesis: Abstract philosophical concepts take structures of everyday applied cognition and link their recurring imagistic-skeletons to words (cf. also Lakoff and Turner's 1989 treatment of poetry). I will exemplify the hypothesis later.

In sum, then, I want to add a fourth claim about structural imagery here and with it mark a highly important distinction. On the one hand, co-signatures can help doing tasks by ordering information, so that actual information is inserted in the specified slots. On the other hand, what was originally a co-signature can become an autonomous concept in its own and become the image behind an abstract term. It is important to understand that the difference is one of degree, depending on how much concrete content is connoted with an abstract word by a person. Later examples will cover both aspects.

4. Further examples

A couple of examples for co-signatures may serve to clarify this whole hypothesis:

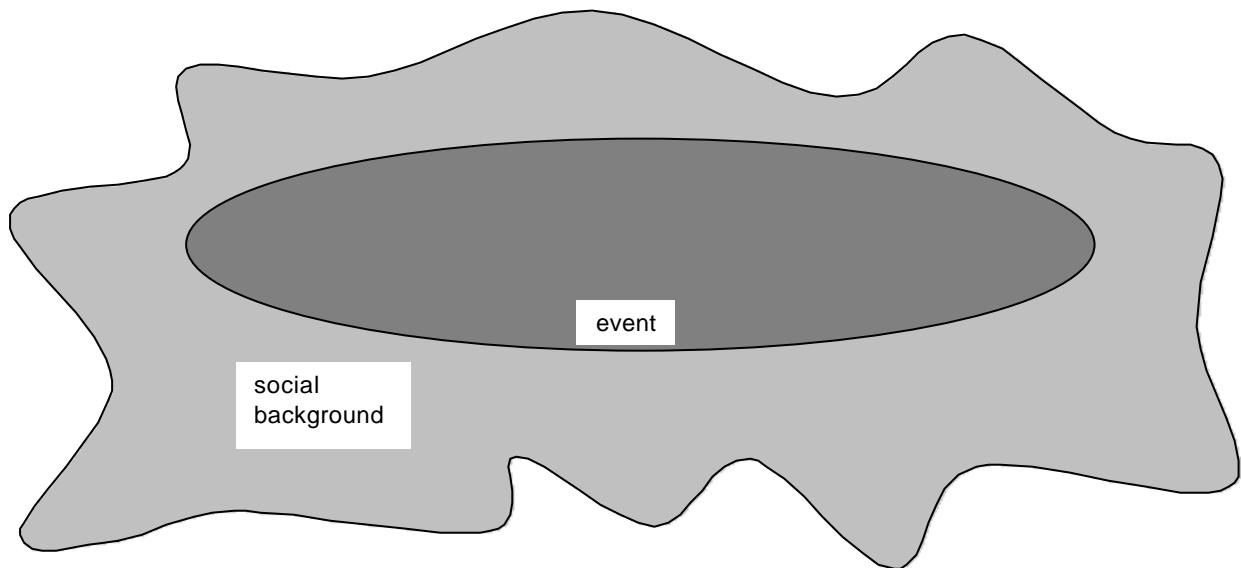
(1) A simple example of such co-functional imagery would be the basic assumption of causal sequence. It makes sense to assume that this is a default assumption, which is especially strong in the case of social events where rational human agency is assumed to be present. Langacker and Talmy have plausibly described the image-schematic skeleton of causal events as drawing on knowledge about force dynamics (see Langacker 1990c). They explain this through billiard balls. One ball is sent off and transmits its impetus when it strikes another ball and sets it into motion, this ball again hits another ball, and so on, until the impetus is 'swallowed' by a final ball in the chain. This is when a motion or event peters out.



The billiard-ball model as co-functional imagery imbues experiential 'data' with a mode of interpretation and creates a way of 'seeing as'. This may be usually the case by way of a default expectation. In other words, most people routinely apply the expectation that the events they experience involve causal links, even where they may be not entirely visible or

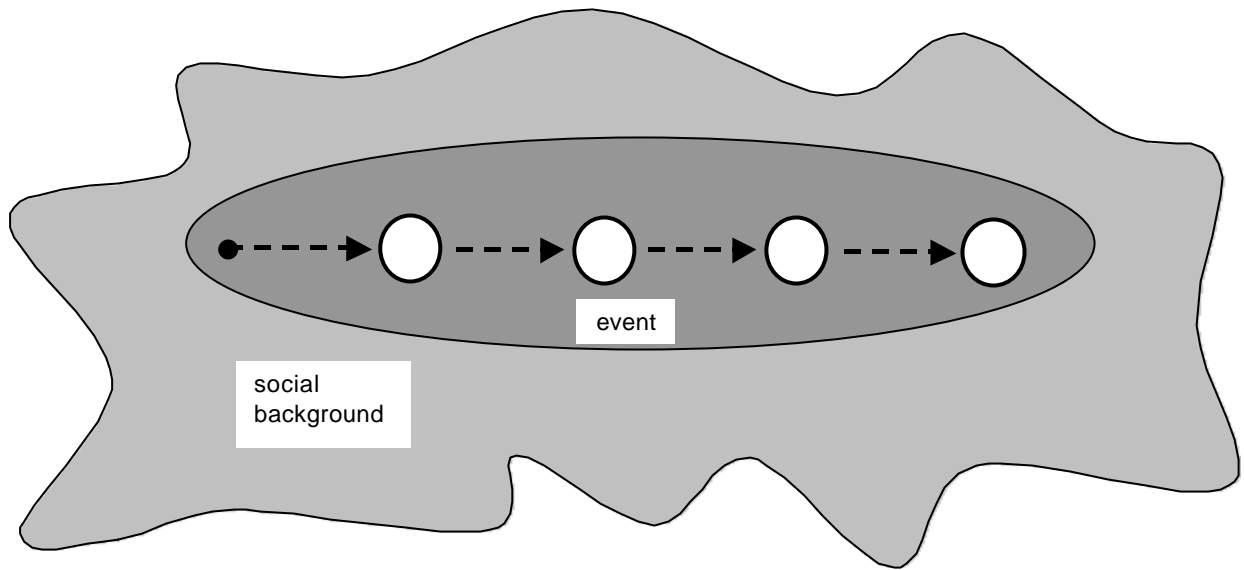
even not amenable to direct inspection by humans (the will of 'God', etc.). More about this will be said further down.

(2) Another just as basic example would be the cognitive assumption of the event as a container or region, which coheres as a whole and contrasts to the preceding and to the following experience. In the diagram below we assume a background to other things in social life. The operation is one of foregrounding and of contrasting. It foregrounds by selecting certain aspects from a cognitive background and bestowing a characteristic ontology on them that contrasts with ontologies of other kinds. Of course, in other cases the background may be constituted by another domain, such as the domain of natural events. We may say that the immediate background (by virtue of RELATED IS CLOSE) is always from the generic domain of the event. Certainly, this embedding domain may be itself embedded in yet other domains of higher generality from which they are contrasted and foregrounded.



(3) Of course, both of the image schemas just described are well-known in the literature on metaphor: They have been described as CAUSAL SEQUENCE IS TRANSFERRED FORCE IMPETUS and EVENTS ARE CONTAINERS. If they are superimposed on one another the causal assumption and the container assumption add up to a default image schema for events, especially for social events and intentional events with human agency. This bears directly on a well-known type of cognitive format, as Lakoff (1987: 286) argues, namely scenarios. The cognitive format of scenarios is primarily structurally understood by means of the SOURCE-PATH-GOAL schema. The primary ontological defining feature is that there is an initial state, a sequence of events, and a final state. Another ontological feature is that the path consists of PARTS that make a WHOLE by being linked. A third feature is that the links may be directional and the causal relation between a preceding and a subsequent part understood as FORCE

relation in one direction. If we add these features up we get the following default model for events:



(4) In a related but slightly more complex version of the simple event schema (see 2.), two or more figures are isolated from a ground, instead of a simple figure-ground distinction. The linguistic theory of ‘mental spaces’ developed by Gilles Fauconnier (1985, 1997) and Mark Turner (1996) provides a basic model of multiple spaces highlighted in the mind, together with a wealth of examples. His theory proposes a spatialized analysis of how people structure the logical interrelations of complex sentences or discourse sequences in their mind. Just as real life events occur in different spaces, we can also assign spaces to mental scenes evoked through language to differentiate their logical, modal, or temporal status. Fauconnier (1997: 38-39) gives the following definition of how people construct and move between mental spaces when they engage in discourse or thought:

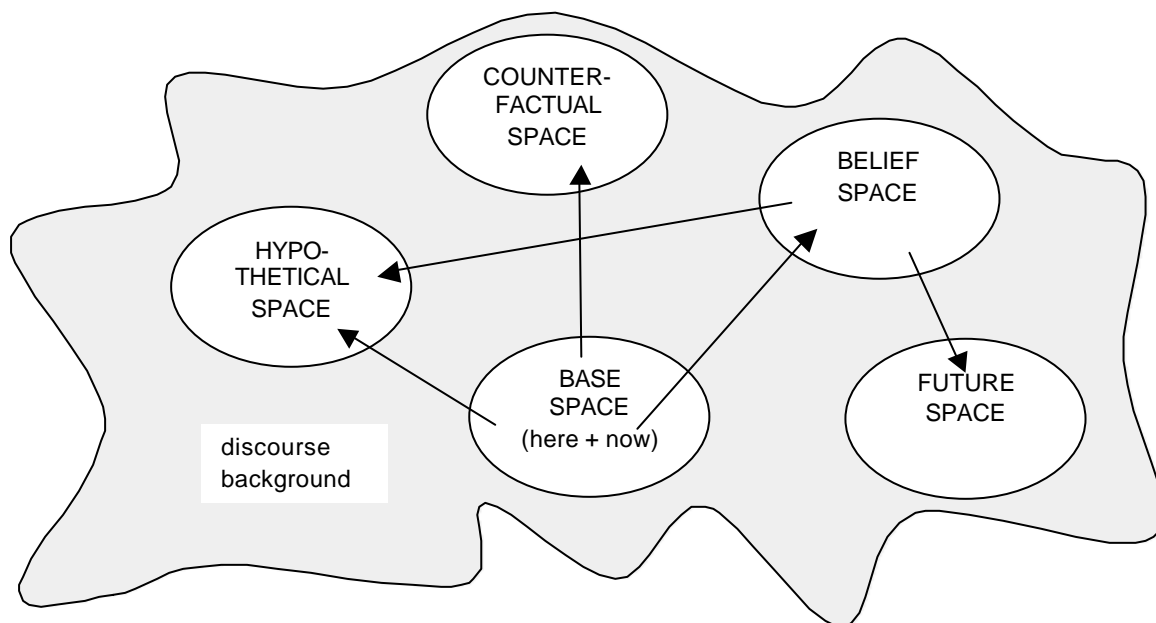
“At any given stage of the discourse one of the spaces is the *base* for the system, and one of the spaces (possibly the same one) is in *focus*. Construction at the next stage will be relative either to Base Space or Focus Space. Metaphorically speaking, the discourse participants move through the space lattice; their viewpoint and their focus shift as they go from one space to the next.”

What if this movement through a spatial lattice is not only metaphorical but is a mental journey in spatial images? Included into the spatialization of form hypothesis, Fauconnier’s model would have the status of co-functional imagery.

In order to signal the relative position of a thought in the lattice there are grammatical cue expressions that Fauconnier calls ‘space builders’. Here are some: “in 1929”, “in that story”, “actually”, “in reality”, “in Susan’s opinion”, “Susan believes...”, “Max hopes...”, “If it rains...”. All of these space builders let us place a new mental space on our mental stage, a space in

which the scene introduced by the builder will be situated and which contrasts with other spaces. For example the space builder 'maybe' sets up a possibility space, while 'he thinks' sets up belief space, and 'if' a hypothetical space. Often there are counterfactual spaces which enable us to make sense of expressions such as "You know the sister Webster doesn't have? Well, she does not know how lucky she is" (p. 121).

Consider a more complex example: "Achilles sees a tortoise. He chases it. He thinks that the tortoise is slow and that he will catch it. But it is fast. If the tortoise had been slow, Achilles would have caught it. Maybe the tortoise is really a hare" (p. 44). We move just as effortlessly between actual spaces, to belief spaces, hypothetic spaces, counterfactual spaces, future spaces, etc. in most real life discourse situations as we do in this slightly awkward example. It deserves to be reiterated that not only one, but several spaces are set off as a figure from a ground, just as in the event schema. Consider the following figure that shows how we mentally separate different kinds of spaces. The arrows indicate a few examples of possible linkages between spaces. These 'identity connectors' (see Turner 1996: 122) either establish the identity of whole spaces or of particular events, actors, or actions that form part of their mental scenes (so that we might even use several of them between two spaces to indicate that some but not all entities are connected). For example, they connect the images of a person between the real setting at hand and imagined settings that have not taken place in the past, or such that might possibly take place in the future.



In my reading the mental spaces approach amounts to a theory of ontology types operating on co-functional imagery that uses spatial logic with the elements of apartness, coincidence, and linkage. The basic idea is that DIFFERENT ONTOLOGIES ARE SPATIALLY APART while THE SAME ONTOLOGY COINCIDES IN A SINGLE SPACE. To give just one example, the ontological

characteristics of real and imagined, which relate to a cultural model of reality and fantasy, are understood through the co-functional imagery of event spaces (this is reflected in expressions such as ‘the realm of fantasy’ or ‘the world of everyday reality’).

Linguistic methods yield some suggestive evidence that spatial logic is actually applied. An excellent example for spatial logic applied to sentences is that of so-called *epistemic distance*, which Fauconnier (1997: 93) proposes as an explanation for why the English language uses past tense forms in two different ways. The past tense form can mark prior time simple propositions (‘You went fishing yesterday’). Alternatively, ‘went’ is used to mark something that Fauconnier calls epistemic distance in conditional clauses (‘If you went fishing tomorrow, you would have food for me’). In either case it marks a distal space relative to the ‘here and now’ space. This may require explanation for the second example, which

“takes a negative stance toward the event, and may be used even if we know that you are not going fishing. It is then interpreted as a counterfactual. In both cases, a hypothetical mental space is constructed, but the tense is used to specify not its time relation to its parent [which may but need not be the base space], but rather its epistemic distance.” (p. 93-94)

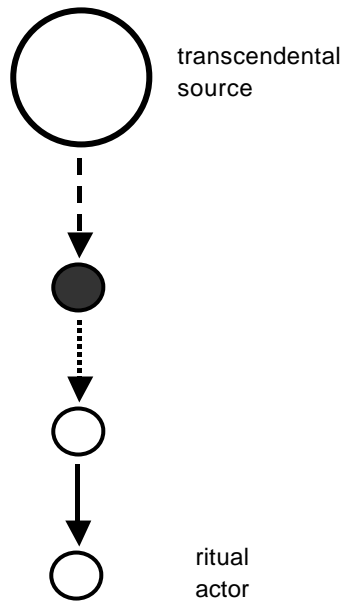
Hence, epistemic distance may be read as an effect of the metaphor WE DO NOT KNOW FAR-OFF THINGS AS WELL AS NEAR THINGS. For this reason the two uses of the past tense forms are schematically related because EPISTEMIC DISTANCE AND TEMPORAL DISTANCE ARE BOTH SPATIAL DISTANCE.

(5) There is a further group of important functions of the basic impetus chain that is important in religious rituals and other forms of entitling agents to a privileged function. This is congruent with suggestions made by Lawson and McCauley (1990: 110ff) on the cognitive features of religious beliefs. They note that religious rituals frequently feature chains of enablement for sacred functions from a supreme superhuman agent down to a priest. They hypothesize that there is a filtering model in our mind with which we distinguish religious actors who are ritually entitled from those who are not. I would argue that we conceptualize the structure in a similar way by representing it as a spatialized co-signature. In this case we would conceptualize an idealized chain of agents stretching from the original source of religious power and blessing to the performing agent, either directly or via intermediaries. So there would be an impetus chain stretching from the source to the recipient, who is thus vested with her or his special ritual powers. Plausibly, this is metaphorically understood through our physical and embodied experiences with force and energy. Possibly other embodied experiences than impetus that also have to do with energy enter into this, such as our experience of ingesting energy through food, receiving energy through warmth, and perhaps through healing action. In any case, some image of directional flow within our body

or between bodies will be involved, which might be considered a cognate of the impetus image.

This can be compared to the universal 'truth granter' conceptualized as BLOCKAGE REMOVAL and to truth as COMPELLING FORCE, as analyzed by Johnson (1987). On this basis, I would argue that all other kinds of vesting a social actor with a special function conforms to the same schema as well, for example in the case of conceptualizing legal titles. It is probably not by pure chance that we speak of the Law (with a capital 'L') as a transcendental source of rights from which individual laws derive through a force chain of enabling entitlement. Both the religious and the legal cases show that the impetus chain can be combined with other image-schematic models: Both God and the Law are not only understood as a first mover, but also as an essence from which everything else emanates. The uppermost element is at the same time one with a quality that includes all lower qualities. (I will argue further below that such essences are conceptualized as image schemas of a container with a homogenous, but abstract content that is responsible for its ontological features.) For example, Law as general first principle implicitly is seen as already including all specific laws emanating from it. What is transferred in the downward chain is not only a movement, but also a determining quality that is bestowed by the ontological nature of the prime mover.

The example also shows that not only the temporal structure of events can be coded by co-functional imagery, but that other modalities in which we perceive an event also can, such as a priest having been ritually 'enabled'. Thus, the effect of past blessings, ordinations, etc. may be present in the way a religious or legal state of affairs is perceived. According to Lawson and McCauley's theory, religious actors are identified as legitimate by implying a cognitive model of ontological enablement. The imagery in this case would stand for the notion of a quality like 'blessed', 'chosen', or 'ordained' being moved from a transcendental source to a ritual recipient. Note that the carrier of such an ontological quality from the source to the recipient is often a ritual object symbolizing the quality, such as the host or holy water. Also note that such an ontological chain can serve to define an agent's permanent ritual status. The original ordination of a priest is conceptualized by such a model, perhaps even in a quite conscious way. More than that, the model is evoked to conceptualize the permanent quality of having been ordained as a rightful incumbent of the office. (The intricate differences in imagistic emphasis between the continuous form of the concept, i.e. 'being ordained', and its perfective form, i.e. 'ordained', within this basic model will be explained later.) A non-physical quality is permanently ascribed to the person as defining attribute of priesthood. Believers permanently perceive an ordained priest through such a cognitive model, since it is defining of the concept 'priest' as such.



In placing the figure in a vertical orientation I bring into play the conventional spatial metaphor POWERFUL IS UP, which nicely maps onto the conceptualization of a force's origin and figures prominently in many conceptualizations of the divine and transcendental all over the world.

It is interesting to note that this also provides a new perspective on the so-called meta-representational ability of the human mind, as proposed by Sperber (1975, 1982, 1985, 1996). He puts forward an explanation of beliefs in dragons and other concepts embedded in complex cultural theories, without resorting to the simple label of primitive irrationalism. According to this theory, people hold representations like the existence of dragons, the Trinity dogma, or the theory of relativity and usually believe in their truth without knowing their exact content, simply because there are justified social reasons for accepting the belief (the experts say so, etc.).⁹⁷ People hold a second-order epistemo-ontological belief about

⁹⁷ Different kinds of mental modules treat information from different sources and of different sorts in ways different in principle. Sperber (1996: 70-71) contrasts everyday empirical knowledge with religious beliefs:

"I assume that we have a disposition to develop a certain form of empirical knowledge that could be characterized as follows:

-It consists in representations which are simply stored in encyclopaedic memory and which are treated by the mind as true descriptions of the mind just because they are so stored.

-These representations are formulated in the language of basic concepts; thus, you cannot have this kind of knowledge about atoms, viruses, mana or democracy (which, I assume, do not fall under basic concepts.)

-They are automatically tested for mutual consistency and, in particular, for consistency with perceptual inputs."

these vaguely formed concepts, namely that they are true. What sort of representation this meta-belief evokes is left unexplained by Sperber. At the same time he also fails to specify what lies behind mental 'modules', which seem to be based on the metaphorical notion of different tools or different storage facilities in the brain substrate. The just mentioned chain of ontological enablement could at least explain how people conceptualize the truth status of these vague notions through a co-functional image-schematic model. When an accepted experts' opinion warrants a conclusion, this is fact represented as belief enablement, so that whenever this co-functional image is attached to the vague belief it is acceptable. This also opens the intriguing possibility to conceive the schematic image for the truth status of understood and not-understood concepts as identical. (Perhaps the difference simply is that the understood image is inserted into the schematic containers that are hierarchically chained here in the one case, and left blurred or reduced to a token in the other.) As a consequence, we can hypothesize that Sperber's meta-representations simply result from a more generally applied image-schematic metaphor for truth. The instances of the metaphor merely differ in that we now have, instead of a compelling conceptual force, a communicative force. The metaphor linking these two would then be **THE FORCE OF FACTS (TRUTH) IS A SOCIAL FORCE**, rendering both ways of conceptualizing truth schematically similar: truth as a compelling force chain of factual knowledge and as a force chain of compelling communicative acts.

(6) As Lakoff (1987) argues, feature bundles, that is collections of properties of something, are structurally understood as the contents of the same container (they are blended in a single space, yielding a multi-feature quality). In this way we get a co-signature for the fact that they ontologically belong together. When we enumerate the attributes of a thing, we do so by putting them in a common container in our mind. The same is also possible on a larger scale, not between features of a single concept, but between several concepts that are related through a model. Suppose, for example, a situation where three known terms are linked to a central half-understood term to define this term. I will extensively argue in chapter 9 for the existence of an important learning default based on such concept bundles, with a conceptual node representing something not adequately understood.

These are very simple and very basic examples. There are a score of other skeletal imagistic structures people can bring to bear on their ongoing interpretation of an event or state, some of which reflect highly specific cultural models. Some more examples are to follow, without any claim of providing a comprehensive list. Let me mention a final possible

Only at this level of primary concepts these rules obtain. Other forms have greater flexibility and weaker filter mechanisms. Intuitive beliefs of this level have to be distinguished from the second order level of reflective beliefs. When beliefs on this second-order level are successful in spite of being counter-intuitive, it is because their embedding makes them plausible.

corollary of seeing features as spaces that could be suggestive for further study. Spatial logic could be used to embed features into successive containers, whereby the smaller containers share the attributes of the larger, but backgrounded containers of which they are part.

Suggestive evidence for spatialized logic in memorization abounds: The mnemotechnics harking back to Greek antiquity make use of the image of the mind as a house with rooms through which one wanders and where one can stop to examine the details. Recent techniques like 'mindmapping' even visualize these structural Gestalts in a tangible way. Likewise, object oriented programming in the computer sciences makes use of spatially structuring operators as objects being embedded in one another within various layers of schematicity. Although all these are in a sense artificial and consciously acquired expert techniques, it is highly suggestive that scientists, computer programmers, administrators, and business people find it useful to structure their knowledge in the same way that the co-functional imagery of the cognitive unconscious works according to my hypothesis. What object oriented programming allows the programmer to do is to imagine exactly the same kind of co-functional imagery to build an overall mental map of the program and its features, which are inherited down into lower-level containers, while additional (in a cognitive terminology we may say: less schematic) features are added for specification.

This is suggestive for religious empowerment as well as the mentioned impetus chain. Some of the models mentioned above could also be analyzed in this perspective. Most notably, the 'embedded' statements that McCauley and Lawson focus on display a spatial logic. As an alternative to impetus chains the more inclusive containers could represent causal preconditions. By this logic, they are instantiated as a background, because they are a precondition. They are not in focus in the ritual at hand, but whenever one asks for its enabling conditions, this larger background could be activated more strongly. The feature of this background which is inherited down to the priest could be called godliness or holiness, which he participates in by virtue of being in the overall background space. Of course, such a background may include a large number of different figures, just as any premise can be used to make several different points. I will trace this perspective in much greater detail in the next chapter where I will introduce the term 'realm', which stands for a distinctive feature or 'rule'. The background containers hypothesized here would fall under that term.

A final word on the main intention motivating this chapter and the ideas set forth. The acknowledged purpose of my main hypothesis, as outlined here, is to stimulate ethnographers, linguists, and social psychologists to interpret their data in terms of co-functional imagery and to find further support for its cognitive reality. After these examples we can return to some theoretical implications again.

PROPOSITIONS AS COMPRESSED IMAGERY

Interestingly, if the spatialization of form hypothesis were valid, it would provide an avenue towards an explanation of what propositional models actually are. Spatialization of form implies, or is at least consistent with, the assumption that propositions are only a particular complex and schematic sort of imagery. Even hard-nosed skeptics doubting the meaningfulness of the term 'propositional thought' will at least concede that conventional expressions need not consciously involve concrete imagery. Gary Palmer, who is representative of this position more than anybody else, concedes (1996: 105):

"Of course, behind propositional logic you also find imagery, but people nevertheless use such deeply entrenched conventional expressions in discourse and everyday reasoning without necessarily activating the originating body of concrete imagery."

Conventional verbal predications of the abstract sort somehow permit us to bypass concrete imagery, even though it may remain available if needed. The imagery is merely left unactivated in the proposition, although it is in principle accessible or at least was available when the concept was first experientially acquired.⁹⁸ Concomitantly, Palmer claims that abstract predications, which he calls 'postulates', only differ from images by degree (ibid.). They lie toward the abstract end of the abstraction continuum. This continuum, which starts with rich images, covers image schemas, and finally extends to include propositions, compounds a single mental format.

Let me proceed step by step. First, what can a theoretical model look like that supports the assumption that abstract and complex knowledge is imagistic? Coming from the field of psychology, Barsalou and his collaborators (1999: 211f) contribute a general framework of what is called 'perceptual symbols systems', which integrates perceptual and conceptual knowledge of various kinds into a single picture. The theory's name is intended to suggest that concepts share the structure of percepts. It has the following seven core assumptions:

(1) The processing of perceptual symbols often occurs unconsciously. Although conscious images may accompany them, they need not do so.

(2) Perceptual symbols are schematic and contain only fragments of perceptual states. The basic mechanism of selective attention extracts a very small subset of information in a perceptual state and transfers it to long-term memory for later use as a symbol. The resulting

⁹⁸ This notwithstanding, there are exceptions: In very abstract systems of thought a concept takes on a life of its own, and the circumstance under which it was formed are forgotten. This is *called conceptual reification* or *hypostasis*. In our imagistic theory it can be defined as an abstract concept for which the originating imagery has been forgotten.

schematic symbol contains only the extracted information (e.g. the shape of an entity, filtering out its color, position, etc.).

(3) Perceptual symbols are multimodal and can represent any aspect of experience. They include all five sensory modalities, proprioception, and introspection. Most notably, introspection also affords perceptual memories. Perceptual symbols extracted from introspection, such as cognitive states and affects, can be stored for later use and play a central role in explaining abstract concepts.

(4) Perceptual symbols enter into simulation competence. They do not reside in memory independently of one another. Instead, they become integrated in systems that allow the cognitive system to simulate entities and events in the absence of percepts. Having an adequate concept of something, then, means having an acceptable degree of competence in simulating it.

(5) Perceptual symbols are productive. A finite number of perceptual symbols can be used to construct an infinite number of perceptual symbols by using combinatoric and recursive mechanisms. This enables the construction of representations of entities and events never experienced directly. Information is added back to schematic representations. This is the inverse process of symbol formation, where information is filtered out of perceptual representations in order to produce schematic perceptual symbols.

(6) Perceptual symbols represent propositions used to describe and interpret situations. Simulated perceptual symbols are mapped into a perceived or imagined situation, which can be construed in a large number of ways by virtue of this.

(7) Perceptual symbols represent abstract concepts directly. Most abstract concepts are understood directly in terms of the relevant perceptual experience. Contrary to the belief of many cognitive linguists, metaphor does not constitute the primary representation of abstract concepts. When it applies, it guides, embellishes, and construes the experience.

This last point on abstract concepts together with the fifth point deserves further discussion. I believe we have to distinguish two kinds of abstractions. Some abstract concepts, to be sure, condense concrete experience and can be understood in terms of it (such as when we speak of 'vehicle' based on the perceptual experience of cars, carts, bicycles, trains, etc.). Other abstract concepts, however, are creatively arrived at. They are schematic constructions of entities and events never experienced, as in theology, philosophy, and mathematics. A sensible reading of what Barsalou and his collaborators say about abstract knowledge and the role of metaphor can, then, only be this:

(1) The meaning foci set by metaphor guide how peripheral pieces of information are drawn together when abstract concepts are represented.

(2) Type I abstractions, i.e. such that are grounded in experience, are directly understood in terms of perceptual experience. This happens selectively though, as is

always the case for abstract perceptual symbols. In this process, metaphor, if present, guides what aspects flow into the reconstruction and which remain unrecruited.

(3) Type II abstractions, i.e. such that are largely the product of creative fancy, are grounded in a virtual blend of conceptual elements. Each of these constituent elements may be individually grounded in perceptual experience, while the blend is not. Again, metaphor, if present, guides what aspects flow into the reconstruction and which remain unrecruited.

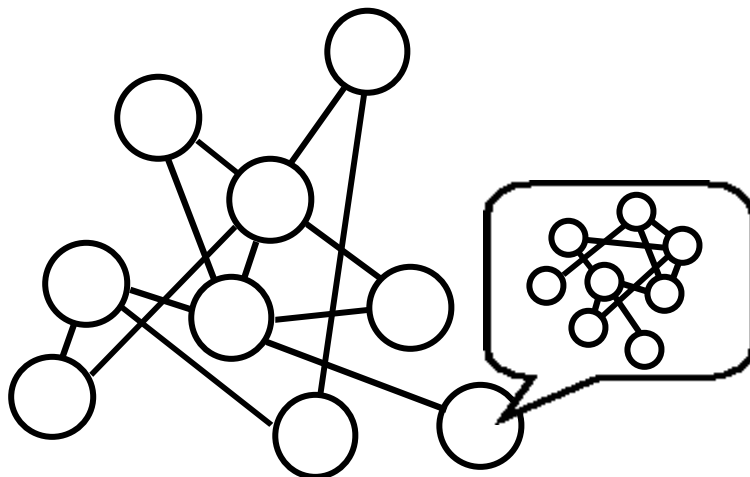
Following the above ideas by Palmer (1996) and Barsalou et al. (1999), I would now like to present a parsimonious explanation for the relationship between imagery and propositions. I would like to propose that propositional expressions are in fact a result of imagistically highly condensed knowledge and a reduction of imagistic detail. Note that the metaphor 'propositional' (= language-like, akin in structure to sentences) is usually invoked for any mental representation that is so complex as to elude straightforward depiction as an analog format, either as rich image or image schema. The representations are elusive because multiple dimensions are included and a vast amount of information is condensed into a single representation.

Here is a tentative description of complex concepts based on imagery. Suppose first that complex concepts activate vast neural arrays of linked sub-concepts. Suppose further that these neural arrays are represented as spatial images of linked entities filling a virtual mental scenery on a corresponding cognitive level (i.e. the spatialization of form hypothesis). Suppose thirdly that our mental horizon on this spatialized array is necessarily restricted in scope: One has to choose between either taking a relatively local structure in one's attentional focus for examining the details or scanning the wider structure at the price of losing sight of these details. Suppose fourthly that complex concepts consist of a set of what Fauconnier terms 'mental spaces'. These have external and internal characteristics. According to Fauconnier (1997: 39), they are "internally structured by *frames* and *cognitive models* and externally linked by *connectors*, that relate elements across spaces, and more generally structures across spaces".

If these assumptions are true, it follows that *in order to form an image of complex concepts, we have to broaden our mental scope and zoom away from the details specified by the frames and cognitive models*. In the resulting 'low resolution' image that goes with the widened scope necessary to grasp its spatial extension (perhaps in many dimensions) in a complex concept, only a relatively schematic overall structure of the connectors is mentally retained. Thus, conceptual condensation is analogous to spatial condensation that results from zooming out from a spatio-conceptual array. In other words, the qualitative value of the images is backgrounded. Only their logical implications and connector specifications to other

concepts are retained in the foreground. *Qualitative or 'rich' detail is eliminated, only structural features are retained.*

In the extreme case not even a schematic image of the individual concept is called up any more, only its network position relative to other concepts is retained. On this (and only this) level of abstraction structuralism is correct that no links to sensory qualities are necessary for defining a concept, only its relation to other equally abstract entities is in focus. In this extreme case of abstraction only a pure token of the image remains. Such a token might be what Langacker (1987a) calls a nominal profile. (Remember his assumption that a mental array of any degree of complexity can be treated as a thing-like mental region, by foregrounding the fact that all the subparts cohere within a boundary, while backgrounding the internal complexity within the boundary.) Presumably there are functional reasons for this conceptual condensation: It makes for higher access speed, as a great number of implied concepts are packed into the region as links or implications without creating an information overflow by considering all of their qualitative traits. If all this is true, abstraction serves to create a relatively simple and manageable image of complex cognitive arrays. A simplified token image is, then, much like file compression in a computer through which recurrent elements are recoded as simpler symbols. Thus, a complex configuration is processed as a simple shape, although the highly complex structure behind the token can be reconstructed at demand. Concentrating on a particular feature, on the other hand, makes its rich structures apparent and the background fade away. (The expression 'concentration', by the way, itself is evidence for the fact that the European folk-model of finding details in overall arrays is conceived as a spatial narrowing process, presumably modeled on visual focusing.)



Schema of sub-model linkages, either of concrete images (as in a category) or of a host of imagistic sub-models (as in a frame of high internal complexity). The balloon specifies the internal structure of one of the sub-models, which is backgrounded or lost in the shift to a large scope, but can be reconstructed again. Similar balloons with a similar sort of internal structure could be added for all the other parts.

This hypothesis seamlessly fits the spatialization of form claim. Spatialized forms have been defined as essentially being about the conceptual organization and about links between the parts of a complex conceptual compound, like a category and its members. At this conceptual level the internal structure of the category members is canceled out. Here the mind attends to large-scale relations between these entities, regardless of the specific imagery we might attach to them. If we go beyond that level which specifies rich or at least skeletal internal structure, we get to the level of pure mental tokens and links between such tokens. Mental form and content are only different by degree of schematicity, but both are imagistic. We get to the form level automatically once we adjust the focus and zoom out to a sufficiently large scope and low resolution of a mental array. Propositional models are, as stated above, one sort of mental form at the one far end of the imagistic abstraction continuum. Propositions understood as abstract imagery are spatialized form models of the most schematic kind and the kind most extensive in scope, since they specify only tokens for images and their links.

Consequently, *no propositional schema is purely non-imagistic* only because the rich imagery is lost. At least the inferential and associative relations between sub-concepts remain present in such representations, and they are, according to my theory, represented as image-schematic LINKS (and perhaps FORCE) between ENTITIES in quite spatialized ways.

COMPRESSED IMAGERY AND THE STUDY OF METAPHOR

In chapters 3 and 4 I called attention to the fact that image schema compounds in complex metaphor systems need to be studied. The above framework allows a characterization of the relation between complex metaphor systems and memory. It is generally acknowledged that domains regularly feature extensive sets of metaphors that are part of a single memory compound. Yet, how master metaphors and the host of intricate sub-schemas that they organize hang together is unclear. How do various metaphors employed in a domain cohere in memory? We can reason that, at least in some cases, *domains are in fact imagistic arrays of their constituent metaphors*. These arrays are similar to what Fillmore (1975, 1976) terms a 'frame'. Arrays or frames of cohering metaphors may be taken to characterize the memory landscape of cultural competence (whereas individual metaphors are flashlights on how people conceive a matter in a given situation, i.e. cultural performance). Two observations make this hypothesis plausible. Metaphors are often combined in a short discourse fragment, where they shape a mosaic of imagery (cf. Quinn 1991). Where metaphor sets are not blended in a single situation they may possibly cohere as elements of extended discourse. This entails a single memory Gestalt with many aspects that can be selectively highlighted.

A suggestive framework developed for the purposes of cognitive anthropology and discourse analysis is that of MacLaury's (1995) 'vantage theory', which is based on

Langacker's notion of focal adjustment. The theory assumes that cultural and linguistic competence for a given domain involves a series of perspectives, (1) between which people change according to the discourse situation and their intent, and (2) some of which may be more prototypical and common than others (i.e. majority and minority perspectives). Accordingly, a metaphor employed in a given situation concomitantly evokes an array of related metaphors, which function as background knowledge or alternative options. Moving between different vantages, then, means performing an imagistic figure-ground switch. Each vantage is a figure, which has the others of the same Gestalt – or frame – as a ground.

Vantage theory can nicely accommodate some recent findings on metaphor 'duals' by Lakoff (1990, 1993) and Yu (1995). They demonstrate that time in English and Chinese is understood as TIME PASSING IS THE MOTION OF AN OBJECT and TIME PASSING IS MOTION OVER A LANDSCAPE. In the former case the observer is imagined as static with time moving relative to her ("Time is flying by"), whereas in the second case the observer is moving herself ("We're coming up on Christmas"). (In fact Chinese has a third type, in which observer and time move in the same direction and she checks if she is keeping pace, moving ahead, or falling back.) A mixing of the types can occur at the discourse or even at the sentence level, indicating that speakers switch between vantages effortlessly. The cultural discourse frame of time is, then, a spatialized mental setting in which the observer can adjust her position and assume several roles relative to landmarks. My proposed model sits very comfortably with the data on duals. It remains to be shown if more complex topics also go into a single model with many vantages, but at least in the case of experts who know a subject very well this seems more than likely.

5. Evidence for the spatialization of form hypothesis

Although Lakoff's hypothesis will need more explicit justification in the future, as Langacker (1988: 392) also notes in a commendable, sympathetic, and yet critical review paper, it can be made plausible on account of several arguments. At present, four types of evidence can be marshaled in favor of the spatialization of form hypothesis: A first line of reasoning comes from its explanatory power for linguistic phenomena. As second group of arguments relate to the cognitive substrate and can be summoned from neurological evidence and from modeling efforts in artificial intelligence. A third type of argument concerns the theoretical advantages in defining cognitive forms as continuous with cognitive content in an embedded hierarchy of schematic images. This may be relevant both to explaining the specific cultural schemas as parts of a generic family and to explaining the relation between everyday and experts' theories. An additional, but more tentative, line of reasoning aims at showing that folk-theories and expert-theories may hold clues about mental tools operative in the cognitive

subconscious, in the sense of sharing their rough and most basic structure, but lacking their details. I will go through these four bodies of evidence one by one.

(1) INDUCTIVE ARGUMENTS INFERRED FROM LINGUISTIC PATTERNS

The first sort of argument is inductive and comes from linguistics. Grammar is one important example of a formal structure that can be interpreted under the hypothesis. The assumption that grammar operates on a spatial logic can predict a number of actually found inferential patterns very well. This is shown in considerable detail by Paul Deane (1996: 118ff), who studies human grammar as image-schematic form. Following the programmatic claims of cognitive semantics, Deane raises doubts that grammatical competence emerges from a specific linguistic module. Instead, he hypothesizes that it stems from the general cognitive ability of spatial thought.⁹⁹ I will not attempt to go into the more intricate details of Deane's linguistic argument or to evaluate its merits. It shall suffice to show what sort of general argument is possible from an analysis of grammatical structure, such as so-called 'head structures'.

Grammar is the relationship obtaining between the parts of phrases. The spatialization of form hypothesis predicts grammar to be constituted by spatialized LINK, PART-WHOLE, and CENTER-PERIPHERY schemas. These three are the constitutive aspects of the schema for physical OBJECTS. If this is correct, we can predict that inferential properties in the world of objects can be transferred to grammar. Phrases are subject to the rules of inference that apply to complex wholes in the physical world. The inferential properties of physical linkages, such as transitivity, should carry over to grammar: If A is linked to B and B is linked to C, then A is linked to C (p. 103). The same logic should be true for part-whole relationships. If A is linked to B and B has parts, then A is linked to at least one part of B (p. 116). These and other parts of spatial logic can be found in the relation between phrase constituents, so that this provides first hints that phrase structure is conceptualized as spatial structure.

Furthermore, it follows directly from the logic of the LINK schema that what linguists call a 'head-phrase' can be understood as a CORE PART schema. The core part "is central in the network of mutual linkage relations which define the whole. Like an airline hub, it is impossible to get from one point to another without passing through it." (p. 117) As an example Deane considers the simple phrase "will see me unwillingly" (i.e. a specifier, a head, a complement, and a modifier). A look at the possible smaller-scale linkage relations reveals that "will see", "see me", and "see unwillingly" can appear independently to form two-word units of meaning. By contrast, the other pairings "will unwillingly", "will me", and "me unwillingly" do not make any sense on their own. Once these possible pairings are thought of

⁹⁹ According to Langacker (1987a) the only special property of language is its symbolic character, i.e. the pairing of semantic and phonological poles.

as links – the most basic assumption of the spatialization of form hypothesis – it follows naturally that the head ('see') instantiates a CORE PART schema (p. 118). The linguistic head, conceptualized as core node, is available whenever any part of the phrase is processed, so that the properties of the whole phrase are marked on the head. The core parts establish the identity of the whole. Deane argues that an entity and its core part must automatically belong to the same linguistic category type.

Other important aspects of the physical core part schema can explain features of both core and peripheral parts:

"Thus far we have focused on geometrical aspects of centrality: the fact that core parts mediate the mental paths which connect, and thus integrate, peripheral parts with the whole of which they form a part. But there are other properties experientially associated with centrality. Consider the human body, for example. Central parts of the human body (e.g., the various parts of the torso) are characteristically massive, compact, and rigidly joined. Relatively peripheral parts (arms, legs, head) are typically light and flexible in comparison to the core. This is true not just of the parts of the human body but is typical of most objects encountered in daily life. Trees, for example, have their most massive and rigid part in the center (the trunk); as we move out from the trunk to the branches, then to leaves, the parts are less massive and more flexibly attached.

Both massiveness and flexibility are directly relevant to the force-dynamic schemas which underlie linkage and hence the PART and CORE PART schemata. The more massive something is, the more difficult it is to move, and hence the more its location is fixed. The more rigidly attached it is to the immediately surrounding parts, the more difficult it is to move independently: thus its location is more and more predictable if not identifiable with the location of the whole of which it forms a part. Conversely, a light object only flexibly attached to the whole is much less predictable. (...) peripheral parts come much closer to being independent objects. (...) These results are at least partly a result of the very nature of linkage: entities in the center are multiply linked, and each link constrains their location. Peripheral parts are linked more sparsely to the whole, and so their location is far less constrained." (p. 123)

When the CENTER-PERIPHERY schema is transferred from physical space to mental space, the central concepts are those whose values are relatively determinate, while peripheral concepts are those whose values are less predictable and more subject to shift.

In terms of semantic analysis this would mean that the greater the semantic flexibility of a concept, the more peripheral it is. In semantics there is a graded difference between schematically unsaturated concepts that are variable in reference and essentially complete concepts. For instance, a verb like "eat" is relatively unsaturated and unspecified, since the nature of the designated action is different between, say, eating an apple and eating spaghetti. A noun like "tiger", "water", or "gold", on the other hand, is relatively context-independent in meaning. Deane proposes that this can be mapped through the CORE PART

schema, whereby the fixed reference expressions are central and the variable expressions more peripheral (p. 124f). Furthermore Deane proposes that the spatialization of form claim predicts the centrality of phonological form, where there are relations of adjacency, sequence, and prominence (p. 126). Supposing that heads are understood as phonological centers, the nearer a phrase is phonologically to the head the more central and salient it should be. Thus, Deane claims that the spatialization of form hypothesis predicts not only head-structures in grammar, but also semantic and phonological phenomena. Prototypical phrases are reasonably those in which these three mappings reinforce each other.

To be sure, the logical viability of Deane's argument depends on certain ontological assumptions about disjunctive levels of theorizing cognition. In Deane's view a link can be thought of as activation spread. Note that this is a concept usually employed at the neural level. In the brain substrate neural cells work in terms of links, relative distances, and shifting 'weights' created by the activation total from firing neighbors. By implication, this neural architecture has local nodes and peripheries, competing regions, and 'force distributions'. However, Deane intends his argument to be at least primarily about mental concepts. These concepts can become available for processing either because they are in the center of focus to begin with or because they have been activated by adjacent concepts (p. 129).

Thus, Deane seems to implicitly base this model on an analogy to neural activation spread when speaking of the conceptual level. Langacker (1988), for one, expresses grave doubts about the idea that *neural* activation spread works just the way that links work within a *conceptual* entity. The problem as I see it is that the implied middle-level of unconscious cognition is not adequately modeled here in their relation to conscious ideas on the one hand and to brain activity on the other. Hence, activation spread can be quite easily interpreted both as a conceptual inference and as a neuronal link, which, in a simplified model, underlies the activation responsible for the inference. In my view, a placement between the neuronal and the representational levels remains too elusive without a stronger theoretical grounding in a model of the cognitive architecture. Without such grounding it can backfire as an argument for the spatialization of form hypothesis, because it opens the doors to 'materialistic eliminativism', as proposed by Paul Churchland and others. According to this position, once our models of the brain become sophisticated enough, links and activation spreads in the brain substrate are able to account for our linguistic data without a need for an intervening level of spatialized representations. Where neural networks do the job, spatialized concepts are not necessary for an explanation any more. The functions taken by the CORE PART schema could be explained away through neural activation clusters. Thus, additional evidence is needed to corroborate the spatialization of form hypothesis in its strong version, which we defined as pertaining to *conceptual representations*.

(2) ARGUMENTS BASED ON FINDINGS ABOUT THE NEURAL SUBSTRATE

Alternatively, the matter can be illuminated by looking at the substrate of cognition, namely either the human brain or artificial intelligence networks modeled on it. Correspondingly, there are two kinds of empirical evidence that come from neuroscience and artificial intelligence respectively. Both present structurally analogous evidence:

The most important body of evidence related to the neural substrate has, again, been assembled by Paul Deane (1991, 1996) and deals with the grammar faculty (just as his above arguments from linguistic patterns do). He brings to bear a great amount of evidence in support of his theory through an extensive survey of neurological studies. As already outlined, grammar under the 'spatialization of form' view is ultimately spatial and structured in terms of basic image schemas. Deane (1991: 362) contends the following:

"According to this view, the comprehension of abstract concepts crucially involves neural structures which are in the first instance processors of high-level spatial structures (e.g., basic image schemas). However, in human beings these structures can be diverted to the processing of other, more abstract kinds of information. The result is a situation in which spatial and abstract concepts are represented in a single format due to their common neural substrate. The common format allows for the emergence of explicit metaphors that preserve image-schematic structure as hypothesized by Lakoff (1990). As a result abstracts concepts (including grammatical competence) are directly homologous to high-level spatial concepts even though there need be no explicit cognitive representation of the similarities."

The spatialization of form hypothesis makes very strong claims about the relation between grammar and cognition (p. 363-64):

"(i) According to the hypothesis, the acquisition of grammatical competence occurs when linguistic information is routed and processed by spatial centers in the brain.

(ii) Specifically, it is claimed that linguistic expressions are processed as if they were objects with internal structural configurations. That is, they are processed in terms of certain basic image schemas, namely part-whole and linkage schemas critical to the recognition of the configurations which define complex physical objects.

(iii) But as Johnson (1987) argues at length, image schemas are basically *embodied schemas*, high level schemas which function as cognitive models of the body and its interaction with the environment."

The hypothesis predicts an association between grammar and cognitive abilities, such as object recognition, spatial structure, and body awareness – especially the modeling of bodily movement and position in space. At the level of the neurological substrate such a connection can be established. Strikingly, there is a brain region called the inferior parietal lobe which is crucial to grammar and all other of the above functions. The neuropathological evidence

surveyed by Deane shows that damages of that region can result in disruptions of linguistic functioning, such as global aphasia, agrammatism, alexia, and agraphia. It can also specifically result in semantic aphasia, which involves an inability to compose the meaning of phrases where that process depends on the interpretation of spatial concepts. The inferior parietal lobe has precisely the functions predicted by the spatialization of form hypothesis, including Johnson's assumptions about knowledge being linked to bodily experience: First, the inferior parietal lobe is recognized as the seat of bodily awareness. Brain damages of that region can result in postural disorders, hemiparesis, one-sided body neglect, hemianesthesia, pain asymboly, phantom limbs, and even the failure to recognize a limb as being part of one's body. Second, the inferior parietal lobe functions in the high-level, cross-modal integration of somatic and sensory information. Dysfunctions due to damage also include hemianopia, one-sided visual neglect, the inability to use visual information to guide body movement, metamorphopsia (shape distortion), and visual perseveration. Third, the inferior parietal lobe is responsible for high-level representations of spatial relationships. This is indicated by the inability to copy constructional patterns as a symptom of damage to the region. Deane also cites studies that show that the inferior parietal lobe functions to represent spatial information independent of sensory modality. Fourth, the region is also crucial to recognition of everyday objects as Gestalts. One of the most frequent symptoms of damage is visual agnosia, i.e. the complete inability to recognize objects. Interestingly some patients are able to correctly represent the parts but distort the spatial relationships between them or fail to represent them. Finally, crucial evidence comes from patients with damages to the *left* inferior parietal lobe, which is specialized both in language and forethought (abstract planning). Both of these require the capacity to represent abstract sequences of actions. Such patients often suffer from the inability to coordinate more complex actions, although they can perform simple ones (ideomotor apraxia).

Deane (1991: 366) suggests that the entire complex of symptoms allows a unified interpretation that is perfectly consistent with the central claims of cognitive semantics, namely that the inferior parietal lobe is the seat of image-schematic thought. Each damage in the region can be analyzed as a disruption of a particular use of image schemas. All this shows that the structural capacities required to understand syntax, object recognition, body awareness, and sensorimotor capacities form a single functional unit in the brain.

A second body of substrate-related evidence coming from artificial intelligence does not produce any direct proofs for the hypothesis, but it suggests a future course of research, building on present results. Recent modeling efforts in AI by Terry Regier (1995), David Bailey (1997), and Sridhar Narayanan (1997) support the assumption that language recognition operates on the basis of embodied image schemas in the case of verbs of movement and spatial prepositions, even when used in abstract. It does not seem exactly clear that research

remaining on this basic level of individual semantic units of speech has a strong bearing on the spatialization of form hypothesis in its strongest sense. However, if a similar kind of modeling could be implemented for high-level formal aspects of language, that is grammatical structures, this would come as a strong additional argument for the hypothesis. I will give a very brief outline of the existing research, so as to show what sort of experimental approach in AI could corroborate the postulate of Cognitive Semantics that grammar is processed by general-purpose mechanisms of spatial cognition.

Regier's, Bailey's, and Narayanan's research results, stemming from a joint project at Berkeley with the ambitious name 'Neural Theory of Language', are summarized by Lakoff and Johnson (1999: 573-581). Regier's accomplishment is that he succeeds in showing that conceptual categories which different languages apply to spatial relations can be created by the same neural mechanisms responsible for spatial perception itself. In this model the visual and the conceptual system are one. However, this is the result of an artificial connectionist network, albeit one built as simplified model of several actual neural structures, so what we have here is an existence proof for such a multi-functional structure rather than a proof that the brain actually operates in this way. Note however that these results nicely dovetail with Deane's neurological data showing that a single brain region is responsible for grammar, the body schema, and spatial movement all at the same time.

Another modeling approach by Bailey tries to simulate how movement and motor control enter into the definition of concepts. His approach lends credibility to Langacker's (1987a: 112) postulate of motor schemas, which are neural events equivalent to events that actually elicit a motor response, only that they actually fail to do so, such as in dreaming of motion. Bailey constructed a model of a neural network that was able to learn the verbs used for hand motion in an arbitrary language. Working with a computerized model of the human body with all the indicated muscles and joints, the model should be able to name a given hand action correctly and perform the right action given the word. The deeper theoretical significance of the connectionist system is that it matches words directly with motor schemas. Or, as Lakoff and Johnson say, "the fundamental *conceptual roles* for making the right linguistic distinctions among the verbs are played by *features of the motor system*" (p. 578). To anybody trained in the tradition of faculty psychology this will sound like a category mistake, since the physical and the conceptual should be different on a principled basis.

The work of Sridhar Narayanan applies Bailey's results to abstract reasoning. He demonstrates this on the basis of expression used in news stories about international economics, containing metaphors such as "the market plummeted". His model is suggestive because it fits with the prediction that conceptual metaphors preserve the spatial logic of percepts. His research demonstrates in a simulated learning task that not only verbs for spatial motion, but also abstract reasoning can be learned according to the topological

properties of the schemas, their 'spatial logic'. Again, these results do not prove that abstract inferences about economics are actually carried out by the system of motor control. They constitute another existence proof that the same neural circuitry can be used to move the body and to reason with.

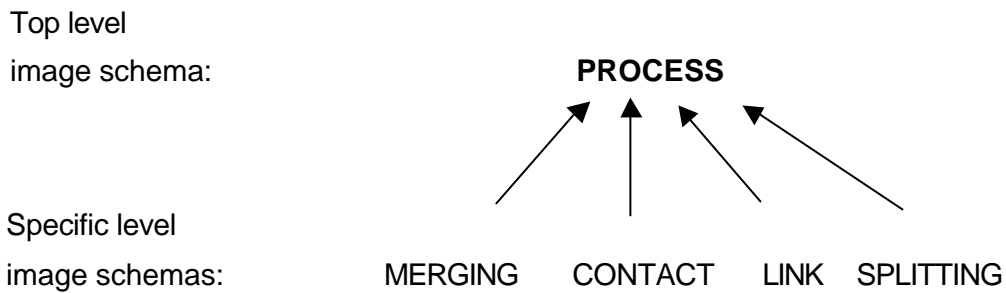
We can see that the overall thrust in these three cases dovetails with Deane's argument: First, several cognitive functions are shown to be (actually or possibly) co-occurring within a single integrated region of the cognitive substrate. Then the multi-purpose general mechanism that processes image schemas predicted by Cognitive Semantics is located in this network region of the brain or of the connectionist model. From this it is, finally, possible to conclude that certain linguistic functions are a result of the human ability to reason spatially. Regier, Bailey, and Narayanan show how spatial prepositions, concrete movement verbs and the corresponding physical movements as well as abstract movement verbs can result from a single structure of spatialized cognition. In a future step it remains to be shown from the AI perspective that high-level conceptual functions such as grammar can be also covered by this integrated image schema processor.

(3) ARGUMENTS BASED ON THE CONTINUITY OF SCHEMATIC FAMILIES: MARRIAGE AND EMOTIONS

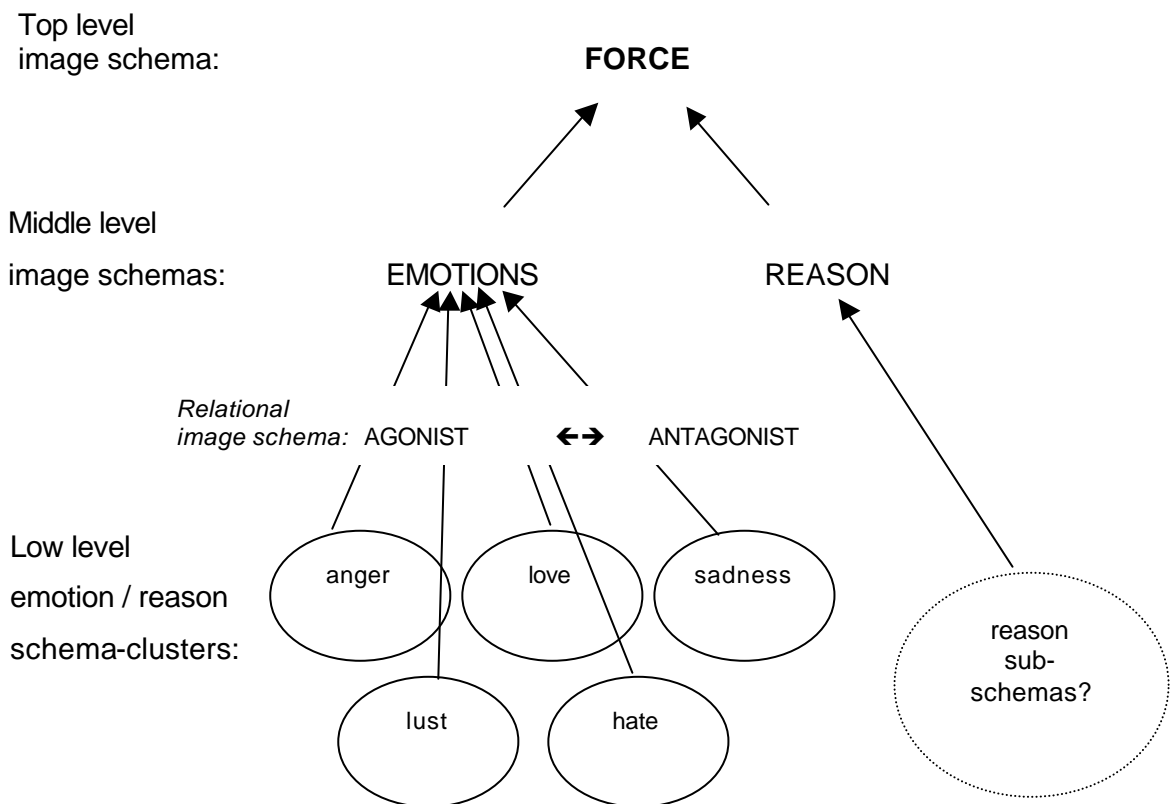
The spatialization of form view allows a coherent account of how low-schematicity schemas cohere in generic 'families' at higher schematic levels. In other words, the assumption explains how accumulated individual findings on metaphors hang together in imagistic landscapes and how they form metaphor hierarchies, metaphor clusters, and master metaphor systems. It is probably undisputed that concrete models can be embedded in more skeletal framework models. What the spatialization of form view highlights, is that this can go up to an utmost level of schematicity. A strong theoretical reason for spatialized tools is that we have a unified model of the high and low levels of generality in cognition. The common cognitive format elucidates how cultural knowledge can be continuous, combinable, regroupable, transferable, holistic, and integrated.

One piece of evidence comes from people's discourse on complex domains and from switches between metaphors of a larger scenario. The aforementioned study by Naomi Quinn (1991) on American marriage indicates that people readily make comparisons and execute transformations between different metaphorical instantiations of a more generic schema.¹⁰⁰ For example different stages of a relationship are being talked about in different versions of the PROCESS schema. The schemas MERGING, CONTACT, LINK, and SPLITTING are all specific level subtypes of a process with a shared topology (cf. Cienki 1997: 11). This implies at least a two level hierarchy:

¹⁰⁰ Quinn's data provides at least partial evidence that such a mechanism exists, although she does not interpret her data as pointing to generic imagery in major ways (see chapter 3).



An even more valuable kind of evidence for the existence of generic level models comes from the study of master metaphors, i.e. the cumulative analysis of metaphors across domains and how they form higher-level systems. The research by Kövecses (2000) on emotion concepts that was mentioned in chapters 1 and 3 presents solid evidence for highly schematic master models.



In English different metaphors for emotion of all kinds (love, hate, anger, fear, sadness, etc.) feature the FORCE schema in some way. In addition the generic emotion schema goes into a yet more encompassing model with the schema for rationality. In fact, the two are each other's image-schematic counterparts. Being rational means resisting an outward force through one's own strength, while a strong emotion causes one to surrender to it. One is the

'agonist' in a coupled force schema, while the other is the 'antagonist'. This yields a hierarchy of schematically embedded metaphor:

(4) THE ARGUMENT OF FOLK-THEORIES AS IMAGISTICALLY REDUCED PROTOTYPES OF FOLK-MODELS

Finally, I would like to suggest a conjectural argument for further discussion: The relation of folk-models and folk-theories (or folk-theories of lesser and greater sophistication) can sometimes – just as the above embedding hierarchies – be explained as one of reduction and skeletalization. That folk-theories, as presented in discourse, and folk-models, as inferred by the cognitive analyst, rarely coincide has been long acknowledged (Holland/Quinn 1987). What people of a culture say about the way their minds work is one thing; what indirect clues about the cognitive unconscious tell us may be another. Conscious theories are rarely faithful reflections of *operative models* in the cognitive subconscious, so that hypotheses on operative models cannot be established by simply interviewing informants about their views on ideas typical of their culture. Cultural theories reflect complexity reductions and simplifications as of ideological discourse. It is characteristic of ideology that some aspects of the operative processes of cognition remain unacknowledged, some are distorted, and others emphasized in popular consciousness. And no doubt, the two models sometimes even clash in terms of social action, either as disagreement between different parties or as cognitive dissonance of one individual. Even though people reason by graded membership categories in most actual instances, as soon as they are asked about how they reason or to make a general judgement they will probably fall back on their cultural theory governed by an ideological belief system. For example, the Western folk-theory of categorization imposes an ideology of binary relations (either-or). The school system, in particular mathematics and philosophy, have inculcated the belief in a logic-like view of categorization in which necessary and sufficient conditions for membership obtain, whereas graded membership or complex chains play no role. For the most part this does not describe the cognitive reality of everyday thought, as the studies by Rosch (1978) and others indicate. Instead, categories are structured around prototypes or in complex chains.

Although we are barred from any direct access to operative mental models, a comprehensive system of indirect clues and 'convergent evidence' has been suggested by cognitive linguists (Lakoff/Johnson 1999). Given that we put trust in this apparatus of linked indirect methods, we are in a position to compare what people say about the way they think with their non-conscious performance. This raises the question what the relation between reflexive models and operative models is. On the basis of such a comparison it may be reasonable to believe that folk-theories have the same image-schematic structure as the corresponding operative models. Lakoff and Johnson (1999: 20) give some thought to this.

They distinguish ‘essence prototypes’ that people think they think with (i.e. the folk-model of cognition) from the graded categories that can be linguistically inferred in a more differentiated observer’s view. Lakoff and Johnson suggest that the prototypical core members of operative categories are used in conscious theories to represent the category as such. Container-logic is applied to both, but in the operative model more complex structures are added, such as radial structures and graded membership. Following Lakoff and Johnson, we may assume that many *folk-theories are prototype models of operative space-tools*.

If this is correct, the folk-category of metaphor should roughly correspond to the operative mental tool used in metaphor comprehension, with the latter adding details and allowing variants. As a case study, let us compare a common model of metaphor, which is presumably based on a folk-theory current among educated people, and a more refined model based on recent analytic efforts by cognitive scientists. Many past theorists have held a simplified and fairly general theory of metaphor as ‘mapping’ between domains. What is more, this also emerges in some everyday expressions like the German “im übertragenen Sinne” (= “figurative meaning”; literally “in the carried over sense”). This view of metaphor is understood through an image of a projection between two containers linked by a conduit. This fits into Reddy’s findings on the Western communication metaphor called – in shorthand – CONDUIT for the medium through which a series of connectors passes. Presumably the theory of metaphor is therefore based on a general CONDUIT folk-model shared by academics and non-academics alike. I propose that the earlier theory of metaphor is motivated by recursive, but incomplete understandings of operative cognition. The folk-model may be a simplified prototype version of the operative model working on CONDUIT logic. If this is correct, the operative mind activates a general spatialized tool representation for metaphorical structures every time a metaphor is processed and treats metaphoric cognition as an interaction between two spatially fairly separate spaces, even though these two spaces have a complex internal substructure and are not strictly bounded. The analysis of metaphor within the *mental spaces* model can be read as an illustration of this (Fauconnier 1997: 168), if we assume that it can also be understood as a subconscious space-tool used in real cognition. Fauconnier does not explicitly state that mental space theory is more than an observer’s model, and thus speaks of operative models. However, a theory of how people process ontological differences is implicit in Fauconnier’s model since it posits that contrastive ontological spaces are involved in complex utterances and thoughts, e.g. a base space for the speaker’s perspective and a hypothetical space for what somebody thinks. If the mental spaces model is taken to be an operative cognitive model, it can be compared to the CONDUIT model. Evidently, the mental spaces model is more elaborate than the CONDUIT image. Most importantly, it includes at least four, instead of two, spaces that are involved in

metaphorical mappings.¹⁰¹ It therefore adds elements to Reddy's two-space model. If we assume that the four-space model comes close to an operative model, the two-space CONDUIT folk-model has some features of a simplified prototype. The source and target spaces in the blend resemble the basic conduit schema. As regards the simplifications, the mental spaces model adds detail features, such as selective links and two more spaces. Another difference is that not the whole content is transferred through the conduit. Instead, particular objects or attributes are connected to other particular aspects in other spaces on a one-on-one basis. It is only for this reason that a separate blended space needs to be hypothesized. The consequence of this is crucial. The central inference in Reddy's model for communication (presumably similar to the folk-model of metaphor based on the idea of 'mapping') then no longer holds, namely that a coherent and uniform content is sent as a whole and without any mental effort to another container. Selecting information, building analogies, and creating specific pairings is essential in the theory of mental spaces. There must be emergent structure in the new blend as well as unused elements in the source and target spaces. Overall, when we compare the simplified and the more complex model it appears that the basic imagery that is used is partly similar, but the actual inferential understandings of a function differ considerably.

We started from the assumption that the blending model used for metaphor resembles the operative Gestalt tool (a kind of co-functional imagery) used in metaphor processing. Although the operative tool is evidently more elaborate in imagistic structure than the folk-model, I have proposed that theories in scientific and everyday discourse may hold clues about operative cognitive tools. *The clues they offer are more about the general nature and the use of spatial logic of the tool than about its specific structure.* In other words, they share the space logic of difference, but how this logic is applied diverges between graded membership models and essentialist theories. Minimally they fit with two general ideas, namely that (1) there are multi-purpose mechanisms at the folk-theory level, and (2) these mechanisms are similar, but not identical in imagistic structure to the operative tools inferred

¹⁰¹ The suggestion of four major spaces is a highly original and stringent innovation. I agree with Turner (1996: 87) that this furnishes a superior general model that accommodates all sorts of different mental structures and provides insights into their subtle, yet important differences. However, I would caution against taking spaces either as permanent givens or just as simple and non-overlapping mental locations in which everything coheres in a nice and unambiguous way. (By consequence, even more than four spaces might be imaginable, depending on our viewpoint.) For our purposes this is a side-issue. Regardless of how spaces are carved up and positioned, *mutatis mutandis* my crucial argument remains intact that they are instantiated through spatial cognition and partake of the logic of spatial linkage, coincidence, and apartness.

by linguistic methods. Though operative models may form the basis for the folk-theory level, theories often differ considerably from the operative models in the inferences they generate.

PREVIEW

The entire remainder of this work is devoted to the extension and elaboration of Lakoff's spatialization of form hypothesis and tries to demonstrate how image-schematic tools are brought to bear on the understanding of worldviews and ontologies. Among other things, I will attempt to show how basic ontological kinds, categorization, and essence building can be explained through image-schematic tools, especially such that are used as organizing co-signatures of more specific processes. Another emphasis will be the analysis of how dynamic transformations of ontologies and holistic effects are created through dedicated co-signatures.

Chapter 9:

The Foundations of Cultural Ontology – An Imagistic Theory

The following chapter constitutes the heart of this work and deals with spatial logic in the study of cultural folk-theories and of folk-models that constitute ontology. After giving a general cognitive definition of ontology, the chapter presents Ronald Langacker's framework for the analysis of dynamic Gestalt imagery and with this as a tool examines a series of ethnographic and philosophical examples. In a nutshell my fundamental claims are these: (1) *Ontologizing is a cognitive process by which the generic categories of being in a cultural thoughtscape are defined and distributed differentially across thought domains;* (2) *these ontological categories are imagistic categories of utmost schematicity; membership is defined by conforming to their generic topological features.*

In other words, I will propose a theory of ontological distinctions based on imagery types. This is clearly prefigured in the 'ontological metaphors' defined by Lakoff and Johnson (1980), who treat a small number of very basic but extremely widespread examples such as OBJECT, FORCE, or CONTAINER. I attempt an analysis along the same lines, but also extend the notion of ontology to more complex configurations. Thus, the ontological categories can be either defined through simple imagery categories or also through complex co-signatures, such as CAUSAL EVENT, or ENABLEMENT FROM ABOVE (see chapter 8). Co-signatures function as a kind of ontological category, because they characterize the basic status of a representation alongside the more specific cognitive processing of it and allow placing it in the right generic expectational pattern.

My framework is inspired by the theory of cognitive grammar formulated by Ronald Langacker since the early 1980s. However, my own ideas are neither only about linguistic cognition nor, as far as language is concerned, only about thought at the word or utterance level. At the cost of being more speculative, I choose a large scope on purpose here. My aim is to find out what the imagery approach can do for a systematization of long-standing questions within cultural anthropology. I will systematize the aspects of Langacker's theory of mental imagery that are relevant to ontology. I will examine two broad classes of ontologies, namely substance and process ontologies. The framework is applied to issues such as essentialist thought, the relation between metaphor and metonymy, or the function of ritual.

1. Defining ontology as imagistic formats

Ontology (or the verb 'ontologizing') is often used in not very sharply delineated ways, so that it is apposite to work out some basic definition. Cursorily, in a cognitive approach ontologizing designates (1) a mental process (2) that attributes a specific reality status to representations either consciously or unconsciously, and (3) in doing so assigns the

representation to a category shared with other equal-status representations. Moreover, (4) the process is one we constantly and necessarily perform in one way or the other, spanning folk-models, folk-theories, and expert-theories alike. Ontologizing (5) subsumes evaluative, emotional, and connotative dimensions and thus makes for 'reality colorations'.¹⁰² I will stress the first three of these general points here:

First, ontology is about what goes into the same category with what. Categorization means attributing general traits to a mental entity or, put the other way around, identify the entity as belonging to a category circumscribed by the traits. For example, in many folk-theories a mental content is either being identified as a process or as a substance and sorted accordingly. Through identification with a category the mind bestows a particular kind of basic nature on a representation (from a choice of several possible ones). Thus, processes are inherently different from substances in the way we think about them.

Second, ontology frequently involves the act of attributing a *specific reality status* to a representation or belief, defined in relation to a cultural system of knowledge and values. Belonging to a category includes this status of 'realness', while the emotional and evaluative dimension emerges from this sense of 'realness'. Ontology as an incessant process is organized in cultural ontology systems. Such a system, often as reflected in language, influences which dimensions of perception, feeling, and imagination are particularly 'real', i.e. culturally or individually relevant, as opposed to others. For example, in some worldviews only substances are thought of as real, in the sense of being the deeper nature that underlies what superficially appears to be a process. Ontology as status ascriptions to pieces of information is often reflected in grammar. Interestingly, some languages use evidential markers as ontologizing devices, such as the Papago language of Arizona, which makes it obligatory for speakers to use the little word *s* whenever describing something not seen firsthand. In the nearby Hualapai language a speaker can, the other way round, use the verb suffix *-o* to specify that she has actually seen what she is reporting. The most sophisticated evidential system is that of the Wintun, who

"use the verbal suffix *-ke* for hearsay information and the narration of myths, the suffixes *-da*, *-besken*, or *-be*, (first, second, third person) for visual or unquestioned evidence, the suffixes *-ntide*, *-nterestken*,

¹⁰² However, this chapter will deal more with the imagistic aspects of general types of representations than with their phenomenological character (e.g. emotional imagery and the qualitative 'feel' that goes with a particular concept). Also, emphasis will lie on culturally dominant ontologies, meaning such ones that are normatively espoused in many social lifeworlds of a culture. A systematic distinction of the alternative ontological or experiential modes in a culture, perhaps in the way Schütz (1962) purports to provide it, will not be given.

and *-nte* for nonvisual sensory evidence, and the suffix *-re* for information based on inference (...).” (Palmer 1996: 199)

In other words, languages such as Hualapai require the speaker to identify the epistemic status of her report and tend to split the world of knowledge into the grammatically marked categories. While this may seem exotic, it is not. The English tense system requires speakers to distinguish actions that have started earlier and are still going on from completed actions. A quasi universal split is that between nouns and verbs. While language may not strictly determine ontological categories and is probably not the only source of ontology, its effects in highlighting certain ways of carving up the world are powerful (cf. Gumperz/Levinson 1996).

Third, the cognitive operation of ontologizing is one that is inevitably and permanently applied to representations. There is no concept or belief without ontology of some kind, because every concept is somehow situated in a cultural space of similar and different concepts. For example, following a suggestion by Sperber (1975), even ‘half understood’ notions, or belief accepted on faith or authority, are part of a typical ontological category in its own right that could be called ‘beliefs about representations’. Experts’ knowledge such as the theory of relativity one accepts as true without a full grasp of it, simply because our scientific experts lay an accepted claim to it.¹⁰³ Ontological categories are inevitable because they are vital for orientation in our cognitive system. The consequences of a particular way of ontologizing are not to be taken lightly. It matters to our treatment of animals, for example, whether we consign them to the category of humans or more to the category of soulless things. Equally, it matters to theology or psychoanalysis whether we consign the memory of a religious experience to the category of external powers impinging on us like a material force

¹⁰³ This must, obviously enough, include scientific theories about ontology. Yet, it seems crucial to me to pinpoint a distinction of what the task of a cognitive approach is and what it is not. *In short, cognitive theories worth the name should try for the barest possible ontological commitments.* These may include the use of causal explanations, the belief in the psychological realities of others, or taking a degree of ‘experiential realism’ for granted. Other than that, I believe that ontology in cognitive theory should always relate to second-order descriptions about how other *people* think in real-life. The experienced ‘reality’ of everyday actors needs to be only depicted, not judged on its merits. In a responsible cognitive theory the task is to describe (and explain) the spectrum of human alternatives in ontologizing, while the folk-models are committed to one specific way of ontologizing to the strict exclusion of others. In other words, more traditional societies typically have very little consciousness about alternative ontological construals of something, being embedded in a specific worldview and upbringing. Other worldviews are either unknown or rejected as ‘false’. The recent emergence of ‘postmodernism’ in the West has a great deal to do with a growing awareness that there are different basic ontologies to choose from, with the effect of relativizing or even ousting traditional truths.

or to the category of internal psychological states. It matters a lot whether we think of dreams as something fundamentally different from being awake and thus also perhaps less ‘real’ – for example whether or not the actions committed by us or others in dreams have some bearing on everyday reality. It also matters if we consider wishes as actions with real consequences or as fundamentally different from them, etc.

The origin of ontological distinctions is diverse. Many categories are given to us very early in life, perhaps as innate predispositions, such as the predisposition to identify species and ascribe essences to them (Sperber 1996, Hirschfeld/Gelman 1994). They may also be triggered by culture-specific or universal archetypes of experience (Alverson 1994, Grady 1997a). Even later in life, when new experiences are undergone, such as in meditative practice or scientific endeavor, new ontological categories are continually created to fit these experiences. Although the precise nature of ontological categories is strongly dependent on cultural and individual experience, the propensity to ontologize is a universal feature of the human cognitive system. At least from the perspective of the paradigmatic Martian visitor, there are amazing similarities between ways of ontologizing all over the world.

Which mental faculties create ontological distinctions is less clear. I submit here that generic imagery can explain major ontological categories. In other words, ontologizing can mean identifying a concept as shaped by and belonging to a particular class of image schemas or image schema transformations. Image-schematic cognition includes generic multi-purpose tools that bestow a basic character on concepts. At the same time each general type includes an infinity of different elaborations and combinatorial structures. The section to follow will introduce a general theory of dynamic mental imagery. This may serve as a basis and a descriptive language for the subsequent sections, which try to give an account of substance ontologizing and later contrast process-based ways of ontologizing.

2. A Gestalt theory of linguistic imagery – Introducing cognitive grammar

In his two-volume treatise *The Foundations of Cognitive Grammar* Ronald Langacker (1987a, 1991) formulates a theory of spatialized cognition with respect to language use, a theory he also refers to as ‘space grammar’ in his early work. Central portions of his theory of cognitive grammar can be adapted here to gain some basic insight into ontological types. Langacker shows how spatialized thought can go a long way in explaining, both, the understanding of individual word meanings and of grammatical relations. The basic idea, also present in the notion of ‘perceptual symbol systems’ expounded by Barsalou et al. (1999) (see ch.8), is that our mind deals with concepts in a way analogous to perceptual input. Language elicits imagistically conceived scenes in the mind that are similar to perceptual images. This pertains to visual, auditory, tactile, olfactory, gustatory, kinesthetic, and emotional/proprioceptive images alike, but is best explained with reference to vision.

One way in which utterances are similar to perceptual scenes is that the mental scenes they evoke involve a vantage point, which is often defined in contrast to characterizations of the scene from other vantages (e.g. a subjective 'inside' view and an objective 'outside' view). The fact that mental images are intrinsically construed intentionally excludes any unitary or universal perspective. In what follows I will give an introductory sketch of the analytical apparatus that Langacker developed in order to describe how subjects construe scenes of mental imagery. The analytical concepts to be considered here are:

- (1) the *figure/ground* distinction,
- (2) the related notion of picking out a *profile* from a *base*,
- (3) the notion of *specificity*,
- (4) the notion of *schematicity* or *resolution*, and
- (5) the notion of *perspective* or *viewing arrangement*.

Let me start with an expository metaphor of how dynamic cognition works. When words or other symbols mentally evoke a situation, this is comparable to staging a play (cf. Ungerer/Schmid 1996: 182). The scene has a stage and a backdrop, including a perimeter (figure and ground). On the stage there are highly active main actors, less active actors in minor parts, and immobile props (profile and base). There are spotlights drawing exclusive attention to parts of the scene or the main actors (specificity). The audience can zoom in on any of the details of the play through a theater-binocular, for example when interested in the costumes or the mimics (higher resolution, lower schematicity). When walking through the theater, a person can change her perspective and possibly even switch perspectives if she dares to climb onstage (viewing arrangement). Finally, there is a dynamical dramaturgy by which all these elements are coordinated.

(1) A basic distinction going back to the early days of Gestalt psychology is that between *figure* and *ground*. Figure and ground are not only perceptual phenomena, but are a ubiquitous cognitive operation performed in conceptualizing a notion or a scene. An image of a situation generally involves the identification of a relatively comprehensive and stable setting as point of reference and participant agents which are (a) smaller, (b) more compact, (c) more clearly defined, (d) more vivid, and (e) more likely to be in motion. The ground or setting contains all the available knowledge of the subject on a matter. In speech the ground refers to the culturally defined tacit presuppositions speaker and hearer must bring to bear on the explicit expression in order to understand each other. This setting is determined by the subject's cultural, social, age, and gender background as well as her situational vantage point and her intentions.

(2) Almost interchangeably, Langacker also refers to figure and ground as the *profile* and *base* of an image. When an utterance or thought is shaped, certain elements of a concept

network are selected as appropriate, whereby they become the figure of the scene taking shape before the mind's eye. Other possible elements are relegated to a secondary role in the background or excluded for the moment, maybe to be called up later.¹⁰⁴ Langacker calls this operation of highlighting parts of a conceptual domain *profiling*. Profiling creates a specific figure-ground distribution. It means picking out one or several special components and giving them a special prominence in relation to the rest of a complex, the *base*.¹⁰⁵ (Although elsewhere Langacker speaks of several other applications of the figure-ground distinction than profiling, for our purposes they are effectively coterminous.) Every concept is defined relative to a base.¹⁰⁶ The base for a linguistic predication is the entire tacit cognitive structure it presupposes. To give a simple and concrete example, the concept of 'knuckle' needs the concept of 'finger' as base domain, which in turn requires the domains 'hand', 'arm', and 'body' (Langacker 1987a: 148). Likewise the notions of 'arc' or 'radius' can only be defined relative to the base domain 'circle', which it presupposes (ibid.: p. 184). Figure and ground relations are characteristic of cognition in general, even when we move from quasi-visual scenes to other more complex kinds of thought. A concept's base of predication often is a complex cultural model. Thus the notion of 'bachelor' presupposes a cultural model according to which most people (with some exception such as clerics) are expected to marry at a certain age (Lakoff 1987). Likewise, the notion of 'lying' is relative to a complex cultural model of communication and dialog, including expectations like one's interlocutor being helpful, relevant, truthful, etc. (Sweetser 1987).

Since a given base always contains more components than any single utterance or thought can pick out, several alternative profiles of a given domain are possible. "Expressions often invoke the same domain, but contrast semantically by choosing alternate profiles within this common base" (Langacker 1987b: 56). For example, two alternate predications can profile either the knuckle or the fingernail within the common base of 'finger'. When the base is a complex model such as a prototypical scenario (say, the anger

¹⁰⁴ As I see it, the uneasy semi-distinction between the profile/base and figure/ground pairs relates to Langacker's wish to highlight slightly different things. Grounds are present in the image, albeit not in the same focussed way as their respective figures. By contrast, bases can refer to all sorts of associated knowledge, even though it might be so much in the background that it does not enter the scene to any substantial degree itself.

¹⁰⁵ This reflects the concept of *Prägnanz* in Gestalt psychology, defined through the 'law of the good Gestalt'. It means that human perception, among all the possible ways of connecting the parts of a whole, will give preference to those connections which result in the most simple and distinct Gestalt. Which part is connected to which is governed by the four principles of proximity, similarity, closure, and good continuation.

¹⁰⁶ The basically same idea appears in Lakoff's terminology as idealized cognitive models (ICMs), and in Fillmore's work as frames, as Clausner and Croft (1999) point out.

scenario in American English) and one speaks of a phase in it (like the injury, anger arising, the attempt to control the anger, and the final explosion and retributive act), it is obvious that each individual utterance highlights only a part at a time within a whole, relative to which any single utterance is understood. Alternative options of grammar can also be understood as alternative profiles. An example are the active and passive voice versions of a sentence: The active voice designates the subject as profiles figure and the object as ground, whereas the passive voice makes the former object the subject and induces a figure-ground switch. Langacker gives many more examples in which otherwise identical sentences may be construed in slightly different images through the use of grammar.

The figure-ground or base-profile continuum is a measure of the relative distribution of attention between mental concepts. The profiled figure, which occupies center stage, is given the maximum attention; other concepts are more like stage props; still others are hidden outside the scene, maybe to appear later. The relative proximity of a piece of background knowledge to the figure may vary. It depends on the complexity of the task and as well as on the existence of automatized schemas. For fairly automatized tasks large proportions of the required knowledge can recede so far into the attentional background that almost no attention needs to be given to them. In Charles Fillmore's (1975, 1976) terminology, the mind has acquired a schematized *frame*. A frame comprises default assumptions about situationally relevant factors and screens out others. It means that for simple requirements of many everyday situations people know what kind of knowledge counts and can afford to forget about other factors. A frame profiles all necessary cognitive entities for well-known situations, so that the rest of our brain functions can recede far into the background for maximum means-end efficiency. Only when the default frame fails, like when an interlocutor acts in a weird and unexpected way, a wider background is drawn upon and more conscious and less 'ready-made' problem solving strategies are invoked.

(3) Langacker also introduces the parameter of *specificity* with regard to profiling. High specificity means the highly localized profiling of a region within a more extended background. A visual analogy may help here: It is like zooming in on the details of a picture and thereby disregarding the surrounding parts which shift out of focus. Note that specificity is related to the scope of an image. Palmer (1996: 100) puts this cogently:

"Language can never designate all details of meaning. Words and other predications either may name the whole of an image, leaving the components implicit, or may evoked some component or components, leaving unspoken the fact that components belong to a larger image."

Whether local profiling automatically results in high specificity of the profile, probably depends. Theoretically it is possible to have highly localized profiles within a very broad scope. This would depend on the capacity of an individual's mind to hold a great amount of

rather distant information in the background of attention while focusing on something in great detail. The rare cases of people who can count dozens of small objects at one sight provide an example.

(4) Another basic dimension of imagery, which has been already dealt with at length in earlier chapters, is its *schematicity*. Langacker also refers to this in a photography metaphor as '*resolution*' or '*grain*', although all non-visual imagery is included as well. A schema describes an image of lower resolution (coarser grain) than any of its specific instantiations. The category term 'tree' is more schematic relative to its instance 'eucalyptus', which evokes an image of higher resolution. Higher resolution thus means that more detail is added to the schematic image of a tree. The same is true of metaphorical predications, as in the earlier discussed example IDEAS ARE THINGS / IDEAS ARE FOOD. As I see it, resolution is linked to the parameter of specificity, insofar as the side effect of zooming out frequently is that, apart from broadening the scope, resolution also becomes lower. However, changes of resolution can occur without the scope changing by a zooming operation. For example, between 'tree' and 'eucalyptus' the scope remains the same, while raising specificity, as opposed to 'tree' and 'leaf' which involves a process of zooming in on a narrower scope while remaining on the same level of schematicity.

(5) A final basic property of thought, which is akin to vision and hearing, is choosing a *perspective* or *viewing arrangement* on a mental scene. For example, Langacker (1990b) shows how sentences can elicit either a construal from the objective or from the subjective point of view, depending on whether the observer imagines herself as participant in the conceptualized scene or outside it. The viewing arrangement, then, is a basic imaginative device allowing to switch between viewpoints of a scene – a switching operation that is akin to positional changes in perceiving a real event. It is again transmodal, contrary to what Langacker's terminology couched in a visual metaphor might imply. Two basic parameters of the viewing arrangement are its scope and its viewpoint. While the viewpoint chooses a subjective position, the scope either includes or excludes the surrounding features of the focus to variable degrees. Combining these two parameters, a viewing arrangement can thus include the speaker and the object, it can include only the object, or it can view the speaker from outside as if she were an object.¹⁰⁷ In a nutshell, the cognitive grammar approach to

¹⁰⁷ It is an essential feature of humans as social beings to see one's self from the others' point of view. Among other things, objectivizing viewpoints are cultural resources for dealing with incoming outsiders and for orientating oneself in new places. When coming to a new place the person has to switch to the role she usually attributes to outsiders when at home and assumes that the locals will have similar expectations from her as she has from other outsiders when at home. Thus, communities generally define conventional models of an outsider role, as Bradd Shore (1996: 266) argues. In response to Bourdieu's (1977: 2) critique of "the anthropologist's lamentable penchant for experience-distant

imagery can be summarized as resting on the assumption of (a) an imaginative apprehension of word or thought meaning, (b) as analogic Gestalt, (c) on a mental 'stage', and (d) by a situated and intentional 'viewer'. It thus contrasts both with structuralist views of meaning and symbol-manipulation views of meaning in the cognitive sciences.

WORD TYPES AS RELATIONAL AND NOMINAL PROFILES

According to Langacker's cognitive grammar, different word categories have different spatial profiles. In presenting his ideas relating to this, I will follow Ungerer and Schmid's (1996: 191-194) excellent summary. Langacker's cognitive theory of grammar is suitable for our purposes, because it sets out from a description of cognitive mechanisms that are pre-linguistic. This entails that, at least in principle, a mental concept does not determine the kind of linguistic expression that will be used to render it. In some cases this form of 'Mentalese' is word-type neutral, so that one identical cognitive base can underlie a noun, a verb, an adjective, or an adverb. Consider the following example of three individual entities that somehow belong together. In a diagram they can be depicted as small circles with the connectors representing togetherness relations:

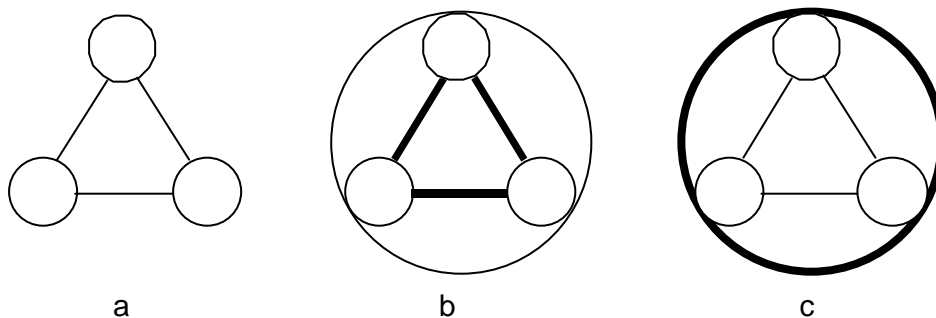


Figure (a) is the basic conceptual unit which can be turned into a category or word type in two different ways, represented by (b) and (c). Which word type is actually activated depends on profiling, i.e. what is highlighted in the conceptual unit. In our example either the relation between the three entities can be profiled or the entirety of the unit. The mental image in which the relations are profiled has linguistic manifestations, such as the adverb 'together', the verb 'share', or the adjective 'common' (the relation of togetherness can be rendered by either a verb, an adjective, an adverb, or even a preposition). If, on the other hand, the cognitive region is profiled, this means highlighting the unit qua whole. In this second imagistic construal the three entities and their relations are still present, but not

representations of human experience", he rightly emphasizes that objectivist models, which appear to lack a concrete point of view, are actually a part of the common stock of knowledge of any competent native. It is therefore misleading to think that all knowledge is exclusively conceived in an egocentric orientation.

foregrounded. Linguistically the unit profiled as a whole can be rendered as a noun, for example as the word 'group'.

It should be emphasized that differences in profiling are inherently gradual. That is why this theory circumvents criticisms of reclaiming universals from what are in fact word categories specific to some languages only. On the contrary, Langacker's theory parsimoniously explains languages like Chinese, which do not have a context-independent noun/verb/adjective distinction. In cognitive grammar the type of a word is also not a principled distinction. Different word types can stem from the same imagistic unit that is contextually construed in different ways. Whether something is understood as noun, adjective, or verb can then depend on the profiling of different aspects. On the other hand, not every conceived situation allows the whole range of options for profiling. Normally, situations are either suited for either a nominal profile (nouns) or a relational profile (verbs, adjectives, prepositions). These are the two large classes of construal types.

SCANNING TYPES OF RELATIONAL PROFILES

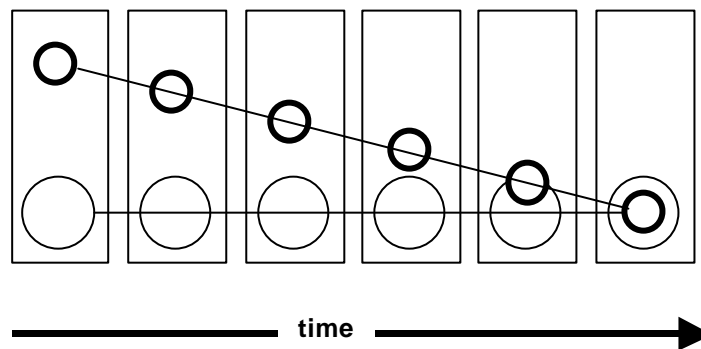
Let us now turn to a sub-class of the relational profile type. For example, the same directional specification can be rendered as 'enter' or 'into', which have related meaning but are different word types. By and large, motion verbs and directional prepositions both denote the same thing, namely a relationship between a stationary landmark and a moving trajector. Nuances between these word types apparently do exist, however. What makes them different is a type of mental scanning procedure that is applied to them. What is mental scanning? It can be seen as analogous to visual or tactile scanning. Going through the alphabet, looking at the different parts of a painting, tracing the trajectory of an airplane, or reading Braille are all good instances of scanning. The interesting thing is that all these can be performed as the result of sensory perception or in the absence of perceptual input, only in the imagination. Among other things, the mental ability to perform scanings is a prerequisite for the understanding of word types.

To differentiate word-classes Langacker distinguishes between two types of scanning operations he calls 'summary scanings' and 'sequential scanings' (1987a: 144-146). In a *summary scanning* the facets of the situation are examined one after the other, the data are added up and then accessed as a single Gestalt once the scanning is completed. This means that in the final Gestalt all the scanned facets are co-present. A summary scanning can be likened to multiple exposure photograph. In a *sequential scanning* data is also successively collected, but it is only added up for a particular stage of the event. As soon as a phase passes, new data is collected for the next phase of the event, and so on. A sequential scanning can be likened to the consecutive frames in a movie clip. It is obvious that sequential scanings are only possible for processes, not for unchanging states. One

apparent consequence of this distinction is that different image schemas correspond to one or the other of these different scanning operations. For instance, the PATH schema is actualized in a sequential scanning, i.e. as a dynamic relation. The UP-DOWN schema, on the other hand, is a relation that is usually scanned in a summary fashion, i.e. as a static relation.

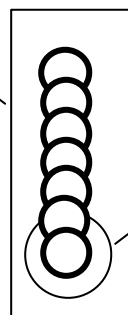
Langacker introduces a further important sub-distinction for the class of summary scanings. In summary scanning the trajector in the image can either be in motion or stative. This means that even a moving trajector can be construed in a summary fashion as a multiple exposure, which is different from construing it sequentially as a movie clip. To clarify this threefold distinction consider the following three diagrams. They depict the images underlying the words ‘enter’ (sequential scanning), ‘into’ (summary scanning with moving trajector), and ‘in’ (sequential scanning with stative trajector).

a. “enter”



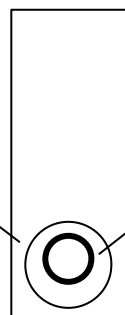
b. “into”

mobile
trajector



static
landmark

c. “in”



static
trajector

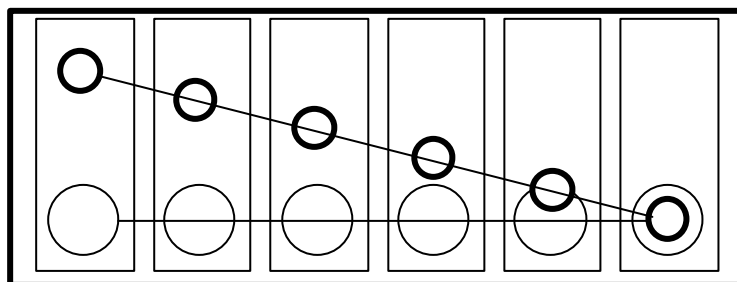
In the case of the verb ‘enter’ each stage of the scanning is characterized by a relative position between the moving trajector and the stationary landmark, which differs slightly from the neighboring pictures. By virtue of this, the time element is profiled, thus making it a sequential rather than a summary scanning. ‘In’ and ‘into’, on the other hand, prompt the subject to perform a summary scanning. While ‘into’ is in some respect like the verb ‘enter’,

the difference to the sequential scanning is that the preposition 'into' puts more emphasis on the result of the action than a verb would. This means that the final location is profiled. It also causes the temporal aspect of the movement to be backgrounded, thus prompting a scanning of the phases in a summary fashion. The other preposition 'in' designates a stable state. It may be asked why we here speak of a summary scanning of states at all, since there is no visible movement. Although this cannot easily be deduced from the diagram, the scanning is of summary (i.e. additive) nature for the following reason: If something remains inside a boundary, rather than moving out of it, this constancy can only be ascertained through repeated scanings. These are then activated as a summary Gestalt. Thus both 'in' and 'into' need an assembly of repeated scanings. This is more apparent in the case of adjectives. If two lines are parallel or if an object is of one particular hue of red can only be ascertained through scanings that check if the quality remains stable.

NOMINAL PROFILES AND REGIONS

More needs to be said about nominal profiles. One pedestrian but consequential observation is that nouns do not only designate physical objects. Although physical objects are most prototypical for nouns, all sorts of abstract notions are also amenable to nominalization (i.e. conceptual reification). Thus, what defines nouns as such must be more abstract than physical 'thingness'. Langacker's theory of imagery proposes an interesting answer to this: The defining property of a nominal profile is that it designates what he calls a 'region'. What a region is required to have is, in the most abstract terms, a set of interconnected entities. This means that a region can either contain interconnected things or relations. We have already seen a case of interconnected things in the example of 'group'. An example for interconnected relations would be a verb like 'enter'. Such a verb can be nominalized to become the '(act of) entering' by profiling the region of the entire sequential scanning. Now the entire scanning qua being a unit is highlighted, although the processual nature remains present as a feature that sits a bit more in the background.

"enter"



It should also be said that a region is not necessarily identical with a container having boundaries (1987a: 201). It is sufficient that a region either stands in contrast with its surroundings (like the noun 'spot') or that it is salient by virtue of its configuration (like the noun 'constellation').

How can abstract word categories, then, be explained? After all, the internal relations of abstract words may be of several kinds: With some abstract nouns such 'alphabet' a sense of an actual spatial region is still present (like our teacher writing the alphabet on the chalkboard), although our knowledge of their proper sequencing is an abstract element. With other concepts such as 'constellation' there need not be a spatially contiguous cluster. Instead the mind picks out and interconnects the parts as schematic image. Still with other words like 'staff', 'set', 'league', etc. the parts are not usually spatially related in one specific way, although we may have a prototypical way of imagining the staff in a situation where they appear together, like when posing for a photograph. Instead the interrelation is of a more abstract kind; it is functional with respect to a common task. *It is only the attribution of functional interconnections in abstract nouns that establishes the common property.* The noun-defining region is established as a constructive act in the mind. As Langacker clarifies, the very act of enumerating the set-members serves to interconnect them (1987a: 199). But not even that is required in the strict sense. Not every single member needs to be enumerated in specific detail; a schematic representation of a functionally interconnected cluster is sufficient.

The theory proposes that functional interconnection is image-schematically represented as spatial interconnection and spatial proximity. Therefore, the cognitive status of being a region and the interconnections within the region are mutually defining. By virtue of interconnections imagined as spatial links, any kind of functionally related entity can be conceived. *It follows that virtually all sorts of mental entities can potentially be construed as a region.* This is a central insight for our further discussion of ontology. Any higher-order cognitive event consisting of abstract non-basic domains can be mentally treated just as physical objects are in physical space. Abstract entities, events, and even qualities – as shall be argued below – can be construed as region. Following Langacker's claim at least in spirit (cf. 1987b: 55), many of my later ethnographic re-analyses rest on the contention that the construal as a region can also apply to units that are not linguistically designated in an explicit fashion. In other words, such a construal is independent of language and applies to other symbolic phenomena as well.

QUALITY SPACES

As a final major ingredient of imagistic cognition, Langacker posits that the mind constructs so-called 'quality spaces' (1987a: 206). A quality space is defined "by ranges of alternative

properties that an entity or substance might possess, with respect to which comparisons can be made.” They are organized in terms of specific qualitative parameters (solidity, color, taste, discreteness/continuity, texture, etc.) Any kind of substance is characterized as having a restricted range of possible values along a specific parameter in a quality space. Designating the nature of a specific substance is done by profiling (bounding) a corresponding sub-region in that quality space, such as designating an object as being either in the hot, middle, or cold region of the temperature space (cf. also Gärdenfors 2000: 6).

Possible basic domains in which such a profiling operation can occur extend beyond physical space to include any other sensory or abstract quality as if it were a region in physical space. For example, Langacker proposes that certain nouns are bounded in terms of quality space, rather than physical space. Two of his examples are “We need a strong glue to fix the cabinet” and “Most beers have too much malt”. The glue and beer in question are not conceived as being part of one common physical space. Instead, they are being categorized in terms of belonging to a certain quality type, i.e. strong glue and malty beer. Many abstract semantic categories such as ‘furniture’ are similar to this, since appertaining to the category is partly understood as falling into a series of specific quality spaces, e.g. size range, being permanent artifacts in dwelling, being potentially movable, and having certain general functions. It is important to keep in mind that complex concepts are necessarily defined with respect to a large number of quality spaces. On the other hand, a specific construal never exploits all possible quality spaces of an entity to a significant degree. Instead, each construal imposes a selection that contrast with the selections of other construals.

If it is true that qualities are conceived like this then a general quality type such as COLOR HUE is represented by a spatialized continuum, in which a profiled sub-region such as RED corresponds to a specific quality. Different hues of red in turn correspond to different regions in the graded quality space RED. A profiled region naturally does not in itself say anything about *what* specific quality it represents (the qualia), it only assigns a relative position and scope to it within the whole space. For imagining the *specific* quality of a space, e.g. red, loud, or heavy, knowledge must be projected into this. This added knowledge labels it as ‘red’, ‘loud’, or ‘heavy’, and, at least in the case of sensory qualities, links it to an embodied pole of percepts. I believe that there must be some irreducible and primary experiential notion of quality. Otherwise differences, say between different hues of red, could not be attributed. Presumably the experience of color has to play a role in some way.

Nevertheless, the claim made here in spatial cognition is extremely far-reaching. Although Langacker emphasizes that only a limited number of quality spaces have physical space as their basic domain, the way I read him, qualities are clearly conceived as regions to which real spatial cognition applies. Specifically, spatial placing is used to conceive *quality relations*

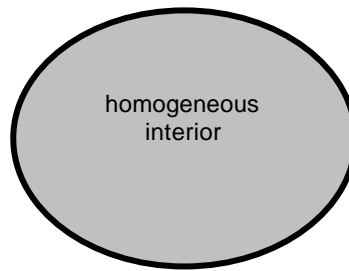
within a given kind of quality (e.g. hue, size, tone). Langacker states that it is intuitively obvious to conceive *all* kinds of entities as regions (1987b: 59), even in cases of abstract concepts that share no continuous extensionality in space or have any shape that could be imagined in a rich image. We can parenthetically note that Lakoff's (1987) 'spatialization of form hypothesis' in part rests on the same reading of Langacker's work.

I have just argued that on its own imagistic representation of a spatial continuum only captures the general relational format of quality, i.e. its characteristics as one kind of quality among many similar kinds, one kind of red relative to other hues. Spatialized thought is typically imbued with experiential knowledge of qualia. However, I now want to raise a central claim that goes beyond Langacker's immediate concerns and contradicts this insight. My interest is, as stated earlier, in abstract imagistic co-signatures that lead a life of their own in the mind. In this sense I propose here that it is cognitively essential that quality can also be represented as the abstract idea of QUALITATIVENESS without any specific idea about its nature. That is, a quality can be represented as a slot to be filled out, when sufficient qualia are absent. I will demonstrate that it is pivotal for certain cognitive operations to conceive of qualitateness without the specific quality or where a quality remains incomplete or vague.

3. Imagistic spaces as realms and essences – The making of substance ontologies

From this point on I would like to add a specific kind of terminology to Langacker's. For expository convenience I propose to introduce the notion of a 'realm' in speaking of a particular type of imagistic region. In my view, this is the core notion for understanding how any kind of substance ontology works, because it allows 'sameness' to be conceptualized in purely abstract terms, regardless of specific qualities. What is a realm? A realm is a bounded territory that can be represented by a CONTAINER, and thus an imagistic region. It has an additional distinctive feature, though: Within a realm there is a specific effective characteristic, something we may gloss as a specific '*rule*'. That means that a realm is different from other CONTAINER schemas in that it contains something of uniform structure or kind. It is defined as internally homogeneous in terms of quality.¹⁰⁸ It is easy to see that a realm, in Langacker's terminology, would be called a *region (of the bounded variety) internally construed as a mass*. Graphically it can be depicted as follows:

¹⁰⁸ The metaphor of realms is a very frequent means of doing ontology, e.g. when Descartes postulates a radical split between the two realms of reality *res cogitans* and *res extensa* in the world, each of which has a specific quality.



In our mental imagery, a realm's interior is either an actual mass, i.e. something distinguished by constancy in color, pitch, smell, muscle-tonus, etc., or it is something uniformly *structured* (as would be a line pattern, a rhythm, or a repeated movement), which can be construed as a mass rather than an agglomeration of individual parts. A couple of more specific examples will be helpful here. Two suitable analogies, albeit with slightly different implications, would be the scanning of the cross-section of a log of wood or wallpaper with a repeated pattern. In the case of a log the internal homogeneity is directly visible. Within the Gestalt outline of the log everything within is of the same wooden substance, as opposed to, say, a hollow wooden hoop. In the case of the wallpaper pattern the internal homogeneity is more complicated to explain. It is not continuous, but rather one of repetitive configurations. Within its Gestalt limits the various sub-sections have the same structure as we scan from one local sub-profile to the next. (This structure contrasts with a wall with windows in it, in the middle of which a different pattern occurs.) The important criterion for scanings of repeated structures to qualify as a realm is that we effectively construe them as mass. The global homogeneity of the region must be profiled, not the pattern differences on the small scale. This is quite easy to conceive visually by imagining that, as you zoom away from the wallpaper, the internal patterns will dissolve into a blurred mass. For example, red and white dots will yield a homogeneous pink blur. If this is done mentally and with abstract structures this amounts to an image schema transformation usually called multiplex-to-mass (Lakoff 1987, Johnson 1987). The logical consequence of a construal as mass is a profiling of the region's boundary, because things of a different essence start there.

Note again that both types of construal as realm are by no means limited to visual or tactile scanning operations. We can just as well imagine an auditory sequence with either a sustained tone of unchanging pitch marked by a beginning or an end and repetitive (i.e. rhythmic) structure within. Or, we can imagine a sequence of motor action where we either sense a sustained muscle-tonus or repeat the same basic movements over and over again. Therefore, what follows from these examples is that a uniform structure within boundaries is a frequent experiential reality of all sequential sensory modes (seeing, hearing, touching, and moving are saliently sequential to most people, whereas olfactory and gustatory percepts seldom are).

FROM CONCRETE SUCHNESS TO ABSTRACT SAMENESS

What has the notion of realm got to do with substance ontology? I propose that there is a generic image-schematic metaphor that I will call SAMENESS IS CONSUBSTANTIALITY, which can be further specified in terms of condensed qualities, but also exists in pure abstraction. To see this, let us distinguish three levels of how categories are discerned. Take an example such as furniture, for which quality spaces were used to explain the ascription of various conceptual aspects. At a primary level furniture refers to a number of primary quality spaces, of size, color, texture, shape type, or use, which are more or less applied across domains. On a more complex cognitive level I propose that, as we draw on the constituent quality spaces for a category, the category of furniture acquires its *own* domain-specific quality space resulting from the overlap of size, color, discreteness, etc. of the more primary qualities. That is, we ascribe an abstract quality space that represents the overall category in a blend of its features. This leads us to the third and most abstract level. I propose that for understanding that something belongs to a complex category such as furniture, we sometimes even invoke representations of sameness that are completely independent of qualia. Sometimes we are not concerned with the particular knowledge that furniture is of a certain size, often made from wood, mobile, and mainly used for sitting, eating, or storing things. Rather we ask what makes the 'furniture-ness' of furniture, what makes it conceivable as an abstract category. How can sameness be abstractly represented in the mind? As a solution to this query I propose the notion of *an abstract quality space on the very highest level of schematicity*. This space has the properties of a very abstract realm, because the only thing represented in the image is internal homogeneity, though in no specific way.

At its most simple, my general hypothesis is this: *A substance ontology of one kind is metaphorically understood as material identity of the inner portion of an object*. Thus, different instances of a category are part of the same imagistic realm and therefore part of one homogeneous mass. This homogeneity represents shared substance, or consubstantiality. Through SAMENESS IS CONSUBSTANTIALITY we understand abstract ontology in terms of concrete experience. For example, what makes wood into wood is its material structure that is *consubstantial*. In other words, what makes things eligible for ontologization is an understanding of them as container that can hold some sort of substance. By consequence, a specific ontology is defined by the inner substance of a kind. Two things belong to the same category because they consist of the same substance internally. I will discuss two important entailments of this in due course:

- (1) The relation of category and its individual members is conceived as an image-schema transformation from multiplex to mass. In other words, in conceiving a category as such we focus away from the individual members and their differing particularities until their individual profiles dissolve in a mass. When we profile a

category qua category, i.e. when we give it a nominal profile, the category members tend to be construed as a homogeneous mass. Certainly this does not necessarily imply that the inner structure of the category or properties of the individual category members are cognitively absent. They do, however, recede into the background as soon as the boundary and homogenous internal mass are profiled. What the nominal profile does is this: It tends to impose a boundary on non-classical categories and to background fuzziness, so that this may explain how the folk-theory of Aristotelian categories comes into being.

(2) Furthermore, SAMENESS IS CONSUBSTANTIALITY can explain that being part of the same mass can stand for a shared essence. The folk-theory of essences, i.e. things are things of a kind because they share an essence, can be represented in a purely image-schematic fashion. To the extent that we ascribe essences to categories, these are understood as regions with specific content, with each region differing from the neighboring one. No distinct attributes are required to conceive a particular essence. Instead an abstract image schema of CONSUBSTANTIALITY is invoked. (I will discuss this in more detail below.) Note that an essentialist construal is defined as one where people draw inferences from observed traits and behaviors to inherent properties and inversely believe that the hidden properties are causally responsible for observed aspects (Hirschfeld/Gelman 1994). This inferential nature can be understood as the relation between 'realm' and 'rule', since a specific rule is a quality that produces certain effects in its region.

The applicability of realms as images of abstract qualitative sameness is very broad. I submit as a hypothesis that we continuously construe experiences as realms in situations that are perceived or evoked from memory as bounded and coherent phenomena. For instance, idea spaces pertaining to logical thought types (e.g. hypothetical, fictive, planning) can be so construed. The suggestion is implicit in Fauconnier's (1985) 'mental spaces', which are constructed in linguistic clause recognition. Mental spaces may be interpreted as imagistic *micro-ontologies with specific qualities*. After all, it means a fundamental ontological difference whether a logically separate clause segment is attributed with being hypothetical, with representing another person's belief, or with representing actual states of affairs. In my theory we can read this as the space standing for the relevant clause segment being interpreted as distinctive region with a homogeneous 'rule', e.g. the quality of being hypothetical. Quite possibly the phenomena modeled by Fauconnier as mental spaces involve real space logic, i.e. aspects of relative contiguity, uniformity, and boundedness (cf.

Lakoff 1987: 282).¹⁰⁹ By virtue of spatial logic the idea that certain logical segments of a clause are inherently different in reality status can be represented.¹¹⁰ But not only Fauconnier's approach seems to fit with the notion of a realm. Different emotional tones or social requirements of various lifeworlds can also be construed as realms, and thus invested with homogeneity to represent their experiential suchness. This may be equally true for differential forms of discourse (private, discussion, ritual, leisure, work) or different subcultures. Such a broad application of the realm concept is justified, because all mentioned phenomena share one aspect, namely that people frequently understand them as having necessary distinctive attributes.

Notably two controversial issues lend themselves to an explanation by realms and abstract quality spaces: (1) the relation of metonymy and metaphor as a continuum of construals between a shared profile and distinct individual profiles; and (2) essentialist thought without attributes as maximally abstract quality spaces. I will consider these points in sections 4 and 6.

4. Space logic in anthropology (1): Realms, superordinate categories, and polytropes

The sensitivity for complex tropic relations has grown in the recent years (cf. chapter 3), including the idea that metaphor and metonymy may form part of a single process. Anthropologists have documented intermeshing tropes that add up to a polytrope (Turner 1991, Wagner 1986). In complex ethnographic settings such as ritual not one trope alone applies throughout a sequence, but rather several, either in consecution or simultaneously, so that they become mutually interdependent. Ohnuki-Tierney (1991: 162) speaks of an

¹⁰⁹ There is proximity in the sense that related space contents are immediately available and automatically fall into focus. A space qua attentional focus behaves like a visual focus, because the mind concentrates on the related information in the foregrounded space. There is boundedness in the sense that mental spaces are distinguished by the mind from other spaces. There is uniformity in that mental spaces avoid contradictions of kind within a space. That is, a space is dedicated to a particular kind of task, even if it contains different objects. The mind's movement through several subtasks follows a spatial logic. Foregrounded elements are preserved in the mind to become backgrounds if further spaces are introduced and foregrounded. Can we plausibly argue for the cognitive reality of spatial inclusion logic here? The highly general claim that spatial processing is involved in linguistic production and recognition is supported by Deane's (1992, 1996) research cited above. Yet, evidence for the more specific claim that discourse constituents are held apart by virtue of a quasi-spatial separation still needs to be found.

¹¹⁰ Again, understanding the kind of difference between the spaces is left open by space logic. For knowing the kind of space involved the speaker has to attend to the specific 'space building' words, and in order to understand the spaces propositional content she has to draw on conventional knowledge about word meaning.

almost complete interpenetration of analogy and contiguity. This goes further than an 'additive view', since the same trope can be subject to dynamic transformations. While any attempt to cover even a fraction of the important issues raised by 'polytropes' would be preposterous, I will apply the present framework to a frequent pattern in tropic constructions, namely the dynamic metaphor-metonymy relation, and thus be able to give an image-schematic account of it in terms of specificity and schematicity. I argue that transitions between metaphor and metonymy occur so easily and swiftly due to the two being alternative construals in single cognitive process. This also explains why it is so often impossible to hold metaphor and metonymy tidily apart as descriptive concepts. I believe that the often a bit wayward or arbitrary use of terminology reflects the underlying nature of the phenomenon itself. Notably, repeatedly similarity seems to produce contiguity, if not in a real-world sense, then in a conceptual sense, in the way we perceive the 'distance' of our mental categories. When put into an imagistic perspective the terminological separation of metaphor and metonymy makes only heuristic sense.

The difference between metaphor and metonymy was traditionally understood as that between association by analogy and association by contiguity. As metonymy we can understand any contiguity, notably of objects associated with their locations, producers associated with products, causes associated with effects, or parts associated with wholes as well as wholes associated with parts. Radden and Kövecses (1999: 21) define metonymy as follows:

"Metonymy is a cognitive process in which one conceptual entity, the vehicle, provides mental access to another conceptual entity, the target, within the same idealized cognitive model."

Thus the basic definitional units or reference points for metonymies are ICMs (idealized cognitive models). A metonymy can occur in two specific configurations. (1) It can relate a whole ICM to one of its parts; or (2) it can relate conceptual entities that form parts with respect to an ICM, with the entire ICM itself being only present in the background. Metonymy is, then, an intra-ICM phenomenon. By contrast, metaphors can be roughly defined as operating between two or more ICMs, instead of within a single one. This goes to show that classifying metaphors and metonymies requires presuppositions about major cleavages and clusters in the cognitive landscape, because they constitute the reference points for the determination of a tropical type.

My argument now hinges on the acceptance of the following key point already advanced in chapter 1: What constitutes a cultural model, an ICM, or a domain is subject to perspective, since cognitive relations are always dynamically construed. Domains, categories, and cognitive models of all kinds are only situationally delimited in the exact way they are. Construals are always dependent on situationally and pragmatically defined vantages

(MacLaury 1995). Although there exist prototypical construals, cognitive groupings that occur more frequently, and such that never occur, there is always an interpretational margin. An important consequence of situationally dependent construals is that many mental construal relations of metaphor or metonymy remain ad hoc, while only a few are permanently stored and become part of the cultural stock.

METAPHORS AS SUPERORDINATE CATEGORIES

For understanding the relation between metaphor and metonymy, views of metaphor as an inclusion into a superordinate category are a good starting point. This view has enjoyed some popularity in cultural anthropology for a long time and was perhaps first inspired by the description of metaphor by the art theorist Herbert Read (1952) as creating a 'commanding image'. Sam Glucksberg and Boaz Keysar (1993) argue for conceptualizing metaphor as the creation of a common superordinate category that includes source and target. In case of their pet metaphor 'My job is a jail' they argue that it is necessary to create the superordinate category of the two entities in order to understand it. This superordinate category would be 'confining entities' and would encompass jobs and jails.

What are the merits of this position in an imagistic analysis? I shall argue that a more fitting formulation for most cases of metaphor is that a common quality space is temporarily created, with respect to which source and target are made seem alike.¹¹¹ I will use Langacker's terminology to distinguish two types of processes:

- (1) Temporary superordinate categories are ad hoc and assist a momentary cognitive task only. Imagistically, they can be conceived in terms of a quality space that is projected ad hoc (a description as reified realm would imply too much permanence).
- (2) Permanent superordinate categories become reified and entrenched as acknowledged cultural categories. Here a quality space is not only put together and projected, but also reified to create a metonymical category relation out of the original metaphor.

Both types involve superordinate categories in some sense, but only in the latter case they become permanently profiled and thus give rise to a common cognitive category. I want to stress that the term 'superordinate category' should be reserved for cases of conceptual reification into permanent cultural entities. Metaphors may – but need not – give rise to these

¹¹¹ If Langacker is correct, multi-dimensional feature clusters designated by abstract attributes may be construed as regions in a similar way that objects, processes, or simple attributes are. Thus the sense in which a nominal profile extends beyond a complex quality space is the relative permanence of the construal and perhaps the fact that a permanent semantic label is assigned to it, while both share the basic process of clustering elementary features.

and only do so by passing through two stages. In other words, a permanent reification as superordinate category is a secondary process, which builds on the primary process of assigning a shared quality space. As core hypothesis I will presuppose that *permanent reification is achieved through the ascription of a nominal profile to a region* that perhaps emerged as an ad hoc blend of qualities.

First however let us take a look at step one, namely the creation of non-permanent quality spaces through unconventional metaphors.

AD HOC CATEGORIES: 'WISE WORDS OF THE WESTERN APACHE'

My purpose now is to highlight the implications of ontological realms and quality spaces for the study of metaphor. Let us look at a classic anthropological example from the pen of Keith Basso (1976) about a distinctive metaphorical speech genre found among the Western Apache called 'wise words'. The genre is associated with men and women of advanced age with a reputation for balanced thinking, critical acumen, and extensive cultural knowledge who devote their time to commenting on life outside the bustle of everyday affairs. The 'wise words' invariably have a particular form that equates animated (mostly animal) agents with a type of human beings. Examples include 'lightning is a boy', 'ravens are widows', and 'carrion beetles are white men': Lightning is a boy because it darts around, is unpredictable, and acts without aim. Ravens are like widows because they sometimes wait for people to give them food, something poor widows are also forced to do. Carrion beetles remind the Apache of white men because of their tendency to waste food. The young beetles, before they start eating meat, eat a small hole in a leaf and then move on to the next one, leaving plenty of good food behind. They are also like white men in another respect, namely that they always want to stay in the cool in the summertime and only come out early and late in the day. For the Apache, what makes a well-formed 'wise word' is defined by two clear constraints. First, in order to be appropriate it must evoke behavioral attributes which source and targets have in common; while other types of attributes, such as size, color, shape, habitat, and the like are not considered appropriate. Second, the attributes must be indicative of an undesirable quality.

The metaphorical concept created is always more inclusive than either of the categories used as source and target. The features of connotative meaning, which direct the understanding of the metaphors, can only be adduced at the level of the next inclusive conceptual category.¹¹² Basso takes this as evidence that metaphor is grounded in the ability

¹¹² Concerning mapping and selection restrictions Basso already anticipates the Invariance Principle of Lakoff and Turner (1989). Basso (p. 252) says that "any connotative feature adduced to establish a similarity between carrion beetles and white men must be compatible with features that define 'carrion

to form novel conceptual categories, such as 'beings that are wasteful'. Metaphors fill accidental lexical gaps, i.e. heretofore non-existent concepts that are not prohibited by selection restrictions, and simply do not happen to have a word for them. Thus, metaphor serves to counter the "designative inadequacy of lexical systems". Simply put, conventionalized linguistic categories do not allow conceptualizing all qualities we might wish to consider together, and this is where metaphorical 'wise words' step into the gap. Basso asserts that metaphor is a form of exceptionally wide classification, which conforms to the normal linguistic selection restrictions.¹¹³

There is something to the claim of a novel superordinate category, but the formulation can be misleading for at least three reasons. The first two reasons have to do with the notion of 'category', the third with the term 'superordinate'. First, it seems that here the metaphorically created categories remain to a substantial degree *ad hoc* (cf. Barsalou 1983). Even if a 'wise word' may become a conventional wisdom, it does not as a rule become so permanently entrenched as to create a cultural category that includes or assimilates further members. In the words of Clausner and Croft (1997), the 'wise words' remain metaphors of a limited productivity. Secondly, the superordinate categories do not have the character of multi-feature domains. Instead they only single out and highlight a few attributes, so that no complex category is created. Among the possible associations that one can have with a carrion beetle, a raven, a bolt of lightning, or a dog the metaphor only creates a sharp focus on a single quality important to the context. Thirdly, the term 'superordinate' may obfuscate the issue because the novel categories crosscut the everyday ways of categorizing and do not constitute permanent higher-level categories that encompass lower level kinds. The metaphor is in a sense more inclusive than either of the categories by creating a new common category. At the same time, it is *less inclusive* since the new category never includes all qualities of the constituent domains. The metaphors involve a crosscutting focus that highlights some common qualities while backgrounding all the non-shared ones of either domain.

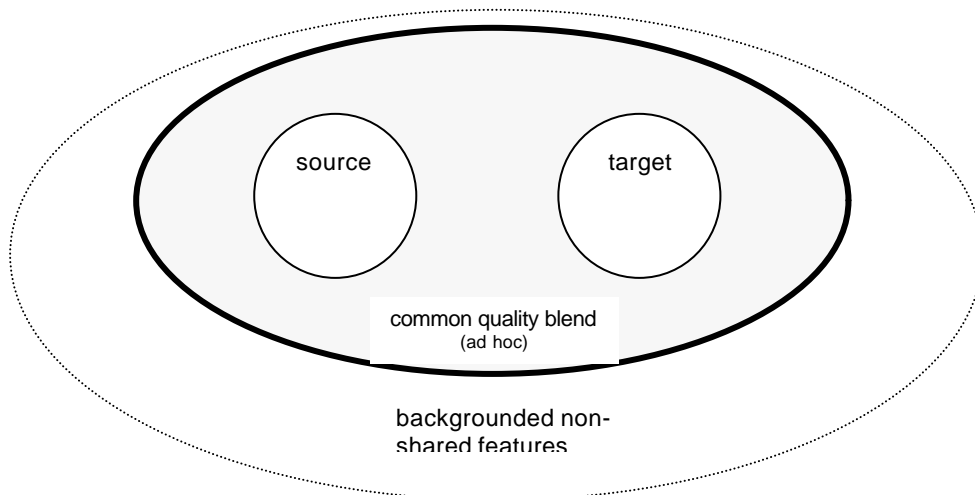
beetle' and 'white man' as living earth dwellers" and that "[a]ny connotative feature that fails to meet this requirement (e.g. 'never die', 'cause snowstorms, 'make good cooking pots') will be prohibited."

¹¹³ The second point need not concern us here, since it is a particular result of this very example. Since the Apache do not, in their metaphors, create paradoxical and counter-realistic effects, they indeed conform to the cultural selection restrictions: They create normal categories that are simply not lexicalized. However, this is clearly not the case for all kinds of metaphor. The fact that purely situative metaphors are very frequent is, for example, highlighted in the work of Fauconnier and Turner (1995) on so-called 'counterfactual blends'.

NOVEL METAPHORS AS TEMPORARY QUALITY FOCUS

I now propose to rephrase the whole issue thus: The selection of attributes can be more successfully described as a Langackerian quality space. A profiling operation on a common quality such as wastefulness occurs, while other qualities, such as the color, size, shape, or habitat of beetles recede into the cognitive background. Two dissimilars are assigned to an *ad hoc* quality space, which they share while the metaphor is in effect. Thus, in overcoming the 'designative inadequacies of lexical systems' metaphors create a *non-ordinary* quality-focus. The carrion beetle metaphor juxtaposes source and target with respect to a quality space of the verb-attribute 'behaving wastefully'. This space is created for a specific and limited purpose. Hence, metaphor comprehension is a process of imagistic foregrounding. A shared quality space like 'behaving wastefully' serves as an integrative background against which two domains are perceived for the given moment.

At first, when we have heard an expression but not yet discovered its meaning, the source and target domains are foregrounded *as token images* with no specific qualities, a process that imposes on the mental scene what I have called a 'region'. This is much like the rim of a magnifying glass we look through before we have found the right focus. As long as the mind searches for a yet unknown analogy, e.g. between white men and carrion beetles, many possible associative meanings swirl in the background as potential, but none has been chosen yet as a meaningful common quality space. As soon as the meaning is grasped, a second layer arises behind the tokens: the shared quality space. The semantic tokens are spatially embedded in it and thus go from a state of spatial disconnection into a state of spatial coincidence. This quality space signifies relative foregrounding of selected attributes, which now 'imbue' the tokens with their quality. Behind this situative focus the deliberately backgrounded other qualities of both domains are mentally present. However, they do not inform the metaphor's quality space, and remain consequently non-salient for the moment. Thus, any *ad hoc* metaphor evokes a specifically layered figure-ground structure in which a shared quality space is the figure. The graph shows how an *ad hoc* metaphor ascribes a shared quality space:



Summing up, the point made here is this: Rather than using the notion of superordinate category indiscriminately, it is often more fitting to say that a certain common quality space is created in respect to which source and target become alike. However, my criticism is one of degree and aims at a terminological refinement, intending to specify gradual differences in cognitive usage. In other cases the term ‘novel category’ is more fitting, e.g. where the quality space is reified, like by being lexicalized as a noun.

This has theoretical ramifications for the current debate about metaphor. The ‘class-inclusion’ view held by Glucksberg and Keysar (1993) clashes with the mapping approach, as indicated by Gibbs (1992), Lakoff (1993), and Clausner/Croft (1997). Lakoff would tend to see metaphor as a permanently stored relation between two semantic domains, while in Glucksberg’s view conceptual coherence is accomplished by the construction of an ad hoc superordinate category in the process of discourse. I contend that taking exclusive either-or stances on this question amounts to a rather unfruitful quibble, as the *question of permanent cognitive entrenchment is a matter of degree that varies with different instances*.

NOMINAL PROFILES IMPOSED ON COMPLEX RELATIONS: NUER TWINS AND BIRDS

As argued above, metaphoric reification is a secondary process that has a shared quality space as a prerequisite. When a novel and unconventional expression is used with frequency it at some point acquires permanent ‘thingness’ in the cultural stock. Hence, a novel quality space can become permanent and be given the status of an imagistic realm instead of remaining an ad hoc blend of qualities.

Cognitive models of higher complexity can also be invested with the ontological status of a realm, independently of their rich internal structure. This can be shown with regard to a classic discussion of the metaphorical Nuer assertion that ‘twins are birds’ (Evans-Pritchard 1956). The example has subsequently been reanalyzed by Lévi-Strauss (1963) and more recently by Terence Turner (1991: 141ff), whose insightful reassessment forms the basis of my following analysis. The Nuer claim that twins and ground-dwelling birds have one substantial identity and are parts of the same order possessing a common substance that can be glossed as ‘Spirit’. The way this common substance is cognitively defined is highly interesting for my argument. The common substance does not result from a simple ascription of a common quality or primary attribute.

Instead, the metaphorical ascription builds on complex similarities in cognitive sub-models and on an abstract CATEGORIAL AMBIGUITY or MEDIATOR schema as follows: All entities imbued with ‘Spirit’ hold the same kind of relative position in a complex categorization system. Both twins and ground-dwelling birds are highly non-prototypical members of their species. The ambiguous way in which both of them combine difference and sameness vis-à-vis their species is indexical for the encompassing and mediating power of ‘Spirit’.

Specifically, the Nuer link 'Spirit' to the interpenetration between celestial and terrestrial domains, i.e. an ABOVE-BELOW dimension. Twins are likened to dappled ground-dwelling birds, such as francolins or pied crows, in that they occupy an intermediate position in the hierarchy of being. High-flying birds with bright and pure colors are less ambiguous and belong to the celestial realm associated with the nonhuman plane of being. By contrast, the dappled ground dwellers combine the colors of the earth and the sky. They are birds, but not unambiguously so, because they are not of the sky and thus 'other'. Twins partake of this intermediate level because they are ambiguous with respect to Nuer categories of personhood and identity. In one sense they are separate individuals, while in another they appear to share a common essence. This double nature entails yet another one for the Nuer: Twins are both ordinary humans and sacred beings who have the power to encompass and control the disparate domains. Just as the speckled birds in the avian realm, they are emblems of mediation that synthesize and unite oppositions.

Turner's writing is quite clear about the fact that the relational feature of categorial ambiguity in an ABOVE-BELOW schema is reified in Nuer discourse. According to him, it is assigned a substantial continuum of which all similar relations are part. Thus, by assigning the common category of 'Spirit' to structures of fused oppositions and transcendence a 'meta-totality' is constructed (1991: 145).

For the sake of a precise cognitive description three steps in the overall process should be held apart. First, the structure of the relational schemas for twins and birds is established separately, which adds up to a double anomaly: In addition to their markedly peripheral position within their genus category, both twins and birds elude clear positioning in the ABOVE-BELOW schema. On the basis of this, a similarity between the twin anomaly and the ground-dwelling bird anomaly can be posited. Finally, this similarity of anomalies is reified and nominalized as 'Spirit'. Let us take a closer look at each step:

(1) Twins and dappled birds occupy an atypical spatial position in two separate ways each. To make the semantic ambiguity more tangible the Nuer choose a spatial image of the above and below. Twins and birds fail to fit into the cosmological schema, which classifies beings as either of the above or the below. If semantic categories are, as Lakoff (1987) claims, radial structures with a center and a periphery, twins and dappled ground-dwellers are situated at the periphery because of attributes incongruent with the category prototypes.

(2) This yields two relational mappings that share a twofold commonality each, namely an ambiguous middle-position both in radial categories and in the ABOVE-BELOW schema of Nuer cosmology. I would argue that these two ambiguities are effortlessly perceived as a single integrated Gestalt. In other words, the peripheral position in terms of the relevant conventional category of everyday thought and the intermediate position in the cosmological schema can be imagistically superimposed. Twins and birds thus share a generic

INTERMEDIARITY schema. The doubly present aspect of intermediarity enters into a mapping that compares the relative spatial position of twins to that of birds on a meta-level.¹¹⁴

(3) On the basis of the previous steps the two INTERMEDIARITY schemas derived from the relational mappings, are given *a nominal profile by the inclusion into the novel category 'Spirit'*. The nominal profile put on the overall schema reifies it, while the linguistic label contributes to this process. A substantial continuity of twins and birds is explicitly posited by ascribing both to a quality space of intermediarity. If Langacker is correct that any mental entity on every level of complexity may be construed as a nominal profile, then this holds for any blend of qualities or a systems mapping such as the one considered here. It seems secondary whether we speak of 'Spirit' as a substance or as a common quality (a point on which Turner remains rather uncommitted). The quality space coincides with a nominal profile attached to the semantic concept of 'Spirit'. Given that we assume linguistic nominalization to entail reification, the quality space may be considered reified. The quality space with the feature of intermediarity is a unique mental predication on and therefore the *differentia specifica* of the category of 'Spirit'. Importantly, all this does not imply that the Nuer generally think of twins as birds and fail to appreciate the difference between humans and animals. Langacker's (1987b: 65) explanation how such a double-appreciation of complex detail structure and a simple totality is possible fits the example perfectly:

"Speakers aware of the internal diversity of a substance are nevertheless capable of construing it as homogeneous; and the resulting image can be conventionalized as the semantic value of a predication."

This case study underwrites the methodological utility of a Langackerian perspective for analyzing complex beliefs in general. If Turner's ethnographic interpretation is to be trusted, it corroborates the general claim that relational structures at any level of complexity can be

¹¹⁴ Meta-mappings are 'systems mappings', as described by Holyoak and Thagard (1995). Systems mappings mean that, instead of comparing attributes, a mapping establishes secondary similarity relations between other more primary relations (either of similarity or dissimilarity) on a superordinate level. A systems mapping means comparing whether $A : B = C : D$. Whenever A matches B and C matches D there is a relation of meta-similarity of the two sub-relations. Likewise, if A does not match B and C does not match D, again, a meta-similarity of two non-similar pairs is generated. Systems mappings are routinely employed in complex everyday inferences. In our case there are relations on a graded scale. Here, if U resembles both V and W to some extent (given that V and W are mutually exclusive categories), and an analogous relation holds between the set X, Y, and Z, then the central items in either set (U and X) are located in a similar relative position between their points of reference: Intermediarity needs two reference points and measures the distance to each on a graded spatial scale.

rendered as a nominal profile. If any kind of relational structure at any level of aggregation can be nominalized, Langacker's linguistics and anthropological interests have convergent goals. Ontological substances need not be elementary mental units for simple everyday notions. At the level of cosmological key concepts no doubt many other kinds of complex mental mappings can be understood in a substance focus. Imagistic structures of any complexity can become embedded in a homogenous realm that relegates the structural detail features to the background and creates a common substance. Entire epistemologies can be condensed as a single profile and assigned a single word. While the complex relations are hidden by a single semantic label and are mentally backgrounded, they can be mentally treated as a single, continuous, and discrete 'thing'.

The case study also allows the general conclusion that treating complex relations as Gestalt wholes, which can be construed as unitary substances, is not spatial logic run wild but a cognitive reality. What is the cognitive utility of the reification into a nominal profile? First of all, the easy recall of a complex relation as relatively simple Gestalt is promoted, which in turn can create a high cultural salience. Second, the reification is linguistically reflected by a semantic label, a fact that itself creates a certain cultural salience. Ideas for which we have words often come to mind more easily and more easily assume a central role in cultural theories. Finally, through a word like 'Spirit' thematic associations or polysemies become relevant by going beyond similarities in the ritual context of origin.

UNIFIED METAPHONYMY: THE GENERAL HYPOTHESIS

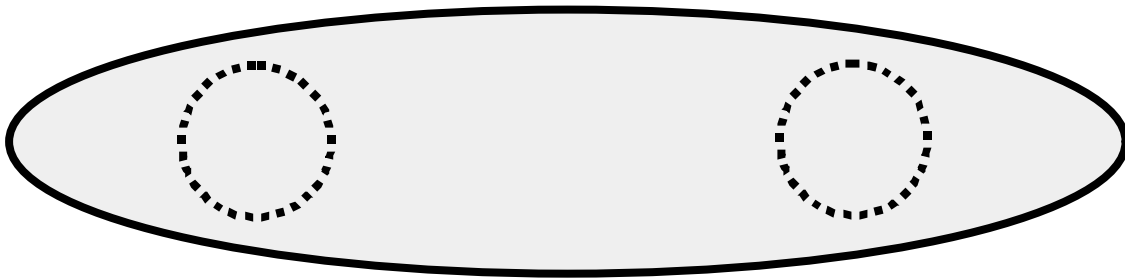
I will now spell out some general implications implicit in the foregoing analysis. How do we imagistically grasp the generic structure of metaphors and metonymies, i.e. their co-signature? I submit that the source and the target of a metaphor are conceived as residing in separate domains. Each domain is conceived spatially as a region of integrated knowledge. Now, the most simple image-schematic understanding of a metaphor is that of two containers between which links are established. They are linked in at least two ways. First, they are linked by 'mappings', that is one-on-one linkages between attributes. On top of that they are also related by being foregrounded as parts of the same mental setting. Metonymies, on the other hand, presuppose that two spatially or causally contiguous things get placed in a common container of some kind. Belonging to this common region makes them, in a sense, things of a kind. This was meant by saying that metonymies render things consubstantial.

Based on these assumptions, imagistic profiling offers an equally elegant and cognitively plausible solution to the old query about the relation of metaphor to metonymy. I propose the following general hypothesis: *Any context bringing together two disparate cognitive units, such as the target and the source of a metaphor, can be construed as a metonymy by*

profiling them as a unitary region with a homogenous content. In other words, all situations offer a potential for thinking of them as metonymical. They are metonymical ad hoc through a common quality space or metonymical permanent if a uniting ICM structure is built around them, which functionalizes them vis-à-vis the same task or domain.



Metaphor profiles domain separation



Metonymy profiles domain unity

Returning to our Nuer transformation of humans into avian cognates for a moment, where the polytropic setting shifts from highlighting one trope to highlighting another, we can say that what happens is this: When the metaphor turns into a metonymy (i.e. when birds and humans are said to partake of 'Spirit'), the metaphoric schema is backgrounded and in its place a consubstantial realm is laid over the schema which now covers both metaphoric domains. Since this superimposed realm is *ipso facto* made of only one common substance, this substance is imparted to both of the previously separate source and target domains. In this way things from separate domains are assigned to a newly created domain in which they become unified.

How is the dynamic transformation between metaphor and metonymy achieved? I propose that (1) *metaphor and a metonymy are simply alternative image-schematic construals of the same total cognitive unit* that (2) *depend on the capacity to mentally zoom in and out between a unifying and a differentiating perspective.* Imagistically, the transformation from metaphor to metonymy corresponds to the transformation from a multiplex (usually meaning duplex) construal of a region to a mass construal. In the multiplex construal the apartness of

source and target domain and internal relational vectors between them are profiled, whereas in the mass construal the fact of belonging to a single region is profiled. Metonymies construe regions as ontologically homogeneous realms that merge their constituents into one whole of the same kind. As mentioned, such a construal may imply a new super-ordinate category but can remain an *ad hoc* quality space.

Metaphors can establish metonymies. They can evoke a substantial continuum by placing two disconnected things in a hypothetical mental container through contextual juxtaposition. Put differently, *the newly constructed mental container stands for the common context itself*. It also stands for the psychological power of contexts to make the unrelated seem related, which is no less than a basic principle of inductive reasoning: Things that co-occur are typically assumed to be related as a working hypothesis, even if the underlying causal links may remain elusive for the moment.

By superimposing a realm on the containers standing for the source and target domains respectively these containers are backgrounded or gradually disappear. We might call this image-schema transformation DISSOLUTION OF STRUCTURE. It has a rich experiential motivation. Mentally images fade after the visual exposure, as do sounds. We know how things dissolve in water. More importantly still, we know how food dissolves in the body. We know how people assimilate in a new environment and their idiosyncratic essence dissolves in the present essence, or is impregnated with it, as it were. We might even argue that the experience of pain going away is similar. A sharp pain turns into a mere tingling sensation before it completely goes away. The pain fades into the background and our attention is free for new things to emerge in the foreground. All these instances share a similar image schema structure. There is a fundamental similarity between the fading of sensations from our attention and the imagined dissolution of things. If all this is correct, we may conclude that metaphor and metonymy are understood as parts of a natural image schema transformation.

In this perspective, every metaphor in principle holds the potential to be construed as a metonymy. Different contexts require different profiling choices. When we choose to consider two metaphorically linked entities still as parts of separate domains, we do not profile (or – which is the same thing – superimpose) a consubstantial realm. When we choose to consider them metonymically, we profile the encompassing realm standing for a common quality.

It was noted above that this hypothesis is restricted to a particular kind of metaphor. But is this really the case? The crucial question appears to be whether two discontinuous terms can be always freely reified. Clearly this is not the case with many everyday metaphors. A substantial proportion of metaphors are made for purposes of creating a surprising *ad hoc* convergence without substantially merging the two categories. Yet, it is not accidental that I

developed my theory on the basis of ritual and cosmological narrative. In these *humans intentionally modify what the categories of mundane reality dictate*. In ritual and cosmological narrative there are regroupings of everyday categories with the intention of pointing to a deeper, if more elusive, plane of reality. By contrast, a large proportion of everyday metaphors do not override the conventional ways of categorizing from one day to the next.

However, in a historical perspective my hypothesis becomes highly suggestive as a general claim, because ontologies shift, expand, or contract. What was once a metaphorical relation between two domains may come to be gradually felt to be more of a metonymy. A good example is the relation between humans and machines that is currently undergoing changes. Traditionally, Western culture has defined humans as privileged creatures of creation made in a divine image and standing apart from the rest of nature. The rise of materialist and mechanistic philosophy from the 18th century on made some first substantial inroads on this traditional ground. Humans were then first understood through the metaphor of the machine. A recent precipitate of the same thought style can be found in the ever-more successful metaphor that conceptualizes mechanical computation in terms of human thinking or vice versa. Very recently, not only science fiction literature about part-human, part-machine creatures, so-called cyborgs, testifies to a blurring of boundaries between the two categories. Technological and medical advances foreshadow new kinds of beings for which the old ontological separation has no reality any more. The scientific debate around the issue whether there can be artificial life and artificial consciousness makes the boundary between humans and machines seem increasingly permeable. Although humans and machines are at present not nearly two things of the same kind in the mind of most people, there are prevalent thought currents that are preparing the ground for such a newly supervening metonymical view, i.e. a common ontology. Thus the analogy seems justified: Just as ritual and narrative enforces a rapprochement of domains for unveiling deeper cosmological truths, so does historical process dissolve and regroup conventional domains of thought. What was conventionally a metaphor yesterday may become a metonymy today, and vice versa.

5. Space logic in anthropology (2): The cultural power of profiling topical regions in the mind

The issues raised here are manifold and would allow to be extended in several ways. One important issue, that of realms as essences I will treat a bit later. Now I will develop a framework theory of mental profiling and what it accounts for in terms of learning, organizing, and applying cultural knowledge.

ACQUIRING CULTURE AS DISTINGUISHING TROPIC FIGURES FROM THE EXPERIENTIAL GROUND

For children the society they are born into forms an unstructured background, from which culturally significant relations must be distilled. The idea of mental foregrounding can shed light on the developmental acquisition of knowledge about tropes. Christina Toren (1993a) argues that learning culture is about learning to distinguish relevant tropes from a ground of social settings. More precisely, learning the meaning of many events requires foregrounding *specific aspects* and interpreting them as a trope, i.e. understanding that they stand for something other than themselves. The child has to come to terms with the multidimensionality of social reality, in which events have symbolic significance. Toren illustrates her point through her Fiji fieldwork on children's understanding of the significance of the *kava* drinking ritual. She describes how the understanding of the ritual changes as the children grow older. For adult Fijians the ritual is, to a very significant degree, an expression of social status. For adults the spatial location of the drinkers either further up or further down from the ground metaphorically refers to status (POWER IS UP). For small children talk about above and below in *kava* drinking is not about the status-attributes of persons. They understand it as purely related to a person's spatial location. Drinking *kava*, then, is only about drinking *kava*. Only later and gradually do children become aware of the metaphorical significance of above and below. Toren suggests that with the youngest group of children there is still a fusion of what later becomes a figure relative to a ground. The metaphoric figure first has to become salient through learning. Later a progressively differentiated double view on *kava* drinking is introduced, duplicating its significance into both something related to drinking itself and a social power code. A similar idea has been expressed by Christopher Johnson (1997), who studied the conflation of metaphor source and target in early childhood. For example, the English 'to see' in the perceptual sense and in the epistemic sense of 'I can see what you mean' are treated as yet undifferentiated.

Toren's terminology is perfectly compatible with our imagistic framework. I would speculate that the specification of tropic relations from an undifferentiated background of possible linkages requires the following steps. First, in learning to be Fijian the young children have to acquire a basic idea of social power relations, which motivates the formation of a domain of social power in their minds. Perhaps this is done on the basis of their acquaintance with physical power, which they come to relate to social power. Second, they have to learn that this domain is somehow related to the *kava* drinking ritual and their observations made in this context. Finally, they have to learn which aspects of the ritual encode power. Presumably, the UP-DOWN dimension is again motivated through experience with physical power in fighting. What is the rationale for speaking of a preexisting ground? I claim that it is only the sum-total of social experience from which tropes are progressively acquired and against which they are set off as salient symbolism. Especially the domain of

power has to be first constituted as a coherent domain and thus as the cognitive base for the emergent profile, as defined by Langacker.

Even if these stages may be not clearly sequenced altogether or occur in the inverse order, to speak of a progressively emerging figure makes sense. This captures the fact that the cognitive focus becomes ever more precise and the actual linkages more highlighted, while other options under consideration recede into the background. If we understand figure and ground as an actual cognitive description in terms of our theory of imagistic thought, this implies a two step process of (1) the differentiation of a new theme by foregrounding, and (2) the metaphorization of this theme by linkage: First the target domain of power has to be foregrounded, so as to give the children an idea that social stratification exists. An image-schematic model of the metaphorical relation between the two domains can be adduced once the target domain of social power has been broadly formed. When this is done the target domain has to be connected with the source domain of spatial positioning in the Fiji house. Overall, a complex novel image is created which is acknowledged as a relevant new Gestalt of *social drinking*. A permanent link between the preexisting domain of drinking and the newly formed domain of social power is created, and this is accomplished by drawing on yet another domain as a symbolic mediator, namely that of physical power. Through this link two mental loci become one, and they become a single object of attention: a figure set in high relief.

Admittedly, to say that a trope is a profiled figure does not yet say anything about its specific meaning. This depends on the kind of trope. However, the general cognitive idea presumably intended by Toren is that a given nexus (a relational profile set off from the unrelated rest), such as that between *kava* drinking and status, is learned as a culturally significant Gestalt – the ritual is memorized as an event of inherently social significance – and that the whole configuration of meaning is henceforth evoked as salient characteristic of the setting. Making a figure salient as a trope means noticing other implications than those immediately at hand. This is done through imposing a relational profile (in this case between source and target domains of a metaphor) set off from the ground of understood domains as a whole Gestalt. A trope may thus be defined by the fact that it not simply stands for itself; it introduces a relational profile as a new more complex Gestalt that either juxtaposes or fuses previously divergent domains.

FIGURE-GROUND INVERSIONS AND PROGRESSIVE CULTURAL EMBEDDING

It has been suggested that cultural models are structured as complex imagistic arrays that allow for different vantages and for choosing different profiles. A cultural model may be defined as the sum of possible perspectives organized as an integrated whole (Palmer 1996:

59): "Perspective does not disappear from a model; rather a model potentially subsumes all of the perspectives provided by its contributing images."

This includes the potentiality of figure-ground inversions. A case of figure-ground inversion between two sub-models of the same domain is described by Lakoff and Johnson (1999) for so-called linguistic duals. For example, in English metaphors of time, either time is moving ("time is passing") with our viewpoint being conceived as static, or we move relative to a static time-medium ("we are coming on Christmas"). These two imagistic construals are clearly related. They can be understood as changes in viewing arrangement of a broader time model with two relational entities, each of which can become the trajector. In other words, whether time or the observer becomes the trajector depends on an act of profiling and choosing a fixed vantage. Recall that profiles tend to be in motion, while grounds tend to be static.

An implication of the figure-ground model is that profiling varies with the exigencies of divergent social situations. A specific situational focus decides what is cognitively foregrounded, against which other knowledge items the foreground is relatively defined, and which are of lesser interest for the moment. Tropes of different situations linked into a larger cultural model can be interpreted as figure-ground inversion. Ritual systems may gear different rituals to one another, so that the figure of one functions as the other's ground. Toren (1993a: 161) captures the gist of Roy Wagner's (1986) 'obviation model of trope expansion':

"(...) here 'core symbols' are made, synchronically in a ritual process or over time in a historical process, to play against one another. So, for example, a ritual sequence may take its meaning against the ground provided by kinship, exchange relations, marriage; when it is kinship that is in focus, the relation is reversed and the ritual sequence becomes the ground and kinship the figure whose 'meaning' is posited in ritual terms. This type of 'figure-ground reversal' is central to Wagner's 'obviations', the process by which a core symbol comes to be at once proposition and resolution, to 'stand for itself'."

Therefore, all tropic constructs can be potentially embedded into others. These then become the background of the embedded trope in a figure-ground relation. Often such relations of embedding between tropic contexts are effectively employed to give tropes their meaning with relation to a complex set of cultural background understandings. It is important to see that this potentially means a mutual embedding, since what is the ground at a given moment can be the figure in the next.

'CULTURAL THEMES' AS FREQUENTLY FOREGROUNDED FIGURES IN THE COGNITIVE LANDSCAPE

The profiling of figures in a figure-ground relation has further implications for the conceptualization of cultural concepts. Before we go on, I will wrap up the ideas expounded above in a general model centering on the idea of the mind as a space. We may consider it a nice expository metaphor to view cognition as a landscape in which cultural ideas are suspended object-like and between which one wanders. However, by dint of the 'spatialization of form' approach the mind as landscape can be understood more literally as a thoughtscape. If abstract ideas are indeed ordered by spatial logic, we may think of them as imagistic mental objects in a space with a focal standpoint, centers of attention, a certain number of linkages, and a horizon. (This also has the virtue of being suggestively analogous to models of the material cognitive substrate in the connectionist approach. If we blend the representational with the neural perspective, any ad hoc representational landscape mirrors the sum of strongly activated neural links which reflect the concept that is processed.) From a representational perspective the activated core-nodes are much like a person in a landscape surrounded by many nearby objects. Some things can be perceived in the proximity of the subject's location. Others recede towards the horizon where they become blurred and more difficult to make out. Still other concepts remain behind the momentary horizon and can be noticed only by moving to another location.¹¹⁵

Of course, the nodes become fleeting as our attention wanders, so that many mini-landscapes pass before the mind's eye in actual mental performance. Recall the Nuer and Bororo examples, which illustrated the possibility to see two domains as alike in one context and dissimilar in another. However, cognition always works in such a way that parts of the actors, objects, and ideas remain constant throughout the rituals, while settings and symbolic emphases change (cf. Hutchins 1987). There must be a level at which people know about general conceptual relations along the way, even if these are not activated. Let us go beyond the moment's *performance* in which either the metaphor or the metonymy construal reigns supreme and look at the non-activated but potential structures. This non-activated potential mind, a mental storehouse called *competence* by linguists, then resembles a landscape of many dimensions. This can mean entrenched knowledge or a future potentiality that the repertory of a culture holds in store but which is yet to be learned by an individual. Assuming that competence is a cognitive reality capturing the general relations of many performative

¹¹⁵ Interestingly, the idea of cognition as navigation through three-dimensional space is used in cyberspace literature, such as William Gibson's *Neuromancer*. Yet, the metaphor of the mind as a visual landscape is simplistic, since even single concepts in their entirety are often much too complex for three-dimensional logic. Integrating all of the relevant mental objects involved in a complex representation makes the three-dimensional approach utterly wanting. This would require matching groups of objects on disjunctive planes or thinking of the landscape as n-dimensional, respectively.

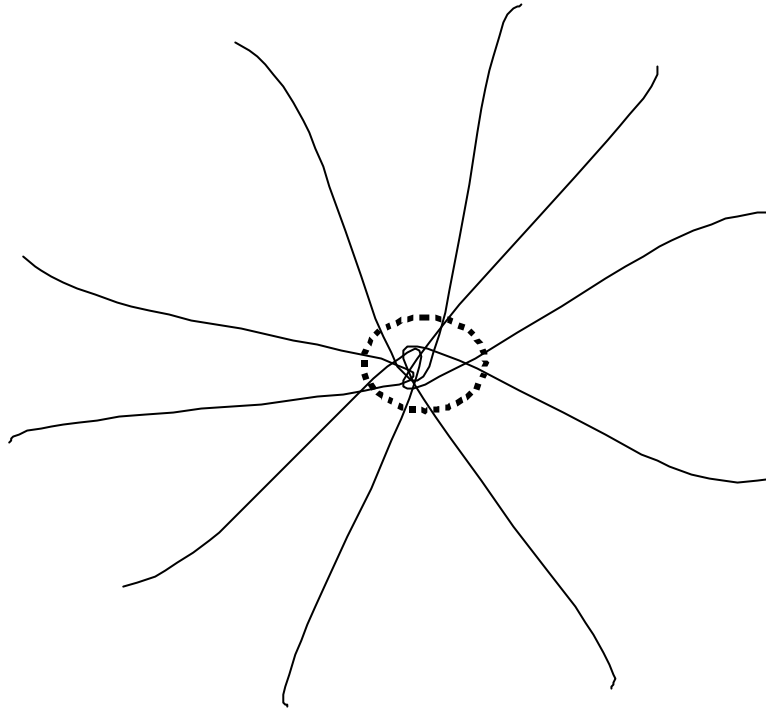
landscapes, it co-articulates several non-simultaneous settings simultaneously. The model in a nutshell is this: *In performance many constrained mini-landscapes come and go, while competence means a multi-dimensional mega-landscape relating them.*

Gilles Fauconnier's (1985) terminology of 'generic spaces' and 'blended spaces' can be invoked to see what is going on at the competence level. Generic spaces represent the background knowledge of what two domains share in conceptual content, independently of any momentarily activated mapping. Generic spaces are permanent background structures. I propose that we may speak of permanent generic spaces to express the partial merging of shared structures or tools common to many actual performances. Blended spaces, on the other hand, are generally used in the sense of what is evoked in an ongoing mapping between spaces. In spite of the performative focus of the latter, I suggest that we can introduce the notion of a 'non-actualized blended space' to represent potential relations between concepts that might meaningfully be united in a single domain of experience. Compared with generic spaces there is less shared background content here, but the potentiality of a foregrounded blend is conventionally known to some degree. Together with generic spaces (= basic conceptual similarities) non-actualized blends (= the sensed potential of additional domain interactions) constitute cultural competence.

How is competence relevant to ontology? At this level we can hypothesize what cultural themes are in terms of imagistic overlaps. When numerous landscapes of *performance* intersect at the competence plane, core themes are constituted. This echoes Ardener's (1982: 8) concept of 'semantic density' of a linguistic category, denoting the frequency of association and interaction, which is perhaps expanded to a more inclusive level. (On the substrate level, core-functions would, likewise, be those with the most frequent and thus permanent links to other far-off regions of the brain.) *A cultural core theme can, then, be defined as a mental location that is central in many different situational ('performance') landscapes of the mind, representing many different contexts* (see the diagram below of the mini-landscapes and their region of intersection). In each performative instance this mental location is dynamically generated, but the configurations that are instantiated display significant overlaps and draw on roughly the same memory structures.¹¹⁶ Because other notions densely cluster around their location, core themes also permit the greatest productivity in terms of new inferences. Many other landscapes can be accessed, since they are nodes in a multi-dimensional network. Multivocal symbols, such as are discussed by

¹¹⁶ The IMPORTANCE IS STRUCTURAL CENTRALITY metaphor is part of this, since foregrounding and centrality are nearly identical. The central placement of the node is an automatic result of a concept that occurs as important characteristic of numerous situations. The learner knows that such a complex trans-domain concept will require a great number of contributing links. And the greater the number of links pointing to a concept (presumably as opposed to pointing from it) is, the more central it becomes.

many anthropologists, would be a prime example of such a junction or node. So much for the general pattern; now for some ideas about what happens locally in specific cognitive domains.¹¹⁷



TOPICAL STRUCTURES AS PROFILED REGIONS

One of the central ways the human mind bestows ontology is by profiling within representational arrays. Even though landscapes and horizons are fleeting as people engage in thought, I contend that major ontological categories are fairly permanent profiles (representing attached qualities), which are shared by many mental domains. As such they are set off as figures from their various locales. Such ubiquitous categories are 'topical' in cultural discourse, in that they tend to be chosen as relevant explanatory concepts across cognitive tasks.

I would like to develop the argument more carefully and begin with the notion of topicality in everyday language. Topicality, i.e. the marking of a discourse theme, is a linguistic universal. Probably all kinds of natural languages employ markers of one sort or the other that let speakers construe a mental entity as topical. Topical markers direct our mental attention toward a particular cognitive locus. (Incidentally, topic markers are quite similar to

¹¹⁷ The question here is whether a highly multifaceted model is ever consciously evoked as a single image. I will answer affirmatively in chapter 12: Although there are limits to memorization, imagistic condensations of complex knowledge structures are possible. A model may simultaneously conceptualize the different phases of, say, a scenario-model through a schematic image of its overall plot.

the linguistic devices Fauconnier and Turner call ‘space builders’, which indicate if the expression to follow is ontologically real, hypothetical, believed, etc. The images that space builders elicit, namely ‘mental spaces’, are also compatible with what follows.) I will argue that topical loci are spatial loci in the mental landscape. Following Langacker (1987a), I assume that spatialized imagistic devices are used in creating topicality and that it is the CONTAINER schema (= the schematic image of a profiled region) that figures prominently here.

A particularly clear example of topical marking is found in Japanese, as a paper by Haruko Minegishi Cook (1993) shows. Japanese has two sentence markers, *wa* and *ga*, which are used for different purposes. Cook (p. 371ff) gives an example to illustrate the difference between the two:

1. John wa gakusei des.
 student COPULA

“As for John, he is a student.”

2. John ga gakusei des.

“John (and only he among those under consideration) is a student.”

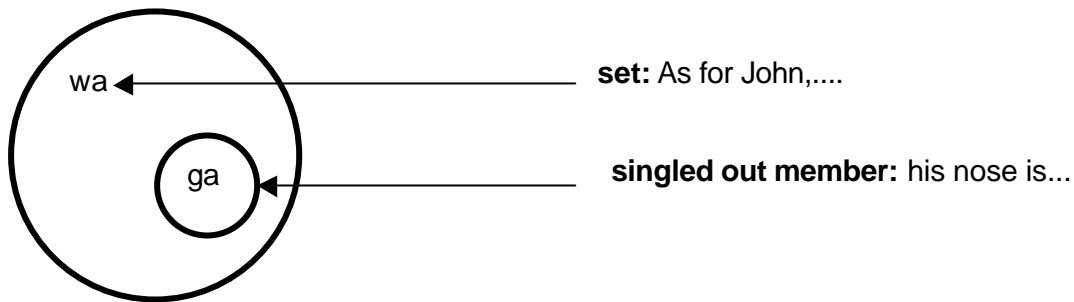
The *wa* states what the sentence is about; it is thematic and circumscribes a particular cognitive focus. The *ga* singles out an individual, John, from others. It is used for exhaustive listing from a given set. This means that for *ga* the focus from which the individual entity is picked is either tacitly presupposed by the speakers or explicitly designated by a preceding *wa* particle. When *wa* and *ga* occur in a single sentence, the relation between them is understood as a PART-WHOLE relation, as Cook maintains. Consider the following example:

3. John wa hana ga hikui.
 nose low

“As for John, his nose is flat.”

The notion of container is well illustrated by the metaphor of taking a photograph here. It is comparable to a camera lens that limits our field of vision. Analogous to this visual image the particle *wa* marks a conceptual container that demarcates a certain portion of the mental scene from the rest. It defines the conceptual focus and scope (see Langacker 1987). *Ga* then singles out and marks an entity within this set scene. This can be seen, for example, in answering a ‘who’ question. The question itself sets off a portion of the scene with regard to which the question is to be understood, i.e. the scope of the question, and therefore uses *wa*.

For the answer the use of *ga* is obligatory, since it picks out a member from the proposed set.



Not only spatial settings (such as John's exterior of which his nose forms a part) can be defined by *wa*, it can also be used in various metaphorical ways. The "As for John,..."-phrase can be used for a locus of possession, of cognition, of involuntary perception, of desire, and of ability: "John has money", "John understands the sentence", "John (involuntarily) hears the song", "John wants to read the book", and "John is good at Japanese". All of these cases can be seen as instantiations of an abstract schema of a container and a singled out participant. The *wa-ga* schema, then, is used to express a series of conceptually similar relations such as part-whole, member-set, participant-physical setting, and participant-experiencer setting. The schema is also used when a predicate involves an action, as Cook contends (p. 384), because the actor is construed as participant in some time and space setting. This would also explain all cases where *ga* is used without a thematic *wa*, apparently as a neutral description. Rather than marking a set-member here the *ga* particle marks a participant moving about in some presupposed time and space, which is often the immediate context of the locution, but may also be the world in general, which is taken as a necessary presupposition for any action to occur. The thematic focus is therefore given, and on this basis understanding an element can be again singled out by *ga*.

Furthermore, the *wa* container can also be construed as a particular attribute of which an entity partakes (p. 385). This is what was described earlier as 'quality space'. However, no participant is singled out here, instead the entity defined by the thematic container and its attribute are understood as spatially co-extensive. Attributes can be construed in this way, since they are independent of any specific space-time profile that a *ga* particle would imply. Therefore the entity itself may be construed as the *wa*-container itself. Note that any generalized action may be understood as attribute, since it conforms to the same logic. This is shown by the following example:

4. Ame wa sora kara furimasu.
 rain sky from fall

"Speaking of the rain (in general), it falls from the sky."

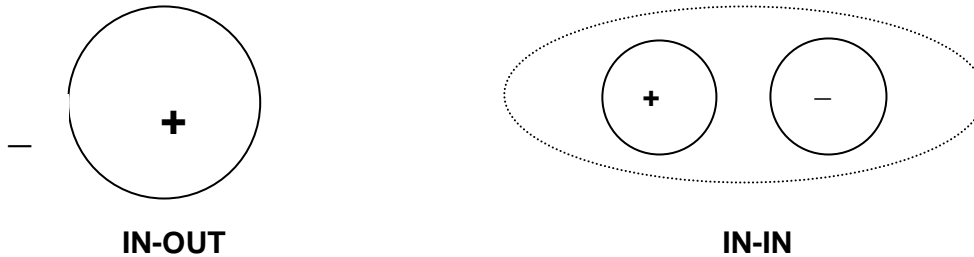
Here rain is characterized by the attribute/generalized action 'falling from the sky'. Since no possible contrast is conceivable within the defined thematic scope the *wā*-defined subject of rain is identical with the predicated attribute that it falls from the sky. As an attribute it constitutes a transcontextual defining feature: Since rain never falls from the ground, from ceilings, from walls, etc. the designated aspect is not an option besides others. If *ga* is superfluous for attributes, this is because all other attributes do not belong to same domain within which they might be juxtaposed as participants. They do not belong to the very same thematic container designated by any single instance of *wā*, but simply to an altogether different theme. For example 'falling from the sky', 'being made of water', 'sometimes resulting in rainbows', 'being caught in wells by people', and all sorts of other conceivable attributes of rain do not belong to the same logical domain. By contrast 'John's nose', 'John's eyes', 'John's neck', etc. do belong to a single logical domain, that of external features. They take *ga* because they are identified within the same domain-container.

Wā can place an outer limit on (situative) discourse, just as it can mark off certain facets of a scene. As Cook (p. 388) points out, the demarcation function of the container, which sets off a certain portion of the scene from the rest and makes it thematic, implies a contrast. And indeed, *wā* is frequently used in explicitly contrastive sentences. However, we may assume that all *wā* particles are implicitly contrastive to a certain degree, because they designate a theme and excludes all others. Furthermore, a participant in a container can be marked as a container itself, for example when the speaker wishes to contrast it with another participant in the same container (p. 392). This underscores the contrastive function of *wā*, while explaining why the inclusive function of *ga* is overridden.

Recent studies by other researchers indicate that the use of *wā* and *ga* is not restricted to the sentence level. Similar uses can be found on the discourse level. These authors discovered that in written discourse *wā* marks a discourse topic. In spoken narratives of cartoons, films, etc. it marks the locally contrastive elements in discourse (p. 393). This use of the *wā* particle seems of particular interest for our considerations here. Thematic choice is understood as conforming to a spatial logic of demarcation and profiling. It should be fairly obvious by now that Cook's approach closely parallels what was said about figure and ground in making cultural tropes thematic. The *wā* container is nothing else but a profiled image-schematic figure set off from a ground of possible entities.

Of course there are other ways in which CONTAINER logic can be used to represent mental entities and their relation. Mettinger (n.d.) recently carried out a related study of thematic profiling. His study deals with what he calls linguistic contrastivity in English, such as is expressed in propositional syllables as 'anti-', 'un-', 'in-', 'de-', 'contra-' and all sorts of concepts perceived in pairs or on scales such as 'old' and 'young', 'good' and 'bad', 'comedy' and 'tragedy', etc. Mettinger proposes that the inside-outside dimensions of the CONTAINER

schema may be used to encode contrastivity as image schema. Alternatively, two containers may be opposed within a common background. Mettinger calls these the IN-OUT and the IN-IN schema. These two relations are depicted in the following figures that both designate one pole as plus and one as minus:



Following the lecture of Bourdieu (1977: 168) who speaks of the ‘universe of discourse’, one wonders if he does not have an actual folk-model based on space logic in mind. Bourdieu describes a field of argument defined by the two poles of heterodoxy and orthodoxy set against one another. This might be an actual spatial representation. If this is the case, it must be like Mettinger’s IN-IN schema, perhaps with the notion of antagonism highlighted between the poles. More in general we might ask if models of the cultural Other are not imagined through one of the two models, depending on whether any sort of common background is acknowledged.

Note that, apart from the plus-minus axiology that remains absent from the Japanese example, the thematic *wa* is an instance of the IN-OUT relation. The difference to Mettinger’s contrastive concepts is mainly due to the ensuing addition of the *ga* particle, which implies that the inside is further differentiated. This being said, what is the main difference between the two alternatives defined by Mettinger? The answer is that in the IN-OUT case the cognitive background is left unspecified, whereas in the IN-IN case it is accentuated, thereby making the OUT-dimension an embedded second IN-dimension. In order to gain common ground I would argue that both are versions of a yet more basic DIFFERENT LOCUS schema, which is instantiated in slightly diverging ways. The schema DIFFERENT LOCUS means the very basic recognition that two mental entities do not occupy the same mental space. This basic recognition can be supplemented by further characteristics in one of several ways.

The difference between IN-OUT and IN-IN is, then, one of degree. Perhaps the background container of the IN-IN schema, which includes the two participant containers, becomes increasingly profiled as we become aware that the contrastive pair depends on a generic parameter from which it emerges. Thus, ‘good’ and ‘bad’ would be construed with a profiled common background as soon as the generic parameter of ‘quality’ is processed in any noticeable way (compare ‘size’ for ‘big/small’, ‘strength’ for ‘strong/weak’, ‘loudness’ for ‘loud/low’). If my conjecture is correct, it follows that, in the case of contrastivity, every IN-OUT

schema is an IN-IN schema in at least an implicit way. It may be hypothesized that the surrounding container of the IN-IN schema is the *token image for the generic parameter* of a binary dimension. Also note that a third possible image schema that may be superimposed on the IN-IN image is that of SCALE, in order to allow for grading between the two container-like poles. Therefore, the container may also be placed around a bipolar scale and represent its generic parameter in the same way as for two discrete regions.

Just as in the PART-WHOLE case described by Cook, cognitive locus is defined as contrastive in the IN-OUT case, but this time in an exclusive rather than inclusive way. According to spatial logic the participant designated by Japanese *ga* must fill the same logical space that surrounds it and was defined by *wa*. By virtue of the same logic, the binary/scalar opposites designated by 'good' and 'bad', 'old/young' etc., can never fill the same logical space at the same time. Something cannot be good and bad in the same respect at the same time. In the IN-IN case a more complex and embedded contrast is employed, which combines PART-WHOLE and IN-OUT.

Cook and Mettinger both use similar notions of profiling within the container images. In Japanese the profiling of a topical theme with relation to the cognitive background is signalized whenever *wa* is used. Then one or more specific participants are picked out from this thematic setting in a second, more specific act of profiling. In Mettinger's English examples the used member of a contrastive pair is profiled against the other. When 'good' is used 'bad' is present, but only in the background. Of course, figure and ground may be inverted any time. In the somewhat more complex IN-IN schema both are profiled against the background of what I called their generic parameter.

While this, once again, suggests common imagistic tools across cultures, the approach can, with a slight twist, be taken as explaining cultural variation as well. A major difference relates to the different manners in which profiled regions may be set up, most notably as a clear-cut region or as a continuum with blurred fringes. This is illustrated by another recent linguistic comparison by Ikegami (1993), which is by chance again between Japanese and English. It suggests intriguingly divergent cultural tendencies in performing the profiling operation. Ikegami's study analyzes the much-noted Japanese vagueness in defining speech topics. Japanese tend to blur the extension of the speech topic in various ways: They are reluctant to impose a singular/plural distinction, which is grammatically optional through the addition of personal pronouns, while verbs leave it unspecified. There is a homology of this to a great many Japanese verbs which leave it unspecified whether the intended action is achieved or not, while their English counterparts imply achievement. The inverse case of an unspecified English verb whose counterpart in Japanese is specified apparently does not exist. The English disposition may be interpreted as the imagistic bounding of the final state in SOURCE-PATH-GOAL scanning, while the Japanese counterparts do not impose a localized

end-state on the image, or leave this region blurred and much broader. Furthermore, expressions in Japanese tend to neutralize the contrast between proximateness (“this”) and remoteness (“that”), by using expression like “such”. These imply that there may be possible similar entities that are just as relevant as the entity in question. Not only quantitative contrasts between singular and plural, but also qualitative contrasts such as male/female or animate/inanimate are neutralized. It may be a characteristic of Japanese culture to leave the opposition between individual and group or man and nature relatively unarticulated or avoid a sharp contrast. Ikegami argues for an image schema of CONTINUUM underlying all these examples. This is quite convincing if we assume that all of these quantitative and qualitative polarities are conceptualized as scales that require the imposition of a clear-cut local profile at either end.

The general conclusion Ikegami draws here is quite consequential: Cultures differ in their tendency to impose clear-cut local profiles as an unambiguous figure (p. 811). In all of the mentioned cases the Japanese language prefers a relative blurred profile to a clear-cut one when compared with English. In fact, this may be a case where an overarching cultural template in thought is defined by a simple image-schematic penchant for one or the other type of profiling operation. The reader may wonder whether this conclusion is at odds with Cook’s above-mentioned findings, where profiles are imposed without any mention of blurred extension. Upon closer reflection, there is no reason why the two findings should clash: Cook described how a relative PART-WHOLE relation was defined by two particles, without actually specifying whether the entities designated by *wa* and *ga* were conceptualized as clear-cut or blurred profiles. The important fact about them was that they substantially differed in scope and stood in a relation of inclusion of *ga* in *wa*. (Note also that neither of them does relate to any bipolar scale.) Although the examples relate to different functions of language, it might well be that the topical markers described by Cook are also construed as relatively blurred continua, as long as the PART-WHOLE contrast remains present.

In sum, we may assume that there are many other ways in which topical profiling within mental arrays plays a role, be they scales, three-dimensional scenes, or others. All of these linguistic results are suggestive for cultural anthropology. My aim here is to show that what holds for small-scale linguistic expressions is also true for the complex mental arrays that ethnographers struggle to comprehend as cultural key ideas.

RELATIONS BETWEEN REGIONS CAN EXPRESS CAUSAL LINKAGE AND ONTOLOGICAL SEPARATION OR UNITY

There are suggestive ethnographic examples, which illustrate that the relations between important regions are encoded by virtue of the spatial logic of separateness and distance (for an in-depth discussion of this logic see Gärdenfors 2000: ch.1). It matters a lot whether two

concepts are seen as wholly separate, contingently related, intrinsically related, or inseparable. In a discussion of Balinese concepts of emotion and empathy Unni Wikan (1992: footnote 5) reflects on the difficulty to translate “heart” as the locus of emotion into a Western understanding. For the Balinese, feeling and thought are inherently fused. This can also be seen from Wikan’s analysis of the Balinese schema of understanding between humans. Understanding according to the Balinese folk-model means emotional ‘resonance’, in the sense of empathy to what a person feels and intends in a situation. This high cultivation of a hermeneutic approach to meaning stands in striking contrast to a strong tendency of academic Westerners like herself to cling to the ‘objective’ meanings expressed in words. This becomes evident in judging if two worldviews are compatible, as Wikan’s reflection on a personal field experience shows. She relates as an example the unexpected and effortless ‘resonance’ between an orthodox Muslim woman and a Hindu healer. That this was possible in spite of deep ‘literal’ rifts in ideology between the two left Wikan dumbstruck. After grappling with the experience for a long while she developed an understanding of resonance. It means that emotional empathy is the crucial characteristic of understanding, and that literal understandings of religious dogma are of lesser worth if split from the context of a person’s deeper intentions. In this way, then, the heart is always implicated in understanding.

In an imagistic analysis all this could mean that the many experiential sub-concepts associated with ‘thought’ and ‘feeling’ by many Balinese belong to very much the same large region and entertain a multitude of links among them. They constitute a cognitively entrenched metonymy, so to speak. By contrast, to Westerners the two regions are sufficiently apart to consider them in isolation. An ontological fusion is not mandatory, mutual evocation more restricted, and therefore many people apply different rules to the two realms. To the Balinese, thought-feeling is essentially a single realm, an observation made in a number of other regional ethnographies as well. The main insight here can be generalized in the terms of our imagistic model: Where mental regions overlap or coincide there is a strong ontological unity of concepts.

It also matters in which superordinate region a concept is embedded. By spatial logic, being part of an encompassing region again means a causal-functional link: When a certain mental entity is conceived as part of another, it causally emanates from it. The following citation from the same paper by Wikan (p. 301) makes the point lucidly, this time with respect to the Balinese sub-theory concerning the question through which signs other people’s emotions can be interpreted:

“In Bali, I had been puzzled to find that Balinese often seemed to express empathy even for people whose suffering they hardly knew. It was puzzling because other anthropologists had maintained that

Balinese were lacking empathy (Mead 1942: 23; Geertz 1973a [1966]), and also because I could not see how they could see beyond people's faces when those were always 'bright and clear' (*cedang*).

After long pondering, I hit upon an answer. Balinese had another way of situating emotion from us. Rather than seeing it as a private response, arising *in* the individual, *they* perceived emotion as embedded in social situations, and thus it could be probed by the assessment of sheer social facts (Wikan 1991a: 161). When I came upon an article describing a Chinese theory of emotion similar to this (Kleinman and Kleinman 1991), I was intrigued."

A similar argument about the Ifaluk of Melanesia is made by Catherine Lutz (1988). According to her, the people of Ifaluk do not conceive of emotions as something located in an individual mind or heart, as Westerners do. Instead, they are a relation between several individuals, so that emotions exist independent of and outside the psyche of any one person. In Ifaluk thought the concept of emotion is thus not embedded in the concept of person. Instead it is assigned to another ontological substrate. By comparison, in Western thought emotions are firmly embedded in the concept of person, whereas a transpersonal substrate is difficult to think. The belief in person-independent existence of emotions at a level of its own is equally rare. On Bali and Ifaluk emotion causally belongs, whether by linkage or inclusion is of little importance, to the ontological region of public facts. They have "another way of situating" it. For Westerners it has no such direct link to observable events in the absence of facial expressions and other personal signs of the inner condition. On Bali and Ifaluk social and experiential aspects are ontologically fused and represented in a more integrated region than is the case for the Western ontology of emotions.

Note that embedded states and linkages between concepts of equal range are logically near-identical. Basically, any sub-concept entertains links to the region outside the mother-concept. More than that, in a holographic and dynamic view of the imagistic mind there is rarely a permanent relation making one concept the genitor and the other the offspring. They subsist within each other in close mental proximity, and it may be a question of situational profiling which one becomes container and which contained (cf. figure-ground).

IDEOLOGICAL THEMES AS PROFILING OF A BASIC CONTAINER

One way in which profiling performs an ontological function we have already seen: Depending on preferences for continua or clear-cut profiles, mental entities are conceived as either categorically different in nature or different only by degree. I want to turn to a related ontologizing feature of profiling now. *Profiling can create a preferred locus of explanation for a given domain across its performative settings.* What follows is based on the assumption that task settings are conceived imagistically as mental scenes occupied either by rich imagery of things or by image-schematic co-signatures, such as EVENT, CAUSALITY, HIERARCHY, TAXONOMY, COMPLEX CATEGORY, METAPHOR, etc. Presumably the following

observations on the profiling operation may apply both to rich images of a scene and to abstract image-schematic tools to understand the scene.

How a social situation is ontologized by the participants depends on which mental regions are activated or which among the activated regions are highlighted for the setting at hand. A good example is cultural thought about social agency and social responsibility, i.e. to whom the quality of being an actor is attributed. For example, for a given religious setting a divine entity may be seen as a crucial acting agent, although not tangibly present as a sensory entity, and a child, non-initiate, foreigner, etc. may be seen as non-agent, although she has sensory presence. Likewise, in many traditional societies (and modern ideologies such as fascism or communism) people tend to think of collectives rather than individuals as prime agents. Maurice Bloch (1992: 74-75), among many others, has emphasized the ontologizing power of non-individualist ideology¹¹⁸ in creating a model of the *locus of social agency*. He illustrates this with reference to Ladakhi culture, in which the house is thought of as the prime social actor:

“The point is that, for the Ladakhi and many people like them, ideology makes it appear, in a way that is at least partly convincing, that the active components of society are not people but houses. Imagining that agency can only be experienced as emanating from single people is a direct product of our ideology of individualism and is, as Dumont has again and again emphasized, totally misleading for the type of societies with which we have been concerned so far (Dumont 1977). (...)

The sociological and legalistic talk of corporations which, until recently, characterised much of the classical discussions of descent groups in anthropology (Fortes 1953) did little to help make this point clear to non-anthropologists since it obscures the real, sometimes physical, way in which this belonging is experienced. For example, many African and Asian people say that members of a descent group share the same bones. To say this is not to use a metaphor for closeness; it means exactly what it says in that these people believe that the bones of their body are part of a greater undifferentiated totality. In cases such as these the body is not experienced as finally bounded by the air around it; it is also continuous with parts of the bodies of people who in modern western ideology would be seen as ‘others’.”

¹¹⁸Individualism takes the body boundary as constitutive. Presumably a slight biological bias inherent in the skin's natural self-boundary exists, but none that is exclusive or cannot be partly overridden or extended by ideology. First of all, there is a possibility to proprioceptively experience transpersonal boundaries, either in religious experience or simply through a symbiotic integration in the family or tribe. Hence, ‘counterintuitive’ ideologies of setting the primary container trans-individually can be grounded in lived experience. Second, the proprioceptive ‘natural’ body imagery can be affected and partly transformed by ‘external-view’ objectified imagery of the self encoded in ideology. The two realities can exist on parallel levels, (1) as ideological tenet of the larger self and (2) as the skin as boundary. Such dissonant experiences can be stored in different parts of the mind (cf. Strauss/Quinn 1997).

This example profiles imagistic entities that are mutually embedded rich images in an actually spatial setting: The individual is a part of the family, the family a part of the village, the village a part of society, etc.; all are objects in physical space. However, the same may be true of abstract mental settings with no rich images. At the transition from the European Middle Ages to the Renaissance it was debated whether theology should be philosophy's handmaiden or the other way around. I claim that, even though both concepts are fairly abstract entities, they may be assigned priority by profiling their mental region. (An image of hierarchy may also contribute in metaphors that characterize philosophy as theology's handmaiden, an image within a time schema defining which came first or gave the impetus for the other, and many more other images.)

The question of ontology, in terms of imagery, is at what level of spatial expansion or in which locus the basic container is situated, i.e. what makes up the basic unit of reality from which other units derive. In other words, ontologies differ with respect to which main figure is picked out for a given cognitive domain and contrasted to its ground. In the cognitive domain mentioned by Bloch – we could call it the interpretation of social action – there are different levels at which agency can be attributed. Much of contemporary psychological theory as well as the dominant folk-theories of the West would attribute agency only to individuals. But even individualist ideology does not think it abnormal to speak of 'corporate identity', 'collective beliefs', or 'national spirit'. Therefore, profiling an entity as permanent region opens the possibility of essentializing it. Often, such ontologically primary regions are created by the mind on purpose, as can be seen for the greater undifferentiated totality that Bloch speaks of in the case of the bones. In imagistic ontology a higher degree of 'actualness' derives from belonging to a special container that stands for a privileged realm. A prime example is the Platonic realm of ideas, where reality is situated in general concepts rather than in individual percepts.

A significant characteristic of ontological core-concepts is that they figure prominently in cosmological and social explanations. Profiling a region as ontologically important, thus, entails its selection as an explanatory model. Within the theory of spatialized co-signatures we may hypothesize a dedicated structuring device model for explanatory relations. In broad terms this is probably a LINK schema and includes a directed FORCE. A mental entity becomes causal by entering into a relation with another, i.e. by being fused into a relational profile between explanans and explanandum. When a concept is ontologically profiled relative to competing concepts and is entrenched, it acquires permanent salience. As a consequence it is likely to be chosen as explanatory link (cf. Gärdenfors 2000: 205 on induction by linking). Various kinds of perceptual and conceptual realms may be highlighted as ontologically primary in selecting explanatory concepts. For example, some ideologies

emphasize the sensory level of material everyday things, and others highlight complex mental constructs as ontologically primary and as explanatorily preferable.

In sum, ontological principles are defined by 'basic' regions that are central in the cultural landscape of thought. The internal structure of a basic region may include image schemas, such as MODULARITY, CYCLE / ITERATION, PART-WHOLE RELATIONSHIP, EQUAL RELATIONSHIP, BINARY OPPOSITION, CAUSATION BY IMPETUS, COMPLEX INTERRELATEDNESS, HIERARCHY, PROCESS, SUBSTANCE, etc. Any complex image schema among these can be ontologically profiled and given a privileged role as a cultural explanatory concept. It can become a *thematic* schema with instances in a great number of domains.

6. Space logic in anthropology (3): Hidden essences re-examined

The framework suggested above, especially the notion of realm and abstract quality space, is highly conducive to explaining folk-theories of categorization. An interesting phenomenon here is the widespread assumption that category-defining attributes exist, even if people do not know what they are. In other words, people are prone to believe in underlying but hidden essences. I will now discuss the limitations of the presently most influential theory of essences in cognitive anthropology and suggest an alternative that is imagery-based.

CONTAINERS OF UNSPECIFICITY

Recently, the cognitive anthropologist Pascal Boyer (1990, 1993b, 1994a) has come up with a stimulating theory of essentialism. His theory focuses on the universal human faculty of believing in categories without knowing what they consist of in terms of defining attributes. Boyer calls this the hypothesis of *pseudo-natural kinds*. It is based on the apparently universal human tendency to attribute underlying essential traits to animal and plant kinds, whose essence remains largely independent of external appearance. In Boyer's approach, co-developed by like-minded anthropological colleagues, such as Dan Sperber, Scott Atran, and Francisco Gil-White, there is a cognitive module shaped by evolution for recognizing living kinds. A module is defined as (1) innate disposition, (2) which evolved because of its adaptive value to our forebears, and (3) which is triggered by experiences of a certain – sometimes quite broad and situation-unspecific – kind.

In the case of the living-kinds module it is alleged that people see biological species as fundamentally distinct from other entities because they have 'essences'. The term essentialism refers to the widespread belief that category membership depends on the possession of some hidden properties, of which the observable properties are but typical signs (cf. Boyer 1994a: 106). Even small children reason on the basis of this belief, at least when the given input encourages such a construal. Recent experimental findings on

'psychological essentialism' by the cognitive psychologists Frank Keil, Rochel Gelman, and Lawrence Hirschfeld support the idea that essentialism is a natural human propensity.

Boyer's crucial argument is that essentialism is not only effective for biological species. The recognition module for natural kinds can be extended outside its proper domain and applied to social phenomena, making human groups quasi-natural kinds. A reason for this ready extension may be that they resemble natural kinds in that they have shared rules and endogamy (Gil-White 2000). It would be interesting to know whether the social domain simply satisfies the general input conditions of the module that evolution created in our ancestors or if it involves a genuinely creative metaphor. However, for the point I want to make here this is of little concern.¹¹⁹

In one of Boyer's (1993b: 125ff) three examples, taken from his ethnographic fieldwork among the Fang people of Gabon, there is the category of *beyem* ('people who see'), whose member one is by virtue of possessing an unobservable property called *evur*, sometimes described as an organ of the body. The link between certain activities as a healer or bard-expert on ancestors and witchcraft and the membership of the category is not a direct one. For example, even though most bards in the *mvvet* ritual called *mbommvet* (who are a kind of *beyem*) play a certain instrument and know the epic tales, what makes one member of the category is in fact the underlying property, the *evur*. Although no one really knows what this property consists of, it has to be there and is the defining feature of the category. Therefore, whether a particular person is, in fact, a *beyem* is subject to reasoned guesses and corrigible inferences. The intuitive group decision whether one person claiming to be a real *beyem* with the appropriate external skills actually is one or not arises in a complex hermeneutic process of past situations and rumors being evaluated in terms of an ongoing ritual and vice versa, which Boyer (1994a) explores at length. However, here we are solely concerned with the fact that there must be a generalized way of representing the property of having an *evur*, even though there is no experiential way to perceive it.

In Boyer's opinion, the essentialist construal of categories comprises an 'intuitive heuristic' in cases where our understanding is underdetermined. (Boyer takes this kind of cognitive strategy to be of special importance in religious beliefs, which are supposedly usually vague.)

¹¹⁹ When children, against perceptual resemblance, are told that sharks are fish and dolphins mammals, i.e. that they belong to different natural kinds, they correctly infer that dolphins cannot breathe under water (Boyer 1993: 137). This works best for 'inherent' functional properties like breathing and feeding. With less typical aspects like size and speed it does not work as well. This indicates that aspects of a particular sort seem to characterize 'natural kinds'. A principled difference between non-essentialist and essentialist categories does not, then, seem to hold, since both seem to include more core and more peripheral attribute features. Possibly any category or kind behaves like a natural kind in some respects.

Loosely speaking, essentialism, then, serves as a likely fallback strategy. It is likely because it is prefigured in a seemingly innate cognitive template to distinguish natural kinds from other categories on the basis of an ascribed essence that allows drawing correct ontological inferences about them. In that view, such ontological assumptions about natural kinds are automatically triggered once a kind of objects is construed as natural.

I am in full accord with Boyer on the significance of essentializing in human thought. Nevertheless, I want to raise some doubts about the full adequacy of his explanation for essentialism. Boyer attributes this faculty to a natural propensity to think in terms of 'natural kinds'. However, for a comprehensive explanation of essentialist phenomena in various cultural settings this theory is too unspecific:

- (1) Most importantly, Boyer makes claims about the functional and evolutionary source of the essentializing faculty, but fails to specify its cognitive format. He neither speaks about images nor about propositions, but simply dodges the issue. Because cognitive formats are not in view, we cannot properly study if an essentialist belief is part of a broader master metaphor or embedded in a rich cultural schema.¹²⁰ Boyer's

¹²⁰ Although Boyer is at pains to set his approach off from Lakoff's, he clearly suggests a theory building on metaphor. Boyer's (1993: 133-134) contention that conventional metaphor cannot, of itself, sufficiently account for essentialism is wanting. He sets out from too narrow a notion of metaphor and, in doing so, misrepresents the intents of cognitive metaphor theory. Boyer claims that essentialism is only insufficiently understood by a metaphorical mapping from the natural to the social. His attack on the adherents of such a view is two-pronged: First, he contends that even if the ontological entailments effective in the case of *beyem* are exactly those of natural kinds, there is no linguistic metaphorical reference, i.e. there is no conventional metaphor at all. In effect, this argument only calls into question an outdated and narrow understanding of metaphor: Clearly, *conceptual* metaphors may be effective even without linguistic counterparts. Lakoff (1993), Gibbs (1994), and Lakoff and Johnson (1999) cite plenty of evidence generated by non-linguistic methodologies, which create a broader view of metaphor. Boyer takes issue with yet another aspect of metaphor theory by analyzing a linguistic polysemy of 'living species genus' and 'clan' from his ethnographic data. In this case, he tells us, the actual ontological entailments from the source domain of genera do not warrant a full projection on the target domain of clans. For example, the fact that species cannot interbreed will not fit with the Fang cultural rule of clan exogamy. Conventional (linguistic) metaphor can therefore not be a sufficient condition for a transfer of ontologies. However, Boyer's argument can be defused on the simple grounds that polysemies need not in every instance be active and potent metaphors. More generally he also fails to acknowledge the recognition of metaphor theory that source domains never project *all* properties to the target. Lakoff (1993) explicitly acknowledges that the selection of effective mappings is usually constrained by the ontology of the target domain (cf. chapter 1). Adding all this up, borrowing the notion of essence from the animal world without the problematic entailment of endogamy following along does after all fall within the purview of the cognitive theory of metaphor as we presently understand it.

perspective fails to explain the embedding of some essence beliefs in further cognitive schemas. I will mention Karma beliefs as an example for this below. The complexity of cultural cognition is reduced too much by Boyer's bracketing out of imagery.

(2) Boyer's approach unduly restricts explanations to domains of cognition with similar traits as natural kinds, since his emphasis on *pseudo*-natural kinds has its foothold in the idea that we project inference patterns between real species and their cognates, 'social species'. But what about other essences? The crux is that essentialist beliefs are widely reported even with respect to very abstract notions, and for those inferential similarities are difficult to assert. Although the theory can claim some plausibility for essentialist traits mapped on social groups or persons, because these are perceived as basically similar to living kinds, for essentializing artifacts it has less intuitive appeal, and for highly abstract essences it fails altogether: Religious essence beliefs, such as the supreme reality of Hindu *atman*, would have to be explained by wholly different theories, since they seem to have little in common with essences ascribed to a species or social group. By the same token, it would seem that the essentialist conception of the 'true self' is left unexplained. It seems difficult to understand it in terms of a natural species, because it is not a separate entity to begin with but the innermost part of a person and because it is not really opposed to other species. The relation to natural kinds is spurious at best here.

In sum, the deficiencies in scope of Boyer's approach follow from the failure to deal with the representational format of essences and his exclusive focus on a very specific source domain of natural kinds.

For these reasons it should be appealing to formulate a theory of sufficient scope to account for all essentialist phenomena by the same mechanism. In what follows I will put forward such an explanation. I retain from Boyer the suggestion that there is a hidden or invisible underlying trait that is common to a group of persons or things and the idea that this makes for their causal attributes. Going beyond Boyer, I want to specify a general cognitive format for all essence representations, which explains their structure with reference to image schemas and realms. Such a refined theory seems fruitful because it covers all essence phenomena due to the abstractive nature of image schemas.

Specifically, I propose that the conceptualizing of essences emanates from the cognitive reality of container schemas with contents imagined in the most abstract way possible. The above introduction into the notion of 'realm' put stress on their inherent capacity to represent the status of having common properties in an abstract way. We can thus explain essences as homogeneous mass-construals of a region and their inherent quality space. In our

example, the class of *beyem* can be represented as a container in a folk-model. All individual *beyem*, summarily and abstractly conceived, are contained within this container. In order to cognitively represent that they share a substance it is necessary to construe the container region as realm. The region will appear as filled by a homogeneous quality space. It is superimposed on the set-members and 'imbues' them with their essence. Therefore, the homogeneous substance is an image-schematic representation of the hidden property shared by all set-members. This is the case because the image schema is *the* defining property for the otherwise elusive class of *beyem*. All other properties of the various *beyem* individuals that people may happen to observe need not be highlighted when representing this class qua class, because they are neither necessary nor sufficient conditions for class membership. Thus, the notion that *mbommvet* bards perform ritual songs in a specific way embedded in a specific setting, etc. need not be saliently evoked by the abstract representation as such. The only necessary and sufficient condition is the hidden quality of having *evur* and this, in turn, can *only* be represented in an abstract way. Therefore, the image schema of a realm constitutes the defining feature sine-qua-non of the representation.

The mental operation can also be explained from the following angle. Contents as *general idea* are constitutive of the concept of a container, and thus intrinsically included: Even in the case of an empty container the idea that it can be filled to hold and bound objects is present *in nuce*. This adds up to the following metaphor: Essentialist thinking is governed by the image-schematic understanding that ESSENCES ARE HIDDEN CONTAINER CONTENTS. The reader can try this out in a self-experiment. Imagine an abstract container from the outside whose content is invisible but imagined as present. We know it is there because we can imagine content as pure token, without any detail features. Visually conceived, the image-schematic notion of content is most comparable to a gaseous substance that cannot be seen, evenly fills its available space, and is only defined by its boundaries. (We can revert to such propositional knowledge about typical hidden essences to evoke the image schema.)

A pure token image of content is made possible by a mass-construal, where the individual features of the items recede into the background. This operation is applicable to whatever we can construe as a container-like region, not only to people or groups of people. Typified content can be imagined even without any specific quality that typifies. This is the crucial cognitive capacity of essences: Even when we do not know or cannot imagine what makes things of a kind we can imagine that they are of one kind in some way.

CROSS-STRENGTHENING BETWEEN ABSTRACT IMAGES AND CONCRETE CRITERIA

Do imagistic essence models exist as such, or are they enriched by attribute-based cognition? If my analysis is correct, essentialism is hard to conceive without image schemas. However, regarding inference in cultural context a proviso is in place, lest exaggerated

conclusions be drawn. The contribution of attribute-based thought to essentialism should not be dismissed too easily. No doubt, Fang *beyem* involve a *folk-theoretical*, i.e. a deliberate and discursively shared, category definition. On this level the ABSTRACT (= HIDDEN) CONTENT image schema can define the representation. However, the actual inferences about category membership, i.e. a specific person being a *beyem* or not, are a different story. They are not generated by an abstract image. Instead, they are produced by situationally strengthened assumptions that are based on each individual's previous experience or on gossip, as Boyer shows elsewhere (1994a: ch.8). (This was discussed earlier as the mechanism of 'elective affinity' or, in Boyer's terminology, 'ad hoc abductive inference'.) Thus, in addition to the general definition of a linguistically marked and discursive category, people develop subconscious models from observations about individuals judged to be real *beyem* in the past. According to Boyer, these intuitions typically influence the judgment of a given new case.

If subconscious inferences spill over into the understanding of the abstract concept, as they surely will, essence beliefs are no longer devoid of criteria. This comes to the fore when we look at an individual's inferences. From the perspective of the individual, essence ascription is linked to quite personal experiences with *beyem*, even though these would clearly be inadequate without the theory of *evur*-bearers. Even though a general cultural theory of *beyem* would never emerge on individual experiences alone, the moral is a simple one: *A pure and decontextualized notion of a hidden essence with no rich contextual knowledge intervening can exist only in theory, never in cultural practice.*

Let us examine another case in point regarding the debate about essences and national identity. Daniel Linger (1994: 304f), in a thoughtful comment on Richard Handler's (1988) work on the politics of culture in Québec, argues that claims about empty essences have to be dealt with cautiously. Handler's work parallels Boyer's because it indicates that average Franco-Canadians hold vague, unsystematic, and only partially shared notions about criterial attributes that define Québécois identity. Linger, however, points out that the conclusions about the underlying cognitive model have to be drawn cautiously. Even if there are no fixed, i.e. necessary and sufficient, criterial attributes for being Québécois, criteria might be represented in alternative formats. (Two possibilities I can think of are prototype-models with fuzzy boundaries and graded membership and 'family resemblance' models that form a unit only by a sequence of overlaps. In both cases criterial attributes are non-taxative.) Apart from that, Handler's conclusion of empty essences is problematic, because it is deduced from the informants' inability to produce a fully verbalized theory. However, the absence of an explicit theory does not necessarily mean they do not hold any criteria-based folk-model. Caution is called for because the culturally most fundamental beliefs are usually taken so much for granted that they remain implicit (Bloch 1998: 46f).

The Québécois example hints at the relation between imagistic models and criteria that fill the 'empty vessel'. Handler gives an account of the ideological creation of Québécois identity through populist discourse. This implies that people take recourse to an abstract idea of essence to reinforce and structure knowledge that might otherwise be too inconclusive. Essence beliefs fill gaps in actual knowledge. Basically it makes sense to assume a dynamical relation of cross-strengthening between abstract image-schematic representations of essence and observational data. If Handler is right, this relation is most often initiated by an essence belief. The essence model can provide a first foothold for elusive ideas. The reason for this is that nationalist discourse is described by Handler as first encouraging the idea of a unique collectivity (by asserting it verbally) and then trying to fill it with substance validating the belief. I suggest that many people, especially if they have only weak nationalistic commitments, predominantly rely on the abstract model of essence. Only if subjects become increasingly politicized about the issue a more complex model to fill out the abstract image can be triggered in a second stage. Assuming this is correct, how do people enrich the imagistic model with criterial attributes?

- (1) The political ideologists provide the average person with a score of ideas on national distinctiveness that can enrich their representations.
- (2) People who fear a cultural alienation by Anglo-Canadians may resort to an *elective affinity mode of identity-construction*, i.e. "they worry a lot about discovering signs of their distinctiveness" (Linger 1994: 305). And, no doubt, as they seek they will discover such.
- (3) Markers for distinctiveness can even be consciously or unconsciously constructed by the subjects themselves through changes in behavior. A fine example of the latter, from another context, is the gradual exaggeration of certain phonemic attributes that the people of the island Martha's Vineyard developed once there began to be a flood of tourists from nearby New York that threatened the local identity.

Essence beliefs are, then, 'good to think with', because they do not require a very deep understanding of a matter or even furnish a conceptual peg for half-baked ideas. On the other hand, essence beliefs provide a productive cognitive basis for constructing criteria-based models. Where this is the case essence image schemas must in some way exist alongside rich knowledge structures. An interesting subject for further study is whether essence beliefs and criteria-based beliefs are stored as parts of the same model or not, and if they clash how people come to terms with this cognitive dissonance.

STRUCTURAL ESSENCE AS ABSTRACT NOTION OF PATTERN

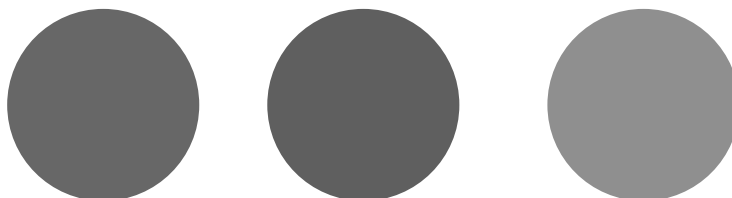
Let us return to the description of other essentialism schemas. While we have been dealing only with mass-construed realms up to now, we can extend the scope of the present analysis to multiplex (internally differentiated) construals of container-like regions. An interesting demonstration of the effects which stronger cognitive profiling of the internal relations of a region generate is provided by the Buddhist theory of Karma.

I submit that there can also be more sophisticated versions of the basic schema for essence. I shall argue that this additional complexity can be introduced by a specific way of construing the interior of a region. Instead of giving the interior a construal as homogeneous mass, we can also profile the interrelations of parts. The pivotal point to make here is that we can do this even without imagining a very specific array of parts and relations.

For example, the idea of *Karma* in Buddhism is represented as pure *structural essence*. The accumulated structure of one's life – karma-laden structure – passes over to another existence in the endless chain of being. In contradistinction to Hindu ways of conceptualizing reincarnation, the special emphasis is laid on abstract structure being passed on:

"Karma has been compared to a design made by a seal pressed upon wax. When the soul passes from the former life to the afterlife, only the abstract design which the wax obtained from the seal passes over. With respect to rebirth, Buddha taught that nothing substantial was retained and that the characteristics possessed by an individual were impressed on a new existence in another womb." (Gerhart/Allen 1984: 123)

The fact that 'structure' is of no specific kind is of crucial importance to Buddhism. The abstract design that is passed on can be understood in a large number of ways, and exactly this overarching reference is intended: All and everything that made up a life will leave its imprint one way or the other. Notice that there is some difference between the pure essence schema with its entirely undefined hidden content and the Karma schema. In the latter not only the basic identity and immutability of an unknowable content is asserted, attention is also directed towards the idea that the content has a sort of shape, a pattern, without being specific what pattern this is. To achieve this effect the container schema is further structurally elaborated by a generic image schema for INTERNAL STRUCTURE (or PATTERN). This may which may be conveyed through one of the following graphic depictions, which schematically capture different patterns of abstract internal structures:



I chose the example to demonstrate a very significant point: It is absolutely indispensable to be able to represent the notion of structure in a generic way. How the recognition of pattern as an abstract schema is motivated psychologically, is best explained with reference to Gestalt principles. Perceptual salience is geared to the detection of 'meaningful' patterns as opposed to percepts without such a meaningful structure. Patterns are attributed significance on the basis of patterned features of various kinds, e.g. in that they internally repeat angle, distance, and shape, or are recognizable as a known perceptual Gestalt, like that of a table, a person, or a codified sitting arrangement. Thus, we have a general imagistic notion of what makes meaningful patterns. What I propose is this: As abstraction from the set of meaningful percepts, an image-schematic representation of PATTERN makes the notion *as such* conceivable as a generic conceptual schema.

Let me note a further aspect that will come into focus later: Karma is a cognitive hybrid between structure and essence. The sense of common essence is retained at the same time that pattern is highlighted. While the question from Boyer's example is posed here, an additional aspect is added on top of it, namely how do essence beliefs dynamically interact with other beliefs. I would argue for the co-presence of two mental operations, the containers a homogeneous realm and as structured region. The two images are superimposed on one another to create a more complex Gestalt. This is a particularly good example of how image schema superimpositions make very sophisticated cognitive effects possible. An even more well-structured sub-case of the internal structure schema is the *systems image schema*, which I will treat later in much detail, and which is also an important conceptual schema in Buddhism.

7. Space logic in anthropology (4): Cultural theories of knowledge as immutable essence vs. reality in continuous flux

Although essentialist thought seems to play a prominent part in many and perhaps in all acts of cultural construction (cf. Fuss 1989), there are examples of cultures that display a rather marked tendency to see social reality in ever-changing flux. Maurice Bloch's comparison of ethnographies by two of his students, Gabriele vom Bruck and Fenella Cannell, serves to illustrate this differences between a culture that tends to think in terms of essences and one that does not. The basis of the following comparison is a range of cultural beliefs relating primarily to the nexus between essence, power, and identity and the reaction to change and external pressures. (The reader should remain alert to this restriction in order not to overextend the claim, which are very broad anyhow.)

Bloch (1998: 71-76) compares two folk-theories of memory and "what amounts to much the same, folk-theories of the sources of knowledge and freedom", drawing on two ethnographies from Yemen and the Philippines. They represent a contrast of differing views

of person, history, cosmos, and morality that could hardly be more striking. (As Bloch points out, there is little difficulty in seeing the parallels to the theories of mind and memory of Plato and Aristotle, respectively.)

The Sadah of Yemen, descendants of the Prophet Mohammed and until 1962 the spiritual and political leaders of the Yemeni Imamate, manifest a view of history and truth that is rather typical of similar groups in the Arab world. The Sadah are thought to be privileged vessels of divine and legal knowledge. Their descent is believed to give them an inherited predisposition to acquire holiness and wisdom. Even if no automatism is invoked here, a biological potential is assumed that can unfold, given the proper conditions. The Sadah were able to maintain their position of influence in a Yemen that remained in isolation well into the middle of the 20th century. After the revolution that overthrew the Imamate they were persecuted. Forced to adapt to a certain extent, they have done their best to maintain themselves unchanged, notably through the practice of endogamy and emigration. At the same time they believe that behind the transient and worldly realm of changing governments, political ideologies, and intellectual fashions the ultimate truth remains unchanged, and that it is their mission to uphold it.

The reaction of the Sadah community to the changes of the recent decades can be understood in the light of an Islamic theory of truth that is fundamentally a-historical. As with Plato, there is an absolute transcendent truth. Nothing essential can ever be learned anew; instead it is given in the word of God and eternally present. In the swirl of circumstances around the community, the proper attitude to be cultivated is to protect true knowledge from the injuries of a passing and lesser reality. The foremost duty is to preserve the divine message fixed in the Quran. Moreover, this Islamic conception of truth is reflected in a theory of learning that operates by rote, strict discipline, and a lack of explanation. A particular logic underlies this:

"The mind of the pupils is infinitely inferior to the mind that created the Quran because of the immeasurable distance that exists between God and humans. It is therefore important to place the holy message in these inferior minds, not so that the pupils will 'make it their own', as our educationalists would say, but so that the text will make the mind of the pupils its own: and thereby make the pupils people of Islam. The learning has to conquer the recalcitrant self, not the other way round. This also explains the importance of memorizing the text and not merely reading it." (p. 73)

In this view, there is no true growth of knowledge. Memory is a vessel into which knowledge that pre-exists enters from outside. Ultimate truth lies in the text of the Quran itself, and not in understanding it. Writing is not a mnemonic device that could be a substitute for internalization; instead the unchanged scripture needs to be passed on. It would be sacrilegious and preposterous at the same time to believe that any imperfect human being

could ever wholly grasp this truth. At the same time this theory of truth as passively received eternal form also explains how the Sadah acquired their privileged social position. According to the Islamic theory of Quranic truth some minds are, by virtue of descent, shaped in a way that predisposes them more for divine knowledge. This means that for the Sadah learning is less of a struggle. Holy knowledge is acquired by them in a fashion conceived as natural.

Bloch contrasts this example from Yemen with the poor peasants and urban dwellers of Bicol in the central Philippines, studied by Fenella Cannell (1992, 1999). Not unrealistically, the people of Bicol see themselves essentially at the mercy of more powerful others: landowners, government officials, and the colonial powers Spain and America. This self-image is also mirrored in their view of the supernatural world, which is inhabited by saints and spirits whom they have to reconcile and whom they have to accommodate. Their attitude toward history and change could not be more different from the Sadah mentioned before. In reaction to the impinging outward events the people of Bicol allow these events to continually mold them. Not being interested in some irreducible essence of their selves, they “represent their role in history as having been willing to let powerful outsiders transform them to the core and in the process having also somewhat modified those who thought they were merely conquerors.” (Bloch 1998: 75) In the same way they adopted Catholicism from the Spanish in the colonial era, they take up the Western models and trends seen on television today. Notably, they create their own beauty contests, which give them the opportunity to appear for a short moment like the foreign and powerful models. In a humble and perhaps somewhat ironic negotiation they seek a more equitable *modus vivendi*.

“The actor starts in a position of inferiority and oppression but with time and patience he/she engages the superior in a negotiation, which becomes a relationship of exchange, if always unequal exchange. One transforms oneself to accommodate the superior in oneself but as this occurs one engages their pity and so one gradually builds oneself up through the accumulation of accepted experiences. As a result the negotiation from weakness becomes the basis for becoming a subject in one’s own right through creative adaptive transformation” (Bloch 1999: 75)

Thus, social reality is continually negotiated. Although there is no unified and explicit theory of personhood in Bicol regarding the cultivation of power, encounters with other people are, on a less conscious and intentional level, often represented as the mutual testing of power and influence. In every contact between two persons at least one of them is liable to be transformed by the encounter. Neither views of self-legitimizing hierarchy nor radically egalitarian views of society, in which hierarchic principles are resisted and inverted, seem to apply here. What Cannell stresses above all else about the Bicol people is their *great preoccupation with transformations* from states of greater hierarchy, distance, and asymmetry to states of greater balance, intimacy, and harmony. In the identity-power-

essence nexus such an emphasis on the transformative qualities of social process is possible, because social status is precisely not conceived in the way the Sadah of Yemen do. In Bicol superior wealth and power are not regarded as the sign of an internal essence of any physical or spiritual kind. Nor are powerful and wealthy persons icons of a transcendental order projected into the social realm. Although the possession of power is not thought of as a purely material matter, the sources of supernatural power remain plural and the boundaries between them fluid. Fate, luck, human and supernatural patronage, hard work, the mechanisms of economic exploitation and debt, and God's mysterious will all contribute to the Bicol view of social inequalities.

A crucial difference, from my point of view, between the Sadah and Bicol examples is that in the Sadah case a cognitive mechanism is operative which the Bicol people do not employ to any important extent. The Sadah have an explicit representation on the level often described as 'folk-theory' in cognitive literature, whereas the Bicolanos represent their identity, if the concept of identity can be applied to them at all, only as an implicit 'folk model'. Cannell herself (1999: 247) suggests an opposition between concepts of identity that highlight 'being' (as in 'being Merina' which Bloch's Malagasy ethnography describes as inherited essence) to such that are a matter of 'doing'. The people of Bicol are very little disposed toward making formal statements about 'who they are'. Although Cannell does not use that term, it is tempting to call this an embodied and enacted form of identity rather than a discursively constructed one. The Bicolanos insist very little on the possession of a 'culture' in the sense of unchanging laws and customs, and much which is continuous in local practice goes unarticulated. As nothing is fixed forever, new events will put ever-new imprints on the mind. At least in the theory that the Bicolanos hold about themselves the human mind can be likened to a wax slate. Many of the automatic reactions of Bicol life are not discursively laid out or even admitted to exist (p. 251).

Moreover, this lack of explicit theory is reflected in the lack of ritual closure. In contrast to societies where there is emphasis on a single, unchanging, and dominant supernatural authority and where ritual provides a monolithic reading of 'truth' to its participants, in societies

"where (as in Bicol) there are many overlapping variations on ritual directed at a collection of supernaturals whose exact powers and relationships to each other are subject to speculation (and have been over several centuries without apparently reaching a final solution), the problems of reading the meaning of participation in ritual must necessarily differ. While religious understanding in Bicol is by no means unstructured – everyone believes in the Catholic God; everyone understands the general character of the invisible people – much of its detail is thought of as only known provisionally." (p. 252)

By understanding many claims only as provisional the Bicolanos apparently accord many of their beliefs only relatively weak ontological status. This follows directly from their strong (meta-)concept that underlies the principle of continuing negotiation of social reality. There are two sides to this coin. While the central cultural difficulty for the Bicolanos is to reconcile the demands of the different powers in a context where no solution is felt to be permanent, this also gives considerable amplitude to innovative effort and play in ritual. In this sense Cannell (1999: 228) emphasizes that to most Bicolanos “the construction of a seamless and tightly joineried cultural product is an activity of little interest”. Her conclusion about the Bicolanos’ process-oriented conception of identity negotiation deserves to be quoted at length:

“Bicol is a place which sits oddly in anthropological discussions because its identity seems guaranteed neither by its own claims to the possession of unchanging authenticity, nor by its involvement in political and cultural ‘resistance’, nor by its deliberate withdrawal to the position of ‘marginality’. Bicolano people do not have a triumphalist view of their own culture, nor do they in everyday life reach complete resolutions to the problems of power and power relations. This should suggest to us, perhaps, that ambiguity, irony, and irresolution are also kinds of social fact, not to be explained away simply as a way-station en route to a higher degree of cultural certainty, any more than they are to be portrayed as the ‘post-modernist’ fragmentation of some former cultural coherence. It is in these areas of irresolution and complex meaning that much that is important in Bicol life takes place; the point of Bicolano conversations is not just the conclusion they might reach, but the course of the conversation itself.” (p. 254)

The Bicol example is a rather good one for the purpose of illustrating a processual ontology. Bicolano models of cultural identity, of personality and memory, and of power are all determined in relation to the social practice of continually negotiating status. Hence, there is a culturally recurring cognitive format that effects and abstention from thinking in essences. Even if this must remain open, one can speculate whether the power-identity-essence nexus seen here is universal.

In conclusion we can say this: Essences in experience are devalued in Bicol, because many important domains of cultural thought (about self, identity, power, etc.) do not seem to be conceptualized as essence.¹²¹ A most pertinent question for cognitive anthropologists in

¹²¹ Another basis of argument that is trickier is the study of grammar. Some authors have proposed that languages lacking a strong tendency to construe entities from qualities and processes have relatively underdeveloped mental schemas for such ‘entification’. The argument goes as follows: Some languages are better equipped to represent reified entities, especially such with a strong tendency to nominalize, such as Sanskrit, Latin, or German. (Even within Europe it may have been no accident that German culture and its noun-dominated language has favored idealistic philosophies, while

this and similar cases is to what extent a recurring process schema informs and permeates the various micro-domains of everyday life. Do concepts of negotiable identity and power contribute to an embodied consciousness of flow in everyday work, talk, play, etc.? Is there a foundational model of ontology in which most non-material concepts, and even many material phenomena, are conceptualized as being in flux? This question is important because the above explanation of processual worldviews merely through a mechanism's absence (namely the absence of essentializing) may be insufficient. Theoretically, there may exist a cognitive mechanism in its own right for a general processual schema. If Cannell is right about negotiation as an actually omnipresent quality of communication, my guesstimate for the Bicol case would be yes. The data point to an entrenched high-level expectation that cognitive concepts continuously undergo shifts.

Implicit in all this is the question whether we must assume a superimposed cognitive layer of processualist ideology. Any powerful ideology implies a schematic template leaving imprints on all sorts of everyday actions, i.e. a foundational model. Here, this would indicate a template of 'processually tinted glasses' shaping the perception of contexts. This ideological template could, for example, function as a second-order belief about other representations (cf. Sperber 1975, 1982, 1985, 1996). A recursive device such as this amounts to a filter in the mind that ontologically de-emphasizes one's non-processual concepts, screens them out, or lets other more suitable ones be sought in their stead. This would let people believe less in the permanence of seemingly fixed states. Conversely, without the ideological filter concepts would be conceived merely in their own terms as either more static or more in flux. No principles of construal would hold universal sway and no tinted glasses would exist.¹²² The findings of the Bicol example do not seem to permit a final

English culture with its more verb-dominated language gave rise to more experientially oriented thinking.) On the other hand, supposedly processualist leanings in Chinese thought are reflected in a linguistic structure in which words have shifting applications as noun-verb-adjectives. By this logic Chinese language does not essentialize in a very pronounced way, because it does not distinguish types of referents independent of situational context. If Chinese language categories indeed mirror Chinese thought, the world is cognized as a flux rather than a rigid structure that has been carved-up once and for all. The general problem with that line of reasoning is that thought is not wholly determined by language, even though it may be partially constrained. The other problem is more technical, namely that more subtle grammatical devices can easily be overlooked, especially by analysts with an incomplete command of the language (a noteworthy demonstration to this effect is Malotki's [1983] refutation of Whorf's [1956] language-based claims about circularity in Hopi time). A very interesting, if not wholly conclusive debate about the claim that the Chinese have a tendency to avoid entification (and to avoid thinking counterfactually) is presented by Palmer (1996: 164-169).

¹²² As I see it, a similar (and equally heuristic) definition of ideology underlies the two-parameter grid suggested by Gellner's (1988: 77) attempt to typologize worldviews. Gellner distinguishes between

judgment about an ideological template of flux. However, the possibility cannot be discounted, even in spite of the Bicolano reluctance to state general beliefs. Cannell reminds us that the subjects need not state this model formally or even be very conscious of it. A high-level foundational model does not necessarily entail a general theory. As a general conclusion it seems safe to assume that neither complete cognitive discreteness of everyday cognition nor complete systematization by ideology is the case and that cultures are therefore invariably situated somewhere between the extremes. Probably few, if any, societies will have a generalized folk-theory of essences encompassing *all* non-material concepts. On the other hand, recent research – especially Hirschfeld's (1994) hypothesis on innate *dispositions* (not representations!) to essentialize racial attributes – provides very strong evidence that at least some degree of essentializing is universal. In light of this a real foundational model of processual reality seems rather unlikely.

Let us briefly look at some other data. It has been observed by many ethnographers that cultures vary greatly in attributing dynamism to natural phenomena (Palmer 1996: 148). For example, the American Indian cultures nearly universally regarded plants, rocks, and mountains as beings animated by indwelling spirits. Other cosmologies postulate that the universe is animated by abstract and impersonal powers. The Chinese doctrines of *yin* and *yang* and the belief in *qi* (see below) testify to this. This type of thought employs a concept of dynamism that is, I suggest, an image-schematic-structure mentally projected on static entities. Reality – as that which is ontologically prior – is perceived through this expectational pattern.

Some quite strong evidence for a model of reality in flux comes from linguistic anthropology. Palmer (*ibid.*) made the tentative observation that speakers of the Uto-Aztecan language Yaqui tend to attribute dynamic qualities to scenes which Anglo-Americans typically would feel inclined to describe as static:

"I drew a crude picture of a stick figure and a house, which I would normally describe as 'a man standing by a house', but the figure was described by Yaqui speakers, in Yaqui as 'a boy walking by a house'. Other pictures of animate subjects appearing in what seemed to me static poses received the same treatment."

multistranded and singlestranded worldviews on the one hand and, orthogonally, between referential and non-referential worldviews on the other. Referential worldviews are such that are largely determined by everyday sensory experience relatively unmediated by complex mental models, whereas in non-referential worldviews the super-structural level of ideology is relatively isolated and operates unconstrained by sensory experience.

Although the elicitation experiment in itself was too cursory, Palmer suggest from his experience that to Yaqui speakers animate images have greater salience than static images. Firmer evidence comes from the neighboring, but linguistically unrelated Navajo, where several generations of researchers have come to similar conclusions. One ethnographer attributed to the Navajo a dominant conception of the universe in motion. Accordingly, Navajo language includes exceptionally detailed differentiations of movement types, depending on the number of bodies, their shapes, and their distribution in space. Even more conclusive is the fact that substantive concepts are framed in terms of some characteristic action or movement. The expression for 'full moon' translates literally 'a hoop-like object has rolled out', the expression for letter is 'a fabric-like object is moved about', and 'wagon' is rendered as 'wood rolls about hoop-like'. Even completely inanimate objects are described as dynamic. For example, it is said that 'the rock is in the process of being in place', so that Palmer comes to the conclusion that "[t]he Navajo world is a place in which all things have already been set in motion" (p. 150).

For exploring the cognitive structure of processual models of reality we are on the safest ground with the study of explicit discourse. Attending to *cultural theories* rather than *models* affords major advantages. However, we also need to be aware of the relative cost of such a strategy compared to ethnographic accounts of everyday cognition such as Cannell's. Elaborate cosmological theories are often limited to experts' discourse and may either not be distributed across the general population, or the belief-systems of laymen may diverge from the experts' beliefs. This notwithstanding, I would like to take a look at several South and East Asian religious systems and their process ontologies.

8. Space logic in anthropology (5): Theories of processual ontology in Asian religious systems

The central discussion of the following section is about process ontologies. Yet, it should be made clear from the outset that these cannot be tidily separated from other conceptual elements such as PATTERN. Therefore this section will be concerned with the interaction of patterns and processes in complex representations that map both aspects. It is best to start with an exemplification of a basic conceptual schema that I will call CONTINUOUS PROCESSUAL FLOW. The ideas of Buddhism provide a good example here, which will be treated in two portions. One will be dealt with right away and the other will ensue after an excursus on another more complex schema of which flow forms a part.

BUDDHIST IMAGERY (1): BRINGING THE FLOW TO REST

Steven Collins (1982), in his work on the Theravâda Buddhism of Southeast Asia, analyzes in some detail the imagery employed to express its basic philosophical tenets. As so often,

rich images are used to evoke the relevant image schemas. Arguably, the most important and most widely exploited rich image is that of water. Such metaphors occur in a contrastive set of water in motion on the one hand and water at rest on the other. Water as stream or current of uncontrollable force is used as an image for the process of *samsara*, which signifies the round of rebirth characterized by the unending recurrence of 'suffering'. (Incidentally, in another conceptualization of continuous movement *samsara* is frequently associated with the image of a wheel that turns, hence the phrase "round of rebirth".) The flow stands for the basic existential state which the unenlightened Buddhist seeks to overcome through the cessation of craving and an insight into the illusion of 'self'. In this negative use of the stream metaphor the world of the senses is an uncontrollable force in which one is drowned or carried along helplessly into the round of rebirth. The attachment to the sensual world is likened to 'greed, swollen with the river of craving', whereas the enlightened monks have cut off this stream of desire (in other images they cross it safely without drowning or getting carried away). To go with the stream is to succumb to desire and the suffering issuing from it. The followers of the Buddha strive to go against it. Thus, the mindfulness of the monks is conceptualized as a dam within the image of this stream. It is acknowledged that monks in their training cannot cut off the stream immediately, but it can be guided like water in viaducts (Collins 1982: 249ff).

Water as still, clear, cool, deep, and peaceful expanse, on the other hand, is used as an image for *nibbana*, the cessation of self and suffering. (In the literal meaning of the word, which means 'blowing-out' of craving, the motion of the still ocean is opposed to the flickering and spreading motion of the flame. While the substances of fire and water are rather opposite, the current of a stream and the movement of a flame nonetheless belong to the same pole of imagery, which is opposed to that of states without motion.) The image of the ocean is explicitly used in texts with the following connotations: it is calm and cannot be disturbed by the rivers that flow into it, just as the enlightened man is not disturbed by the minor inconveniences of life. It is immeasurable and cannot be 'filled up' by the number of people who reach it; it is the ultimate destination of rivers flowing towards it, just as *nibbana* is for the Buddhist religious life. Like the ocean, the goal of *nibbana* is calm peacefulness. The ocean falls away from land gradually, just as the attainment of *nibbana* is gradual. The ocean makes all the affluent rivers into one, just as the social classes become one in *nibbana*, etc. (p. 260). In sum, Buddhist imagery opposes the image of unceasing CONTINUOUS FLOW, which forms the general principle of the world and entangles the self in it through transmigration of patterns, to an image of COMING TO REST in something that is without bounds.

Note the embodied metaphors employed here. Desire and craving is a FORCE, just as the suffering that is inextricably involved is – at least in its physical variant – FORCE inflicted on

us. Note also that in the image of mindfulness as a dam explicit reference is made to the related schema of BLOCKAGE (cf. Johnson 1987: 46 and Talmy 1988). Finally, two further basic aspects of force imagery are also present in the irrigation and viaduct imagery. The force can be guided into a channel or CONDUIT. And it can be deflected or split into smaller forces. I would argue that all these metaphoric images correspond to embodied experiences made in the course of meditative practice. The propelling force of the process of reality is explicitly identified with another, more specifically psychological and embodied kind of force, that of desire. Just as there is an embodied sense of desire welling up – and this seems to be the case in Indian culture just as much as in the Western representations of desire – there is an embodied sense of gaining control over these forces, either by warding them off or channeling them. The phenomenal reality of the human condition as craving and frustration is fundamentally identified with the experience of self, the implication being that when self ceases to exist as a psychological state, the basic frustrating condition does likewise. This Buddhist model is another fine example of the homology relation between objectified imagery (i.e. the flow of reality model) and proprioceptive body awareness (i.e. the embodied model of desire as directed force). Desire as embodied reality is identified with the agent force in the objectified general model of processual reality, so that an embodied and a cosmological concept are integrated. In Buddhism a phenomenological theory is embedded in a metaphysical belief adapted from the Brahman tradition, that of karmic reconfiguration.

THE PROCESS IMAGE SCHEMA

The image schema of CONTINUOUS FLOW is a specific sub-variety of what I would like to call the PROCESS schema. (Alternatively, coining the term CHANGE schema would be just as justified.) This is a more basic description of the imagery of the EVENT structure metaphor, as described by Lakoff, Turner, and others, and of the relevant co-signature I discussed in chapter 8.

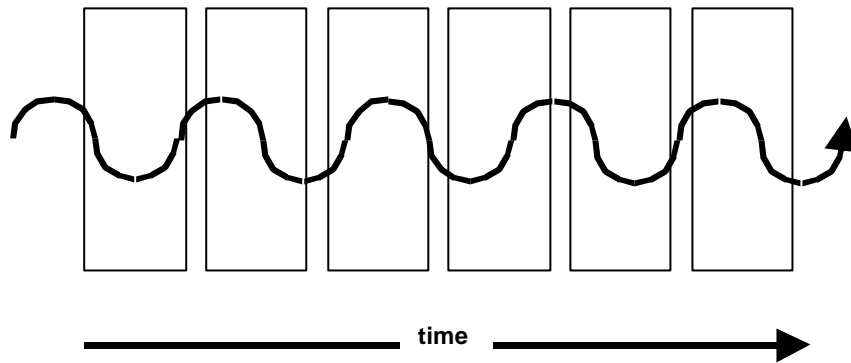
Just as we can imagine structure in the most abstract way we can also conceive schematically of process, i.e. without having any specific process in mind. In other words, there is such a thing as a PROCESS image schema, or rather an image-schematic scanning operation, which comprises the common underlying basis of all processual concepts. The idea may be illustrated through Langacker's (1987a) notion of processual profiles, which constitute the defining characteristic of verbs. Recall that verbs are understood as such by a sequential scanning operation which all of them have in common. (Sequential scannings contrast with summary scannings in that phase changes of a process are imagined in quasi-real time and like a movie clip.) The grammatical recognition of a verb qua verb elicits a sequential scanning operation. In Langacker's analyses of words and clauses sequential scanning is usually of a particular kind, e.g. we scan the process of a trajector object

approaching or entering a landmark, the falling or climbing, moving around or parallel to a landmark, and so on.

In the case of canonical verbs the skeletal schema is what Langacker (1987a) calls an *elaboration site (E-site)*. An E-site is defined as the analogous locus of a highly schematic image on which further imagistic details have to be superimposed through steps of gradual specification, which shapes a detailed image defining a particular scene. In a typical sentence each word adds a further imagistic aspect to the mental picture until it is as specific as intended by the speaker. An analogy is an artist who starts with a broad sketch, then works out the contours, and finally adds the more fine-grained details, *all on the same sketchpad*. For word types this simply means that the semantic features of the word add detail structure within the basic type of scanning. Depending on a given verb's semantic meaning, a particular kind of movement or landmark-trajector relation is evoked.

The Buddhist metaphors reported by Collins employ rich images such as water as a vehicle. On the other hand image schemas can also occur in pure abstraction, i.e. not as elaboration sites.¹²³ We can schematically abstract the scanning operation from any particular instance. For example, the verb schema can occur without elaborating it in detail. Langacker mentions highly schematized images in the case of auxiliary verbs like *be* and *have* and *do*. If total abstraction is performed we get the most generic image schema for PROCESS, a maximally schematized frame devoid of particulars. What is the cognitive rationale for abstracting away from all particular processes? The answer is simple: For expressing all possible processes through a single generic image, i.e. the principle of process, this maximally schematic representation is needed. As cosmological idea the feature of processuality must, of necessity, subsume all possible processes in a single image. The following diagram represents the abstract schema of process or change. The wavy arrow stands for constant alteration of circumstances through the phases.

¹²³ E-sites shed light on my previous distinction of thought styles based on concretized and such based on purely schematic thought (ch.5, 7). Do people think of the skeletal structures of a generic schema such as PROCESS as E-sites needing additional detail or don't they recognize this as necessity? This notwithstanding, a certain difference between ontological abstraction and mathematical abstraction should be clear. In the mathematical abstraction of conceptualizing a set no noticeable rich image content is present. To mathematicians it is a primary virtue not to think in terms of apples and oranges but in purely formal terms of x and y . Ontological abstraction, on the other hand, may preserve the phenomenal reality of everyday perception and its wealth of detail. However, such abstraction claims that this reality is to a certain degree illusionary or secondary compared to a more schematic image of reality behind it. For instance, in speaking of *Being* as such, the generic structure of process can be assigned a value as the actual reality behind the superficial concretion.

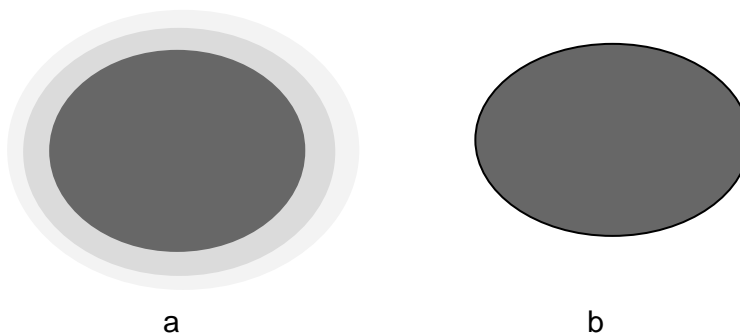


It may be noted in a short aside that more elaborate versions of this schema are in wide circulation, such as SELF-INITIATED MOTION. This schema is for example characteristic of animism. It includes the image of a volitional agent, and thus a FORCE schema of some sort that is superimposed on the PROCESS schema. Conceptual models of the self being either agent or patient (or both) of this general process are very common, because cultures invariably conceptualize the human role in the general process of reality.

We have now seen how reality may be conceptualized as fundamentally processual in an image-schematic way. The further analysis will pursue the question of how the PROCESS schema forms a part of complex schemas. A prerequisite is the characterization of two other fundamental schemas that may frequently form a compound with process: PATTERN and SYSTEM.

THE STRUCTURE IMAGE SCHEMA

The STRUCTURE image schema, which I alternatively also designate as PATTERN, has already been introduced in the above treatment of Karma in this chapter. I characterized Karma as a cognitive model of the preservation of essence imbued with structure. The schema arises from the recognition that different types of patterns have something in common, namely that they are structured. Structure is nothing concrete, but a certain schematic kind of arrangement of elements. The structure image schema can be made to fit a wide variety of specific examples with the general traits of discreteness and a repetition of distance, angle, surface, rhythm, pitch, etc. It can either characterize a region with a diffuse extension (a) or have a more clear-cut boundary (b):

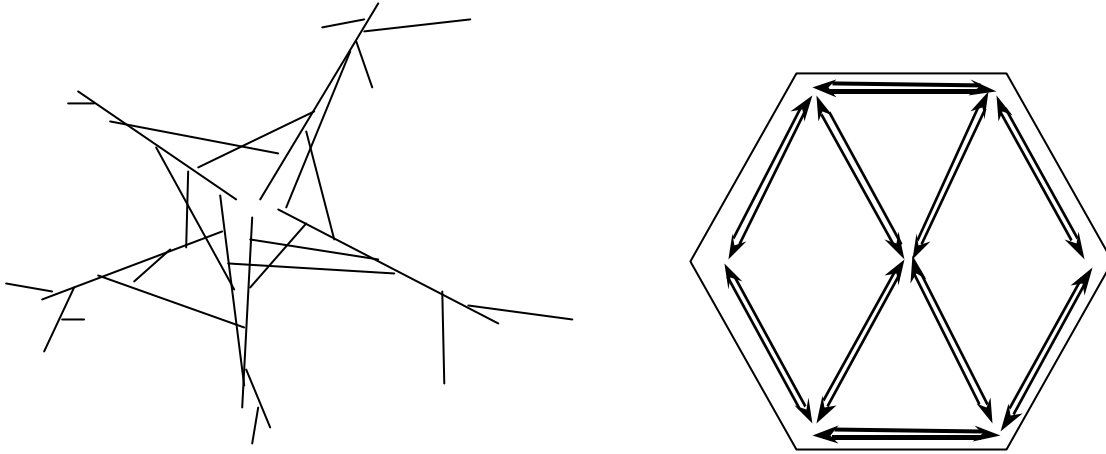


THE SYSTEMS IMAGE SCHEMA

Another spatialized schema is a more complex extension of the basic concept that something has a structure: the image-schematic notion of a *system* (cf. the complex systems schema suggested by Kövecses 2000: 206). Before I enter into a description of it, note that this schema need not be static in any way, since the notion of FLOW may be easily superimposed on it. In a systematical overview, the concept of system includes the following aspects:

- (1) There is a complex configuration, represented by a STRUCTURE image schema. As noted before, the structure is not of any specific kind, but the generic property of structure.
- (2) This structure may or may not be bounded by a CONTAINER. In other words, the structure may be imagined as stretching infinitely or being only the property of a profiled local region that is embedded in a backdrop of other cognitive imagery. We might note that if the schema is a local profile that contrasts with a background of different properties, the effect is much the same as imagining a rigid container boundary. The difference may be that the profiling operation is given stronger emphasis in the latter case.
- (3) The structure has PARTS. It is worth emphasizing that in the abstract system schema the parts need not have concrete shape or number. The parts themselves may again be seen as possessing further internal structure (CONTAINER) or be amorphous.
- (4) In a full-scale systems image the parts interact with each another, again in an unspecified fashion. This is best represented by LINK schemas or, more specifically, by CONDUIT schemas. Substance, information, energy, or whatever else is imagined to be exchanged passes through the conduits.
- (5) The systematic linkage of parts constitutes a whole, a system, which has an overall condition. This condition may be one of homeostasis (conceptualized by the BALANCE schema) or relationships of output/input (CONDUIT exchanges between this and other CONTAINER systems). Finally, the system may also be embedded in a figure-ground relationship (FORCES, PARTS, etc. crossing the CONTAINER boundary to the outside) and in this way entertain ecological relations.

Here are two graphic images of a systems schema. The first of the two graphs emphasizes complexity and the second being more schematic one the exchanges along the conduits:



two versions of the systems schema

Systemic and processual images have a strong mutual affinity. I argue that the two crucial aspects of non-substantialistic ontologies are flow and interrelation. Many examples show how the systems schema of interrelation is dynamized and lends itself to the conceptualization of processual ontologies.

The following examples highlight the generic similarities between a number of thought systems, which have a processualist and systemic view of reality as common denominator. The outstanding work of Linda Olds (1989, 1991, 1992a) pursues this agenda with determination.¹²⁴ She strives to describe the processual common ground between different world-views of Eastern and (modern) Western origin. In order to elaborate the above assertions about the systems schema and its function, Olds' (1991) work on Chinese metaphors of interrelatedness may serve as an example. She examines some important points of convergence in the philosophy of Daoism, (Neo-)Confucianism, and a strand of Buddhist thought called Hua-Yen. Though offering a wealth of different views, these philosophies can be seen as related to one another, especially when contrasted to any kind of transcendental metaphysics building on a hierarchical view of reality, and in particular the 'Great Chain of Being', as it has been called by proponents of perennial philosophy in Platonic, Neo-Platonic, Christian, Hindu, and Sufi philosophy. At least for purposes of large-scale comparison between cultures and religions it seems permissible to contrast thought styles grounded in some variety of the systems schema with such that rest on concepts of a distant Godhead or Ultimate Source from which everything else on the lower levels of being emanates. In marked contradistinction to the latter, the systems view of reality offers a powerful immanent ontology. As such it avoids the disparagement of the material world as distant from the sacred. Hereby a model of the secular as sacred and universally immanent

¹²⁴ Similarly, Pepper (1942) subsumed this type of world-principle under what he called the root metaphor of 'Organicism' in Western philosophy.

transcendence is created. For example, a general characteristic of Chinese world-view metaphors is that they stress polarity as a fundamental ontological dynamic. By viewing all opposites as complementary and interrelated, any kind of mutually exclusive dualism of either/or, so characteristic of 'Great Chain of Being' philosophies, is avoided. The practical cultural implications of this are wide-ranging. The neglect or denigration of the material, bodily, natural, and, by association, the feminine is absent or at least less pronounced.

The metaphors central to Chinese cosmology refer to organic patterns and processes representing an ontology of events, not of substances. In particular Daoism places a strong emphasis on living in 'harmonious change' in a universe that is a single life process. Again, this is captured in frequent linguistic metaphors of flux and process, such as the transforming qualities of water. Even where the most widely used translations might suggest substance to Western thinking the terms in question are best pictured as dynamic processes. This is the case for the so-called *Five Elements* or *Five Phases* of Chinese cosmology. To take an example, Hsu (1999) argues that the element called *Wood* is best understood as a multivocal image schema that we might refer to as FLEXIBLE BENDING. The central association of *Wood* in traditional Chinese philosophy and medicine is that of a process, not that of wood as a substance.

Similar observations are necessary concerning other terms. The notions Tien ('Heaven') and Dao ('Path') are best understood as immanent and all-pervasive causal matrix or as holographic field. When Chinese philosophers talk of the body they tend to describe it not as an individuated container but as a holistically embedded process. Similarly, the mind is a more conscious level of the refined sensitivity inherent in the entire universe. The mind is, then, a natural process emerging 'with a sufficiently high degree of pattern' (Incidentally, a similar view has emerged in recent cognitive science. See for example Varela et al. [1991] on the 'emergence view' of consciousness in cognitive science.) Finally, the individual and society are not dichotomized, for the individual is nothing but a creative focus of excellence (*te*) or an individuating disposition within the social-cum-natural *Dao* of the whole (Olds 1991).

Likewise, the Neo-Confucian core-concepts of *li* ('pattern') and *qi* ('matter-energy') should not be misread to promote a substantialistic view. *Li* and *qi* are inextricably intertwined and mutually presuppose one another. They emanate from one *noumenon* as its two principles of expression. As a more detailed analysis in chapter 10 will show, they elicit a stereoscopic superimposition of two images, in which the manifest and the dynamic aspects of reality are both represented in one.

BUDDHIST IMAGERY (2): CO-DEPENDENT ARISING

Radical processualism is perhaps best exemplified by the doctrine of co-dependent arising in Buddhism, which centers on the notion of *sunyata* ('emptiness'). This is the central ontological tenet of the school of Madhyamika, the Buddhist middle way, exemplified by the Indian scholar Nagarjuna of the second century A.D. According to this philosophical school and the meditative techniques espoused by it, all entities that we perceive as bounded and stable in everyday consciousness are, on deeper examination, empty of independent existence. All existing things are causally interconnected. Hence, the separation of subject and object in perception and thought is but an illusion, as our sense of self must consequently be.¹²⁵

We may call this theory a process ontology, since the sovereignty of substantial entities is categorically denied, or rather exposed as an illusion. No deeper reality can be attributed outside the ever-changing flux. This reminds of a Western cousin of mystical processualism, Heraclitus, who is famous for saying that one never steps into the same river twice. Buddhism is even more radical here: I, who steps into the river, am never the same twice; indeed the entity of 'I' has no actual existence at all, except from a superficial and exterior viewpoint. The object- and subjectless flux is the primary reality, and only by virtue of a bad, but deeply ingrained habit the illusion of subject-object and of stable identities arises. Only by 'grasping', which is the habitual response to suffering so typical of the inescapably deficient and woeful human condition, the objectifying consciousness gives rise to the illusion of identities. The cure for this state of affairs is awareness in everyday life and in meditative practice.

Note that here the flow schema is employed to slightly different ends than in our first example from Theravâda Buddhist imagery, although the two are compatible. There the main emphasis of the imagery was to mark flow as the unceasing principle of reality and suffering as the motor of this flow. Here the emphasis is on the denial of the ultimate existence of independent subjects and objects, because everything perceived at a given moment is represented as connected. There the cognitive operation was a sequential (diachronic) scanning to represent the cyclic or unceasing fundamental motion. Here the focus tends to be on the states of affairs in the world at a given moment in time and on the interrelatedness of everything at that moment. Eventually, however, the two aspects collapse into one with the

¹²⁵ In order to do justice to Buddhism, especially the more radical schools of Mahayana, of which Chan (Japanese: Zen) may be said to be the most extreme, their philosophy attempts no positive description of ultimate reality in the ordinary sense. This is a characterizing trait of all brands of mystical practices. If they pursue their goals by imparting representations to their pupils, they ultimately aim at breaking the cognitive processes of everyday life. Hence, the representations in question here are part of a 'negative theology', only stating which of our ordinary expectations are at fault and perhaps offering some theoretical ladders for purposes of illustration, which can be safely cast away after climbing.

awareness of time as an illusion: The causal chain linking yesterday, today, and tomorrow is the same causal relation obtaining between you, me, and all other living and inanimate entities.

We are now interested in the question of how such a processual view can be conceptually represented. A first observation is that no in any way concrete view of process is adequate for understanding the central ontological tenet of Madhyamika Buddhism. We need a concept of process per se, where everything is linked with everything else, a purely schematic concept without any concrete content. Such a concept was described above and called the PROCESS image schema.

The notion of *co-dependent arising* articulates the belief that all things and beings are empty of self-existence. In that all things co-dependently arise, nothing is separate of anything else; nothing has a separate identity that would in any sense be unchanging or permanent. Instead, there is continuous flow of a fundamentally interconnected world. This ontological key-axiom of Buddhism rests on an abstract image schematic representation making use both of the systems and of the causality schema, with the causal FORCE schema superimposed on the LINK schemas within the system. It is emphasized in this notion that everything is connected to everything else in a systemic fashion and that universal causal relationships obtain. Another aspect of the idea of co-dependent arising is the schema of CONTINUOUS FLOW. The causal force process described above is one of continuous intensity in time. Thus the highly complex Buddhist notion of *co-dependent arising* combines the SYSTEMS image schema and the CONTINUOUS FLOW schema.

Why can it make sense to talk of emptiness? This takes us back to the above distinction between purely schematic structures and schematic structures understood as elaboration sites that need additional detail. We can say that this conceptual distinction is quite straightforwardly reflected in the opposition between the everyday style of thought and an enlightened style of thought in Buddhist theory. If we adopt Langacker's cognitive terminology for describing Buddhist thought it seems clear that the objective is to imagine the PROCESS schema in itself without making it into an elaboration site. Or rather, while we are aware that everyday cognition does in fact elaborate the details in every concrete act we perform, we are told to emphasize the processual nature of the act and not its 'suchness' as a specific act.

Let us see how we might come to capture the universe, or at least its fundamental principle, in a single image. This fundament is a principle of causality. The difficulty is that whenever we try to imagine a concrete causal connection in a rich image it will be between a limited number of objects. Here however we are invited to think of reality as the universal causal interrelation of all that exists and to surpass the rich image level. The universe as a whole and all its parts at various levels of macroscopy can only be imagined abstractly. As so

often, people may resort to two imagistic strategies to imagine this. They may start out with a rich image of some sort, such as the globe, and move in a mental journey, either way, into the micro level of continents, countries, cities, people, etc., or into the macro level of the stars, extending into never-ending reaches. In doing so, the mind can imagine how all these levels are connected, as well as how all the objects on a single level are connected. In order to arrive at such a representation, schemas of CAUSAL LINKS have to be superimposed on the rich images at each level, indeed a whole network of them. The second, more sophisticated strategy adds much the same causal structure, but in a purely abstract fashion, i.e. without rich images as starting point.

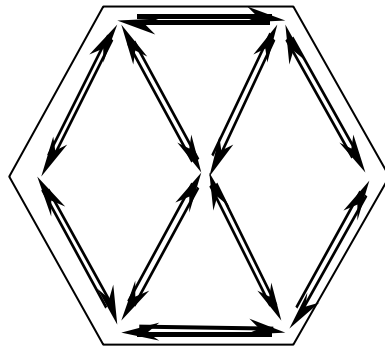


DIAGRAM A: co-dependent arising as momentary one-shot picture of a co-dependent functional system (SYSTEMS schema)

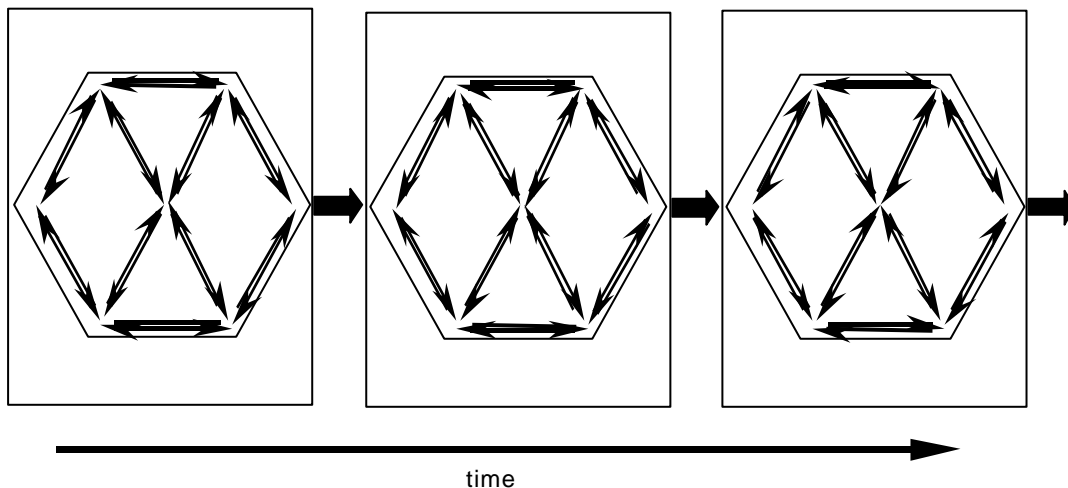


DIAGRAM B: co-dependent arising as a transition between phases of such functional systems

9. Space logic in anthropology (6): Key concepts, experiential blends, and ritual

In this final section I am concerned with how cultural key concepts are learned through discourse, everyday experience, and ritual. All of the issues include creative blends that shape new concepts by virtue of contiguity. However, I will not present the argument in terms of blending theory. Instead I will propose a family of co-signatures assisting the creation of novel concepts in the heads of novices (which, however, are complementary to blending).

The presented co-signatures are similar to a large measure, because they all pertain to the context-guided creation of novel metonymies. They relate to three different fields of cognition, namely discourse (conceptual metonymy), sensory experience (experiential or perceptual metonymy), and ritual as a combination of the previous two. Let me give you a short flavor of the ideas presented in more detail below:

- (1) Cultural key concepts are spatialized images of central nodes that link up surrounding concepts. There may be a general nodal co-signature of this for learning not fully understood but recognized key concepts. This is a conceptual metonymy, i.e. conceptual data put together through linkage in discourse.
- (2) Experiential metonymies, i.e. sensory data experienced together, may constitute a *concept defining setting*, in a way that a concept's meaning is given through an archetypal setting. Cultural concepts are shaped through the sense impressions brought together in these settings. I propose that experiential settings may elicit mental co-signatures that assist the linkage of features into a culturally typical feature bundle.
- (3) A theory of ritual co-signatures is proposed as an extension of this: In a first step contiguous experiential features are united in a novel blend (this is an experiential metonymy again). Then they are reified and thus given conceptual permanence. In a further step the blend radiates outwards to their domains of origin and create a sense of holism by making the entire domains appear more contiguous.

It should be noted that all of the following ideas are, by and large, an extension of a hypothesis suggested in passing by Lakoff (1987: 286). For what Lakoff calls 'feature bundles' he hypothesizes a generic schema:

"A feature bundle is a collection of properties. The elements in the ontology are properties. Structurally, the bundle is characterized by a CONTAINER schema, where the properties are inside the container. Classical categories can be represented by feature bundles."

Lakoff's use of the word 'bundle' suggest that he was also thinking of features being linked apart from being included in one space, although he does not mention the LINK schema.

I will propose a co-signature here, which can function as a generic schema for feature bundles and which adds further elements. In a nutshell, the idea is that (1) LINKS within the container region can form a hub-like structures that promotes some parts to the status of governing concepts, (2) the CENTER-PERIPHERY schema comes in to suggest the importance of key concepts, and (3) FORCE vectors to the center arise when the key term recruits information from surrounding concepts.

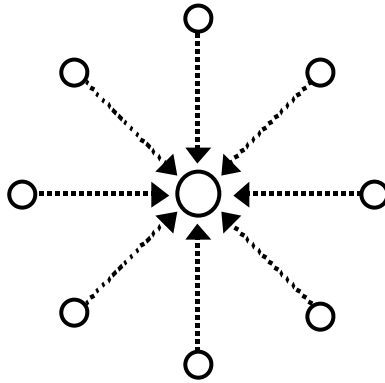
KEY CONCEPTS AS NODAL STRUCTURES

It is a commonplace assumption among culture theorists that many cultures have key concepts, which organize a substantial portion of the conceptual world shared by a community. In what follows I propose that a node-like co-signature helps people understand what key concepts are. This is by and large a restatement of Deane's (1996) theory of head structures in grammar. It will be remembered from chapter 8 that Deane analyzed conceptual structures at the sentence level through the LINK and CENTER-PERIPHERY schemas. According to this, grammatical heads are like the hubs of an airport that link all other parts, so that the parts at the spokes can only be co-activated by passing through the center. Here I propose to extend this idea to whole conceptual systems, which may have corresponding head structures for any cultural key concept and an expectational co-signature that assists acquiring new key concepts. I will also propose that nodal images create abstract ideas of holism and underlie philosophical theory-concepts such as "interrelatedness".

It is puzzling that key concepts are a recognized fundament of thought systems and can at the same time be often remarkably evanescent and esoteric as to their exact referent. How is this possible? Cua (1982: 256) presents an interesting analysis from Chinese philosophy that is a good point of entry for my argument. Cua analyzes a set of philosophical quasi-identity expressions around an abstract notion and exemplifies these by an example from Neo-Confucian philosophy. The Neo-Confucian philosopher Wang Yang-ming used the notion of Dao as unifying perspective, as node of a series of quasi-identity statements such as "Dao is jen" (humanity), "Dao is li" (reason), and "Dao is tien" (Heaven). Taking all the statements together, it is notable that multiple equivalences are constructed here, while the central point of intersection, namely Dao, remains undefined in itself. At the same time that it remains a multivocal and perhaps vague notion, Dao is made an integrative key concept. Of course, we get clues about what there is to Dao by blending the attributes of humanity, reason, and Heaven, although this may involve difficulties and even paradoxes. Bear in mind, however, that I want to draw attention not to the content of this blend but to the structural idea that such multiple equivalences create. My emphasis here is less on how the equivalences specify the substance of the central concept through the specific 'load' of converging multiple vectors. The basic message of connectedness is relatively independent of the concrete meaning of the terms. Even if we had only a faint idea what concepts like humanity, reason, and Heaven actually mean, the set of concentric pointers to a core notion would stir up a feel of overarching unity. I will therefore leave the conceptual content aside and look at the spatialized tool, the abstract co-signature, responsible for this effect.

My hypothesis is that key concepts are guided by a nodal co-signature, which is built from the LINK and the CENTER-PERIPHERY image schemas, perhaps with a directional FORCE image thrown in. A nodal co-signature is evoked through predications of equivalence as in the Dao

example. I propose that the nodal structure is constitutive of the understanding that these swirling and vaguely linked ideas and emotions are (1) systematically related, (2) have a governing core notion, (3) and belong to a whole. Interestingly, an imagistically highly explicit version of this can be found in Plotinus' theology, who claims that God, in his elusive uniqueness, is related to the multiplicity of intelligible ideas as a center that draws together the radii as one. The world soul holds the same center position as an attractor in relation to the individual souls, and the individual soul to the various activities in the body (cf. Arnheim 1969: 287). It is notable that the same image is employed for three different referents here (God, world soul, individual soul), so that this is an obvious case of a generic schema, (although I would not speak of a real co-signature outside folk-models). A mental image based on LINK, CENTER-PERIPHERY, and directed FORCE vectors might look like this:



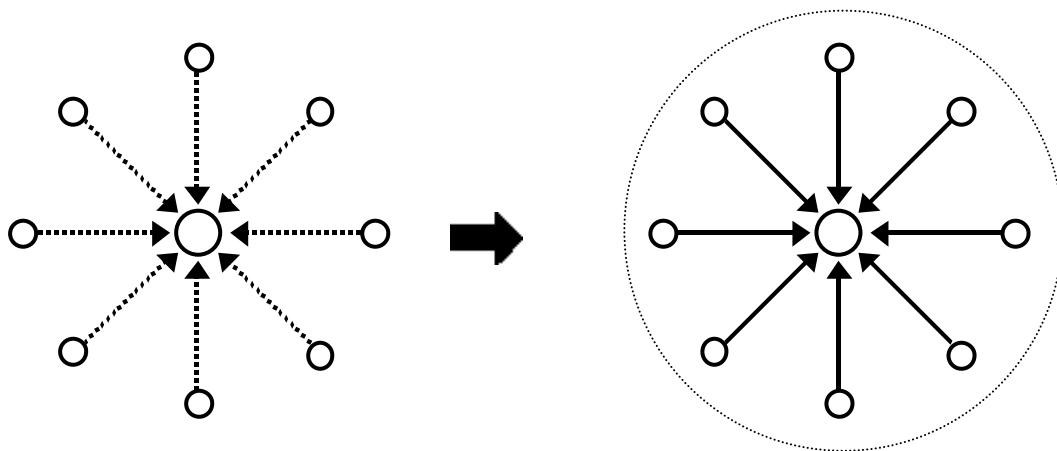
Incidentally, we have here an inversion of the notion of radial concepts in categorization prototypes as proposed by Lakoff (1987). (The radial concept is, of course, one of the most frequent co-signatures of all, since it is involved in the comprehension of all non-classical categories.) Lakoff proposes that the prototypes are at the center of a category and less typical members are at the periphery. Let us briefly compare my idea to Lakoff's notion: The difference is that in radial concepts there is a well-known center of the model with a prototypical value, from which strands emerge into peripheral space, whereas in nodal structures the center is abstract and immaterial at first. What radial and nodal categories have in common is that the physiologically preformed understanding – omnipresent in human experience with systems – of IMPORTANT IS CENTRAL. A possible corollary is that spatially central is also ontologically central, i.e. of a particularly high reality status, of a best or most important concept. A second and related consequence is that nodal connectives are epistemologically central by reducing complexity and providing a Gestalt-like access to a multifaceted reality, which is otherwise hard to grasp as one.

In this the nodal schema is strikingly similar to the notion of 'summarizing' symbol, which Sherry Ortner introduces in her article *On Key Symbols* (1973) in contrast to 'elaborating'

symbols. For our purposes it will suffice to recapitulate Ortner's characterization of the former:

"Summarizing symbols, first, are those symbols which are seen as summing up, expressing, representing for the participants in an emotionally powerful and relatively undifferentiated way, what the system means to them. This category is essentially the category of sacred symbols in the broadest sense, and include all those items which are objects of reverence and/or catalysts of emotion – the flag, the cross, the churinga, the forked stick, the motorcycle [the film *Easy Rider* had just been released when the article was published, M.K.], etc." (p. 1339/40)

It seems that summarizing symbols can be arbitrary symbols standing for a conglomerate of ideas and feelings. They can even be devoid of any 'meaning' in themselves. Their meaning emerges through the relation to a surrounding mass of ideas that it ties together. In other words, they are a symbol standing for the system as a whole, and their purpose is to convey wholeness. As was the case in the example taken from Confucianist social ethics, Ortner stresses that such a summarizing symbol creates a unifying perspective. What could the image of togetherness look like? I propose that it highlights the fact of the surrounding ideas belonging to a shared space (a group) and thus to a unique entity:



I believe that Ortner had much the same thing in mind that I am trying to explain here in terms of imagery. Most importantly, in both Ortner's summarizing symbols and my nodal co-signatures the core of the node can remain conceptually vague or allow multiple associations. What is typical for a nodal co-signature is that the node is conceptually less specific than the surrounding concepts. These are more experientially or conceptually familiar. The notion of Dao is thus a high-level notion that cannot be easily made sense of independently, i.e. without a background of linked ideas. Some knowledge of the surrounding concepts is a precondition for understanding the center. If this is correct, there is some directionality in the LINK schemas (I depicted them as pointers above). Conversely, the node

is something like a FORCE ATTRACTOR. It constitutes a center of informational gravitation, i.e. something that needs to be explained by other concepts.¹²⁶ Conversely, the adding of information into a node may be imagined as directed FORCE vectors. By virtue of all this, nodals may function as learning guides, so that the nodal position only start as an empty token, which is then fleshed out by degrees with qualia from the surrounding concepts. The structural idea is there right away, and the content comes later.

A few further words about the cultural importance of nodal co-signatures should be said. An important function may be to intimate the notion of wholeness.¹²⁷ People are faced with the problem that the experiences within their culture stand, at best, in a loose family relationship. Everything is linked to many other things in many relevant respects. The problem is that nothing is experientially linked to everything, which increases the peril of worldview-fragmentation. If everything is to be related to everything else, people may be aided by a schema that abstractly represents the belief in interconnectedness. The nodal co-signature lends itself to such an abstract representation, with the key concepts at the node becoming exemplars of the idea of culture as an integrated whole. Thus the general co-signature linked up with an exemplar such as Dao makes it easier to think that the cultural landscape of thought possesses a common ground.

Why this should be so can be explained through the Gestalt properties of the co-signature, which allows conceptualizing several notions in a global, simultaneous, and quick way. In the Dao example, the form of linguistic presentation is the superimposition of several highly complex terms, rich in associative power, perhaps with a ring of wholeness to each one itself. The co-signature, evoked through equivalence statements, then guides the coupling of the content into an overall structure. In other words, a cluster of propositional meaning-realms, each represented by a container-like region is compacted into a novel Gestalt whole rendering the parts accessible simultaneously. I submit that a memorization of the nodal Gestalt is in great part responsible for the feeling of holism. At the same time a whole semantic field of other governing notions comes to mind, since the node acts as a common

¹²⁶ That the basic message lies in the mode of presentation of the ideas is not to deny that the subsequent decoding of the content does in its turn yield a vast array of information. Depending on our strategic interest we can account for Cua's example in two ways: either as a blend of conceptual content from better-known surrounding concepts or as an entity defined by its structural position in a network, such as a nodal connective. However, most often content and co-signature work together. Thus a nodal co-signature guides what Fauconnier and Turner (1995) call a conceptual blend.

¹²⁷ As would be the case with any kind of complex network image, the cluster around the node itself evokes wholeness. Our example merges another feature with this: The complex notion gives rise to the idea of a focal point at the same time. The nodes and their linguistic token, such as Dao, are the point where a multitude of strands central to a worldview meet.

hub. Even though few utterances outside philosophy invoke obvious equivalences like the Dao example, I will show below that experiential contiguity along similar lines plays a great role in rituals of all kinds.

THREE USES OF THE NODAL CO-SIGNATURE

Let us now broaden the scope of our inquiry beyond obvious equivalence predications in discourse, such as the Dao example. I submit that the nodal co-signature altogether encompasses at least three important applications: (1) They are attached to not fully understood concepts, whose importance and centrality, however, is already recognized by learners. (2) Nodal co-signatures structure so-called ‘floating signifiers’, i.e. words and concepts whose salience, again, is recognized, but whose content is context-dependent. (3) The nodal schema can constitute the image schema linked to abstract words such as “wholeness”, in which case it is less a co-signature guiding another process than an autonomous concept.

First, in learning new abstract key-concepts, nodal co-signatures can provide some initial understanding before the concept becomes fully fleshed out by experience. We may surmise that it generally plays an important role in learning new concepts. Some developmental literature shows that we should not dismiss the role of linguistic labels in conceptual unification out of hand (cf. Bowerman 1973). Claudia Strauss and Naomi Quinn (1997: 78) apply roughly the same idea to cultural key concepts:

“Another form of cultural learning – an extremely important one – proceeds by naming an abstract entity, e.g. honor or love, that learners can then learn to identify and acquire a fuller knowledge of experientially.”

According to this view, children start from a vague, not yet understood linguistic label infused with the appreciation that it designates something of high importance. A concept such as honor is actually represented as culturally integrative before it is experienced in all facets. While Strauss and Quinn remain vague with regard to the representations this involves, my theory of co-signatures clarifies this. If a wide-spread learning default for new and complex notions that are culturally endowed with an aura does indeed exist, the nodal co-signature is a plausible way of representing this half-knowledge by virtue of IMPORTANT IS CENTRAL. Here learners have to gradually comb their cultural experience for the appropriate radially placed concepts that are then understood as pointing to the node’s meaning. That is, the specific details are gradually fit into the co-signature, which is thus enriched with content.¹²⁸ The

¹²⁸ All this makes sense granted that there is more to concept learning than experiential configurations formed through motor schemas, so that children only have to be told the appropriate name for their

nodal default can provide guidelines for integrating information whenever people fail to memorize the original setting with all the aspects present, but retain an abstract representation that the features somehow belong together. In this way the idea of relatedness can remain even where the experiential images that gave rise to the idea have been forgotten. If all this is correct, the experiential input fills out the slots specified by a nodal structure. That need not necessarily mean that ready-made radial containers are somewhere out there in the conceptual landscape waiting to be filled out for a specific domain. What it might mean is that there is a general *predisposition* to construct nodals and thus key concepts, once triggers are present that give a concept the aura of importance.

An interesting hypothesis related to the nodal co-signature is this: A single word applied across many contexts may promote blending these into a single concept that is more than an ad hoc metaphor but less than total identity. In making diverse experiences, such as children's play and social games or sports and war into a social category of one kind, a partial integration can be accomplished by assigning a shared term to different experiences. (In the spatial co-signature this word is the central region of the nodal schema.) For example, describing sports in terms of war may not be strictly a metaphor, in which a sense of domain separation is strong. It can be more of a conceptual conflation through a shared key-word such as 'fighting', despite the understanding that they are not exactly identical. The nodal co-signature explains both aspects: The semi-permanence of the conceptual blend lies in the awareness that a common node such as the word 'fighting' exists between radially placed concepts such as war and sports. The understanding of non-identity lies in the potential insight that the radially placed concepts hold separate spaces and are mediated into unity by a third concept only.

Furthermore, what has been called 'floating signifiers' by Lévi-Strauss (1966) can be accurately explained by co-signatures. As defined in chapter 2, floating signifiers are rough-hewn basic ideas which do not have one single fixed meaning or context, but whose relevance and salience is accepted. In effect, this is a meta-representation (cf. Sperber 1996: 72f) that a concept is multiply important, although its meaning is subject to shifts from one situation to another. I propose that this meta-representation is in fact contained in imagery based on the CENTER-PERIPHERY schema and in the fact that high schematicity is involved. In the nodal co-signature people associate the multiply signifying word with the node. If I am correct, this evokes two pieces of information: (1) IMPORTANT IS CENTRAL, and (2) that there

well-formed model one fine day. Rather, the search of the concept for a matching experience and the search of several experiences for a uniting concept can be convergent learning procedures. Perhaps they are combined in a dialectical process of incremental specification. Which principle is stronger, words seeking out experiential matches, or the other way around, is the subject matter of good ethnography and detailed developmental psychology.

are multiple instantiations of this centrality, because the image is fleshed out only ad hoc but is not associated with a permanent rich image.

A final argument is that nodals can also function in isolation, in a way that no content is inserted into what otherwise is an imagistic co-signature for subtasks. Such a reified image can represent the concept of INTERRELATEDNESS. Dao may be a good example, provided the word is taken as an abstract term and treated more independently of surrounding concepts. Again, the difference between a co-signature relating contents and a purely abstract notion independent of content is gradual.

At least two considerations give credit to my suggestion of a nodal co-signature. First, this approach gives more depth to theories of mystery such as Blumenberg's (1996) or Sperber's (1996). They explain conceptual opacity, especially in domains such as religion, in terms of polysemous and bendable structures. My theory explains what these multi-purpose frames look like cognitively. In my view, the high schematicity (i.e. the lack of imagistic detail) inherent in the co-signature may endow a representation with mystery, because concrete detail is lacking. Opacity issues from high schematicity, while resolving opacity means fleshing out new imagistic details.

Second, the nodal co-signature explains the extremely widespread folk-theories of word essence (cf. Lakoff and Turner 1989: 108, Radden and Kövecses 1999: 23f). Theories of word essence are most often an entailment of the metaphor WORDS ARE PHYSICAL OBJECTS (Reddy 1979). Word essence refers to the folk-belief (also shared by many scientists) that a word stands for an object-like and permanent thing, even if we are not yet in a position to fully specify its meaning. Thus discussants are often seen quarreling about a concept's true meaning, although they admit that they fail to understand it sufficiently, and thus act on the assumption that meaning is a fixed given in a Nietzschean 'Hinterwelt'. Words are assumed to have an essence, which is there for discovering and must preexist in a God's eye view. This would also nicely explain floating signifiers, which presumably involve a folk-representation of the signifier's essence. I assume it does so when the concept behind the recurrent word is identified as being one and the same. This has the advantage that a folk-theory of polysemy is not needed.¹²⁹

¹²⁹ We can merge my earlier ideas on essence with the nodal model here: Recall that I claimed that the cognitive understanding of the essence (i.e. abstract SAMENESS) is based on the idea of a physically homogeneous substance. However, this idea is image-schematically abstracted. Through abstraction we get a mental region construed as homogeneous and thus yielding – in my terminology – a 'realm'. This realm now quite simply sits at the center of a nodal structure. (The link-like pointers converging on the node stand for the idea that the yet unknown essence can be discovered through blending qualia at the node.) My point here is that both the essence and the nodal model can be

The possibilities inherent in the nodal schema are not exhausted yet. I propose that it can also assist in incorporating various atoms of *sensory impressions* into a single unique concept. Therefore, instead of discourse-based blends, we now have an experiential blend. Impressions brought together in a context make for the effectiveness of ritual in creating new and powerful concepts. Let us return to an example from Bradd Shore's (1989, 1991) work detailed in chapter 4. Recall his argument that much cultural knowledge comes to children in a highly organized experiential fashion long before a conceptual theory, a word, or even a tacit concept is acquired, such as the Polynesian concept of *mana* and the related concept of rank that are learned through body postures. In addition, Shore (1991: 19) speaks of culturally shaped 'sensory metonymies'. High rank in Samoa is equated with a series of physical referents, namely shiny skin, light complexion, large size, resting posture, and spatial centrality. My suggestion is that nodals may form the co-functional imagery scaffold of these and other sensory inputs, making them an integrated concept. Of course, sensory metonymies on their own require no co-signatures to be understood as linked. What makes a co-signature likely in our example is the fact that a core concept, namely rank, is linked up with the experiential metonymy. As was also proposed in chapter 4, the conceptual field including *mana* and *tapu* also flows into the junction of all these sensory referents.

What all this boils down to is this: The nodal co-signature is the mental schema for *concept defining settings* of all kinds. The schematic structure may be used whenever different sensory stimuli are orchestrated together to conventionalize a concept through their co-presence. The setting that defines a concept's meaning can either be a perceived real world situation (as in the presence of a powerful chief), or a mental scene in which conceptual images of stimuli are imagined together.

I maintain that the nodal co-signature may apply wherever a concept is shaped through experiential or conceptual metonymy that is blended through a cultural setting. This may be as true for more mundane concepts as it is for cultural key concepts. Possibly, the nodal co-signature is an inherent part of how metonymies of all kinds are being processed.

RITUAL SETTINGS AS ENACTED EXPERIENTIAL BLENDS THAT RADIATE OUTWARDS

Imagery theory offers fascinating possibilities of understanding the integrative and creative nature of ritual, and indeed of social cognition in general. Mark Turner (1999) draws attention to several recent publications on the role of blending for making humans what they are. Bridging domain gaps is important in art and science, in fact in any creative activity. Culture as a cognitive phenomenon, i.e. cultural creativity in reshaping both things and mental representations, arises from conceptual reconfigurations of things that do not occur together

explained through abstract co-signatures. This explains how these two can be put together – in the imagery model they simply form a new Gestalt.

in immediate perception. In other words, culture itself is only possible because the human mind performs blends. While this fact is indicative of human cognition in general, it is most conspicuous in ritual. I will therefore base the following sketch of how new cross-domain relations are forged on a discussion of ritual. However, I will not focus on the selectivity of mappings that blending theorists so ingenuously demonstrate, but on a general and quite simple fact they seldom emphasize, namely that blends are, especially in the case of cosmological and religious rituals, meant to rebound and carry the blend into the various larger domains symbolically merged in them.

Our hypothesis that mental regions are perceived as analogous to spatial regions has significant consequences for the understanding of ritual. I propose that a very significant function of many or even most rituals is to forge cross-domain relations in the mind that do not exist outside the ritual. Specifically, the argument goes that *an experiential metonymy of artifacts and actors can lead to a conceptual metonymy of their entire domains* and give rise to holistic images through this. Cross-domain relations are forged by enacting a social setting (a real space), which is at the same time a mental blend (a novel conceptual space). In what follows, I will suggest a co-signature to be responsible for such blends.

What is ritual, what its cognitive function? Rituals are creative socio-cognitive orchestrations that shape a shared reality through the evocation of images. Two major aspects of ritual are (1) contiguity in a physical space and (2) a mental blend of conceptual content from the tokens united in physical space. As to contiguity relations, all of the following elements enumerated in Blank's (1996) work on metonymy are present in ritual arrangements. They are based either on co-present or on successive relations.

"Co-present relations rely on the synchronism of their elements, successive relations rely on a spatial, temporal or logical sequence. Co-present relations exist between the ACTORS (people, animals, institutions), interacting in a frame, their ACTIVITY, INSTRUMENTS, TOOLS, affected OBJECTS, the PLACE where an activity is held, and the TIME at which this activity usually is performed. Co-present are also typically essential or implicated ATTRIBUTES and ASPECTS of persons, objects and activities, distinguishable PARTS of activities (cf. 'part-whole' and 'whole-part' relations) and INDIVIDUAL REPRESENTATIONS of a COLLECTIVE BODY. Finally, the FRAME as a whole is always co-present. Successive relations exist between a STATE, ACTIVITY, or a PROCESS and their PURPOSE and AIM, their CAUSE or PRECONDITIONS and their RESULTS, their PREVIOUS and CONSECUTIVE STATES. Other successive relations exist between PERIODS, different PLACES, and, last but not least, related FRAMES. Ideally, any metonymy can be reduced to one of these types of conceptual contiguity."

It is my claim that mental and social spaces coincide in ritual. With contiguity in real space a conceptual or experiential metonymy is created. In a second step, what is brought together in the setting is supposed to reflect relations of things at large. The generic metaphor

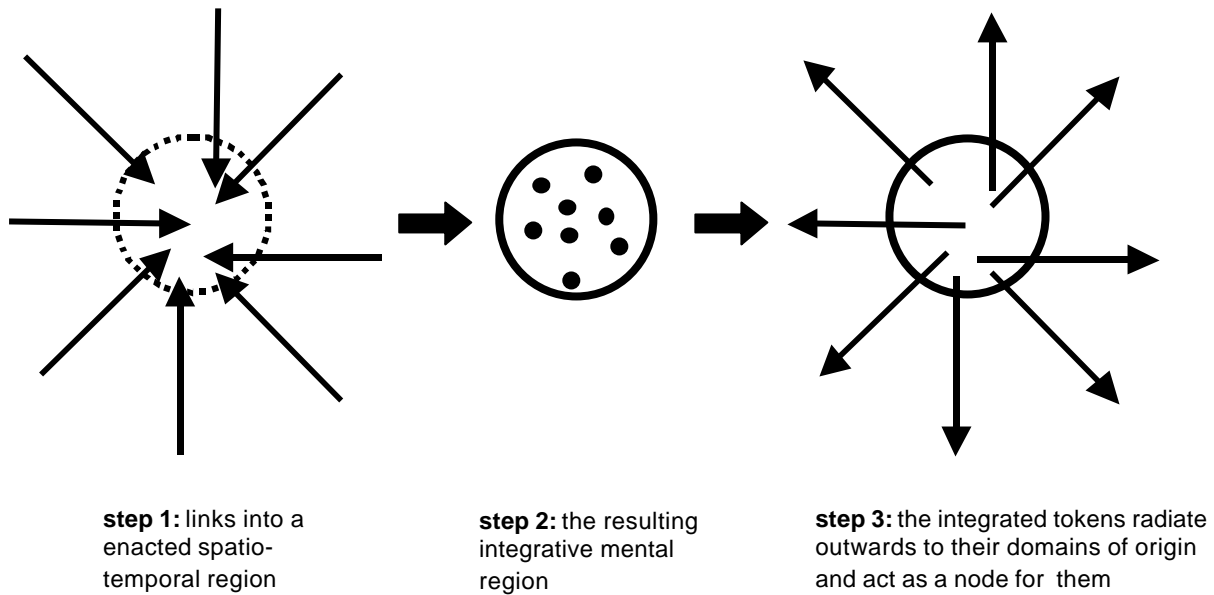
underlying rituals of all kinds is that THE LARGER WORLD IS THE ENACTED CONTEXT. Clifford Geertz (1973: 112) writes:

“In a ritual the world as lived and the world as imagined, fused under the agency of a single set of symbolic forms, turn out to be the same world, producing thus [an] idiosyncratic transformation in one’s sense of reality (...)”

Thus, a novel mental world is created through an enacted social episode in which the imaginary becomes the real. I now want to elaborate on this with regard to mental regions. Ritual contexts are real-life settings that shape imagistic mental settings (i.e. containers with elements), where previously unrelated entities can be grouped together and arranged into a relational profile that highlights their coherence. Rituals are *enacted social spaces for blending mental spaces*. The real-life blending space with the objects, people, and actions it encompasses is duplicated in the mind as a profiled region in which images meet.

The cognitive purpose of ritual that I want to stress here is especially visible in religious ritual. The aim is overcoming cognitive boundaries, such as between man and nature or between social classes. Domains understood as separate in everyday thought are brought together. In ritual an enacted context stands for the world. This transposition presumably works through spillovers of specific metaphoric mappings to their larger domains (cf. chapter 2). These spillovers explain how holism arises in a folk-model. Ritually enacting a functional and spatial interdependence among actors and objects may create a nexus between the entire domains of origin of these actors or objects. For example, actors in the garb of animals create a totemic nexus on top of folk-theoretical intuitions on the separation of species. Elements from different domains, such as human speech and a bear’s skin, bring together the disparate domains of the hunter and the hunted, for example. The enactment, i.e. the experiential metonymy including causal-functional and spatial links, spills over to the domains at large, so that a holistic effect follows. When actual metaphors and their larger domains are blended into one, rituals create a common frame for things apart. Things spatially coincident in ritual suggest a larger nexus; things functionally used together in ritual suggest a general functional unity; token artifacts from various domains used together represent the merging of the domains as such.

Now for a more detailed imagistic analysis. I submit that rituals of various sorts first evoke an image of an integrated whole through the contiguous setting (a spatio-temporal region), which then evokes a novel mental region or blended space with the participants. The responsible co-signature may be represented like this:



The explanation for the graphs is as follows: In *step 1* people, objects, actions and background features of the ritual are brought together in the ritual space for as long as the act lasts. We may call them the 'ritual tokens', because for our purposes their meaning content is less important than the fact of their co-presence. In *step 2* the non-permanent tokens establish a permanent symbolic relation, which may be enhanced through repetition of the ritual. A lasting blend is forged in memory by making a chance conglomerate into a recognized functional unit of the tokens and their symbolic referents. Mere spatial contiguity becomes a functional unity.¹³⁰ That the exact nature of the functional unity is of course suggested by the meaning of the symbols is, again, irrelevant for the co-signature, which can be assumed to be invariant. We may ask what happens in terms of mental imagery in this process then. I propose that the tokens are reified through repetition and functional unity. This means that the actors, props, actions, and background of the ritual are assigned the status of a permanent and stable imagistic region, rather than an ad hoc assembly of mental images. As described before, reification means acquiring permanence as a cultural entity in memory and introducing new conceptual qualities as a fixed point of reference. What is non-permanently united in the ritual now belongs together in a deeper way. The consubstantial region ('realm') co-signature is the generic metaphor for COMMON QUALITY OR FUNCTIONAL UNITY IN A SINGLE CONTEXT of things that were apart. (Although any well-learned co-signature is independent of qualia, the blended qualia and their emergent properties can fill the slots in any actual instance.) As a result of all this in *step 3* a spillover from the ritual to the world is achieved. It transports the specific image of contiguity of tokens and qualia into their various

¹³⁰ Through repetition or conventionalization experiential metonymies can become what was defined as a 'nodal key domain' in chapter 2. A single integrative image, such as the house, is then the primary locus where symbolic material is metonymically fused.

source domains of origin. Ideally, ritual forges some temporarily contiguous tokens into a permanent contiguity between their domains of origin. We get the added metaphor of PERMANENT CONCEPTUAL CONTIGUITY IS TEMPORARILY ENACTED CONTIGUITY.

Of course the rhetorical and symbolic details of a ritual could be explored in more detail than our present focus warrants. A common region does not just simply emerge, but is made plausible through many intricate steps. A very salient ritual context, psychological states such as fear or ecstasy, and multiple metaphorical links between different attributes, symbols, etc. may be important background conditions (I will convey an idea of how this works a bit later).

This section can be summed up through the following three related hypotheses:

- (1) Through repeated exposure to all sorts of rituals or other creative activities people acquire a general mental tool for spillovers from symbolic material forming part of a blend to the symbols' larger domains. This tool is imagistic and thus a co-signature.
- (2) Through repeated exposure to a specific ritual, e.g. one relating two domains such as animals and humans, the participants acquire an image of the two domains with their specific qualities being blended. The image consists of the general co-signature but has added domain-related qualia filled into the slots.
- (3) We may speculate that the general co-signature for ritual can also serve as a mental image of the abstract idea of holism. Conceivably, many acts of domain blending are added up (made possible because they share a general co-signature) and then become the image of wholeness. This image is suitable as a folk-theoretical representation that there is an intricate weave of social, natural, and religious interrelatedness in manifold ways (cf. Olds 1992a).

Chapter 10:

Dynamic Ontologies

A problem not discussed thoroughly enough up to this point is that cultural ontologies generally require a dynamic understanding. Modeling dynamic features is not a principal strength of cognitive metaphor theory. Most often a static form of presentation of the kind 'X is Y' is sought and this falls short of explaining complex changes and switches between images. However, as anthropologists are more wont to recognize metaphorical predications are very often complex cognitive transformations that span several stages or evoke several images in parallel. In the attempt to cognitively model these transformations, Langacker's explanatory framework does significantly better because it specifies dynamic elements in imagery, such as different types of scannings or viewing arrangements.

Dynamic schemata are very frequently invoked for the representation of complex cultural phenomena on the level of ideology. Scripts and scenarios, i.e. cognitive models which define conventionalized expectations about sequences, have been extensively described elsewhere (e.g. Schank and Abelson 1977, Holland / Quinn 1987, Lakoff 1987). Here I want to further develop what we know about sequential cognition by looking at image schema transformations not previously considered and to propose an understanding in terms of imagery. Equipped with Langacker's apparatus, I will make partly tentative, but new observations on dynamic imagery of different kinds:

- (1) There is meaning in the basic nature of dynamic scanning transformations, especially with respect to duration and effort.
- (2) Theories may invoke dynamic images through invitations to consider paradoxes, because these obviate any stable image. An important class of image schema transformations is constituted by what I will call 'Gestalt switches'. They are akin to superimpositions and figure-ground inversions. But unlike them, they do not create a stable final image, but require constant shifts between imagistic models.
- (3) Imagistic multi-vantage models can encode seemingly paradoxical philosophies that integrate, both, substantialistic and processualist ontologies in a unified framework.
- (4) Transitions between different ontologies can be created through rhetoric, which include cues to transform default images into more counter-intuitive holism images.

I will now develop these hypotheses through a series of examples:

1. Meaning encoded as basic features of dynamic image schema transformations

Image schemas may be used as carriers of meaning in a very basic way. My hypothesis is that the structural characteristics of the image schema transformations performed before the mind's eye may elicit significant effects by using the very operational nature of a mental manipulation as a vehicle. In other words, the mere act of instantiating a particular transformation may become the carrier of information. The fact that we can move image-schemas before the inner eye can in itself become a metaphorical source domain. That is, performing it may be evocative of certain metaphorically connected knowledge. Hence, I extend the notion of schema to a structural-temporal characteristic of the scanning process itself. Scanning processes of a given kind feature a generic temporal-topological structure. In other words, various instances of, say, a sequential scanning share a common topology that can become a carrier of meaning itself.

Several ways may be listed in which the basic nature of image schema transformations can be used to convey meaning:

- (1) The temporal element makes the fact of change and process representable. Indeed, it provides a natural format for it. By metonymical implication distance may also be representable, since it requires time to cover distances.
- (2) Scanning procedures make topographical properties such as layeredness representable. By implication effort and strain through mental zooming may be evoked.

ICONIC TIME SCHEMAS

It is not without consequences that we are able to manipulate image-schemas before the inner eye in the same way we manipulate physical objects. This process takes a certain time to be performed, as experiments indicate (cf. Johnson 1987). Complex image-schematic transformations quite noticeably extend through phenomenological time, e.g. when we are asked to rotate an object mentally. And, unlike static image schemas, they give a palpable sense of change taking place. Something interesting happens here: By taking time to perform these transformations, they establish an additional topological identity with experience in general. If, for example, the text of a book requires slow and careful reading this can be an iconic reference to an effortful and gradual process in the text's content. Likewise, the voluminous nature of a book can be a reference to the length of the story told (the correspondence between a narrative's duration and the duration of the plot is a quite natural and frequent one.) If scanning the external form of a poem requires us to zigzag between lines this may evoke an image of constant change, again often with reference to the content level. In some styles of music, such as in the case of the Japanese shakuhachi flute, fleeting tunes that continuously meander without interruption are used to suggest an

ceaseless processual flow in existence. Further examples of iconic phenomena such as these will be discussed in a later chapter.

DIFFERENTIATION SCHEMAS: ZOOMING AS STRAIN AND EFFORT

The refinement, subtlety, and focus of ideas can be metaphorically expressed through what I will call a DIFFERENTIATION schema in the operation of zooming (for greater specificity or schematicity). This is a transformational schema arising when we screen a static image schema array for a particular feature not easily perceived. The structural characteristics of the multiplex to mass transformation discussed above intimate certain considerations. Wandering before the mind's eye from an undifferentiated mass into the individual details of an image is an act of focusing. In vision, focus implies strain of the eye muscles, when we look at a detail carefully or try to make out something in screening a scenario. Similarly, performing mental imagery takes time and concentration (the term 'imagery' itself being a metaphor from the visual source). Thereby, we end up with the metaphorical entailment that the refined layers imply effort to perceive them. This is a prime example of an embodied metaphor.

Let me flesh this out by discussing a culturally situated example. The layered CENTER-PERIPHERY model of the self, as manifested in "at core man is good", "deep down in his soul", can be combined with a differentiation image-schema that visualizes a temporal movement through layers or magnitudes of perception. An example of such a notion can be found in Hindu thought, as the following statement of Bharati (1985: 193) cogently summarizes:

"It is very important to realize that all Hindu notions of the mind, the ego, the entire psychological apparatus are material conceptions in philosophical terms (...) From the canonical manifestations of mind (buddhi, 'intellect') via manas, 'the thinking organ', conative energizer, to the body of flesh, all these are conceived as matter, albeit of different degrees of subtlety and density – the body is the crudest, thickest of these material entities, buddhi the subtlest. These are visualized as layers superimposed on one another, literally called 'sheaths' (kosa) in Hindu philosophical thinking. In the canonical Upanisads, the self is successively defined as the gross body, then the senses, the mind, intellection, and finally the atman which equals brahman, the ubiquitous absolute which has no form and no matter."

Bharati makes it clear that these quasi-psychological categories are visualized as reified material entities and that they are conceived as layers standing for ontological realms. In other words, they use CONTAINER schemas in one of the following two ways: Either the containers are combined by the NESTING relation, with intellect being the innermost layer and therefore difficult to see or grasp from the outside. Or intellect inheres in the bodily container sphere as a most subtle layer in a SUPERIMPOSITION relation on the body, which produces a

single blended space not unlike a multiple exposure photograph. Both views have a roughly similar entailment: As one scans the whole cultural theory with all its successive levels, there is either (1) a zooming movement from outer to inner, or (2) a zooming movement from crude outlines to details (these two options conform to two related imagistic principles, which Langacker calls 'specificity' and 'schematicity'). The phases of the movement are metaphorically mapped on degrees of crudeness and subtlety. The scanning procedure produces an image schema of graded refinement as one proceeds to uncover the subtle layers inside or 'within' the crude layers. The subtle realms are so fine-grained that we have to visually move towards them to recognize them. The more subtle layers are valued positively, so that soul and intellect are more relevant than body.

I submit that the imagistic operations have the following metaphorical entailment: The difficulty and strain of differentiating implies that the subtle layers are something not easily accessible, but require a concentrated effort and self-cultivation. The linguistic term 'subtle' implies the same, since subtle things will be lost on crude people who do not cultivate their senses or their capacity to discern. Also, an implicit value statement is expressed through the strain of going into subtle realms. What requires effort must be of greater worth, a quite common belief, in keeping with much everyday experience in all kinds of domains. The value statement is at the same time an ontological statement.

Bharati also demonstrates convincingly that the image is more than an experts' theory in Indian culture. It is amplified by social practice. As he states, well-to-do Indians may wander among starving people without feeling any pangs of guilt or any impetus to help them, because they are supported by the cultural ideology that the bodily and transient existence of those who suffer is not what counts. It should be plain that in the discussed model the bodily is what is easily perceived without focus, and is therefore devalued. Summing up, the crudeness and subtlety metaphor is used to illustrate the relative unimportance of the everyday, easy-to-grasp experience and to posit the value of other knowledge instead.

2. Dynamized image schemas: Bursting finiteness through horizon concepts

In chapter 6 the HORIZON schema was introduced as a dynamic image schema, in which the viewer imagines moving in space in relation to a receding vanishing point. I discussed the schema to explain theories of the nature of political ideals and of Utopia. Schemas similar to the HORIZON schema can be used to intimate infinity and boundlessness in philosophizing about transcendental concepts. Transcendental concepts suggest that we should not represent God as an entity akin to everyday objects. In the work of the late medieval theologian and mystic Nicolas Cusanus we find a geometrical metaphor for imagining the transcendental nature of God. Cusanus conceives of God through the simile of a circle with

infinite radius. In effect, this makes the curve converge with a perfect line (Blumenberg 1996 [1979]: 445). How do we make sense of this image and what exactly is conveyed by it?

So far as we know from experience we recognize the curve of a large circle when we increase our distance to it. In this case we have an apparent line of which we are told that it actually belongs to a circle. What our inner eye is told to do is to perform an imagistic operation of moving away from a line until the curve becomes visible. Whenever we think that the curve should be visible we are told that it cannot be so and correct it by superimposing the image of a line to make it conform to the paradox' second invitation. Thus we move even further away from the point of origin, *ad infinitum*. Of course the mental process will not take more than a few seconds, but at any rate its effect will be to suggest infinite distance. The corrective Gestalt-switch from curve to line and its futile repetition – futile because of the paradoxical imperative – take us on an infinite imagistic journey before the inner eye. We move toward a horizon never reached.

Another complementary effect of this is to suggest God as the most encompassing possible phenomenon. If God is conceived of as an entity or as realm of power we may see him as a container. (Hence the idea of God as a circle.) For two-dimensional containers to be such they have to change angle at at least three points, although the typical container is pictured as a circle. Yet, here we are invited to imagine a container of such tremendous size that we could run along its boundary forever without noticing even the slightest bend. Alternatively, we might imagine moving towards a thing in the distance that eludes us, whenever we advance, as described in the original horizon schema.

A related interpretation of Cusanus' simile places emphasis on the aspect that in the image of God as an infinite sphere the center is placed everywhere and its circumference nowhere. Rudolf Arnheim (1969: 278) argues that Cusanus, by imagining God as an infinite sphere with no fixed center, laid the groundwork for 20th century relativism. According to Arnheim, relativism as an imagistic procedure calls for the *coordination of two mutually exclusive images*. On the one hand we imagine a center, as a sphere surely must have, and on the other hand we acknowledge the possibility of transferring the center to any other place. Relativism, then, is the capability to alternate between different locations of the center, i.e. to imagine a given point as the center, and at the same time relativize this central position by superimposing any number of other decentered spheres. This faculty for relativist thought can be described in terms of figure-ground reversals. While we focus on a given center this is the figure, but once our attention wanders on, it becomes the background for a new center to emerge as figure. Vantage points are inherently defined as relative and temporary.

3. Image-schematic Gestalt switches

As mentioned earlier, conceptual models with more than one canonical vantage point are beginning to be studied by cognitive anthropologists and linguists (MacLaury 1995, Hill/MacLaury 1995). This model builds on the idea of memorization frames of conceptual elements that hang together and in which only partial configurations are profiled at any given time. At a later point the profile shifts to another element of the same frame, while the old ones recede into the background.

Here I want to introduce an idea that goes a step further. There are some cultural theories that require the subject to continuously switch between two incompatible vantages. Although they belong together, these vantage points are not necessarily similar in topology and may even be completely incompatible. Despite this clash of imagery I suggest that incompatible construals may be linked in a larger imagistic model. The fundamental image schema transformation responsible for this is called 'Gestalt switch'.

One important dynamic operation of mental imagery has gone largely unnoticed, perhaps because it presents itself predominantly in connection with very complex ideological models such as dialectical thought. I am inspired by Jürgen Ritser's (1990: 175) work on ideology in which he claims Gestalt switches to be a basic pattern of ideological models. In his turn, Ritser builds on ideas first expressed by Richard Rorty in the book *Contingency, Irony, and Solidarity* (1989: 78) where Rorty conducts an analysis of the mental operation underlying dialectical thought. With reference to Hegel, Rorty holds dialectics to be "a skill at producing surprising gestalt switches by making smooth rapid transitions from one terminology to another", an ability to pass back and forth between two antithetical views. I join with this view and will in the following try to make the case for its imagistic nature through an example.

Gestalt switches are a kind of transformational imagery that enables complex schemas in ideology. In the way I define the term, the capacity to produce Gestalt switches emanates from the more primary ability to perform superimposition in imagery. Recall that we described superimposition as the capacity to project two more elementary image schemas into a single more complex one, making it into a new and integrated Gestalt. An example we have seen earlier was imparting internal structure to a container schema by a system or network schema. Gestalt switches are both similar to superimpositions and to figure-ground inversions in different respects:

- (1) They are like superimpositions in the respect that two imagistic parts are invoked together. Unlike superimpositions, however, the two parts do not become a static whole that does not change anymore after the operation is completed. Instead, Gestalt switches are alternating and fluctuating. The mind's eye passes back and forth between two wholes that will not easily merge. One scans the sub-image, and

then the other, but not in full simultaneity, but only in such manner that one image always leaves a memory trace in the background of the other.

(2) The process is also near identical with figure-ground inversions, in the sense that different parts of a frame are profiled in alternation. The difference is that I spoke of figure-ground inversions with topologically (and thus logically) integrated images, while Gestalt switches can operate between fairly incompatible images that are blended only for a particular purpose.

Thus, without yielding a static new Gestalt, the two images enter into a close relationship by being actualized near-simultaneously. This opens powerful cognitive potentialities. Without being a Gestalt in the usual, static sense the resulting process can be assumed to have the major Gestalt-like property of being memorized as a package. To what extent constituent parts remain more basic than the whole in a 'Gestalt switch' array is open to debate: It is clear however that, while both images are separately accessible in principle, they only produce their specific cultural meaning together.

It has been observed by many philosopher-critics that dialectics is an art of the contradictory and illogic. This is true when the primary value is granted to the atomist axiom that each cognitive act and each mental image should be intrinsically separate. However, a Gestaltist perspective is truer to life since it cannot be denied that the human mind operates by creatively combining images and that it produces culturally relevant models in doing so.

FOLK-THEORIES AND EXPERTS' THEORIES OF DIALECTIC

In what follows I intend to demonstrate that dialectics in philosophy is but a prominent example of a frequent Gestalt switch between a set of two cognitive foils: These I will call the image schemas of SUPERIMPOSITION / IDENTITY and of NESTING / INCLUSION. Each of these image-schematic relations only makes sense separately and usually does not allow overlaps, yet the idea in the following example is to tie them together. Let us see how the two foils of identity and inclusion can occur together by considering some examples. Here we can return to Terence Turner's (1991) definition of 'synecdochal' structure mentioned earlier, which refers to a PART-WHOLE configuration in which the whole iconically replicates the structure of its parts. The memorable example given by him is the frontispiece of Thomas Hobbes' *Leviathan*, which depicts the sovereign as giant body made up of endless numbers of miniature subjects that share the same shape with the sovereign. Another good example are the graphs of Mandelbrot-function in mathematics. Mandelbrot-figures result from depicting so-called fractal functions as visual patterns or curves that, when enlarged, replicate ad infinitum the very same patterns on any ever so small microscopic level of their structure.

What Turner states for poetic and ritual forms equally applies to the formal structures of these mathematical functions:

"In this play of transformations, what is whole at one level becomes part at the next higher level, on the condition that this higher level is itself created by the uniform replication of the same holistic form by the lower level units. The higher-level whole thus becomes defined as the invariant form of its constituent parts and implicitly charged, as such, with the demiurgic powers of self-creation." (Turner 1991: 154-55)

With regard to the same kind of similarity relation between part and whole Louis Dumont (1970: 242) speaks about the possibility of simultaneous identity and contradiction engendered by the parallelism of two perspectives. Dumont takes the semantic double sense of 'man' as an example. Man is at the inferior level defined as opposite to woman. He is not a conceptual whole but part of a dichotomy that forms the whole, the human race. On a superior level he stands for the original human and thus for the race as a whole. This differentiation of levels is recounted as a part of the biblical creation narrative. Eve was created from Adam's rib, thus God differentiated the two sexes. Through this act Adam is now both, the representative of the species and the prototype of the male individuals of the species.

Looking at the formation of complex concepts in the course of history, this emerges as a widespread pattern. With reference to Sweetser (1987) Keller/Lehmann (1993: 78) note that in linguistic polysemies a term is in the course of time extended in reference, so that it is "taken to mean basically the abstract structural relation that motivated the extension to start with". Both, then, become instances of the same more schematic structure, even though it is also frequently the case that the more concrete application of the original pair continues to be the default or prototype one (and we may add, the linguistically unmarked element). Sweetser studied the relation between the root sense of modal verbs in English and the so-called epistemic sense. While the root sense of "You must do that" implies physical compulsion, there is a metaphoric extension into the epistemic realm, as in "He must be sick", which is to be read as 'everything forces me to the conclusion that'.¹³¹

¹³¹ It is crucial to see that these examples are simply a case of high-level schematization. They create a generic category schema that includes the original category. Recall that generic and specific levels subsist in one another in the new model, rather than the more schematic sense of 'must' replacing its earlier concrete sense. The two senses are not opposed, they are parts of the same model, only at different levels of schematicity. From the specific-level term 'man' the term 'mankind' is derived by making the category more schematic to include woman. 'Man' becomes the unmarked category member, its prototype, while 'woman' remains marked. In making it more schematic a more general substance (i.e. 'belonging to mankind') is created, which both share.

Dumont himself regards the encompassing of opposites as characteristic of the complexification of thought categories. He suggests that every time a notion gains importance, it acquires the capacity to encompass its opposite. This way of encompassment can be found in the theoretical apparatuses of modern ideology, e.g. goods encompass services in classical political economy, work encompasses exchange for Adam Smith, production encompasses consumption for Marx, "all in the very sense that Adam encompasses Eve" (p. 245) All these more encompassing structures of thought share a general shape. There are two levels of thought in one image that stands in what Dumont terms a hierarchical relation:

"The hierarchical relation is, very generally, that between a whole (or a set) and an element of this whole (or set): the element belongs to the set and is in this case consubstantial or identical with it; at the same time the element is distinct from the set or stands in opposition to it." (p. 240)

And further:

"At the superior level there is unity, at the inferior level there is distinction, there is, as in the first case, complementariness or contradiction. Hierarchy consists in the combination of these two propositions concerning different levels. In hierarchy thus defined, complementariness or contradiction is contained in a unity of superior order. But as soon as we intermingle the levels, we have logical scandal..." (p. 242)

The mental recognition of synecdochal structure is, I believe, what unites the different uses of the philosophical term dialectic: In substance, this is an overall system with different levels or different temporal states. These are related in such a way that they replicate an image at different levels of inclusiveness, i.e. at different magnitudes in the NESTING schema. Take as an example the Marxist claim that, as history goes on, class antagonisms are, after a phase of conflict, perennially resolved in the synthesis of the prevailing class, which realizes an inescapable forward step of socio-historical progress, only to run into a new, but initially impalpable antagonism on a higher level. Similarly, in epistemology dialectics reside in the awareness of a rule of repetition, of a structural constant, as we advance from more primary to more inclusive levels of understanding. Dumont (1970: 243) puts this in the succinct statement that in a hierarchical schema the parts that nest one inside the other may increase in number without changing the law, i.e. the generative relation. The Gestalt switch, then, consists in the fact that we should take the inferior level, to which we have concrete access, as real and at the same time acknowledge the structural principle by which this concrete knowledge is relativized on a more encompassing level. Of this encompassing level we know only the structure (i.e. that one particular class-conflict is bound to become obsolete by its

resolution into a historical synthesis of the antagonism) but no details. Thus, we are invited to simultaneously instantiate a concrete piece of information and a general image-schematic structural template, and take both seriously, even though they stand in contradiction.

The general idea here, as before, is that image-schematic Gestalts can provide relatively easy and swift access to what is a tremendously complex concept to be expounded in a theoretical fashion. I believe that lay people understand practical dialectic with ease, while to explain dialectic in a theoretical fashion typically remains restricted to philosophers and other theoretically inclined people. By pointing this out, the idea may seem less far-fetched that the complexity of dialectics is relevant to everyday understanding. I will admit that this proposal is rather speculative in nature and remains to be further corroborated or disproved. What I remain adamant about is the fact that some sort of cognitive conceptualization of dialectic for everyday purposes is indispensable, since what happens is understood and is probably not so far removed from what theoretical expositions of the same cultural principles in religion and philosophy express.

DIALECTIC AS DYNAMIZED IMAGERY

Dynamized imagery has already been treated in regard to the yin-yang emblem (chapter 6). A dynamized image may at first blush seem static, but has features that suggest imagistic force vectors and movements to the mind. In the yin-yang emblem the dynamism was suggested by a single image. Here now we are dealing with two superimposed images that create a similar effect. Dialectic involves a diachronic dynamization of imagery in the cognitive act.

The imagery of Chinese Buddhism provides good examples where synecdochic similes have been frequently employed. According to Linda Olds (1991: 18), the sage philosopher Fa-Tsang (A.D. 643-712) used the following teaching image to illustrate the synecdochic notion of infinite progression:

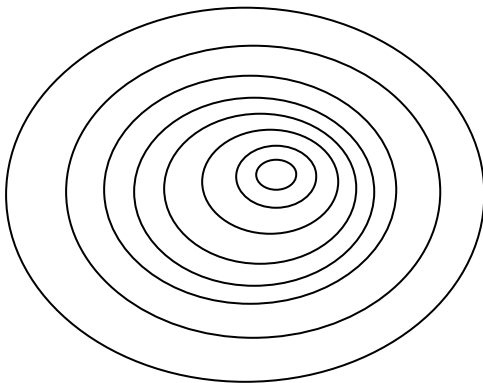
“(...) Fa-Tsang’s example of the Golden Lion, each of whose hairs contains another golden lion, such that all lions and all the hairs together enter into each other in infinite progression. (Chan 1963, 412): ‘In each of the lion’s eyes, ears, limbs, joints, and in each and every hair, there is the golden lion. All the lions embraced by all the single hairs simultaneously and instantaneously enter a single hair. Thus in each and every hair there are infinite numbers of lions, and in addition all the single hairs, together with their infinite number of lions, in turn enter into a single hair.’ Other teaching images include the metaphors of the interpenetrating of many rays of light from different lamps (136) and the Ocean

Mirror which reflects in its depths all things in the universe including the farthest stars and Galaxies. (G. Chang 125)¹³²

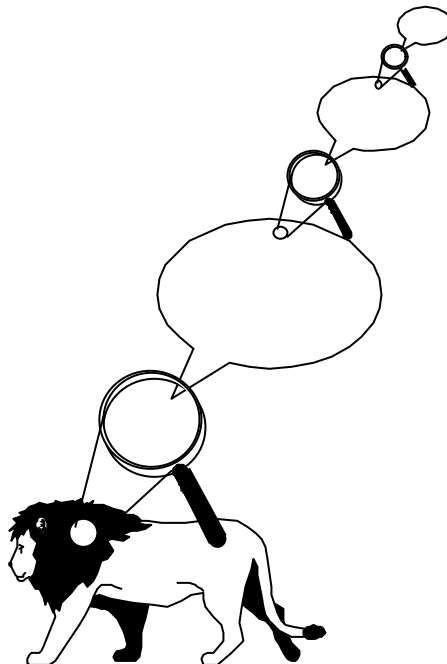
In this image there is infinite inclusion and identity at the same time. It is quite fascinating to see that Fa-Tsang obviously anticipated the fractal structures of the mathematician Benoît Mandelbrot, which similarly repeat their structure on successive magnitudes and scales of reduction ad infinitum. This image not only contains a one-step synecdoche, in the sense that one superior level structurally replicates one inferior level. The image is also dynamized in much the same way that we saw in Nicolas Cusanus' circle metaphor of God above. That is to say that we have to repeat scanning procedures without coming to a satisfactory end. We saw that this is, as a rule, the result of the paradoxical instructions the figure presents. In this case the dynamics emerges through the instruction that what has been figure on one level be ground on the next in unending progression.

The dynamized schema we may call one of interlocking or nested levels. The image may be aided by the CONTAINER images of different magnitudes, nested within one another much like the figurines of a Russian *matryoshka*. The NESTING schema may be used to imagine the resulting structure of the whole Gestalt, parallel to the mind's-eye wandering through the rich images of a lion, magnifying a hair, superimposing yet another lion image on it, etc.

A. interlocking levels (NESTING)



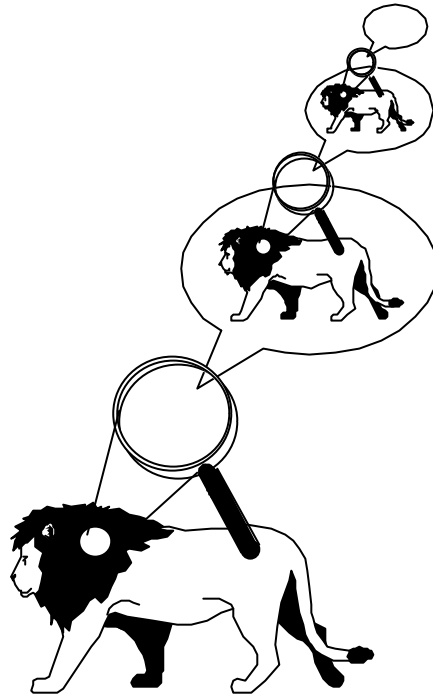
B. lion image (with the balloons depicting the yet unfilled elaboration sites)



¹³² Chan, Wing-Tsit, trans.: A Source Book in Chinese Philosophy, Princeton 1963; Chang, Garma C.C.: The Buddhist Teaching of Totality. The Philosophy of Hwa Yen Buddhism, University Park, PA, 1971

We perform a Gestalt switch as soon as we focus on the isomorphism between the different imagined levels. The levels become interchangeable because they can be topologically matched and congruently superimposed. Their STRUCTURAL IDENTITY is evident. As a result there ceases to be an uppermost level, because we can start anywhere in the progression and have an infinite succession of lions above and an infinite succession of lions below the level that we attend to just now.

C. isomorphism



This precisely is Fa-Tsang's main goal: He wants to intimate the idea of unending mutual inclusion. We can start out everywhere, on every conceivable level of reality and all other levels will always be contained within it. This conveys a radically non-hierarchic view of reality. Simultaneously with inclusion there is structural replication, a kind of micro-macro iconicity between PARTS and WHOLEs (= synecdoche in Terence Turner's terms).

Hence, we can see how Fa-Tsang's simile successfully conveys a two-fold ontological statement. Of course, both aspects taken together are paradoxical in our everyday experience. According to our knowledge of middle-sized objects, something can either include something else or be identical to it, never both at once. The paradoxical is realized here through a Gestalt switch between the two images. For the desired effect the STRUCTURAL IDENTITY schema and the INCLUSION schema are implemented at the same time. In complex thought this paradoxical procedure is not unique to Buddhism. To give but one example, the idea of the set of all sets in mathematics makes use of the very same Gestalt switch.

THE CONCEPT OF 'QI' IN CHINESE COSMOLOGY AND MEDICINE

Let us now go into another example from the same cultural sphere, which illustrates how the switch between two vantages can accommodate seemingly contradictory tenets that make up a part of the same theoretical model. An analysis somewhat similar to the one just undertaken can be conducted for a key concept of Chinese cosmology, that of *qi* (which, incidentally, has a number of similarities to the Buddhist SYSTEMS schema described in chapter 9). While *qi*, of which there are diverse conceptual models and applications both in expert and everyday discourse, is broadly similar to the Buddhist ontology, it offers a slightly different, and perhaps more explicit, answer to the question of how reality can be ultimately in flow and appear substantialistic at the same time. Reality as it appears phenomenally is not claimed to be an illusion but part of a dualistic principle that acknowledges appearances without ultimately reifying them. The following detailed discussion of *qi* as a concept will ultimately lead to the recognition of yet another basic cognitive operation – that of stereoscopic vision or superimposition of dialectical opposites.

The idea that processes in macrocosm and microcosm are analogous in nature became predominant in Chinese philosophy as early as the third century BC. The concept of *qi* gained in importance as an important expression of this idea. In addition to suggesting that the human and the natural world are determined by shared functional principles, *qi* also came to denote a common medium through which the human and the natural world act upon one another. By stipulating an overarching causal interdependence at work in the universe, *qi* became the focus of articulation for a dialectic of nature and culture. In this view *qi* permeates macro- and microcosm and consequently encompassed innumerable facets through which it can surface in the phenomenal world. While being a unifying concept on the one hand, on the other hand it lends itself to the expression of diversity, because the qualities embodied by *qi* vary with location and context. The qualities of *qi* reflect the speaker's perspective and must always be understood relative to them. Hsu (1999: 81f) underscores that *qi* as 'shared substrate' changes its perceived qualities depending on which time-space rubric it is positioned in. This view makes it possible for Chinese medicine to split *qi* into many *qis*, which have to be in balance in the larger picture of flow (these are for example associated with different body organs or different phases of the seasonal cycle). *Qi* is not a quality of anything particular. The traditional view of Chinese medicine is that when a healer transfers *qi* to the patient he is but a vessel for it. The healer as vessel or conduit partakes of a primordial force that is neither intrinsic to anything nor possessed by anyone.

When speaking of a pervasive 'shared substrate', two aspects deserve separate mention. First, there is the basic conceptual foil of a constant flow inherent in all events of the world. This aspect can be pictured as a river that is in everlasting motion: the world as a whole is like such a river. Second, and more specifically, this implies that there is a constant change

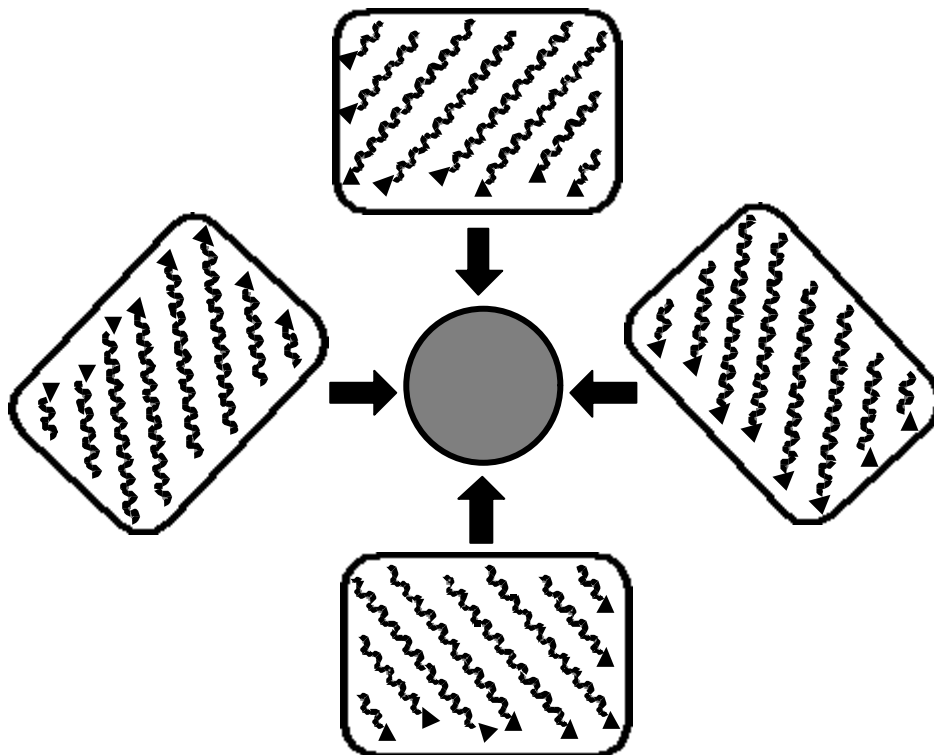
of substance. Going beyond the river image, this means that reality is subject to a constant transformation of substance. One material pattern changes into the next, and so forth. In Neo-Confucian philosophy these two aspects were expressed in a terminological dual of *qi* on the one, and *li* ('substance-identity' or 'pattern') on the other hand. This dialectic pair is a good starting point for our analysis, although the term *li* is conceptually present even where it does not appear, because *qi* was already understood to include the other part of the dual anyway in various other Chinese traditions. In other words, *li* and *qi* are notionally inseparable principles of expression of a single 'noumenon' (Olds 1991: 18). The substance and the process aspects of reality must always be considered in tandem. All seemingly permanent substances are but temporal manifestations in an encompassing process of substance-configuration and reconfiguration. To see the body as part of its energetical environment is part-and-parcel of this view. Just as the boundaries between body and environment can solidify to some degree, they also can become blurred again. Where *qi* becomes dense material life comes into being and when it disperses again death occurs. The flow and substance identity of *qi* can be disrupted in several ways. Positive *qi* can be blocked by counterflowing *qi*; there can be obstructions and accumulations of *qi*. Importantly, the accumulation of *qi*, presumably conceived from its substance aspect, obstructs the process aspect and thus the whole principle of *qi*, because an unhealthy stagnation ensues. Accumulation is seen as a rather unspecific principle. What is of foremost importance is the process of accumulation, whereas the consideration which stuff is accumulated plays a lesser role. Presumably, the representation involved here is of a skeletal and general kind, i.e. an image schema. Thus in traditional Chinese medicine gallstones, tumors, and muscle thickenings can all be referred to by a common term, since they share the common underlying process of gradual growth. A *qigong* healer will use the same imaginative act of his body-mind to invert the directionality of all these different kinds of growth by concentrating his inner *qi* on the reversing process of shrinking. The symptom they have in common is defined relative to a specific (partially) mental act of imaginatively directing a force. The aspects highlighted for diagnosis and the embodied cognitive operations involved in treatment are therefore mutually defining. The same kind of imaginative process is involved in both.

COGNITIVE ASPECTS OF 'QI'

Cognitively, *qi* is a complex concept and includes several facets that may seem contradictory. In an attempt to come to grips with this complexity, some scholars have approached *qi* as a pervasive 'configurative energy' or as a substrate in which things happen and which makes things happen. It can also be likened to the notion of 'field', which is both all-pervasive and causally unifying. Here, I will attempt a 'componential' analysis of the images that produce the representation. *Qi* may be said to incorporate all of the following

cognitive parameters: flow, force and change, pattern, part-whole relations in balance, and pattern totality across time. These elements taken together suggest a multi-vantage model encompassing a one-shot momentary construal and a processual total construal. Let us consider the elements in turn and how they figure in the overall model:

(1) *Qi* is MULTI-DIRECTIONAL FLOW. Flow pervades all being things and binds them into one all-encompassing process. In a general flow there is no stagnation in any subpart of the whole, all parts move in accordance with one another. One might imagine this condition as circulation of objects. In such a case the whole universe would presumably be imagined as a container with all kinds of objects, large and small, circulating within. However, the principle of the micro- and macrocosmic equivalence entails that a profiled segment of any size is always part of a larger whole and therefore the circulation cannot be perceived *in toto*. The alternative is to abstract away from concrete circulation. This can be achieved by superimposing several foils of flow directions on top of each other, so that a multi-directional image is evoked. This is something that is not normally possible in visual perception, unless many film sequences are blended. In the imaginary it is possible to conceive of all of these movements simultaneously. The diagram below depicts such a superimposition of foils in MULTI-DIRECTIONAL FLOW:



The superimposition of various foils with flow from different directions into one multi-directional image.

(2) A major experiential implication of flow is FORCE, and force in turn brings about change. In isolation this image schema would imply that nothing of any permanence exists. Yet,

because this contradicts manifest reality, which includes more or less lasting patterns, other elements are needed. For this reason the relation of force and form is understood in an image of CONDENSATION. Where *qi* becomes dense it becomes pattern. Presumably, this is motivated by the knowledge about liquid and solid states. As *qi* condenses into pattern it metaphorically changes from a liquid to a solid state. Inherent in this is the idea that the general flow is pervasive but not equally distributed everywhere. The flow can be disrupted or accumulate in some loci.

(3) *Qi* is also seen as instrumental in bestowing a temporary PATTERN on reality. Its causality is represented in the FORCE dynamics of the flow image schema. When a force acts on an object it may either displace it or transform its shape. Therefore, the force of the flow schema may be understood in either of the following two ways. The first possibility is that pattern is brought along by the current flow, further flow will carry it away and bring new pattern. Pattern is here conceived as an image-schematic token with a pattern A that is carried into the focused location, to be followed by pattern B, etc., like moving objects running in front of a film camera or objects floating past on a stream of water. Force then moves several objects past an observer's location. Another conceivable possibility of how force works is that it reshapes the pattern of a single object in focus by acts on it from all sides.

(4) *Qi* fundamentally expresses a BALANCED DISTRIBUTION in the PART-WHOLE relations of a SYSTEM. If the world in general is suffused with *qi*, it can also be allocated to individual material objects (such as the human body) and even subparts of objects or bodies. Ordinarily, parts replicate the whole, in that *qi* flows through them. Traditional Chinese medicine explains and diagnoses ailments by virtue of the fact that some part no longer conforms to the generalized flow as it should. Afflicted body organs can oppose the universal principle of flow in the whole body by blocking or accumulating *qi*. This can also be interpreted as an aspect of experiential force dynamics. An accumulation occurs when the flow meets a counter-flow that blocks it or meets an obstruction. Thus one can also speak of an ideal of BALANCE in intensity between the various subparts of the flow. It is also interesting to note that obstructions arise from *qi* that has condensated into substance which blocks *qi* that is still a process.

(5) *Qi* is the sum of patterns seen across time, i.e. a PATTERN TOTALITY. It implies a general schema of reality in which a constant agency is at work that stretches across past, present, and future. Therefore we might expect a temporal representation of it in which there is a sequential scanning across time-phases. If this is correct, we can conclude that two crucially different views of *qi* can be juxtaposed. The view of *qi* as causing agent of material patterns would presumably employ a summary scanning (i.e. it preserves the cognitive images of the preceding cognitive phases until a whole image is cumulatively present) which maps the

causal build-up of the present pattern in a one-shot picture. The end-result of this summary scanning is a pattern that is arrested before the mind's eye and appears stable. Such a view is of limited scope in the temporal domain and does not anticipate further changes or go far back into the past. The aspectual view of *qi* as the underlying principle of a process ontology, on the other hand, employs a diachronic view of maximal temporal scope. Presumably it uses a sequential scanning which does not preserve the foregoing phases but highlights the constant change of phases instead. I will argue that the former aspect of *qi* is represented by the term *li*, which is used as its dual in some Neo-Confucian conceptualizations and attempt an imagistic analysis of how the two faces of the dual relate. The terms *qi* and *li* are used to express the relation of material manifestations to the principle of flow. The mind and the material body are both aggregations of *qi* interrelated with *li*. Where *qi* becomes dense it aggregates into pattern.

A STEREOSCOPIC VIEW OF PROCESSUAL FLOW AND MATERIAL PATTERN

I would now like to formulate the hypothesis that the representation of *qi* and *li* builds on an imagistic mechanism of 'stereoscopic vision' in which schematic flow and substance-identity aspects merge into one. Although I will concentrate on this one example, a similar conceptualization can be expected for other kinds of polar concepts. I am indebted to Olds' (1991: 19) lucid characterization of the notion of polarity, which she advances with the very same Chinese context of *qi*-notions in mind:

"In a sense each pole represents a different type of focus by which to view one process, and the poles are not to be understood substantively but as reciprocal processes constituting one whole, e.g. as in motion and rest both representing the *t'ai-chi* (...)."

The formulation that each pole is a different focus of a single process could indeed originate from Ronald Langacker's pen. Clearly, what Olds means by polarity is a switch between two types of profiling of a unified double-Gestalt. This Gestalt switch is a stable superimposition of two foils called the PROCESSUAL FLOW schema and the PATTERN schema. The three diagrams below depict several aspects of the stereoscopic model:

Diagram A is an attempt to schematize the componential structure of flow and pattern. Two foils are projected onto the central elaboration site region, which has no attributes apart from being associated with the idea of mapping a cosmological essence. By virtue of that knowledge (i.e. that the model is one of cosmological essence) the region is presumably conceptualized as an imagistic realm (see ch.9) to capture the idea that there is something inherent about it. Two constituents that are part of a double Gestalt converge on the E-site and fill it with a more detailed image. Because the realm has as a matter of definition an essence, the two constituent images must have permanent and intrinsic qualities. One

permanent quality of the realm is *qi*-flux mapped in a FLOW-schema. The other permanent quality of the realm is *li*-pattern. This must be the most schematic image of pattern possible, since it cannot be any particular pattern. No particular pattern is permanent in this cosmology, while the fact that patterns arise again and again is. Thus the model of *li* it must condense all possible kinds of pattern into one generic image, i.e. it maps a process engendering different sorts of patterns over time.

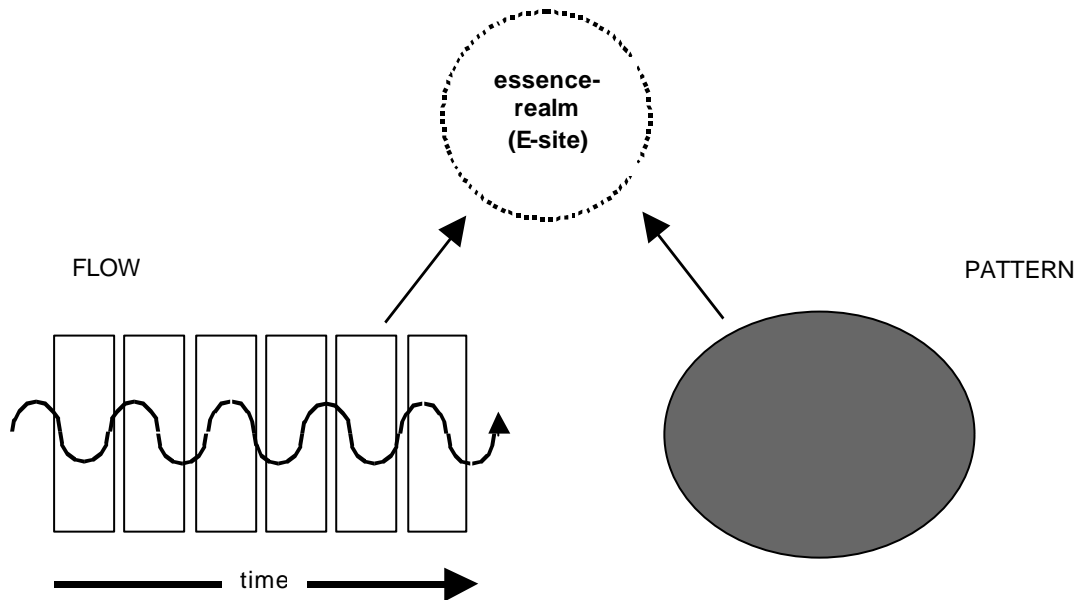


DIAGRAM A: The two constituent schemas of FLOW and PATTERN are superimposed within an E-site that is at the same time a substance realm standing for an essence.

However, the two constituent schemas may also be envisaged as one. Diagram B depicts this process as a sequential scanning of changing patterns. Again pattern can be abstracted away from specific patterns by using the generic PATTERN schema. For purposes of illustration I have used several different kinds of abstract patterns in the diagram.

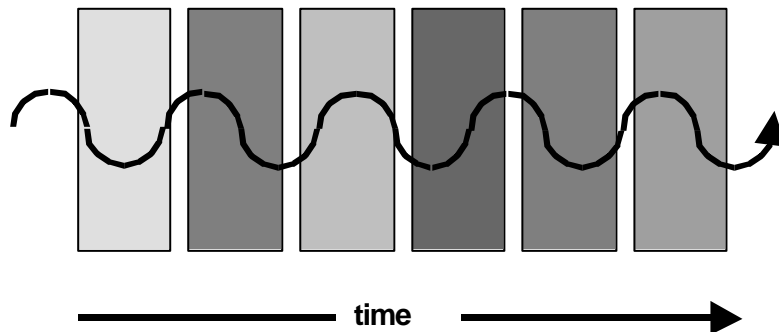


DIAGRAM B: The resulting stereoscopic superimposition: a diachronic synthesis of flow as continuous change of pattern

In this stereoscopic view either aspect may be profiled. It may be said that different related cosmological concepts governed by the framework correspond to different profiles of the stereoscopic Gestalt. A profiling of the backdrop of process takes place whenever one focuses on the general features of the cosmology, which are those of continuous change. The cognitive power of the model lies in the fact that it does not only map a generic view of ontology, it also allows an understanding of specific occurrences of everyday experience. A case of profiling pattern is apparent in thinking about 'personality' or 'self'. By virtue of the people's feeling, some permanence in their characters and in their innermost identities, some degree of relatively stable pattern must be acknowledged.

Diagram C shows personality/mind as a foregrounding process within the stereoscopic Gestalt. There is a permanent background quality of the region, which is qi-flux. The temporary and concrete quality of the region, li-pattern (= mind), is in the foregrounded profile. The person in the box in boldface represents it. Note that the foregrounded pattern is considerably more concrete and detailed than the PATTERN schema representations above, which map pattern-ness as such and thus all conceivable kinds of pattern at once.

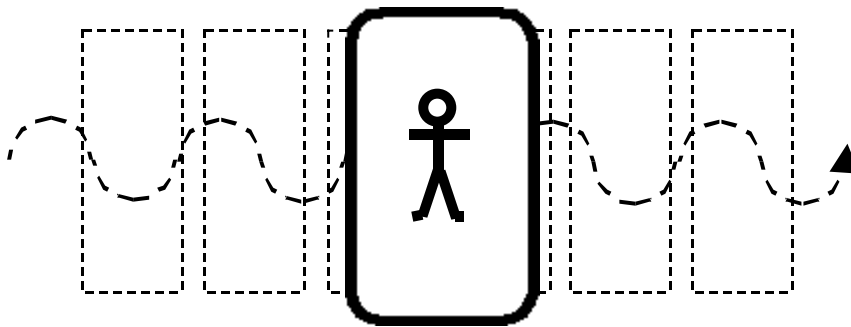


DIAGRAM C: The stable mind/identity of a person as foregrounded profile of a particular pattern

Picking out the foreground can be understood as an operation of zooming into a particular region of the whole representation and making it the object of attention. The sequential scanning is brought to a halt and arrested on an image in a way that is perhaps best understood through the analogy of arresting a particular sequence of a film before the mind's eye for some more thought while the show is going on but the person's attention veers off to or rest with an image that is no longer present.

It is noteworthy that the foregrounded pattern of mind/identity is not maximally schematic, as was the case in diagram B. Instead, it is associated with specific images and propositions. Image-schematically the difference is implicative of the switch between multiplex and mass construals of a region. Recall that in a mass construal a large scope of an image is visible to the mind's eye, but at the cost of blurring the details. In a multiplex construal the scope narrows. This has the advantage of making the particulars visible.

I would like to propose that a multiplex-mass operation takes place with the conceptualization of stable persons before the background of an ever-changing process in the case of a *qi*-based cosmology. The person-related construal focuses on a single phase of the sequential process of being, with the purpose of bringing its particular details to the fore. At the same time the process of which any personal existence is ultimately part is de-emphasized from this vantage. However, reification is not a necessary consequence of construing the scene as stable pattern (by foregrounding the present within the unceasing flux in a 'snapshot'). Emergent pattern can be taken for what it is, namely a temporary manifestation intrinsically embedded in a process. One is still encouraged not to lose the background out of view while attending to the figure. The whole of the general Dao principle must remain present. This knowledge background makes the individual the emergent part of a larger whole. While the foregrounded individual life has more concrete structure and is perhaps accorded pragmatic precedence, the cosmological background has higher ontological priority. The individual personality is only conceivable against the background of ultimate reality, whose nature is flux, not stability.

COMPARATIVE PHILOSOPHY

Our image-schematic perspective warrants an important conclusion, which should be of interest to philosophers: Deriding Chinese worldviews and similar perspectives as 'dialectical nonsense', as some analytic philosophers are inclined to do, means denying a psychologically real aspect of the imagistic mind. Like everybody else *qi* believers perceive everyday reality as partly stable, but with a background recognition of flux. The perception of the material world is suffused with an ontological image. Clearly enough, this is a case of Wittgensteinian 'seeing as', i.e. perception intentionally laden with a complex concept. The foregrounded individuals are not perceived as individuals pure and simple. They are perceived as parts of a more basic image of never-ceasing change.

This admits of an intriguing comparative conclusion: Any dichotomous thought style is a result of choosing between two or more construals and according one of them the primary status. The encouragement of a simultaneous perception of foreground and background perhaps explains the difference between the predominant East Asian and Western modes of thought. In Western philosophy two incompatible images tend to be only construed as alternate foci, never two at the same time. The typical strategy of managing imagistic models in Western thought is to treat them as one-shot construals. Because they are atomized, they must be logically opposed as alternatives to choose from. In Chinese philosophy dichotomies between substance and process are avoided. It refuses to split foreground from background for any more than a temporary duration. Complementarity is made possible by processing imagery stereoscopically.

In sum, stereoscopic construals allow for a cognitive explanation of what seems paradoxical in holism: The paradox of a seemingly stable reality and its simultaneous denial. The switch (or 'zooming-in and zooming-out') between multiplex and mass acknowledges the individual patterns as temporary, but changing and eventually transient figures before a larger ground.

4. Dynamized ontologies: Moving between non-holistic defaults and holistic overlays

The worldview of a cultural community always exhibits different ontologies and lifeworlds (Schütz 1962), with perhaps the most incisive rift running between the sacred and the profane. The notion of 'split ontologies' was also developed in recent Possible Worlds Theory, most notably in Thomas Pavel's *Fictional Worlds* (1986: 136ff), Marie-Laure Ryan's *Possible Worlds, Artificial Intelligence and Narrative Theory* (1991: 40), and in Paul Werth's *Text Worlds* (1999), who undertakes a synthesis of the cognitive linguistic approach and the possible worlds approach. The idea of split ontologies as used by text theory stresses that readers move between different kinds of ontological ascriptions. Either they are explicitly cued to do so or they infer the transition from their background knowledge. What goes for texts equally holds for other cognitive phenomena in culture, such as ritual.

The ontological realms of an epoch or culture may be more or less unified, as Pavel (1986: 140) expresses:

"Models that occupy the central area of the [cultural] landscape may vary between two extremes: complete fusions versus flat literal universes. A complete fusion is a salient structure in which every element at one level plays a role at each other level as well (...). A flat or literal universe is a single level construction, assumed to contain without residue all and only what there is."

Most often neither a complete saturation of the profane with the sacred nor a situation of total intransmutability between them obtains. While the major religions contain "projects of complete ontological fusion" (p. 138), most social organizations limit the expansion of the sacred. The contact points are restricted to a set of well-defined elements, such as sacred spaces, ritual objects, ceremonial periods, etc.

Does the division of ontologies presuppose a division of cognitive principles? Horton (1982) suggests that any cultural world is divided into a strongly sensate everyday world, which is quite similar between cultures (after all, people in few cultures have trouble with driving a car and understanding its physics), and an ideological and religious realm that could not be more different. This could mean that cognizing physical reality is constrained by other cognitive functions than metaphysics. However, where can we seek the common cognitive ground that has to be assumed for gradual transformations of ontologies? What is the basic format both kinds of ontology operate in?

I propose that sacred ontologies operate on the same basic mechanisms as everyday ones do and widely use imagistic thought, but put them to use in highly specific, and often counter-intuitive ways. I also maintain that transitions from the everyday to the sacred world not 'just happen'. They are usually assisted by complexly scripted techniques and social procedures, implemented both as body techniques and as mental techniques. A close attention to the cognitive particulars of these cultural techniques is called for. While the field of religious techniques is broad, I will focus on the crafting of imagery through rhetoric for the purpose of transforming one ontology into another, specifically between the everyday and the sacred. In other words, I will try to describe how an initial imagistic understanding is gradually transformed into another more holistic one that fuses the world. I will also skirt the rhetoric micro-mechanisms evoking the change, although my focus lies on the transformation of the evoked imagery itself. In a bird's-eye view, modeling ontology changes in terms of dynamized imagery draws together the following assumptions:

- (1) A basic assumption is that everyday cognition features default imagery at a level of generic co-signatures (see ch.9). These image-schematic co-signatures underlying extended events in the profane life-world include LINEAR EVENT STRUCTURE, SITUATIONAL UNITY, or CAUSALITY and may be fairly universal. I will not discuss the occurrence or variability of these specific co-signatures in detail, my aim being a more theoretical one. I intend to demonstrate that, whatever defaults there are, they offer possibilities for being culturally transformed and harnessed to non-everyday purposes.
- (2) On the basis of these defaults there are manipulations of meaning and with it transformations of the imagery. Ritual or narrative is crafted by cultural actors to deconstruct defaults and put new more counterintuitive understandings in place. A major goal of these manipulations is to create holistic effects. This means promoting the idea that different contexts cohere, that thematic structures stretch through various cultural sub-worlds, and that seeming linearity of everyday life hides intricately entwined webs of meaning. Central rituals do this, in the respect that the meaning atoms brought together and unified in them are taken to radiate out into the world as a whole, since such a ritual stands for the social at large.
- (3) Since there is evidence that the above defaults are image-schematic, it seems plausible to assume that their replacements after deconstruction also are. Therefore, I will inquire how an image-schematic default is gradually transformed into another less natural understanding with a particular ideological function such as the promotion of holism.

NON-FOCAL CLUSTERS AND THE IMAGERY OF HOLISM

We already examined several co-signatures involving focal clusters, i.e. conceptual spaces in with a central symbolic unit on which the others converge (ch.9). Now we will look at clusters without a single dominant center, but where, nonetheless, an extensive set of meaning-laden features is brought together in an experiential or symbolic metonymy in order to promote the social vision of togetherness, interrelatedness, or wholeness. This image-schematic co-signature I will call a non-focal cluster.

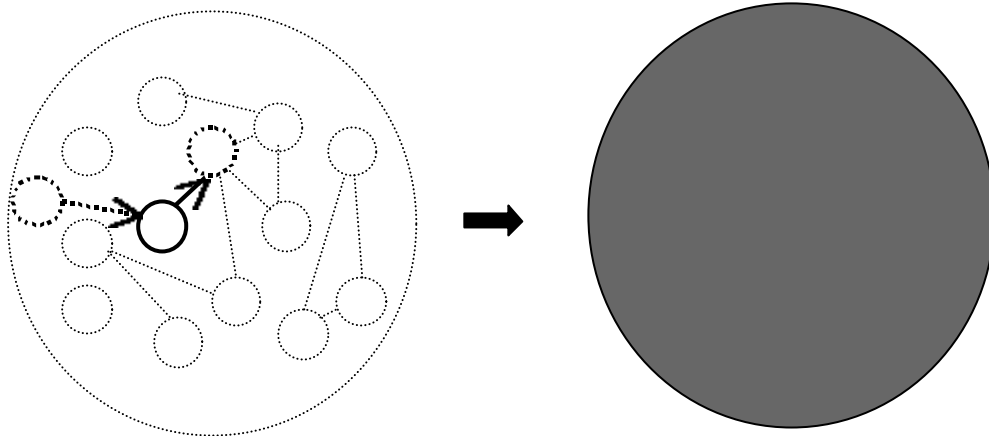
Here is my basic theoretical claim: A sense of wholeness may arise through extended concept-networks that first integrate various unconnected facets of experience into a focal cluster and, on this basis, eventually assign a common ontology to them by transforming the cluster image into a single unified pattern. This can best be illustrated through an exemplary analysis taken from James Fernandez' fertile work on religious revitalization movements in Western Africa. Following his description of the sermons in a religious revitalization cult among the Fang of Gabon called Bwiti, Fernandez (1986: 181-82) advances the following interpretation:

"These sermons are what Vygotsky (1962) has called 'thinking in complex'. The sequence of images – the body images, the forest images, the vital liquid images, the suspended things images, the food images – put forth are not dominated by any overall conceived and stated purpose or by any dominant image. The materials presented cluster around a complex – a sequence of organizing images. New materials from various domains of Fang experience are introduced on the basis of association by similarity or contiguity, contrast or complementarity with this sequence. But then again, abruptly, new elements with all their alternatives are allowed to enter the thought process and raise new thematic preoccupations – and to suggest new possible nuclei of attention. By any standard of administered intellectuality, such sermons seem diffuse and spontaneous in the extreme. And yet, as the sermonizer promises, they 'tie together' what brotherly enmity and witchcraft has torn asunder. By a sequence of 'likenesses' he shows that the world, fallen into devilish particularities, is really one thing. (...) The sequences are riddles, puzzles, that force the membership to answers that suggest an overarching order and a relatedness to the diversity of the cosmos. (...) they both condense and integrate that knowledge as they revitalize it. And the sequence of images link together various domains and levels of cultural experience. A cosmological integrity is suggested if not made explicit."

My reinterpretation of Fernandez' work will not render in detail the various rhetorical devices employed in the sermon (for a full account see Fernandez 1982: ch.20). Since the sermons are highly complex polytropes comprising a host of dimensions, a brief summary of the diverse ways of tying things into a cosmological integrity must suffice here (1982: 563): First, there are thematic preoccupations, i.e. recurrent images that appear throughout different domains of representation. Images are sought that resonate on various levels: physical, family, socio-political, subsistence, and ritual. These multivocal symbols are compacted in a

variety of associations condensed as symbols. Second, essential opposites, like male and female, are reconciled through metaphorical equation with a mediating term that becomes their super-category. Third, through a choice of a set of sacred trees, each standing for a particular quality, a multidimensional 'quality space' of emotions is established with the purpose of moving the participants through the moods of dominance, subordination, external or internal preoccupation, and corporeal or spiritual orientation. The image of the forest (i.e. the sum of the different trees) comes to stand for the spatial range of emotional qualities that humans can experience. In sum, the performance focuses the participants' attention on a sequence of primary associations that are connected to society, self, creation, theology, and eschatology. The sermonizer moves from one subordinate performance to the next by associative chaining, sometimes by contiguity, sometimes by analogy. Fernandez speaks of a movement between sets of tropes and, elsewhere, between series of 'micro-cosmogonies' (1982: 561, 559). Hence, each metaphor or metonym picks out a part of experience and explores its associated affective dimension. But each only succeeds in exploring a part, but never the whole. There is "a constant search to 'return to the whole' out of dissatisfaction with the 'partness' of any of the devices of representation" (p. 562). Consequently the solution must lie in transforming all of these into a single whole. The following cognitive interpretation will focus on how partness can be overcome in an overall structural representation of the sermon as event. In a condensed version my argument is this:

A crucial point for understanding the sermon is the lack of a focal point or node. This implies an ever-shifting focus and puts different concepts and tropes on an equal footing. No single key-concept sticks out, so as to govern the rest. The tropes are roughly equal in momentary salience, a fact which also puts them on a par in ontological importance. Everything is valuable because everything dissolves into a larger identity. The imagistic operation which these intermeshing concepts give rise to in an image-schematic analysis is an enormous super-container in which all the different things contained are effectively consubstantial, since they are so intimately intertwined (see ch.9: SAMENESS OF ONTOLOGY IS SAMENESS OF CONTENT-SUBSTANCE OF A CONTAINER). In such a metaphoric conception of unity, the world is one single container of but one substance, which makes it of one founding. Assuming that the common container substance creates an image of a unified realm, it remains to be explained how this image is created in the mind. I shall argue that the emergence of this unified realm is facilitated by the sermon's nature of "seemingly random walks through a thicket of images" (op. cit.) that violates everyday expectations about causally meaningful events.



A. Shifting nuclei of attention within a frame.

B. The particularities dissolve, while the common container substance (= common ontology) remains.

After this provisional characterization a more detailed cognitive account of the two phases is in order. As can be seen in the figure above, I specifically propose that the sequence of images evoked in the sermon makes the participants conduct a quasi-scanning before their mind's eye, like the ones they are used to do in trying to comprehend a more coherent everyday setting. In this scanning they move from one sub-sequence to the next, thereby shifting their nuclei of attention. As the encircling boundary in the diagram indicates, those who participate conceive the whole setting of the sermon as a bounded region.¹³³ I will assume social interactions to involve the default expectation that one bounded sequence is about one sort of coherent thing, which makes for the basic essentials of a purposeful event. In other words, it is an implicit background expectation that the region is a realm, i.e. of one ontological kind. Thus, while an event-scanning usually takes place within a single cognitive domain, the sermon does not refer to any single well-formed domain. Instead, it refers to a whole cluster of them, the links appearing tenuous at best. In an attempt to make sense of the sermon, the audience tries to construct a domain common to all of the sub-sequences. This attempt is bound to fail, as long as the believers focus on the specific content of the sub-sequences. In order to make sense of the event image-schematic thought is required on their part. They have to bring to bear the general notion of a meaningful network. Such a notion may consist of a PART-WHOLE schema with LINKS plus – conceivably – CONTAINER spaces with realm-like features, i.e. with each of them representing a specific ontology. The

¹³³ This is motivated by the basic metaphor EVENTS ARE CONTAINERS, which follows the same logic as CATEGORIES ARE CONTAINERS. Things that belong together usually occur in spatial proximity. Likewise, actions that belong together can be metaphorically understood as spatially close to each other. Moreover, actions may have a temporal center and temporal boundaries creating in and out dimensions with regard to an event, just as containers do in the spatial domain.

difference among the individual ontologies designates the 'devilish particularities' pointed out by the sermonizer.

The crucial idea is that, in a second step that follows after actualizing the usual network structure of a complex event through PART-WHOLE and LINK, the usual event ontology breaks down. But how is this achieved? As we have seen, the breaking of the 'devilish particularities' is partly accomplished through riddles and puzzles that suggest an overarching order.¹³⁴ This alone can hardly be the whole story, though. A factor at least as important relates to the sermon's strangely erratic structure. A proposal by Ronald Langacker (1990c) on the nature of the dominant prototype (i.e. default expectation) for events, which has been already described in chapter 8, can be applied here. Langacker's analysis of clauses describing actions rests on the basic image schema for FORCE transmission in action chains. According to this view, action chains can be imagined like one billiard ball transmitting its impetus to another one, and so on, until the energy is finally absorbed and the event ends. Events are like the transmission of force in that one part is causally related to the following much in the way that one moving object transmits its impetus to the next. In Langacker's view, which is based on Leonard Talmy's work on FORCE relations, a situation can be cognitively described in terms of an interactive network of parts representing the constituents of a situation and their selective chaining into a particular causal sequence, depending on the thought that is to be expressed. In the sermon a coherent chain is not established, instead there is a constant shift between nuclei of attention. In Langacker's terms we have a consecutive local profiling of network constituents, but one that does not produce any reasonable summary scanning. In a series of unrelated local profiles it is impossible to make out an event of one kind, so that the ontological default expectation cannot kick in. On the assumption that Langacker's billiard-ball logic of events can be extended from single clause patterns to more complex thought sequences – and there is no apparent reason why it should not – we get a plausible explanation for the breakdown of the initial default event-ontology. The default event ontology includes the expectation that it should be causally sequenced, meaning that one has to be

¹³⁴ How exactly this happens is no central concern here. It suffices to know that, aside from the erratic event-structure, the content of the sermon matters considerably in providing guidelines. I emphasize this to ensure that dyed-in-the-wool structuralists do not get the wrong idea here: Clearly, the evoked event-structure is only a background phenomenon emerging from the primary understanding of the tropical sub-sequences or even individual sentences. In listening to speech sequences we always activate both levels to a certain degree. While our attention is focused on the ongoing speech we crosscheck it with our structural background assumptions about the speech-event as a whole. Often our attention wanders back and forth between parts and whole, as we try to make sense of tricky passages. (Note that this has been described as a major characteristic of the hermeneutical circle of knowledge growth.)

able to make out a force structure linking the parts of the sequence. I conclude that, in the Bwiti example, a central factor contributing to the particularized ontologies' breakdown is that an underlying force structure remains elusive to the audience of the sermon. Following Boyer (1994a) and Sperber (1996), this might be interpreted as a variety of cognitive 'counter-intuitiveness', which heightens the impact of the sequence and makes it more memorable.¹³⁵

At the point where the expected event ontology has been thoroughly deconstructed by puzzling the audience a new one needs to be found under the guidance of the sermonizer. Fernandez' description of the second phase shows how a different sort of ontology can become effective. The nature of this new ontology follows directly from the religious purpose of the sermon. The sermon is clearly designed to make an integrative statement on the world as a whole. Whereas we usually experience a certain fragmentation of ontologies, the sermon as a religious act lays its finger on the fundamental human problem of integration in a world split between mundane and spiritual, social and personal, joy and grief, etc. It tries to resolve the problem of how to achieve a cosmological unity between these states.

I submit that the process can again be understood as an image-schematic operation. What happens in the mind when the particularities dissolve? By saying that their disparate sub-regions dissolve into an overarching unity I propose that this quite literally happens in the participants' imagistic conceptualization. The sub-regions, which represent the various parts of the sermon, dissolve as their local container boundaries become permeable. Eventually they fade away. Expressed in the slightly different terms of Gestalt psychology, the awareness of the differing ontologies recedes into the background, while a new aspect is foregrounded. As attention is drawn away from the sub-regions, this encompassing level of unity is imagistically profiled.¹³⁶

This encompassing level arises by way of profiling a supra-container, which conceptualizes the event and, by implication, the disparities of the world as a whole. (It is worth emphasizing that the container is not an unmotivated image that is projected onto the experience of the sermon, but that it arises from the primary conceptualization of the situation as container itself.) The holistic construal means that the participants envisage the

¹³⁵ We can hypothesize that an event's salience is highest in exactly the kind of event presented here, which is on the one hand erratic, but on the other hand can hardly be dismissed as wholly meaningless, because recurrent thematic preoccupations and symbols stick out. Boyer (1994: 121) considers as optimal such representations that strike a balance between being imaginative and attention-demanding as well as having inferential potential and being learnable.

¹³⁶ With respect to the recurring symbols we can speculate that they contribute to a 'diluting' of local ontologies by appearing in different contexts. But, if I read Fernandez correctly, this happens without any of them assuming the status of a governing key-concept: rather anything can be a key concept, and many symbols can be one at the same time.

supra-container as a region filled with contents of one kind. More specifically, the image-schematic transformation between multiplex and mass seems to be relevant here. We may assume that initially the audience construed the parts of the sermon as a multiplex, i.e. logically and therefore spatially distinct. Then, because the causal sequence ontology was not easy to apply to the experience and because of the speaker's hints at intricate intermeshed links, a new construal emerges. Langacker (1987a: 259) describes this as a construction that

“superimposes its own profile on this base and structures it in a manner that highlights those respects in which the profiled states of the process are constant; the component states are viewed at a level of abstraction sufficient to neutralize their difference and are thus construed as a kind of mass. *The individual elements of this mass (...) lose their separate identity and are considered effectively equivalent* owing to their shared participants and their common status as facets of the same base process.” [italics mine]¹³⁷

Applied to the audience's representation of the sermon, this means that the new construal views the event region of the sermon as a mass, rather than a multiplex of individual entities. The hallmark of the mass construal is that effective homogeneity is attributed to the realm throughout its spatial expanse. Thus, the final effect is that the whole sermon setting is conceived of one consubstantial ontological realm. It is crucial to realize that this does not only apply to the sermon as event but also to the view of its contents. Not only the event of the sermon itself is being consubstantialized, it is everything the sermon made reference to, namely the entire world (see ch.9). Thus, wholeness is established by metonymical implication.

CONCLUSION

I tried to show in this chapter that folk-models of ontology require dynamic transformations of imagery and, more generally, that ontology as a dynamic phenomenon dovetails with the imagery approach in interesting respects. I tried to give a first flavor of how dynamic ontologies work by extending the notion of image schema transformation to include more complex effects than are usually discussed. The examples analyzed here are by no means representative of the variety or complexity that is possible in ontologies. They cannot be but

¹³⁷Langacker's characterization originally refers to the construal of grammatical constructions, specifically to the operation of highlighting the constant aspects of a process in English progressive constructions. Irrespective of this, his words fit into our context perfectly, seemingly because the mass construal is a quite general cognitive faculty with a broad range of uses.

a first step suggesting directions for further research. However, we may draw some general theoretical and methodological conclusions:

- (1) In complex mental models of mixed ontologies such as *qi* we find multi-perspective blends or superimpositions of images. By virtue of this fact allegedly incompatible conceptual elements, e.g. substance and process, can be imagined simultaneously, usually in a figure-ground arrangement. Depending on which aspect of the model is highlighted the profiled image in the foreground changes.
- (2) A similar phenomenon can be seen in Gestalt switches, which differ only slightly. Here the incompatible elements are not integrated into a logical model that can be conceived statically. Such a model is not necessarily intuitively clear and without possible contradictions. The juxtaposition of elements is employed for the purpose of irritating and gives rise to alternating imagery. A general cognitive feature reflected in these phenomena is that people have to keep several images in mind simultaneously and imagine both partial congruence and partial incongruence between them, such as the parallelism between INCLUSION and IDENTITY schemas. The fact that complex cosmological models encompass many elements points to the necessity of reconstructing how people switch between partial images.
- (3) As a general conclusion it appears that the cognitive study of cultural phenomena analysis often requires a dynamical analysis, most obviously in the case of ritual and religious narrative. In the Bwiti case study I presented the theoretical hypothesis that image-schematic defaults (= co-signatures) are transformed into more holistic – and perhaps less intuitive – co-signatures through narrative, rhetoric, and ritual. Hence, deconstructions of everyday event co-signatures and subsequent novel images reshape ontologies for the creation of existential meaning. The methodological upshot is that we have to think about methods by which we can find clues for ontological imagery in ritual and narrative. Going beyond the sketch produced here, future approaches should also account for the mechanisms by which symbolic cues produce imagery transformations at the grand scale. This requires that anthropologists take image schema theory into the field and devise methods of analyzing ethnography by attending to visual, conceptual, and embodied metaphors in their overall symbolic interaction. Together with interpretive accounts of symbolism, cognitive anthropology should use what we know about general schemas that shape expectational patterns about whole events. More about the relationship between individual symbols and overall event meanings, albeit not in every case cognitive standard defaults, will be said in the following chapters.

Chapter 11:

Image Schemas of Action Sequences – A Typology

Surprisingly little has been written about metaphors and images evoked by entire texts or other large-scale episodic units. What exists mostly concerns explicit parables (e.g. Turner 1996), but not more implicit meanings. In response to this lack the following chapters bring together insights from cognitive linguistics on the role of schematic imagery in metaphor comprehension and the characteristic concern of cultural anthropology with large-scale meanings. I would like to inquire how image schemas contribute to the comprehension of complex action sequences, e.g. in music, dance, ritual, or narrative. This raises a cluster of questions, which I set out to answer in this and the next chapter with the help of our imagery-based framework:

- (1) How does imagery determine the structural topology of sequences?
- (2) How can large-scale meaning content be condensed into simpler images?
- (3) As a corollary of the previous two, how are formal sequence structures and the meaning content of sequences related (iconicity)?
- (4) And, speaking of the meaning level only, how do large- and small-scale meaning structures of sequences interact with one another (overall interpretations and local symbols)?

By way of introduction I will reiterate some basic points concerning the alternative formats that mental representations can assume. Next, it is important to understand that imagery is used for various different mechanisms in episode comprehension. I will adapt the distinction between structural co-signatures and predominantly semantic schemas made in chapter 8 to sequential cognition. My typology of image schemas usage in episodes broadly divides between image schemas of sequence structure (i.e. the symbolic medium) and such dealing with sequence content (i.e. the evoked mental representation). In further consequence, it is the image-schematic nature of both types that makes so-called 'iconic' mappings between structure and content possible. Finally, I will argue that we may understand and recall narratives, movies, plays, books, rituals, and the like by selecting and condensing essential features into a imagistic key metaphor or 'plot-gene'.

1. Representational formats revisited

In the literature on representational formats there is a general agreement that all kinds of complex information, including percepts, memories, imagination, words and symbols – and some would even include emotions here (Palmer 1996) – are represented in the mind either as *imagery* or as *propositional knowledge*. The former term characterizes mental pictures of

a visual, auditory, haptic, proprioceptive, kinesthetic, olfactory, or gustatory kind that are memorized and retrieved as analog Gestalts. The latter implies that complex knowledge is stored in language-like chains. As such they form a digital code of discrete units linked by syntactic organizing principles. Both imagery and propositions are relevant ways of explaining knowledge and typically occur in a closely interwoven fashion, as Paivio and Walsh (1993) argue. The impassioned arguments of the 1980s *imagery debate* turning on the question whether either one of these formats can be reduced to the other can be set aside here. Among others, Lakoff (1987) and Johnson (1987) have made a convincing case contra the cognitive psychologist Pylyshyn that imagery is an irreducible level of meaning in its own right rather than an epiphenomenon of a deeper level of cognition that is supposedly more 'real'.¹³⁸ For a review of empirical studies which bolster this line of argument see Gibbs (1994). The converse question is more interesting but has not been entirely settled: Whether propositions are simply a kind of imagery of extreme abstraction and condensation, as Langacker (1987a) seems to imply, or an irreducible level in its own right, is a question that lacks clear terms so far. Uncontroversial definitions of propositional thought are hard to find, especially since most definitions have a strong flavor of defaults, meaning anything that is not imagistic in the simple sense but failing to explain what propositions are in terms of *mental* phenomena (apart from the fact that they are algorithms to the brain substrate). However, for our purposes this debate is more technical than substantial. Both terms, imagery and propositions, make sense in a broad way of speaking. The heuristic value of the distinction remains, even if it should turn out that propositions have to do with the imagistic faculties of the mind in a way not exactly recognized to date. Some concepts will seem more given to an imagistic description with analog Gestalt features, others to a classification as a proposition due to their degree of abstraction or structural complexity that defies a simple image. With complex concepts not so easily described our preferred characterization will often simply depend on which aspect we choose to highlight. Belonging to one of these formats is usually not a strict matter of either/or. I shall try to convey an idea of how they interact as we go through a short description of their basic differences.

Let us start with the category of mental imagery. It spans a continuum ranging from very concrete to highly schematic. The pole of detailed imagery is commonly referred to as 'rich images' (or 'mental pictures') and the pole of schematic or skeletal imagery as 'image

¹³⁸ Any account of meaning that excludes imagery runs into insurmountable difficulties. Johnson's (1987) argument is pertinent here that the developmental origin of meaning relates to spatial images embodied as preconceptual knowledge. More importantly, even adults primarily experience words and thoughts as meaningful because they evoke analog images in the mind. Meaning as a subjective phenomenon lies in the representations arising before the mind's eye and can never be completely explained on the basis of lower level functions of the brain substrate.

schemas'. Whenever a rich image is progressively schematized and its detail features are eliminated in the mind one gets an image schema. While rich images may almost be like sensory percepts in their wealth of details, image schemas usually result from picking out certain structural features and discarding the rest. For example, if we have a mental image of a basket of apples and extract its structure we will get a schematic container. This abstract container image is a generic image which underlies the basket and a multitude of other rich images alike. A room, a human body, a courtyard, the space defined by the drawn borders in a map, an imaginary space such as Heaven, or a mathematical set all partake of this basic container topology. By its very definition the container schema then is, like any other image schema, the representation of a *transcontextual* mental entity. Even though every particular instance is extracted from a specific image, there is an awareness that identical skeletal features underlie many other instances. At the level of basal elements of cognition such as FORCE, BALANCE, CYCLE, PATH, PART-WHOLE, CONTAINER, CENTER-PERIPHERY, UP-DOWN, FRONT-BACK, etc. the form is transcontextual by virtue of bestowing a similar basic topology on all of these superficially distinct mental images. However, to avoid misunderstanding it is important to see that rich images and images schemas are not necessarily different images, but *two co-present levels of a single image* between which we can let our attention wander or switch mental focus at will. Depending on our intentions our attention might either attach to the details, like an apple stem or a worm, or to the structure of the whole basket as a container. However, we can also find cases when one level is present in the mind first and the other is subsequently evoked: In one kind of instances image-schematic meaning emerges from a prior rich image memory. This is the case when we notice previously unconsidered analogies between two rich images by picking out meaningful structures that let us see the higher-level similarity between things considerably different in their details. An example would be the creation of a metaphor like "the body politic", in which we either notice that human bodies and the borderline on a map are schematically analogous containers with elements inside or perhaps even by noticing that the functional relations of a body and those of a society are analog (presumably in an image of links, conduits and acting forces). Conversely, in other cases our memory stores highly schematized images as such. This is the case when we learn the notion of mathematical set, which we can either use in pure abstraction, as variables like X, Y and Z, or fill with all kinds of specific images like apples, oranges, houses, and people, or rules, ideas, reasons, conditions, and other abstract entities.

The meaning of these two poles of imagistic thought is additionally enriched by associative inferences of propositional knowledge. For example, in our image of the apple basket the recognition is easily called up that baskets are made of wicker and may be used for harvesting or ballooning, that apples taste sweet, and even very culturally specific knowledge

like that cider may be brewed from them, that Wilhelm Tell had to shoot one off his son's head, that Snow-white was poisoned by one, and that New York is referred to as 'Big Apple', or that there is brand of personal computers carrying that name. None of these surrounding knowledge bits are represented as a part of the core imagery of the basket. Instead a vast array of extra knowledge, such as other tales by the Grimm brothers, the historical background of medieval Hapsburg Switzerland, or recent fashion trends from New York, can become the focus of attention if chosen.

Many analysts of the past credit propositional knowledge with the greatest power in creating complex conceptual models. Such a propositional view rests on the underlying metaphor THE SHAPE OF THOUGHT IS LANGUAGE LIKE. To its proponents this seems to be the most intuitive way of conceiving how cognitive operations of fairly elevated complexity work. Although recent publications on cognitive models make reference to, both, imagery and propositions, the debate has got somewhat stuck. Several authors tend toward one or the other pole but leave the terms of their preference largely implicit, reflecting the insufficient clarity as to how the two formats involved are related and what they mean. While authors such as Quinn (1991) are wont to conceive the predominant way that complex cultural models are structured as propositional, the works of Palmer (1996) and Werth (1999) have gained some ground in demonstrating the significance of complex imagery. In line with these two authors, I want to accord center stage to imagery here. My aim is to demonstrate that imagery is not restricted to concepts that are static, isolated, or low in complexity and that imagery constitutes a viable alternative for the explanation of the complex characteristics of dynamized sequences.

The basic idea is simple. When we think or speak of complex action scenarios and other temporal scenes we imagine detailed images not unlike comic-strip panels or mini-movies, from which we can extract skeletal features. This process results in the same kind of image schemas that stem from extractions from static mental pictures, only now they are dynamized or merge features from different phases into one. The major advantage afforded by this view is that through images complex sequences can be understood as integrated wholes, i.e. conceptual Gestalts. As I will try to show, this is important because as Gestalt images they can again be recognized as similar to more familiar cultural schemas that are also Gestalt-like. Of course, the whole of an extended narrative can never go into a single Gestalt. However, that which we would describe as its 'plot', i.e. its main scaffold of meaning, can. In the heuristic terms proposed above it may make sense to say that the imagistic aspect is precisely that one pertaining to an overall image of the main plot of a narrative, while the complexities are understood through propositions attached at various points.

2. Kinds of image schemas used in sequence cognition

Next, we can identify two essentially different manners of how image schemas are deployed in episode comprehension. A major hypothesis of chapter 8 was that imagery encompasses a more semantic pole and a more structural pole of co-signatures. This is now applied to sequences: The first such function relates to the understanding of the *structure* of the event on a global scale. The second function relates to the *content* evoked by a story or any other symbolic sequence and to the way it may be condensed into a summary image. Language has a double nature. It has important formal properties, yet it also evokes imagery that has nothing to do with the form per se. A commonplace example is the utterance “there is a tree over there”. On the one hand we might notice structural features such as the number of words (six), the symmetric reappearance of the word “there” on both ends, or the word order that signals an affirmation rather than a question. However such structural features differ from the Gestalt image of a tree that appears before our mind’s eye the very moment the sentence’s meaning is grasped. Although the separation of structural and semantic image schemas represents a graded distinction within a continuous imagistic faculty, I advocate adopting it here. It is a strong heuristic that guards against conflating issues. In sum, we get two basic modes of image schema usage and one more complex level that combines the two primary modes: Structure-related image schemas of event-topologies and content-related (semantic) image schemas can be mapped onto one another by so-called iconic mappings. Here is a brief characterization of each level:

(1) We have reason to believe that the formal features of a sequence are understood through image schemas evoked by its temporal topology. If Lakoff (1987) is correct that all sorts of *cognitive tools* acquire meaning through their image schema structure (i.e. what I call co-signatures), this applies to sequential schemas too. Skeletal grids of a spatialized kind aid the understanding of the global topology of events. I propose that the temporal schemas characterized in the cognitive literature as ‘scripts’ (Schank and Abelson 1977), ‘event-schemas’ (Mandler 1984), or ‘scenarios’ (D’Andrade 1995, Holland/Quinn 1987, Lakoff & Kövecses 1987) contain image-schematic structure: They are WHOLEs (events) with PARTs (phases) connected by LINKs on a PATH. A specific characteristic of scripts, which are schematically defined prototypes of well-understood social situations, is that they line up and specify slots for filling in missing information. These slots are quite possibly understood as located spatially within the sequence by a PATH-INTERVAL schema.

These assumptions are not unfounded: Research on event structure, surveyed in Lakoff and Johnson (1999), as well as the ‘billiard ball’ model of causality by Langacker (1990c) indicates basic features of events (cf. chapter 8). Events are mentally interpreted as bounded structures (CONTAINERS) distinct from the event before and after, the time dimension of an event is considered as PATH that is followed, and we often expect events to reveal a causal

structure to our mind, like in the image of billiard balls transmitting their FORCE IMPETUS in a chain. Thus it might be said that, to begin with, it is the recognition of image-schematic structure that makes us define events as such. Although temporal events do not have an intrinsic form, we conventionally conceive of them as being spatially extended objects having shape and including continuity, discreteness, completion, open-endedness, circularity, part-whole relations, etc. (cf. Turner 1993: 297). I propose that in more complex cases events may display additional structures, notably dimensions of NESTING (i.e. embedded figures), BALANCE (or other forms of density and relative distribution, such as CLIMAX or FADING), CYCLE (or other forms of rhythm and relative tempo), and ANTAGONISM (a kind of contrastive force dynamically marking a point of maximum friction).

(2) From all this we need to distinguish the case where image schemas are elicited by the semantic content of an event. That the parts of stories, plays, rituals, or songs evoke different mental images phrase-by-phrase follows directly from Langacker's theory of language comprehension. I want to add a series of far-reaching claims about the supra-phrase level to this. My core hypothesis is that an event's content can become available to the mind as an overall representation, not unlike recalling the plot of a movie from memory. Hinging on this central assumption I want to advance four related claims:

- (a) The rich images of a whole event can be condensed into a summary image that is accessed simultaneously, i.e. in a 'one-shot' fashion.
- (b) Such a condensed version can be described as a metaphoric core-theme – an equally apt term from literary theory is 'plot-gene' (Lotman 1990).
- (c) A plot-gene is often image-schematic, or at least partially so.
- (d) In some cases an adequate understanding of an event's meaning unfolds to a significant extent through a schematic summary image. In other words, what has been called a 'megametaphor' evoked by gradual innuendo (Werth 1999) can have image-schematic structure like any other metaphor.

That meaningful image schemas occur when we extract structural features from a condensed image of an event will be shown in chapter 12 through Joseph Conrad's novel *The Heart of Darkness*. The novel's plot lets our mind follow a riverboat journey into the unfathomed African rainforest. At the level of content our mind builds up a summary image of a gradual transgression from a well-known region to a far-off realm. I will argue that the image of this journey is connected to the Western model of the self by virtue of a common image schema structure and so takes on a strong metaphorical meaning. In effect, the novel metaphorically depicts the riverboat journey as an act of penetration from the realm of the relatively secure self to the realm of the unknown 'Other'. Thus, an important key to the cultural response to the story lies in the image schema of transgression. Next, I will argue

that the novel's megametaphor ultimately only makes sense on the basis of the Victorian cultural model of the self. The journey into the unknown thus plays on other cultural schemas of the Victorian age to do with the 'Other' in one's own soul. I will show that the spatial and imagistic structure of the self model is responsible for the required metaphor comprehension, and that Conrad ingeniously crafted his novel into a spatialized metaphor which gears into this basic self-model.

(3) Not infrequently the two prior mechanisms of structural and semantic image schemas are combined. This is possible if the imagery evoked by an event format (i.e. musical or linguistic images of rhythm, phases, fading, build-up of tension, etc.) and the semantic imagery share image schema structure. The external format and the evoked content of an event can then be mapped onto each other. A mapping between sequence content and form is possible, because both the form of a sentence and the image it evokes can be scanned alike. Take reading as a temporal event and the temporal event that is described in the story itself. Strikingly, both can be scanned as temporal images and both scanning operations employ the same image schema format, so that a metaphoric relationship can obtain between them (Lakoff/Turner 1989). Such an image-schematic mapping between the structure and the content dimension is termed *iconic relationship*. A major function of iconic similarity is the effect of mutual reinforcement.

Resting on this general definition of iconicity, I will later argue that a series of other kinds of image schemas are eligible for iconic mappings and may enter into a veritable iconic web of relationships. This opens fascinating possibilities for analysis because it points to a theory of multimedia cognition. There are major examples in literature and ethnography where a particular image recurs throughout a sequence in various contexts and forms to invoke a core-theme. We will explore a marriage-ritual from Ladakh where the object of an arrow, the act of penetrating a house, and possibly the body feelings of the bride are part of the same meaning complex. Overall, phonological forms, semantic imagery, mental scenario features, action-structures, objects and emblems, and body feelings can evoke topologically similar images. The crucial point is that these differing surface media operate on the same imagistic principles. When image-schematic analogies between them are perceived the effect is two-fold. On the one hand, ideas can be given salience by repeating them across different contexts or phases of a sequence. On the other hand, a recurrent core-theme contributes to the integration of the parts of the sequence, since the parts are perceived to have a single underlying idea.

3. Structural forms as images

In a first step we need to give substance to the basic idea that sequential forms are perceived and experienced as meaningful through intentionally construed spatialized imagery.

MUSICAL FORMS AND 'PERCEIVING AS'

A suitable starting point for the analysis of sequential forms is the experience of music as meaningful pattern. Nicholas Cook's (1990) work on structural imagery in musical experience offers suggestive evidence for three interesting findings:

- (1) Perceptual form is perceived only through a constructive mental act, rather than having a preexisting shape.
- (2) Expectational patterns about genres (i.e. typified cultural background schemas) shape the perception of what is heard and how it is heard ('hearing as').
- (3) Large-scale forms are understood through the attribution of structural image schemas, although experts are more proficient in constructing these than laymen.

Let us consider the points in turn. What we experience in listening to music we experience as the form we impose. Even at the lowest level of cognition, experimental evidence indicates that the sensation of tone extended in time is itself an imposed form. Tone is experienced in contrast and in patterns, and that is why a single auditory stimulus in itself has little meaning.¹³⁹ The perception of a continuing tone of a pitch is itself a psychological construct. For one thing, it is subject to the basic perceptual *principle of closure* posited by Gestalt psychology and now documented in a rich literature of experimental demonstrations. This means that an alternation of tones and gaps can be heard as continuous, if the gaps are not too long – the missing noise is filled in by the cognitive – auditory system. The same principle also operates in the perceptual synthesis of successive tones that create the experience of a musical line, as a number of laboratory experiments show. This act of mental synthesis can be experimentally demonstrated. When the similar tones of two different musical lines are presented in a scrambled way instead of separately to the right and the left ear, the hearer will regroup the stimulus, so that she will actually hear one meaningful line in one headphone

¹³⁹ For linguistic utterances, however, such an exclusively structuralist view of meaning residing only in contrastive relations is misguided. The main reason is that – if we follow Langacker's Gestalt theory of language – even the most primary word-units evoke complex relational patterns or sequences on a mental scene. (This contrasts with the traditional theory of semantics, which tends to see words as symbols without much inner structure, much as mathematical variables, and therefore perceives them as cognitive primitives. As such they are defined through their relations to other primitives rather than through their own intrinsic structure appearing in the evoked imagery.)

and the second in the other, even though both headphones only produce erratic jumps of frequency (p. 23f).

Another pertinent result issuing from musicological research is that musical lines are not heard as a series of individuals but as a single moving line. Music is perceived as a movement only through a spatialized image, i.e. a metaphor. This results from an auditory scanning procedure. As our perceptual focus passes from one topological location to another it creates the image of a movement in space. The line is perceived as a continuous journey through the sound medium, rather than incoherent individual sounds. In this way the time structure of an auditory event is spatialized.

There is another important consideration worth developing. How we perceive music is shaped by acquired contextual expectations for an event genre. Cook's work supports the thesis that preconceived ideas about a kind of musical event shape how a given part is heard. People interpret "the sound of the music as a token of something that in some sense exists independently of the sound" (p. 35). Music is heard as music of a specific genre, whereby a specific intentionality is bestowed upon the perceptual act. In other words, in the imagination the processed music segment is inserted in an expectational frame, in relation to which the segment is interpreted. This frame is defined by the musical genre and may be described as a musical 'script' in the sense of Schank and Abelson (1977). There is an experience of hearing a composition through the sound, rather than hearing the sound as such. Of course, this applies especially to musically trained people. If all this is correct, at least people familiar with the genre undergo an experience that, paraphrasing Wittgenstein, we can call 'hearing as'. Cook gives as an example the genre of the fugue. In hearing a fugue as a fugue one hears the opening bar and then the entry of the first voice as already pregnant with the subsequent entries. Parts of different bars will be heard as extensions of one another, rather than unrelated elements (p. 31). Thus, background expectations cued by the context lead us to hear a piece of music as a specific genre. While one is not forced to hear the fugue as such, the sense of four continuous lines and an interaction between them creating a configuration are lost otherwise.

We have just seen the function of unifying images in the case of tone constancy, musical lines, etc. The reverse phenomenon of an internally differentiating projection on an unstructured whole can also make events meaningful. For example, the 'inner-ear' of a composer using a piano for composing a symphony can hear the discordant tones he produces with meaning in them because he interprets them as played by different instruments (p. 187). The bewildered people overhearing his work interpret them as a meaningless blotch of sounds. In the composer's mind what is perceptually a single undifferentiated event cognitively turns into several parallel events, which create a balanced and harmonic relationship.

Without doubt this mechanism of 'hearing as', 'seeing as', etc., is a very common feature of many cultural contexts. It is of particular importance for rituals, which could frequently not be understood otherwise. To take an example from religious ritual, if the Christian Advent rituals were not pregnant with the expectation of Christmas, a resonance of the Old Testament prophecies, and its significance for the Christian religion in general, it would not be experienced the way it does. A segment is interpreted as part of a more extensive scenario model, be it of a musical sequence or of a broader ritual context. Hence, much of cultural meaning resides in a particular mode of 'perceiving as' pregnant with culturally salient expectations. In sum, context-appropriate expectations (as defined by cultural or social scripts) influence the act of perception itself.

Let us now turn to the particular claim that *large-scale* formal structures are interpreted as image schemas. Cook suggests that musicians who are used to reading scores experience a spatial, even visual, awareness of the overall form of a piece of music when they hear it. The most conclusive sort of evidence for this comes from experimental studies with laymen. Before we turn to this let us start with an outline of music theory and its strong claims about spatial imagery (Cook 1990:51ff). The evidence is instructive although it involves both a cultural and an expert bias. The prevailing tenets of Western musical analysis generally include seeing musical structures as a tropical PART-WHOLE relation. The underlying premise is that what happens between individual notes in terms of counterpoint can also occur on a higher level. The modulation of key areas contrasts them in an analogous way to individual notes, thus raising tension or dissonance to the level of total structure. This is characteristic of the sonata genre. Stressing the part-whole trope entails that the piece is meaningful only as entirety. In sonatas the contrasts are resolved and overall BALANCE is established only when the thematic material of a piece is perceived in total.

Not wholly unrelated to this, the school of analysis harking back to Schenker interprets musical forms as arising from a ground in a kind of figure-ground relation. A symphony may have a 'home key' as ground, in the sense that all other keys through which the music passes are to be understood in relation to this overall tonic. If this is correct, a piece has only one tonality landmark, while every other segment represents only trajectories appreciated relative to the basis. In other words, there are deviations from and subsequent reapproximations to a marked base. Schönberg, for one, expounded this view explicitly and related the way a given key is experienced to the distance and relationship to the overall tonic. According to adherents of this view, the closed tonal plan of eighteenth and nineteenth century composition represents an arch-shaped tensional contour in which the movement away from and subsequent return to the 'home key' creates a sense of finality (see Hofstadter's *Gödel, Escher, Bach* 1979: 129f).

Clearly, this movement in tonal space can be interpreted as image-schematic. We can assume that tension is a multi-modal concept in the sense that we cannot only experience it kinesthetically but acoustically and visually as well. Hence, the phases of the music piece are evaluated in a spatial and metaphoric way that perceives divergence from the 'home key' as spatial distance and as kinesthetic tension. The phases scanned summarily give rise to an arc stretching through the temporal dimension. The arc shape is created by the rising and falling degree of tension relative to the home key. The attributed large-scale form is activated as an image schema. We can generalize as follows: The meaning of a large-scale form resides in the topological features of this schema, just as the esthetic meaning of a musical form resides in imagistic, the building up of tension, and its resolution.

TESTING FOR THE COGNITIVE REALITY OF THE LARGE SCALE

The question of cognitive reality has to be examined carefully lest we overstretch our claims. Many findings may apply to musical experts, but not to average listeners. Most notably, there is the problematic issue of short-term memory constraints. For example, there is experimental evidence to show that tonal closure has psychological reality for the listener only if the time-scale involved is very small: Despite the fundamental importance that musicians usually attach to it, there is no clear experimental confirmation that the untrained listener actually notices when a piece of music, after variations and intermezzi of several minutes, returns to the basic tone (p. 54ff). Therefore, there can be discrepancies between the experience of the listener and the structure of the score on a higher level that is only accessible to the music analyst.

A general caveat, which applies not only to musical structure, follows from this: For large-scale formal units the psychological reality for the subject cannot be simply taken for granted. We must concede that a high degree of expertise is needed to hear the music as a formal structure. Such expertise makes it possible to 'see' musical events temporally remote from each other as an objective structure and not least due to the expert's familiarity with visual devices such as musical scores. Thus, mental or material *mediating devices* may significantly increase the performance in grasping large-scale forms.¹⁴⁰ However, in a survey of experimental studies Cook finds that the constraint of experts' mediating devices does not identically apply to musical forms of all magnitudes. Three levels of time-scale may be distinguished:

¹⁴⁰ This problem by no means only exists in the area of music. Several recent authors, such as the anthropologist McCallum (1996), leveled very similar points of criticism against Lévi-Strauss' often too sweeping claims about the systematical structural codes he artfully extracted from myth, ritual, and everyday action.

- (1) At the lowest level of musical organization – hearing a tone or hearing a scale – perceptual grouping is involuntary to a high degree.
- (2) At the intermediary level – hearing a couple of bars – listeners can decide to some degree what they want to hear. At this level music can be heard as grouped in one way or the other, depending on what the listener knows or is told about the music (p. 41). Here cultural and contextual expectations, moods, and associations of individuals give rise to what we called ‘hearing as’.
- (3) It is only at the highest level, that of large-scale forms, that average listeners may not succeed at all at hearing the music as form, unless they have been trained to use mediating devices such as the sort of spatialized overlay that a score provides.

Therefore, untrained persons perceive spatialized forms in music more readily when they occur on the intermediary scale. An example for such intermediary-scale forms that are cognitively highly effective with laymen are classically used music endings that evoke schemas of dynamic movement (p. 43). Regarding the use of pitch another frequent middle-level schema employs the movement towards a vanishing point, as in the stock nineteenth century close on the tonic. Occasionally an alternative schema is used that builds up a dynamic climax and then breaks off.

Furthermore, how strongly forms are constrained by short-term memory depends on the kind of musical cues. This becomes evident when we compare the form of fugue and the form of tonal closure in a piece of whatever genre. The multi-tonal structure of the fugue may be called a large-scale structure, but it is nonetheless constantly present. A constant hint of multivocality reverberates throughout a fugue, so that the synchronic contrast between keys reminds us of the diachronic contrasts. By comparison, a normal tonal arc involves a basic key that is not held present in the modulated keys. Hence, here the tension of the tonal arc is only felt when the preceding stages of the piece are retained in memory and contrasted with the ongoing deviations from the base key.

As a general methodological conclusion, we have to put claims about large-scale formal structures under careful scrutiny and test for their cognitive reality. This major conclusion does not only hold for music, but also for non-musical examples of action sequences (see the examples below). We should not jump to too hasty conclusions though, because various sorts of non-expert mediating devices enable people in everyday situations to notice structural codes. First of all, a reflective awareness of the large-scale form is not prerequisite for producing an aesthetic or evocative effect. Consequently, unduly restrictive test methods that lay their focus on the conscious recognition of formal structures could result in too narrow claims. Moreover, I propose that we must test for a number of additional cognitive mechanisms that help overcome the constraints of short-term memory in grasping extended

formal structures. (1) Image schemas that are represented through various symbolic media can counter the constraints of short-term memory. Thus pictorial representations of an arc may reinforce a musical arc. If many short-term structures of the same kind recur within an event, it may be easier to perceive that the whole sequence is structured in the same way. By the same token, iconic structures afford a mechanism in which parts within the same medium, e.g. sound, replicate the structure of the whole. When an image schema characteristic of a large-scale structure turns up within the same unit on the micro-level, this may help keeping the large scale present. (2) Another way that large-scale forms may be recalled is through words. Many rituals explicitly comment on what the whole action sequence is about, something that is not the case with non-vocal classical music.

METAPHORICAL EVENT STRUCTURE

A received wisdom of anthropology has it that most cultural orchestrations are not simply about themselves, but let other themes resonate through them. The form of events can also enter into more complex meanings when used metaphorically. In other words, the structural features of a sequence function as a metaphor of a particular theme. When this happens form does not stand for itself or its esthetic effect, but evokes a complex theme of social or cosmological nature. This fact is most obvious in all kinds of ritual, but may also apply to aesthetic pleasures such as music. The Javanese musical system of *gamelan* is a particularly good example for exploring the cosmological metaphors expressed through an aesthetic style (Becker 1979, Becker/Becker 1981). Gamelan music is performed mainly on bronze xylophones and bronze gongs by an ensemble of between five and twenty-five instruments. The fundamental governing principle of gamelan music is the cyclic recurrence of a melodic/temporal unit. According to the Beckers, gamelan is a musical manifestation of how the passage of time in Java is ordered. At least as far as the calendar system is concerned, time is represented as cyclical in Java. When seen only as time-measurement, the Javanese system is not unlike the European. Yet, this cyclical conception goes beyond a simple calendar in that it also reflects cosmological assumptions to a significant extent. Instead of the European idea of ever progressing change in Java we find a fundamental idea of recurrence. In this perspective, the really interesting thing about Javanese time, as reflected in the calendar system, is that it is not represented as a single recurrent cycle, but as several concurrent cycles running simultaneously. Two overlapping systems of week-cycles are of particular importance, a five-day one based on the indigenous market day system, and a seven-day one based on the Islamic week. The overlaps of these two cycles alone produce a larger unit of 35 (5x7) days, since the week-beginnings only coincide again after that time has elapsed and thus define the beginning of a larger cycle. As if this were not complex enough, there are two separate systems of reckoning months, one based on the

lunar month and one on a 30-day month together with a year cycle. For the Javanese it is an acknowledged and culturally highly valued expertise, similar to astrology, to know the coinciding of the various calendrical cycles and their meanings in the life of an individual. There are almanacs published each year and experts are consulted to aid people with charting in order to avoid hazardous coinciding and to take advantage of beneficial ones, for example for setting the date of a marriage. Now, all this concern with the coinciding of overlapping cycles is reflected in gamelan music. How is gamelan structured? The basic unit of gamelan is a cycle marked off by a gong. Other musical instruments subdivide this cycle into halves, quarters, eighths, etc. on successive levels of greater density and speed. In some pieces there are three subdivisions, so that the whole set of instruments coincides once in a whole cycle, many of them coincide at its first subdivision, and some at the third subdivision. Also, different cycles are turning within one system, some of them are not turning at the same rate, and even if they are they do not have the same length.

Coincidence is a central source of meaning and power in Javanese culture. Just as pitches coincide at important structural points in gamelan music, so certain days coincide to mark important moments in the life of a person. As calendrical cycles ultimately relate to the realm of nature (days and seasons), gamelan music draws its power from sharing with them the same basic structure of cycles and overlaps. By virtue of these gamelan is understood to replicate the cyclic motion of the universe.

Overall, we may say that Javanese culture sensitizes people for noticing coincidences in cycles. Overlapping cycles are a cultural feature present in various types of medium; they form a foundational schema orchestrated in different symbolic guises. This schema sensitizes the Javanese for a particular kind of event structure, an event structure whose occurrence has a high significance in explaining social power. The cognitive salience of points of coincidence in gamelan music is mirrored in an analogous salience and importance of powerful days and occasions. Gamelan is a prime example for a metaphoric linkage between everyday domains: An idea about society and cosmos that points beyond the esthetic realm itself is made audible.

4. Iconic replication of content in structure

So far I have been solely concerned with *formal structure* I am now going to extend our horizon to include its *thematic content*, such as the semantic imagery evoked by words or other conventional symbols. As the imagery of thematic content as such is the main topic of Langacker's life work and needs no further introduction, I want to focus on a more complex phenomenon in which both form and content interact.

Not infrequently, the structure of a text (in the broad, semiotic sense) replicates its content. This is what Haskell (1987a,c,d) dubs 'structural metaphor' and what Lakoff and Turner

(1989) – in accordance with the linguistic mainstream terminology – call the ‘iconicity of language’. As iconicity is the more mainstream term I will stick to it. The structure of an event can enhance or reinforce its content, or at least provide hints about it. An example for this was already briefly touched upon in the case of the endings in thematic pieces of music that move towards a vanishing point and thus signal the end of the piece. In this case an imagistic horizon schema was evoked by the fading music. Now for a detailed discussion of an example from poetry.

THE TOPOLOGY OF SCANNING

A convincing case study of an iconic sequence can be found in Lakoff and Turner’s (1989: 140-41) detailed treatment of the complex structure of William Carlos Williams’ poem *To Solitary Disciple*. It is a poem that is given not only to a reading through its content, but also to a reading through its iconic structure that replicates and reinforces the central parts of the content. I will not treat all the metaphors in the poem here, but focus on Lakoff’s and Turner’s account of the poem’s image-schematic structure as a whole sequence and its relation to the mental pictures evoked by its content.

The poem describes a church steeple with the tilted moon above the pinnacle. Direct your attention to the central part of the poem in the third and fourth stanza:

“Rather notice, mon cher,
that the moon
is tilted above
the point of the steeple
than that its color
is shell-pink.

Rather observe
that it is early morning
than that the sky
is smooth
as a turquoise.

Rather grasp
how the dark
converging lines
of the steeple
meet at the pinnacle –
perceive how its little ornament
tries to stop them –

See how it fails!
 See how the converging lines
 of the hexagonal spire
 escape upward –
 receding, dividing!
 -sepals
 that guard and contain
 the flower.

Observe how motionless
 the eaten moon
 lies in the protecting lines.
 It is true:
 in the light colors of morning
 brown-stone and slate
 shine orange and dark blue.

But observe
 the oppressive weight
 of the squat edifice!
 Observe the jasmine lightness
 of the moon.”

Let us bypass the two opening stanzas of Carlos Williams' poem, which are commonplace rather-than clauses in form and are mainly intended to set our expectations for what will follow. The third stanza, however, encourages us to imagine a mental movement along the steeple's profile and beyond it. It is this mental movement that takes on metaphoric significance. To get there we have to consider first the basic cultural understanding of HEAVEN IS UP, which is reflected in Christian architecture and invests the steeple with symbolic significance. The steeple points upwards beyond the edifice itself and toward the divine. Now consider the imagery evoked by the third and fourth stanzas of the poem. Linear forces converge on the steepletop ornament, which fails to hold them back. These forces pull beyond “the oppressive weight of the squat edifice”, as the final stanza of the poem says.

Adding all this up, Lakoff and Turner propose that the target domain of the poem, taken as a whole, is the essence of religion. In its metaphoric reading the imagistic passage just referred to suggests that the divine is above and more essential than the institution. The steeple points to something more essential than the edifice it is part of. The irregular and imperfect, but animate and natural form of the moon is considered more essential than the manmade edifice, which metonymically stands for the church as institution. Likening the

moon to a flower and the converging lines to sepals reinforces this animate image. Religion is seen to be not about the abstract, perfect, lifeless doctrine of the institution, but rather about real, imperfect, living beings. So much for a condensed version of the poem's *content* in a metaphorical reading.

What is of particular interest now for our purposes is the *structure* of the central poem sequence. Lakoff and Turner demonstrate how the form of a sentence and the form of a steeple are metaphorically understood as motions of the same overall kind. Even if the external form of sentences and geometrical objects usually have little in common, both require us to follow their structure with the mind's eye in a similar way. Importantly, the lines of the steeple are seen as moving; they escape upwards.¹⁴¹ They arise from a similar mental scanning as when we follow the imagined course of an image. Likewise, when we read a stanza we also understand its form as movement from a point of origin to an endpoint. Therefore, the way we scan our mental image of the converging lines and the way we scan the structure of the printed stanza are similar. It is this property that makes an image-mapping between the sentence's global structure and the rich image it conveys possible:

"[T]he linear form of the 'rather' clause' maps onto the linear form of the steeple lines; the metaphorical linear motion of the clause maps onto the linear motion of the steeple lines; the expected metaphorical stoppage of the 'rather' clause at the 'than' clause maps onto the expected metaphorical stoppage of the steeple lines at the ornament where they meet; the metaphorical opposing force of the meaning of the 'than' clause maps onto the metaphorical opposing force of the ornament; and the continued motion of the 'rather' clause past its expected stopping point maps onto the continued motion of the steeple lines past their expected stopping point." (Lakoff/Turner 1989: 156)

The implications of this phenomenon are rather profound: *In this way the structure of the content meaning (i.e. the imagined mental scene) is understood in terms of the structure of the form of the language presenting that meaning.* By virtue of a created analogy between two separate levels of linguistic meaning, an intriguing type of mapping becomes possible that lends an extra layer of metaphorical structure to the poem. Linguists commonly refer to this analogy between the evoked imagery and the formal features of language as 'iconicity' or 'iconic relation'.

This suggests the general hypothesis that we understand the form of language through image schemas:

¹⁴¹ Another effect of the scanning movement is this: The escaping lines imply action and applied force. The wandering mind's eye, in combination with the blocking ornament, lends itself to suggesting a pulling force away from the oppressive weight of the building, and therefore lightness.

"Thus, for example, one aspect of the sentence structure is given in terms of parts and wholes, that is the parts of speech and the higher-level constituents containing them. Other aspects of a sentence's structure are given in terms of balance, proximity, subordination, sequence, and so on. The schematic images that allow us to understand such syntactic notions are also used in our conceptual structure. It is for this reason that image-schematic correspondences between form and meaning are possible." (Lakoff/Turner 1989: 157)

Consequently, iconicity is a strong indicator that Lakoff's 'spatialization of form' hypothesis is applicable to formal features of language (although diverging by degrees from my previous description of spatialized tools of thought). As a more general phenomenon such iconic structure is not restricted to language in the narrower sense. It can enrich poems, narratives, rituals, or other forms of symbolism, and perhaps thematic music and dance as well. In all these instances iconic structure may serve to reinforce or clarify the contents, or to suggest unity of form and content as a general integrative principle.

ICONICITY AS CUE FOR GENRE EFFECTS

As another example of iconicity, Haskell (1987a: 78) mentions Giambattista Vico's book *New Science*, which was the first modern (18th century) work on the conceptual importance of metaphor. Vico's opus does not only treat metaphor as a topic, at the same time it also exemplifies the power of metaphor in its style. Quite similarly, many texts of Jacques Lacan 'embody' their main thesis, namely that the subconscious is structured like a language, by appealing to that subconscious by puns, metonymic associations, and metaphors in a systematic fashion and thereby evoking in the reader the topic of the text rather than describing it (1987c,d). The same thing has been noted for Hegel's style of presentation in reiterative loops as a mirror-image of his concept of dialectic. In all three cases, what has been criticized as unclear style of exposition is in fact a deliberate stylistic effect. In all these cases authors transfer their intended content to the structure of the communicative act. The understanding of iconicity resides in the human capacity to notice inter-level isomorphisms. In order to decode it, some sort of partial representation of the text's structure must be involved. Usually we do not consciously construct it, rather we subliminally extract it.¹⁴² In short, we metaphorically understand the structure of the meaning in terms of the structure of the form by extracting an image schema common to both.

¹⁴² We can surmise that there is a preconscious semi-awareness of the homology long before the 'click' of recognition occurs. Haskell (1989) produces evidence that bears out this claim. He shows that participants in group discussions actively produce homologies to the group situation in their choice of discussion topics, apparently without being aware of this.

Iconicity can attain considerable complexity and subtlety. A fascinating example can be found in the work of the philosopher Jean Gebser (1947), who produced a speculative theory of the development of Western consciousness with strongly mystic leanings. His is an evolutionary theory of the dialectic encompassing of successive states of consciousness. One key point I want to focus on here is Gebser's projected next level in the evolution of the mind ahead of us, which leads to a quasi-mystic mode of consciousness. The central idea is that this higher mode of reality (a mode Gebser calls 'diaphanous') can only be accessed through a leap. Interestingly, when I read the book it was the structure of presentation of this remarkable opus which gradually provided clues as to how such a leap might be effected in the mind. The structure of the book is highly repetitive, and at a certain point one is bound to start wondering why he chose that style of exposition. Gebser's objectives are, by logical standards, rather opaque. In fact, he asserts the reality of something that he is addressing, while at the same time acknowledging that language is rather incapable of describing it adequately. Interestingly, at some point in my reading it became obvious to me that Gebser's style is intended, whether consciously or not, as an iconic hint to the effect that grounding genuine understanding in everyday experiences will not yield any results. The argumentative dramaturgy reflects this: After a certain point argument modules are, by and large, simply repeated in changing configurations, rather than a great number of really new arguments being added. Each module in itself does not seem easily accessible, but surreptitiously and gradually a network is woven between these modules. Hence, they begin to mutually define each other as the text progresses. Involuntarily, although not effortlessly, I constructed a map of the text as a whole, which seemed to be a circular system. On the other hand, the content of the text also aims at presenting a consciousness that is inherently circular in an external view, a structure that cannot be accessed from the common ground of everyday discourse without a leap. At the same time this is exactly what Gebser asserts through the text's structure. The book's core theme is, then, the structure of incommensurable world-views and how we can still plunge into what radically eludes us. How we can do this is intimated by the book's structure. In short, the form of presentation points the same way as the content, because both posit the necessity of a leap.

All in all, this goes to show that entire texts can produce systematic genre effects through their structure taken as a whole and through iconic features embedded therein. By virtue of the repeated cueing of a specific pattern an iconic effect is, therefore, also possible at a fairly large scale. Even though, in the case of entire texts, a very detailed cognitive account of the hermeneutic interaction process between content and form is difficult for methodological reasons, it is apparent that authors intentionally (and sometimes subconsciously) use such effects and that at least a part of the readers will recognize them.

Chapter 12:

Large-scale Summary Images, Plot-genes, and Image Schemas

Up to this point we have explored image schemas as a means of understanding the formal structures of a meaning-carrying medium, such as language form or musical rhythm, and iconic mappings between form schemas and content schemas (i.e. form-semantics pairings). We will now focus more closely on the purely semantic aspect, and treat an interesting novel aspect of it not discussed explicitly before anywhere in the imagery literature. Thus we will be dealing with images evoked when language is understood semantically (i.e. in a poem's, narrative's, or novel's content) and more specifically with what I would like to call *summary images of representational content*.

The relevance of images schemas in construing semantic phrase-meaning is one of the most fundamental assumptions of Langacker's cognitive theory of language. In the present chapter I will give this approach a new twist through the claim that quasi-semantic imagery can operate at the supra-phrase level and that it can assist the cognitive interpretation of episodes as wholes. The present case study based inquiry presents a novel yielding a level of metaphorical insight based on the overall plot. However, my claim is highly complex and requires that a series of preliminary arguments are developed step by step:

- (1) I intend to show how the human mind makes sense of metaphorical cues scattered throughout a sequence, as outlined by Paul Werth (1999), and that this requires the gradual build-up of an overall image.
- (2) Going a step further than Werth's analysis, I argue that in some instances narratives or the like even give rise to overall images of the whole extended episode. These are a specific sub-type of what Yuri Lotman (1990) has called a 'plot-gene', i.e. a mnemonic scaffold underlying an extended theme.
- (3) Next, I will specify a cognitive precondition for a theme being condensed into a summary representation. The sequence must give rise to a 'summary scanning' in the sense of Langacker (1987a) in order for an imagistic plot-gene to emerge. This rests on the capability of the human imagination to synthesize into a single awareness contents that, in the real world, cannot be perceived simultaneously. I maintain that, with respect to large-scale structures, summary images require a selection and condensation process of imagistic knowledge.
- (4) Finally, I will try to illustrate through Joseph Conrad's novel *The Heart of Darkness* that the resultant plot-gene can metaphorically resonate and play on a conventional cultural model, in this case the Victorian folk-model of the self. In other words, the outcome of a summary representation can be imagistically mapped on other topologically similar models, including conventional image schema metaphors.

To put it in a nutshell: episodes as a whole can become meaningful through condensed summary representations; and these summary images can in turn be explained through the their image-schematic structure.

1. Orchestrating dispersed cues: Werth's notion of 'megametaphor'

I will begin with treating the question of how complex meanings are constructed on the basis of scattered cues and sustained innuendo. More often than not the meaning structures with a deep impact are dispersed over a sequence and cannot be precisely located.¹⁴³ In an admirable effort the late Paul Werth (1999: ch.11) unfolds a theory of metaphors that occur as sustained undercurrents in a text. Werth speaks of 'sustained metaphors' and 'megametaphors' (p. 317 and 323), which are employed by authors to achieve very subtle meanings without being explicit. These metaphoric elements are not expressed in any single location – they are cumulative.¹⁴⁴ We might note that other tropes, in particular irony, are often only accessible as the outcome of a sustained process of the same kind. As an example, Werth analyzes a megametaphor employed in the introductory chapter of E.M. Forster's *A Passage To India*, which then produces an ironical effect. The metaphor is based on a description of the city of Chandrapore, in particular of the natives' dwellings and the quarters of the English ruling class, through which wide-ranging statements on power and vitality are conveyed. A first effect comes from the repeated use of negatives in the description of the native quarters lying low near the river:

"The text is replete with negatives of all sorts and also with concessives:

- straight negatives: nothing extraordinary, no bathing – steps, not holy, no river front, never large or beautiful, nor was it ever democratic, no painting;
- negative modification: scarcely distinguishable, scarcely any carving, the very wood;
- words with negative meaning: trails, rubbish, shut out, mean, inefficient, hidden away, filth, deters, stopped, mud, abased, monotonous, excrescence, fall, drowned, left, rotting, persists, low;
- concessives: except for the Marabar caves, and THEY are twenty miles off, edged rather than washed, happens not to be holy, indeed, though a few fine houses exist, houses DO fall, people ARE drowned.

¹⁴³ A shortcoming of metaphor theory is the overly optimistic view it might leave with the reader about the relatively simple nature of the analyst's task in getting at deep meanings. Although many wonderful examples of small-scale metaphors can be found in the work of Lakoff, Turner, Johnson, and others, the central dimensions of meaning in long sequences are not typically tangible in the way localized and well-defined micro-structures on the word or sentence level are.

¹⁴⁴ A comparable effort can be found in Kövecses' (1994) article on metaphors in Alexis de Tocqueville's grand oeuvre *Democracy in America*. The cumulative metaphorical theme that his analysis reveals is DEMOCRACY IS A (PASSIONATE) PERSON.

The metaphors underlying this list never quite surface into explicit form: they are something like THE CITY IS A PILE OF RUBBISH, THE PEOPLE ARE A LOW FORM OF LIFE. The image this gives me is something like a rubbish-dump inhabited by rats, or perhaps a compost heap inhabited by woodlice." (p. 320)

However, this is only part of a much more complex metaphoric characterization. Another important sub-metaphor results from a mapping of the city's topology on the power relationships: The colonialist English live at the top of the hill and the natives at the bottom, people with mixed race being in between. This is the very common metaphor of CONTROL IS UP (which the English presumably used on purpose when they chose their quarters). It fits into the tendency, described by Lakoff and Turner (1989) and Olds (1992a,b), to think in terms of a Great Chain of Being spanning between the supreme level of humanity, which is nearest to God, down to nature. Yet, the Great Chain of Being can lead to an evaluative inversion, an ironical turn which Forster exploits in the next paragraph. Although the native people of Chandrapore are characterized as moving mud, and the whole place like some low but indestructible form of life, at least they are alive. They are connected to the organic and vital. By contrast, the imagery describing the quarters of the English is predominantly geometrical and impersonal and gives rise to INORGANIC IS GEOMETRICAL, as Werth suggests. Both, natives and English, are heavily set in contrast against the vegetation, which is

"almost violent in its mobility and vitality: the trees *rise, burst out, they seek light and air, and are endowed with strength, they soar and greet and beckon and build, and they glorify the city.* The most powerful movement that mankind can summon up, by contrast, is *swelling and shrinking.*" (p. 322)

Werth also argues that Forster attributes metaphorical values to the color scale, which reflects the vitality scale. The sky, which is metaphorically described as a temple, a repository and agent of vital divinity, and as the origin of all life and power, is fully specified in terms of color. For the vegetation intense color is strongly implied. The natives, on the other hand, are presumably mud-colored, and the English without color at all. The local metaphor of VITALITY IS BEING COLORFUL emerges from this and connects with the previous implication that EARTHLY POWER IS LIFELESSNESS. Thus, metaphorically the natives, who are closer to the earth and even appear to be made of it, benefit from the divine vitality of the sky, while the English ruling class completely lacks vitality and movement. The sky, then, redefines the POWER IS UP metaphor in terms different from what the initial characterization of the living quarters would suggest. The English may wield worldly power, but they do not partake of the power of vitality. On their hill they are, in a sense, suspended in an inorganic, colorless, and lifeless state between earth and sky, which are linked in a direct nexus of vitality.

In order to arrive at these metaphorical implications, the text as a whole has to be taken into account. Like approaches to parable and allegory, Werth focuses on expressions that

are not explicitly recognizable as linguistic metaphors. More importantly, he adds to other approaches in that the metaphors' effect is only achieved through cumulation in a densely interwoven context. Concerning method, Werth proposes to arrive at conceptual metaphors by inferring a common underlying conceptual frame from a set of divergent expressions, just as Lakoff and Johnson (1980) first proposed. However, Werth's megametaphors are accessible only on the higher level of the text or discourse, whereas almost all metaphors studied by Lakoff and his associates are still recognizable on the level of the sentence. Also note that Lakoff's conceptual metaphors, such as ANGER IS A HOT FLUID IN A CONTAINER, are *independently* recognizable in each of their single linguistic occurrences, say in "He blew his stack", and need no sustained context. Lakoffian conceptual metaphors can be grouped into clusters by the analyst, but they produce no sustained undercurrent within a single text. By contrast, Werth's megametaphors are only accessible in a cumulative and heavily context-dependent way. Again, this contextually sensitive approach dovetails nicely with the intent of anthropology not to abstract utterances away from their specific social context.

In line with the previous data, Werth's study of megametaphors indicates that integrated meanings have to be inferred from extended sequences. Conceivably, the sustained metaphor effects in Forster's novel, such as EARTHLY POWER IS LIFELESSNESS, do not produce a conscious effect in all readers. Yet, for the implicit recognition of the megametaphor and its ironical effect a condensation of sub-themes into a textual Gestalt is required. I would claim that the same summary build-up of a Gestalt is cognitively required for any other sustained trope to take effect.

In conclusion, let me underscore the high theoretical relevance of Werth's approach for my claims about sequential cognition. What emerges here, at least implicitly, is the idea of 'summary images'. A metaphorical undercurrent stretching through a text would not be possible without the build-up of a summary image, because the topic of the metaphor itself is only constituted through the subtle repetition of a theme, such as vitality and power, which has to be understood as a whole. Different expressions and words have to be matched to a single image to the extent that the metaphorical content is understood as image schema. This sets the stage for two consecutive cognitive claims. On the more general level it will be proposed that the theme of a sequence can be condensed into a summary representation. This is a process that is especially important in the build-up of memory, but may also play a role in understanding an ongoing process. On this premise we can later examine the more specific claim that image schemas figure centrally in such a condensed representation and link it to related themes by virtue of abstract features that these several themes have in common.

2. Plot-genres and summary images

There appears to be a capability of the human imagination to synthesize into a single awareness contents which cannot be perceived simultaneously in the world of experience. This, in turn, hinges on the human ability to build up 'summary images' from memory. I borrow the term from Langacker's (1987a) imagistic theory of grammar, where it is proposed that certain word-types like past participles are cognitively defined through grammar as evoking summary representations. The idea is that in a summary scanning traces from past mental events are retained in the mind and new information inscribed in the same locus, much like a multiple-exposure photograph. Although the notion is not new, here Langacker's notion will be applied on a supra-utterance level.

Cook's (1990: 89) previously treated study of musical images lends substance to the idea that sequences can be imagined in a summary fashion. There seem to be images of music in which what is heard sequentially in the concert-hall is "distilled into a single, heightened experience that embodies everything that is characteristic of the music". This experience is apparently available to anybody, regardless of his or her level of musical training. But not only music recipients draw on this ability. Several famous composers are reported to have, before writing the score, imagined their compositions not as successive parts, but as a single musical image (a Gestalt). This is also in keeping with a classic insight from reader-response theory by Wolfgang Iser (1978: 138). When reading novels there seems to be a sense in which an object appears with a kind of fullness and completeness that is not there in ordinary percepts into which no memories or expectations enter:

'When we imagine Tom Jones during our reading of the novel, we have to put together various facets that have been revealed to us at different times – in contrast to the film, where we always see him as a whole in a situation...In imagining the character, we do not try to seize upon one particular aspect, but we are made to view him as a synthesis of all aspects. The image produced is therefore always more than the facet given in the particular reading moment.'" (quoted in Cook 1990: 89)

While this statement is about the characters of a novel, perceived through a condensed blend of their attributes, I would argue that the same is true for the plot. In this context I would like to advance the general hypothesis that the operation of condensing a host of attributes, such as those of a main protagonist in a novel, into a single image is akin to a summary scanning of sequentially distributed events. What is more, it makes little sense to separate the attributes and plot, since they form part of a single process: The characters are, as we picture them, 'suffused' with the plot that has passed, and the action of the plot is, inversely, 'carried' or 'sustained' by the protagonists and their attributes. Mark Turner (1996: 134) also argues that a protagonist's character can generate an entire story. He cites Jerome Bruner's (1986: 37) general observation that the engine of action of a novel may either be

situated more in the plot or more in a character: In the folktale it is more plot that carries the narrative, whereas with the appearance of the psychological novel the engine of action shifted to the character. Turner (p. 134) also refers to the work of Kenneth Burke, who “made a life-long study of the ways in which any general aspect of a story space – character, action, goal, setting, and means – could serve as the basis for building up the rest of the space”.

Hence, we do not only blend attributes of somebody or something into a singular image, but are also able to imagine a complex plot as a summary whole. Of course, not all the various detailed memories of the narrative we could call up are present in such an image. Yet there is an important regard in which the general plot, in the sense of the logical structure or thematic cornerstones of the narrative, is condensed in a summary way. The resulting cognitive structure may be called a *plot-gene*, adopting a suggestion by Yuri Lotman (1990). The way I adapt the term to cognitive theory *a plot-gene is a mnemonic device around which other less salient structures of the sequence can crystallize, if we choose to go deeper into it in order to unfold the theme further*. At the same time it constitutes the image (or the small set of images) by which we remember a novel, a piece of music, etc., in a more fleeting way, without attending to the details. When prompted, aspects of the plot-gene will come to mind quickest and with the least cognitive effort. It is likely that plot-genes rely on deeply entrenched cultural scenarios, frames, and genres of artistic expression. These can provide expectational structures from where to set out. We can thus expect the actual plot-gene to be defined vis-à-vis this conventionalized expectational schema, either affirmatively, as a salient negation, as a split-off, or as a new revolutionary genre.

To the extent that plot-genes condense the action of the plot (and not the protagonists' characters) they have the features of a simplified scenario. Sherry Ortner (1990) develops an anthropological perspective which fits well into the notion of plot gene. Ortner approaches narrative plot-structures with a view on underlying cultural schemas that are not only related through narrative devices, but are enacted. These she calls ‘core stories’. In her study of the Sherpa of Nepal, Ortner uncovers a foundational plot that relates to a main cultural theme of the Sherpa, namely rivalry among men for resources and power. She describes a prototypical, yet flexible basic scenario of how rivalry relations pass through certain stages, which is found in action sequences both as acted out socially and as described in the mythic blueprints of social action. The details of the models vary from one context to another, but their skeletal features are recognized as related and thus processed in a similar way. I assume that such skeletal scenarios play a key role in plot-genes and can be grasped as ‘one-shot’ summary images.

Before we proceed to examine by which cognitive mediating structures plot-genes are aided, a cognitive definition of summary images needs to be recalled and the status of such images needs to be discussed.

WHAT ARE SUMMARY IMAGES?

I have asserted that plot-genes are primarily stored as simultaneous Gestalts, meaning summary images. How – it may be asked – is a summary image grounded in the cognitive faculties special to humans? A persuasive explanation is given by Langacker (1987a,b) in his distinction between the cognitive mechanisms of summary and sequential scanning, which was explained in detail in chapter 9. When we construe a cognitive unit as a process, this can be best compared to a film with successive images that pass before our eyes. There is no cumulative image built up in such a process; the perceptions of preceding phases fade away as soon as new ones occur. By contrast, when imagining a process as summary image we do something that is similar to multiple exposures of a photograph. In the same way that these overlap in one single picture the subsequent phases of a process are built up, while previous phases are conserved in short-time memory.

For the case of music this would mean that in the imagination the parts are not heard successively, but as if they were present all at once. All else being equal, the same cumulative memory process is true for novels, oral narratives, and perhaps dance choreographies or other kinesthetic sequences. The central and all but pedestrian difference to Langacker's theory, which focuses on the comprehension of words and clauses, is that for a piece of music such a scanning must occur over relatively long stretches of time. If such a summary image is to take effect, the corresponding memory traces must remain present in the long-term memory.

This raises an important general question: To what extent are the summary images retained in memory faithful to the actual percepts? In an attempt to give a cautious answer to this question Cook (1990: 90) paraphrases Sartre (1972), who speaks of the 'illusion of immanence'. We may believe that our imagery of a scene is just as real as a percept of it. But when we test the images against reality, they turn out to be incompletely formed. Sartre furnishes the following very simple example. In imagining the Parthenon of Athens one may have a clear mental image of it including the portico with columns. Of course, one can choose to see either five, or six, or seven columns, but if not prompted further most people do not have a clear idea of their number. The mental image does not allow answering the question how many columns there are, because it does not contain a set number of columns at all. Rather, it would seem that the image embodies a generic property that may be called many-columnedness. Sartre's observation is not only true for static images, but for sequences as well. Cook, for example, presents an example to show that this equally applies to music. When we try to imagine, say, the voice of Dietrich Fischer-Dieskau, we can imagine it as generic property. We cannot answer whether, in our generic image, he was singing piano or forte, what syllable or word he was singing, or whether he was singing the beginning, the middle, or the end of a note. Of course it is also possible to image him singing

a particular song, but it is equally possible to have only a generic image. In such a generic image one is capturing the mellowness of his voice, the particular emphasis in his articulation, etc., but no specific sounds or words. The image condenses overall attributes rather than the specific variations within a particular sequence. This and other general arguments for the human memory's tendency to store complex sequences as integrated Gestalt-images can be found. At the same time, plot-genes do presumably not arise in the mind automatically. Therefore, we have to ask next how they are evoked and cued by symbolic mechanisms.

FREEZE-FRAMES AND STORYBOARDS AS GUIDING DEVICES FOR CONSTRUCTING PLOT-GENES

I suggest the hypothesis that cultural meaning is often orchestrated with special devices, so as to facilitate the creation of a condensed mental plot-gene. It is usually not the case that condensed summary images are built up in the mind completely autonomously, no matter what the input. Instead, I submit that facilitating cues are brought to bear through various stylistic features in at least two ways: One first kind of cues may strongly suggest the build up of a summary plot-gene image as such, and once that has been accomplished, there are yet other cues that give directives as to the thematic emphasis of the plot-gene. For example, in the acting arts central concepts may be frozen into high spot-frames, as Arnheim (1969: 182) observes:

"In the Japanese kabuki theatre, an actor's play suddenly petrifies into an immobile, monumental pose, the *mi-e*, which marks the climax of an important scene and epitomizes its character. Less obviously, dance and musical sequences quite in general are often organized around such simply shaped high-spots, which summarize the state of the action at certain moments and serve as markers to orient the beholder or listener on his way through the performed work."

Freeze-frames are a quite frequent way of expressing sequences in many other examples. Compare this to Alfred Hitchcock's technique of freezing key scenes to imprint these scenes, and with them often particular images of terror, in the viewer's memory. Likewise, imprinting a particular sequence in memory can be achieved through the special marking or the particular emotionality of a ritual episode. Harvey Whitehouse's (1992) analysis of Melanesian rites of terror provides a telling example of this, when he refers to the so-called 'flashbulb effect' on memory and the formation of social self-definitions in young men. Particularly emotionally loaded memories, created through intense pain or sexual overtone, last for life, even becoming more intense with time. Possibly, the same may be true for memories of particular beauty or symbolic intensity.

Returning to the Kabuki example, we can tentatively observe two cognitively relevant points. First, there is a double effect of the petrifying pose on the way the play is stored in

memory. While any single freeze-frame serves to condense the particular Kabuki act in which it occurs, there is arguably a larger-scale effect acting in parallel. An even more condensed sum-total of various freeze-frames may provide conceptual pegs facilitating the access to the play as an integrated whole. Second, note that an art form such as Kabuki always conveys a double message, one of memory structuration and another of memory content: On the one hand they instruct the audience to memorize stories by using plot-gene images more generally (i.e. in other aesthetic or everyday contexts). This tendency may be natural enough to the human mind, but is additionally encouraged by the imposition of deliberate summarizing high spots, such as the Kabuki *mi-e*. The esthetic style reinforced here is also a 'memory style'. On the other hand, each specific deployment of a freeze-frame format guides the selection of what is chosen as a point of crystallization within the particular play in question. Other details are discarded or backgrounded within the given story.

The example suggests that a series of actions culminates in an image that embodies them. Hence, a freeze-frame must in some way be iconic of the whole process of which it is part. How is that possible? A freeze-frame or condensed epitome of any other kind must pick out crucial structures that have appeared distributed through time and integrate them into one simultaneously perceived Gestalt. Such a static image then becomes the crystallizing grain of a more complex event and thus a representative for its nature, by suppressing the variety. I would hypothesize that this condensed format is in fact exactly the way people often store meaningful sequences in memory. We might parenthetically note that such a cognitive view allows an interesting perspective upon naive and non-realistic art forms. The artist's endeavor to replicate such a memory-Gestalt as an object of art explains why artistic objects before the advent of realism are not only equally full of meaning as highly realistic depictions are, but perhaps even more effective than these in capturing multiple structures of cultural meaning into a single compelling image. For example, multiple perspectives on a single event can be put into a single image, much like many of Picasso's most famous pictures do. Departing from the natural dimensions, forms, or temporality of things may provide a direct access to memorizing more complex meanings. If, for example, a Christian religious icon depicts Jesus as much larger than other protagonists, this expresses his greater relative importance or holiness. I would say that these metaphors have a natural analogy in the way we think. In a sense, the main character figures 'larger' in memory by being more salient.

A technique related to freeze-frames is utilized whenever artists transpose narrative sequences into visual depictions in the fashion of a snapshot gallery or comic strip. Church friezes and religious icons provide a good example. Often we find comic-strip-like depictions of the Passion of Jesus. These Stations of the Cross were meant as didactic devices for condensing the Biblical story into a memorable and simplified storyboard, especially for the illiterate in the Middle Ages and early modern times. Here the sensory channel of vision is

used to condense the narrative medium or perhaps to associate the two for a more intense memory effect. Again condensation works by suppression of detail. Comic books and storyboards pick out the most salient parts of a more complex scenario and leave the remaining details to be filled in either from the memory of the narrative or from cultural scripts. Although the details are not tangibly present, the freeze-frames are crafted to evoke a maximum of suppressed detail. Caricatures of people do this by picking out, mimicking, and exaggerating gestures and expressions that embody the whole character. The intended associations are not explicitly stated, instead a talented comedian has the ability to create such a condensed image that evokes the most typical characteristics of a person.

The freeze-frame technique is also used to create trans-contextual archetypes. In chapter 4 I extensively summarized Bradd Shore's (1996) ethnographic treatment of Murngin initiation through a repetition of similarly structured sequences. Shore's argument went that across a connected series of different versions of the same foundational myth of this Northern Australian people a sequence of memorable 'snapshots' is produced which freeze scenes into archetypes: A cultural archetype, in this case an archetypal process of gaining real and deep knowledge, is created by connecting several narrative and ritual sequences, from each of which a similar image can be picked out. As before, the effect is a condensed image. However, here it is not a condensation of a single event, but encompasses several related events, which are organized around archetypal freeze-frames sequences. In other words, different cognitive media evoke similarly structured storyboards and are integrated into an encompassing schema. Perhaps two processes rather than one happen here. On the one hand the freeze-frame picks out the shared generic structure from different but similar events, so that transcontextual commonalities are extracted as schematic images. I suggest that these become conceptual pegs for further processing. At the same time, a host of different details stemming from these differing contexts is integrated into a condensed memory image that is perhaps very rich in symbolic texture. I would argue that the interweaving of dense patterns of multivocal symbolism is facilitated by the conceptual pegs, i.e. the freeze-frames, that the various narratives and rituals share. Without them it would be considerably more difficult to project the differing formats into a single schematic image. Freeze-frames thus act as vehicles for associated pieces of memory. They may be thought of as converging conduits that create a confluence of symbols at a node.

Apart from prototypical scripts there are other important ways of how an image can evoke a host of details. As we have seen, the process of condensation is not only the case with attributes of the protagonists or moods, but also with movements. It is in particular painting or sculpture that often endeavor to abstract a movement or action into one arresting visual pattern or into a timeless image. An underlying issue is how a static image can evoke a dynamic movement in the mind. A major reason, so I would argue, lies in the mind's

propensity to project image-schematic vectors into static images. As Arnheim analyzes in a later work (1982), a painting incorporates a distribution of visual forces (a distribution of attention-weights or attractors vying for the viewer's gaze, so to speak). If it is abstract or two-dimensional, the distinctive Gestalts in a picture stand in a relation of weights determined by size, hue, and position, as well as in interrelations of alignment, direction, and interaction. If it is concrete, it evokes vectors that constitute vanishing lines and create a three-dimensional effect of depth, i.e. a virtual distribution in the picture. The point that the perception of object arrangements is always intentional, one 'way of seeing' among several possible ones, has been extensively discussed in chapter 7. Recall Alverson's (1994) demonstration of culturally specific ways of reading orientations into a simple arrangement where four objects of different size were aligned in the front-back dimension. My argument concerning his material went that culture and language teach us a specific way to choose either ourselves or one of the objects as point of reference for the remaining objects and, on that basis, read directional force vectors into the scene that correspond to this culturally determined figure-ground distribution. Also, a complementary demonstration was made earlier that explains how a static image can evoke dynamic movements. Recall Dewell's (1994) argument that a focus on a prototypical segment of the trajectory – in his case-study a focus on the arc of the OVER schema – can evoke the whole schema. An image can be a freeze-frame of an image-schema transformation and evoke the whole transformation that is conventionally associated with its 'cut-out' parts. A double action of static and dynamic features becomes evident: The Kabuki *mi-e* and similar freeze-frames evoke the movement that led to it, while impressing the image by its static retention in view for a couple of seconds.

3. The Heart of Darkness, the Victorian self, and what it means to get lost in the distance

Let us now draw all the just presented strands together. Paul Werth's keen analysis of large-scale metaphorical effects, which were left unconsidered by prior works on metaphor, can be combined with the concept of summary image and the concept of plot-gene. Going a step further than Werth, I propose to consider the possibility that the *reader interprets the overall plot of a sequence as a unified metaphorical image*. While Werth's literary examples of megametaphors feature densely orchestrated lattices of moods and attributes,¹⁴⁵ I have chosen a case here in which an overall plot can be quite straightforwardly explained through imagery. Here a novel evokes a central image schema upon which its deeper metaphorical

¹⁴⁵The multiplicity of these many interwoven attributes suggests that the representations involved are propositional, irrespective of whether we see this as condensed imagery or as a mode of thought in its own right.

meaning as well as its cultural and psychological impact rests (or at least a crucial dimension of it). In other words, my objective is nothing less than the study of 'plot-genes' comprising an overarching theme that is constitutive of an entire story's core-meaning. Note, however, that I do not claim that every story has a single constitutive plot-gene.

It should be borne in mind that the claims made here are *cognitive* in nature. In other words, what is proposed is not merely a plausible observer's interpretation, as might be that of literary critic. My objective is the reconstruction of the cognitive reader response and its cultural preconditions, i.e. of the actual way a novel is interpreted by the predominant part of the audience in a given historical setting such as Victorian England.

I will demonstrate the operation of image-schematic plot-genes on the basis of Joseph Conrad's *Heart of Darkness*, published in 1899/1902, a novel which exploits the central theme of penetration (or, for that matter, transgression) into the dangerous unknown. The story is, in the words of Bill Harrell (1982: 231), about "a crossing of a boundary from the well-defined self, the soul, the domain of order and grace, into the uncharted abyss of the appetites, the crossing over from prudence to greed and lust." In the novel, Marlow, a seaman and wanderer, recounts a steamboat expedition into deep African territory in search of the enigmatic Mr. Kurtz, who is the agent of a trading company at a jungle outpost. The story is situated around the turn of the century in the Congo, which was at that time a private property of the Belgian King Léopold and marked by rampant forced labor and vicious exploitation of the natives. The thrust of the narrative is (quite literally) towards Kurtz, who is the goal of the gradually progressing penetration into a strange, dangerous, and unfathomable territory. Kurtz has imposed a surreal order of terror and charisma among the natives. He is a man of captivating and demonic force who has signed a Faustian pact and is being worshipped as a god. When Marlow finds him, he is on the verge of madness and death, experiencing great inner turmoil. Marlow himself is changed in the struggle to comprehend his experience with this once exceptional and now tormented man who has looked into his own nature. Having succumbed to alien and yet strangely familiar forces in the zone of proximity between human nature and the 'Other', Kurtz dies with the words "The horror! The horror!" on his lips.

It is apparent that while the tale's overall structure is that of a literal journey, metaphorically it is a journey to the limits of the human soul. This central double meaning becomes evident in the very title. Going even further, the novel can also be read as a statement on Victorian culture as a whole, to its constructed cultural 'Other' and the hidden anxieties expressed through it. The concept of 'Other', taking inspiration from Foucault and later so well applied to the Western perception of the colonial world in Edward Said's seminal work *Orientalism* (1979), expresses a central cultural ambivalence. A harbinger of Said, Conrad ingeniously plays on the double-edged nature of Victorian imperialism. While explorative penetration into

the unknown of the 'Dark Continent' is the missionary imperative of the age, this always carries within itself the seed of alienation and self-loss through penetration into and dissolving within the unknown. The Dark Continent stands for the unknown within oneself, as it brings to the fore the baser aspects of human nature. In a revealing and ironic inversion, 'white man's burden' in this sense is not leading the 'savages' to a higher level of humanity, but the self-denying force exerted in maintaining a self that is always prone to give way to a baser nature, given the right circumstances (such as climate, malady, loneliness, and the like). The novel plays on the fear of getting lost and being engulfed by the enormity of the dark and unknown. More precisely, it plays on losing one's self at the perimeter of culture. The fringes of culture, geographically and morally, interchangeably stand for the fringes of our perceived self. At the same time, they disclose the 'other' self beyond. Marlow's words in reporting about the natives under Kurtz' rule emphasize this uncanny mix of alienation and identification: "but what thrilled you was just the thought of their humanity – like yours – the thought of your remote kinship with this wild and passionate uproar (...) the mind of man is capable of anything" (Conrad 1995/1902: 63).

The basic metaphor of the novel likens a spatial journey into the unknown that is full of irrational horrors to an incursion into the *terra incognita* within, a journey into the dangerous reaches of the human soul itself. It is from this metaphorical understanding that we can infer an underlying image schema, which I will call the PENETRATION schema (or, from the inside viewing arrangement, TRANSGRESSION). It is a composite of several more basic image schemas. It should be easy enough to see that it arises when a FORCE moves on a PATH and breaks through a BARRIER of a realm that exerts COUNTERFORCE, but is eventually breached. Consequently, this particular version of penetration is superimposed on a basic conception that involves the CONTAINER image schema, since realms are containers. Even though plenty of non-imagistic understandings may be drawn from the conventional journey metaphor (journeys may be dangerous, it may not be clear where they lead, the motivation and goals of the traveler may change on the way, etc.), I prefer to describe this as a version of the penetration *image schema*. There are two related reasons for this:

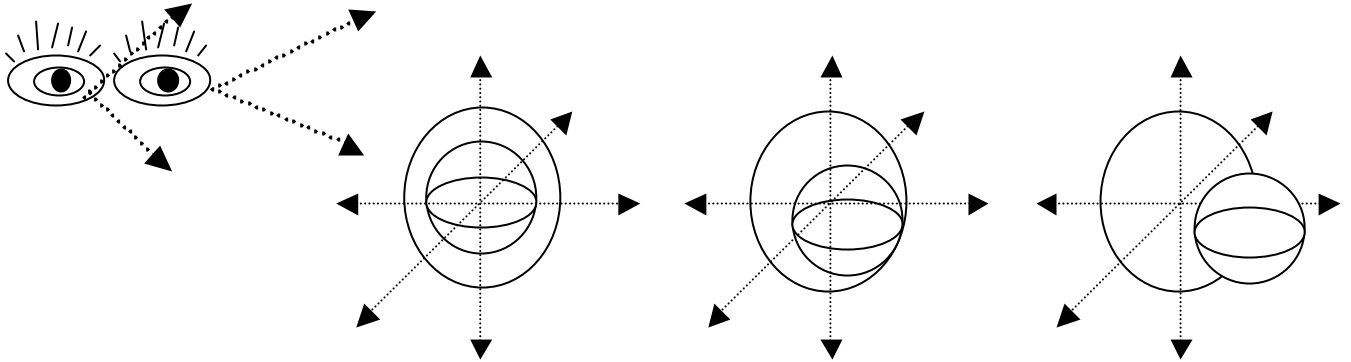
First, neither the mentioned propositions nor the image-schematic PATH-GOAL structure of the journey metaphor are sufficient for comprehending the novel's deep structure. More spatialized structure is needed in order to make sense of the barrier involved. After all, the story is about reaching and perhaps breaking the boundary of a realm. The boundary is also a barrier that contains and protects, and that does not yield easily. It exerts a counterforce on those attempting to transgress. The outer skin of the realm can be understood as the end-point of our self, and at the same time as the beginning realm of the 'Other', the culturally (and subconsciously) unknown outside. The act of penetration carries in itself the danger of destroying the barriers of our known realm for good. Thus, the spatially conceived barrier of

the self-schema may also stand for moral barriers. This may be the case in a quite physical, embodied sense: In the Victorian age it was a prime imperative to contain oneself. The constraints of English upper class habitus dictated pulling-oneself-together, a control of the passions, and a strong avoidance of 'getting carried away'. In Victorian metaphorology, being your socially accepted self was being in the proper place. Passions such as anger and lust were accepted, but only as channeled into socially accepted goals or romantically sublimated (cf. Stearns 1994: ch.3).

We can also see now why the more elaborate image-schema of PENETRATION is needed. In its most basic terms, the journey metaphor alone would suggest too little loss of center (i.e. security and certainty), since it tends to impose the ever-shifting perspective of the traveler. As roaming travelers on a journey we ipso facto always remain situated in the fixed center of perspective, while it is the landscape that passes by. Each place is like any other; none has a special relation to any point of origin. However, here we are confronted with an overall-view from the outward perspective that lets us feel that the center is losing itself in the distance. The distance from 'home' (and our ensuing forlornness) is crucial to the novel's impact. In the more basic journey metaphor barriers may exist and be surmounted, but no imaginary realm is broken open, in a way that our movement would lead us away from our center of security. Yet, in Conrad's novel there is penetration into the geographically *remote* and into the psychically remote, remote meaning away from a source or point of orientation.

The second reason for going beyond the path schema pure and simple can be partly inferred from what has been said: the PENETRATION schema, which adds the elements of BARRIER and FORCE, gears into another commonplace Western schema that conceives the self as a centered container. The self as centered container is, crucially, imagined as seen from the exterior and as set in a place. In other words, it is objectified and it has fixed coordinates. This corresponds to the Victorian tendency to frequently see the self as the others see it, which means in a place of social and moral propriety. In Langacker's (1990b) way of speaking, the *objective viewing-arrangement* is socially and culturally encouraged and preferred to a predominantly subjective perspective, which would cast the viewing subject out of the mental scene perceived by it and let it perceive only other objects. Such an objective viewing arrangement holds the self in perspective as a trajector that is relationally defined relative to a landmark and so permits the subject to evaluate her relative distance from the socially appropriate coordinates of the container, to see how far she is 'beside herself' or 'out of her mind'. Presumably the objective viewing arrangement of the self is a means to encourage a strongly normative style of social self-control. Note that the importance of internal self-monitoring as a newly emerging characteristic of Victorian culture is underlined by Stearns' study of American emotion (1994: 51). Significantly, shame is added to guilt. My suggestion on how a self-monitoring version of the self works in the mind is also supported

by Kövecses' (2000: 24) analysis of a metaphor he calls the DIVIDED SELF: "The canonical person consists of a self and a body, and they are related in such a way that the body contains the self." However, I believe to speak of a DECENTERED SELF is more accurate, at least in the context of Conrad's novel.



(1) The self in its original place, (2) shifting to its boundary, and (3) transgressing it. The objective viewing arrangement is indicated by the external position of the subject, although the whole setting is of course reflexive: the subject sees herself as if it were another person.

If we understand our self and the realm of our knowledge as structured by CENTER-PERIPHERY, then penetration into the outer realm can entail a loss of anchoring in the center. This may manifest itself as a loss of self or a loss of control, and in either case a loss of existential certainties to hold on to as we proceed into the unknown. Conrad plays on the idea that, even if the core of the human self – much in the sense of the metaphor of epistemic proximity KNOWING IS GRASPING (Lakoff/Johnson 1999) – may be very familiar, the exact location of its outer limits ever eludes us. In other words, most of us find it difficult to imagine the extreme states of mind and behaviors of which humans are capable.

Yet another motif is refracted in Conrad's novel, one that militates in favor of an underlying theme of penetration. In Marlow's account of his experience a fair amount of evidence can be found for a coupling of the mysterious Dark Continent and the female element: seductive yet incomprehensible, dazzling yet abysmal, of powerful attraction yet alienating, dominated yet dominating. Needless to say, the theme of boundary is also a theme of gender relations. Penetration can also be seen in the light of the Victorian sexual anxieties, the fear of a female 'Other'. It is women who "guard the door of Darkness" (p. 26). (Perhaps a Freudian perspective would best explain the juncture of women and the Dark Continent: they are alike in rousing male anxieties of being engulfed by the object of domination, which is at the same time their source of fascination, greed, and lust.) Marlow is split in his uneasiness about women in the position of knowledge and power and his veneration for women. Hampson, in his introduction to the novel (1995: xxxvi-vii), expresses this:

"Certainly, it is the African women and the Intended [of Kurtz] who are the focus of the final part of Marlow's narrative. If Kurtz sets himself up as a god to be worshipped, Marlow here sets up the Intended for his own ambivalent act of worship: as he 'bows down' before what he conceives as the Intended's faith, 'that great and saving illusion' (HD, p.121) he simultaneously reasserts and imposes on her a patriarchal ideology of separate *spheres*, a female world of illusion ('too beautiful altogether') and a male world of truth ('too dark altogether')" [italics mine]

The last quotation also reflects a final aspect of the penetration complex, the mythical theme of initiation into dark, yet original knowledge. Penetration as a form of male initiation is a cultural template that appears in many guises. Parallels between a penetrative ('male') style of exploration and knowledge on the one hand and sexual penetration on the other have been variously pointed out.¹⁴⁶

The question now seems to be how these themes become a unified complex within a cultural background. Bill Harrell (1982) ventures the interesting view that Conrad's novel owed its great success to the reflection of an overarching preoccupation of his Victorian contemporaries with maintaining boundaries: those of race, nation, class, community, family, church, and gender. Conrad's novel struck a cultural chord with virtuosity: the fear of the 'Other', and the perceived necessity to remain distinct and superior. Late Victorianism was characterized by emerging class conflicts, by social boundaries coming under attack, and by the relation to the colonies being questioned. Hence, Victorians projected on Africa what they most feared in themselves and their conflicted social order. Harrell expresses this as follows:

"The sense of being within a social and personal boundary of righteousness supports the pride (ethnocentrism) which permits the association of material wealth with personal grace and civilization. It permits the confusion of greed with progress. Marlow perceives this confusion and understands how it threatens to unhinge the bearers of progress, to bring down the boundary itself (to shatter the form). He understands also that Kurtz has confused truth with power; that his fragile control over the natives is maintained by fear grounded in force, a brittle and unreliable source of order." (p. 232)

The penetration metaphor with respect to the self also hints at the basic dilemma of the Victorian self-image. The political message is simultaneously a psychological one. It is the dilemma of maintaining self-conceit as 'the pride of creation' and at the same time exploiting

¹⁴⁶ Despite his distancing irony, an only faintly concealed acknowledgment that the familiar illusion of self is not true knowledge is present in Marlow's words. The journey, then, perhaps is one to true knowledge. Notions of a mythical original journey are reflected in passages like "Going up that river was like travelling back to the earliest beginnings of the world (...)" (p. 59) or "We could have fancied ourselves as the first men taking possession of an accursed inheritance, to be subdued at the cost of profound anguish and excessive toil." (p. 62)

the colonies to the benefit of the motherland (again, the 'center'). The need for contempt of and distance from the 'animal Other' reveals, both, the subconscious fear of its irruption into one's self and the displaced truths of an imperialist economy in Christian disguise. The bad faith and the dilemmatic nature of an externalized social conflict create a source for cognitive dissonance that is hypocritically displaced. The twofold Victorian self-delusion that Conrad puts his finger on can be expressed in one quasi-spatial formula: Best that the center shouldn't know what the outer reaches are really up to – in Victorian colonial politics as in the Victorian soul.

What is the upshot of all this for a cognitive analysis? A first observation is that the penetration theme surfaces in several ways that are understood as one, in this case a single underlying anxiety-cum-attraction. It seems appropriate to speak of a ianús-faced schema, in which what is penetration from the one point of view is transgression out of bounds from the other, with a pull on the subject both from the center and the periphery. I propose that diverse experiences of boundaries can give rise to one abstract schema or, put the other way around, that the same schema can be extracted from all of them. The unifying element, which may be called a plot-gene, thus appears to be image-schematic in nature. Within such a bracing structure various structurally similar sub-themes may be developed as transitory figures, while the plot-gene remains subliminally present in the cognitive background. The fact that *Heart of Darkness* can be read in many culturally significant, yet hardly arbitrarily chosen ways, substantially relates to a mixture of such a global structure and several sub-themes. We saw that women repeatedly appear as doorkeepers at the thresholds which Marlow has to pass, literally and metaphorically. They are the guardians of liminality, the state of 'betwixt and between' described so well by Victor Turner (1967) for ritual process and initiation. On the one hand, such an iconic duplication of the novel's global structure in its details – a process of transgression on both levels – gives extra impact to the boundary theme. On the other hand, it is significant to see that it may contribute to the unity of sub-plots. For example, it may create an understanding that gender relations and race relations not only have a common concern with differences, but are actually aspects of one integral complex of *difference*. Metaphors such as Conrad's women guarding spatial thresholds lend substance to the idea that all different varieties of difference are encoded through a common underlying spatial image schema. This bipolar schema I will call CENTER AND ALTERITY. Many of the sub-plots of Conrad's novel are understood as meaningful in relation to the global structure, which they either hint at or replicate. The emergence of such an interactional effect in the reader's mind between overall plot and sub-plots is presumably dialectic in nature. The sustained metaphors that Werth speaks of take effect on the basis of early elements in Marlow's account that foreshadow the deeper existential and cultural significance of the journey into the uncharted realms of Africa. Conversely, the deeper metaphorical relevance

of the penetration theme is unfolded step by step by the consecutive sub-plots, which perhaps results in a cognitive effect in many readers paralleling the thick description unfolded in my analysis.

From a cognitive perspective, a second intriguing observation emerges: The narrative chooses a form that nicely gears into an already existing and significant cultural schema. An interpretation of it being but an extension of a conventionalized schema is congruent with the central thesis laid out by Lakoff and Turner (1989), who show that poetry is an artful elaboration of conventional everyday schemas. That this also holds for prose becomes evident when Harrell's analysis is seen in the light of one of the principal Western models of the self (cf. Lakoff and Johnson 1999: ch.13, who distinguish five models). Harrell's diagnosis of a historically motivated preoccupation with boundaries in Victorian England is not only compatible with the self as container, but skillfully builds on it, in order to reveal previously undiscovered facets. In my view, one reason why the basic schema that is used and its extensions blend into one another is their simple image schematic structure. The background condition for the self model as container and the penetration model to go together so effortlessly is that, being image schematic in nature, they are spatialized, fairly abstract, and malleable. They fit because their conceptual core is relatively simple and poor in detail. Simple structural features allow the superimposition of models to be so productive. Recall that I identified a shared imagistic skeleton at a high level of schematicity as a precondition for families of models earlier. The ease with which human minds can perform this image-schematic transformation accounts for the elaboration of complex meanings out of more basic cultural schemas to remain largely unconscious without the connection being lost on the individual. Only a certain subliminal awareness of the fact that the penetration theme has to do with an important cultural concept of the self accounts for the novel's effects on its readers. The remote 'Other' is, as it were, recognized as a segment of the self. This may be due to the subliminal feeling that something unknown lurks within every soul. Given that the Western model of the self really invokes an imagistic container to be guarded and centered, it seems to be rather obvious that a purely propositional (i.e. non-imagistic) approach will have considerable difficulty in explaining the fit between the self-schema and Conrad's plot-gene of penetration into the unknown. In that the riverboat journey as overall plot is metaphorically understood as standing for a process of the self, it comes to be a 'megametaphor' of the most extensive kind conceivable, and one which is constituted by a relatively simple, yet central image-schematic model.

To what degree is this model a mere historical contingency? In response to this question a third somewhat tentative observation seems possible. Recall that we assumed that image-schematic plot-genes act as mnemonic vehicles for propositional details. The distinction between the imagistic plot-gene and the broader thematic cluster surrounding it may provide

a basis to answering the question of contingency. I showed that the broader Victorian psycho-political mindset in question encodes several resonating themes all linked through the spatial schema of CENTER AND ALTERITY. In a general way, they reflect social, gender, and racial anxieties with respect to shifting positions of distance, transgression, and incorporation. However, more specifically Conrad's novel also develops a thematic cluster including the eternal mystery of the (female) 'Other', its terror and fascination, and the power ultimately located therein. Even though these ideas are framed in close connection to the loss of self and the notion of wandering the existential fringes, it goes without saying that there is much more cultural knowledge to these resonating ideas than a single image schema could convey. The exact cultural idea of what the female is like, what sex means, what death is, what a stable psyche requires, and the like are not specified by the idea that the self is a bounded space, nor could the manifold facets of such complex ideas ever be captured in a single schema. All these complex aspects are what I called (by default) propositional knowledge. As a further observation we may note that a crucially basic model of the self as centered space continues to be constitutive of all European cultures even today, whereas the distinctive Victorian anxieties framed in this model by Conrad no longer happen to be so virulent. The specific values, moods, and emotions associated with a loss of the self's center have changed, a point that is also demonstrated by Harrell's (1982) comparison of the public response to the *Heart of Darkness*, first published 1899, with the response to Francis Ford Coppola's 1979 film *Apocalypse Now*. To name but a few changes, today the strongly normative definition of the sane self has lost in power, the fear of degeneration is less pervasive, the human passions are more socially accepted, and inner restraint is certainly no more the psychological precondition of neo-imperialist domination. The 'Other' of our times, while still firmly in place as a mechanism, is defined in other terms in spite of the continuing existence of racism. So, where does this leave us? It seems that the image-schematically defined self schema as a principal cultural schema can be expected to remain relatively stable, while the evaluative dimensions associated with it are more strongly subject to historical change. This suggests a generalized hypothesis to be tested: While each culturally important image-schematic model is 'rigged out' with a series of evoked associations, the former retains something like an organizing role. It is culturally more permanent and presumably more primarily selected from the cultural repertory, while other themes are organized around it. The underspecified nature of image schemas makes it natural for them to be enriched with various kinds of detail information. Thus, the penetration schema may remain stable at the same time that the exact cultural meaning and context of breaching the boundaries of one's self has undergone transformation.

Now for some final considerations on the validity of the case study. If the fear of losing one's self in 'decentered' states is indeed a prevailing Victorian schema, we should be able

to track down the theme in many other places. A case in point is given in Bruce Mazlish's article "A Triptych: Freud's *The Interpretation of Dreams*, Rider Haggard's *She*, and Bulwer-Lytton's *The Coming Race*" (1993). A few short extracts from Mazlish's analysis of these two other contemporary novels dealing with the cultural 'Other', although different in intention from Conrad, will serve to enhance the credibility of my account. Even though the spatial self schema can only be indirectly inferred and the plot of the gradual transgression of a boundary is less central, an identical cluster of themes is most evident. Haggard's cultural metaphor of this Victorian thematic complex takes the form of a love story with the immortal 'She' who, much like Kurtz, rules in Africa through irrational terror. Again the locus of the irrational is a far off place, uncanny but enticing. In Mazlish's characterization, "a chaotic mix of love, sex, eroticism, necrophilia, death, and male curiosity about the supposed eternal feminine" (p. 734) runs through the novel. First, this fascination with the eternal feminine (as the 'Other' par excellence) has a counterpart in unspeakable terror, as expressed in the words of Leo, the novel's hero: "no nightmare dreamed by man, (...) can equal the living horror of the place" (cited on p. 733). Like in the case of Marlow's mission, breaching the sphere of sanity also gives access to deeper power: "For Haggard, women symbolically embody the 'greatest mystery in the world'. Solving this mystery and finding the 'spot where the vital forces of the world visibly exist' give Leo and Holly, and thus mankind the power to rule over the world (...)" And again the mystery takes the form of a spatial quest. Second, replicating the constitutive paradox and ambivalence in *The Heart of Darkness*, Mazlish identifies a spiritual task at the core of, both, Haggard's and Bulwer-Lytton's novels:

"Both authors are also concerned with the need to defend and extend civilization, which they see as a spiritual, not material task. [Both men having served the causes of the Empire, they] see this task as a mission to be carried out by Englishmen. Yet, at the core of being an Englishman – who, for them, is a combination of gentleman, secular missionary, and empire builder – there lurks the sense of unrestrainable passions symbolized by the eternal feminine. Hence the sense of terror and foreboding of evil at the heart of their books." (p. 741)

This lurking danger is also the fear of being reduced to a baser state of humanity, an implicit heritage of the narcissist injury inflicted on Victorian culture by Darwin's theory. In the case of 'She' the fear is metaphorically expressed as being reduced to baboons. When She dies she shrivels up to the stature of a baboon (p. 735). Third, restraint and keeping the psyche in place is again identified as the basis of power, reverberating in the alter ego depicted in She's rule. A rectified but subliminally revealing mirror image of She's irrational rule of terror, Queen Victoria's rule, "too, is based largely on imagination; for British regiments are always outnumbered by the savages among whom they exist but whom they dominate psychologically." Bulwer-Lytton's message fits perfectly into the present elaborations:

Britannia will rule as long as the valiant Britishers project their self and act in a way that keeps them at the secure center where self-control (and self-denial) reign supreme. The imagined self now turned social reality is their means of psychological domination. Colonial discourse endeavors to stay poised in the metaphorical place where a sense of certainty can be endowed with the self-mystifying attributes of power and where European cultural supremacy can be envisioned with ease. The imagined self that holds fast to its proper place is one that is not beset by doubts or weakness in the way the befuddled and horrified men on Marlow's riverboat are. At the same time, somewhere deep down those who have come to the fringes of their ideal self sense that irrationality is the truer fountainhead of power.¹⁴⁷ This enacted cultural contradiction of Victorianism appears to have been a compelling source of fascination for all of the mentioned authors and their audience alike.

4. Summary: The study of sequential cognition

The general intent of this chapter has been to demonstrate the scope and power inherent in imagistic formats of mental representations. More specifically, the culturally structuring power of highly schematic imagery acted as a background condition for the present reflections. The essential argument went that the recognition of structural interrelations between models that form a thematic cluster is situated to a significant extent in the schematic skeleton shared by several models. The elective affinity between the self model and Conrad's core metaphor was explained on this basis.

Summing up, through the case study several general propositions about human sequential cognition have emerged.

(1) Overall metaphorical readings of sequences are possible and may constitute a significant level of understanding. Findings of the past show that the ongoing textual interpretation is enriched by conceptual information adduced from prior scenes into quasi-imagistic blends of mood (Iser 1978) and that sustained undercurrents can evoke systematic metaphorical effects (Werth 1999). I submitted that these principles may apply to entire sequences, when people come to think about their main plot or their key-metaphors. The basic cognitive mechanism responsible for an overall reading is the gradual build-up of an integrated summary image in the mind of the addressee (Langacker 1987). A summary image is the simplified image people retain after reading, seeing, or listening to a sequence to organize its basic structure in their mind. A mnemonic memory trace of that sort acts as a scaffold for detail knowledge. It may be intentionally fashioned by authors through cues based on specific stylistic features.

¹⁴⁷ A straightforward recognition of this topos can be traced in philosophical irrationalism at the end of the 19th century, also contributing to fascism shortly after the demise of Victorian culture.

(2) Plot-genes can be image-schematic, and perhaps they tend to be. It was argued that the memory trace of plot-genes takes effect through image schema extractions from such summary images, to the extent that they are stored as analog Gestalts in the mind.

(3) It was surmised that the relatively simple Gestalt structure in the summary image functions as a bracing structure into which the more complex propositional details are inserted. (These details emerge as soon as one focuses on a specific scene in memory.) In our case the imagistic CENTER AND ALTERITY schema and its dynamized version, which I termed the ianous-faced PENETRATION-TRANSGRESSION schema, form a thematic hub that links a complex agglomeration of cultural anxieties.

(4) It was also argued that there may be sub-plots, such as the threshold image, that iconically replicate the overall plot-gene on the basis of their image-schematic structure. They initially serve to hint at and evoke the plot-gene in the beginning or to reinforce it once it has been built up.

(5) It was shown that artfully crafted sequential schemas, such as in novels, may gear into everyday models that are universally shared in a culture and creatively expand on them (cf. Lakoff/Turner 1989) in order to make historically virulent themes resonate. Again, they achieve this link on the basis of image-schematic similarities (such as the self as a centered sphere and the image of penetration into the unknown through a riverboat cruise). The general schema of the self forms the necessary background condition for a recognition of a specific overall metaphoric level in Conrad's novel.

(6) It was proposed as a hypothesis that the basic image-schematic scaffold is historically more stable than the associated propositional details. Cognitive continuity in the basic images of culture is based on core images, such as the self as container, while the way they are framed and how inferences are drawn from them may deviate significantly.

(7) Finally, it should be noted as a disclaimer that it was neither proposed that the Victorian self schema is a cultural universal, nor that it captures nearly all aspects associated with the self in that culture and epoch.

I presented some ideas about how the levels of bracing themes and local imagery are interwoven into a textual fabric. A key task for further research is to get empirical support for the ideas and apply them to further examples. Another serious issue, which has perhaps been passed over too lightly here, concerns the individual variations in cognitive strategy and the idiosyncrasies in thematic emphasis in the way readers from the same cultural background acquire an understanding of deep metaphors. It is generally accepted now that there is no one true reading of a novel. While cultural cognitive analysis can in principle at least shed light on prevailing cultural dispositions and the scope of variation, this is more difficult in the case of deep structures that speak to the audience's unconscious. This is the price to be paid for a perspective on metaphor on a complex supra-sentence level. The layer

of meaning in focus here is more implicit, and thus more elusive, than in the metaphors traditionally studied, precisely because it adds intricately to the primary level of episode comprehension.

Chapter 13:

An Image-Schematic Theory of Multimediality

Explaining multimediality in complex discourse and social practice is one of the prime challenges to cognitive anthropology. Díaz de Rada and Cruces (1994: 115) express the problem in the following way:

“Social practice brings into play a range of communicative and expressive channels. It is, by definition, a multimedia complex (Tambiah 1985: 145) whose global meaning does not lend itself to a reduction to what happens in each of the media separated from the rest. As the agents never cease to act, these media operate simultaneously.”

As a consequence, one of the major difficulties of writing ethnography and claims to ‘anthropological truth’ is conveying the simultaneous and multimedial nature of cultural knowledge through linear writing (cf. Bloch 1998). In the recent past, postmodernist authors have proposed impressionistic and similar innovative writing genres as an answer to this problem (cf. Clifford/Marcus 1986). However, in a cognitive approach a framework for multimedia settings is needed, which accounts for the experiential wealth encountered in ethnography, instead of reducing it.¹⁴⁸ Here I will propose a theory of multimediality based on image schemas.

A precursor of my theory of multimediality can be found in Haskell's (1989) theory of analogical transforms (see chapter 4). The model is broader and less specific than mine to the extent that it tries to model the transformation of invariances on numerous levels, in which the neuronal, sensory, perceptual, cognitive, linguistic, and logico-mathematic levels are viewed as a continuum. The part of Haskell's approach which is of specific use here is analysis of multiple empirical correspondences among the sensory, affective, motor, phonetic, and syntactic levels of a discourse setting. Each of the experiential fragments, which occur in space and time and thus dispersed throughout an event, is cognitively collapsed into a dense schema.

“By means of affective, sensorimotor, semantic, phonetic, syntactic, and cognitive processes, cognitive sensory schemata generate multiple meaning structures that are expressed in ostensibly single-leveled symbolic vehicles (...).” (p. 271)

¹⁴⁸ An alternative solution to the problem, though less interesting to the cognitivist project, has been proposed by postmodern ethnographers. They advocate capturing the multimediality of field experience by experimental ‘experience-near’ styles of writing that include impressionistic means.

The multiple levels of schematization by various analogic transforms can be conceptualized “as a series of matrices isomorphically stacked or mapped upon each other” (p. 268). He calls the fusing of multiple levels in one vehicle a ‘multicorrelative transformation’. On the basis of a laboratory discourse situation Haskell manages to isolate various levels of unconscious schematization in the participants’ statements. He distinguishes a subliterate semantic matrix, a subliterate phonetic or sound matrix, a subliterate syntactic matrix, and a subliterate motor or gestural matrix. Haskell analyzes a piece of discourse about a journalist, whose name is actually Sidney Harris, but who is mistakenly called Harry Harris. On the basis of this psychologically significant mistake discusses the subliterate references to the two researchers writing notes about the discussion group. The matrix transforms are notationally indicated by $M_0, M_1, M_2, M_3, M_4, \dots$:

“Subliterate Statement 13 illustrates matrix construction. M_0 is the literal topic of a journalist by the name of Harry Harris; M_1 is a semantic transform meaning hairy (bearded) and hairless (nonbearded) made possible M_2 , the sound matrix (i.e., hairy and hairless); in M_3 , the structure of the double *Hs* is reflected in the first letter of the two trainers’ last names and by the names of the two newspapers whose names both began with the letter *H*; in M_4 , the status order of the two trainers was reflected in the order of the double *Hs* (i.e., ‘hairy’ represents the bearded senior trainer, and ‘hairless’ represents the nonbearded junior trainer). The status order is also reflected in the order of the two newspapers mentioned, that is, ‘Harrisburg Independent Press,’ called ‘HIP’ represents the bearded, more liberal senior trainer, and the ‘Harrisburg Patriot News’ represents the second, more conservative trainer. Somehow cognitive structures were analogically and transformationally tracked, mapped, and stacked into an isomorphic matrix series (...).” (p. 269)

While the model I will present here has multicorrelative transformations as its object as well, it adds to Haskell by specifying the transformations in terms of topological mappings using the medium of spatialized imagery. Image schemas allow an account of how – in the multimedial complexes characteristic of symbolic social action – a common mental format underlies divergent channels of presentation, such as action, image, word, or habitus. They explain how different media can reinforce thematic representations and still yield a unity or how complex blends between media work. The import of this for the social sciences is high. Image schemas afford the only deeper and at the same time parsimonious cognitive explanation for the continuity of symbolic modes in culture. The notion of image schemas frees us from the shortcomings of theories of transformation invoking a neutral-mode ‘Mentalese’ for explaining how different channels of information interact. In embodied-cum-conceptual image schemas the necessary ingredients are already there, all as analog structures that can be mapped on other analog structures. Recall that image schemas were characterized as transmodal skeletal mental structures that are either evoked by direct

external percepts, linguistically mediated meanings, bodily self-perception, or memories of any of these. They constitute what there is of common ground between preconceptual and conceptual knowledge of various sorts.

In the following argument major strands of all the previous chapters are drawn together. The foregoing chapters have presented a host of examples for the fact that *image schemas underlie all of the following media acting on the human mind*:

- (1) Perceptual structures of natural objects, artifacts, emblems, and pictures;
- (2) Perceived action structures of natural or social events;
- (3) States of bodily proprioception, including what I described in chapter 4 as imagery retrojected from conceptual knowledge into the body;
- (4) Mental scenes semantically evoked through language at the word and sentence level or as condensed 'plot-genes' of larger structures;
- (5) External and content-independent structural features of language form (iconicity);
- (6) Phonological structures that evoke imagery and co-occur with embodied states of the speech apparatus.

Here I submit two propositions, both in keeping with the programmatic thrust of cognitive semantics: My first claim is that there are (potential) image-schematic relations obtaining between all these cognitive mediating devices and symbolic modes, simply because all of them share an analog format at the mental level. Second, it is by virtue of the common format that modes can operate in continuity with one another in cultural context. I assume that the continuity of symbolic mediating devices has several forms and functions. In many cases, a specific image schema heightens the impact of a new message by expressing it through several channels simultaneously. Often a symbolic medium also makes reference to a preexisting cultural theme. In other cases, the image-schematic continuity functions to blend information from various channels into a new unique kind of meaning that is more complex than any of its constituent parts. Finally, complex image-schematic interactions, such as opposition, irony, or Gestalt switch, may occur between several symbolic media and produce intricate tropic effects. It seems to me that all of these functions should be of immense interest to 'blending theory', since this perspective takes blending beyond its purely linguistic applications and gives us leverage for understanding cultural cognition of all sorts. Although this has not been studied so far, it seems obvious that diverging mental formats can go into blends, i.e. not only linguistic meaning can be blended with other linguistic meaning.

Ritual is an especially good point of entry for illustrating my hypothesis, since it is often crafted in a way that a maximum thematic interaction between symbolic channels occurs. The following ethnographic example will concentrate on how a common theme (albeit with connotative split-offs) is constituted through reinforcement. Unfortunately, I have not found

an example in which all of the above media co-occur, but four of the six will do. I will take a look at ethnographic data of a context in which a single image-schema underlies the shape of objects, the structure of actions, and the structure of images evoked by words as well as by proprioceptive body imagery.

AN IMAGE SCHEMA-BASED ANALYSIS OF A RITUAL MULTIMEDIA PLEX

To shed light on some novel theoretical facets I chose an example involving a multi-level schema similar to the PENETRATION / TRANSGRESSION complex in the *Heart of Darkness*. Let us follow Maurice Bloch (1992) into a condensed account of the marriage ritual of Ladakh, originally described by the ethnographer Phylactou (1989). Bloch's account analyzes the various aspects of a wife-taking raid into the bride's household performed by a group of young men, a ritual in which an arrow plays an important role:

"First of all, there is an element of sexual and reproductive symbolism. In the ritual the household of the groom is represented by young men arriving at the bride's house. Similarly, the penetrated household of the bride is not surprisingly represented during the ritual most prominently by the bride herself. Again, the symbolism of the arrow planted in the grain is sexually evocative.

Secondly, there is the symbolism of conquest. The fetching of the bride acts out the *entry into a bounded territory* by a band of triumphant young men with god-like associations who (...) seem to represent a royal army who receive tribute from admiring villagers as they proceed on their way to bring back that which will ensure their reproduction. The conquering symbolism comes not only from the groom's party's dances but also from the arrow which the leader of the men carries prominently and with which in some cases he 'catches' the bride by hooking her by her clothing." (p. 71, my italics)

In this passage Bloch elaborates the tie between reproduction and conquest, an association that is highly common in many cultures. It is quite plain that the two share a common underlying image schematic structure in a very relevant respect: the schema of PENETRATION, the forceful breaking of a boundary to enter another realm. This schema is grounded experientially in several salient ways. On the one hand, it is inherent in sexual penetration, which is the epitome and arch-image of penetrative acts for patriarchal cultures all over the world. Sexual penetration, in turn, is linked – via propositional knowledge – to fertility and reproduction, and thus partakes of the eminent cultural importance assigned to reproduction. In this way, the notion of penetration is linked with the continuity and well-being of the group. On the other hand, acts of penetration are also linked with the military expansion of the group. In warfare, territorial boundaries are being transgressed and the enemy's territory is invaded. This perhaps helps explaining why rape is a universal practice of conquerors. It is the enactment of both penetrations as one, and is experienced in a more directly embodied and permanently subduing way than anything else, especially if it results in pregnancy. (In a

frequent second step after invasion the enemy's territory is incorporated into one's own territory, just as the enemy's culture can be incorporated, and, in the most extreme case of cannibalism, the enemy itself.) Not infrequently, penetration into another group is also perceived as essential to maintaining the own group's well-being, as in imperialism.

Both acts of penetration, military and sexual, evoke an underlying theme they have in common, namely vitality. Conventional (= propositional) knowledge as well as image-schematic associations contribute to this. On the level of conventional knowledge the actors know that a loss of women entails a loss of vitality, because only they can reproduce the group biologically. This knowledge is additionally underwritten by the penetration image schema, which is brought into association by the ritual, and by its experiential ground: The most primary sense of penetration is experienced as a violation of one's bodily integrity; this again typically entails a loss of psychic or physical vitality in some way.

Consider, next, how a ritual object is used to evoke an image schema. It is the role of the arrow that Bloch turns to next:

"In fact the symbolism of the arrow reveals just how complex a totality is invoked in this marriage ritual and introduces yet further themes. Obviously the arrow is a weapon and perhaps a sign of the hunter [Phylactou 1989: 263] but it is also much more and has been very variously interpreted. The arrow is a central symbol, not only in the Tibetan culture area, but throughout the Mahayana Buddhist world, where it often stands for religion illuminating and fertilising the world. In the marriage ritual Phylactou stresses that one of its associations is that of a cosmic tree connecting the gods with the world of humans and so the entry of the young men can also be seen as the entry of the messenger of the gods into the house which is the centre of human production and reproduction." (p. 71)

Apart from the fact that the arrow, being a utensil for hunting and warfare, relates to propositional knowledge about conquest, it has the ideal shape to evoke strong image-schematic associations. An arrow with a sharp point and fledged with feathers, and in particular the way it moves when shot, clearly evokes first the PATH schema – It is no accident that the customary pictogram used for a path or a directional movement is an idealized arrow – and then, if it hits a target, the PENETRATION schema. More than being concretely related to war or hunting, the arrow abstractly evokes associations with any kind of penetration into bounded spaces.

Therefore, the path schema can be changed into the related schema of penetration by adding specific details. However, the possibilities for elaborating this basic image schema are not exhausted by this. Both, the FORCE and the CONDUIT schemas may be regarded as enriched versions of the path schema, and both make sense of a further theme of the complex that Bloch analyzes. As he points out, the theme of vitality presents yet another aspect of the basic image. The arrow stands for the illuminating and fertilizing nature of

religion. We may guess that a FORCE schema comes into play here, which would make sense if vitality were conceptualized as related to strength. If vitality is metaphorically understood in terms of kinesthetic movement (which it must be in part), receiving a force impulse implies a gain of vitality. The negative valence of penetration in invasion and rape for the receiving party is inverted to reveal the positive aspect of fertilization.

Even if the force schema were not operative here, Bloch's account leads us to the conclusion that a CONDUIT schema is employed. It is clear that the arrow stands for some sort of benign substance sent on a vertical path and that religion is metaphorically conceived as such a substance. That is to say that the illumination and fertilizing is understood as transportation of a substance down a CONDUIT, specifying the substance as the fertilizing, enlightening, and blessing power of religion. This interpretation is additionally underwritten by the fact that the arrow can also be seen as a sign of the entry of the messengers of the gods. In both cases the contents of a container, in the one case the benign substances and in the other divine wisdom, are sent down a path-trajectory from the gods to the humans and effect changes in the recipients. It is hardly an over-interpretation to say that we have here a fine example of the CONDUIT metaphor for communication as analyzed by Reddy (1979), where a message is sent from one domain or space to another in just the same way one would send a material object from one person to another.

The theme of vitality is invoked in still another way by the arrow. There are two ways in which the arrow is like a tree, which metonymically stands for vitality. To begin with, the arrow bears an image-schematic resemblance to a tree. This resemblance is additionally reinforced by a second resemblance that can be gleaned from propositional knowledge, since both trees and arrows are made of the same material. Thus, the arrow does not only have a similar Gestalt-image as a tree, we also know that it originates from it and conserves its substance. If this is correct, we have a fine example for the mutually reinforcing nature of imagistic and propositional cognition, as expressed in Paivio and Walsh's (1993) 'dual coding approach'. We can see how the arrow connects with the theme of the vitality of plants in a two-fold way, namely by the perception of its abstract form and by knowledge about its material and origin.

Bloch proceeds to show further facets of the multivocal symbolism that the arrow is capable of evoking:

"Even this multitude of associations does not, however, exhaust the connotations of the symbolism of Ladakhi marriage and we find yet another element that could be repeated from a wide range of ethnographic areas: the symbolism of food and wealth of the house, both principally represented by grain. The bride is separated from a number of key parts of the house, including the central post and the main hearth. The central post *can also be assimilated to the arrow, which connects the world of gods and the world of humans*, and by being forcibly removed from it the bride is as though separated

from the fertilising principle of her own house. Similarly, by being ritually separated from the hearth, the bride is being separated from another area associated with the food-producing center of the house. It is as if in submitting to the entry of the wife-takers the household is abandoning that which sustains its vitality" (p.71-72, italics mine)

That the arrow's potential for multivocality depends on its image-schematic structure could not be made any clearer. What the arrow and the post have in common, and what merges them into one multivocal symbol, is precisely a particular abstract structure. To use Bloch's words, what allows them to be 'assimilated' to each other is the PATH-structure they embody.

Bloch's reanalysis of Phylactou uncovers yet further metaphoric aspects coming into play here. To begin with, the circumstance that the house is seen as a centered realm has a series of implications. Consider how the bride's household, as she is taken from the center of her 'realm', loses its vitality that she is representing. This happens in a way, one may assume, that really gets under the bride's skin, since being embedded in one's familiar realm of control, of knowledge, and of social contact is crucial to the experience of vitality. So the notion of one's own realm and its connection to vitality is a strongly experiential reality. (Incidentally, the same is true for the realm of the individual self, as I have tried to show earlier.) The general form of this experiential metaphor is expressed as WEAKENING IS A LOSS OF CENTER. We have already encountered this metaphor in the moral and physical corruption of Kurtz, who had been an upright and sane man before he entered the *Heart of Darkness*.

As Bloch points out (p. 70), houses are not only the prime social, but also the prime symbolic units for the Tibetans, which have religious significance as temples, in that they contain the shrines of the household gods. Consequently, the bride's loss of vitality is not only experiential in the more practical sense, it is also symbolically mediated, insofar as she loses her spiritual vitality by being removed from the central post of her house. Specifically, the central post is conceived as a link with spiritual powers (presumably going UPWARDS) and the center of a CENTER-PERIPHERY system of moral belonging. Apart from being separated from the fertilizing principle of her own house, she is separated from her hearth, which, as the food-producing center, again is associated with vitality.

In sum, we find an impressive range of thematic evocations made into one in a single ritual. The unifying core-theme of vitality (the renunciation of the innate vitality of the bride-givers and the recovery of outside vitality by the wife-takers) locks into other themes such as the kinship element, the theme of conquest, as well as the alimentary and the cosmogonic themes. There is a deeper theoretical aim in discussing this example at length. I want to show that a prerequisite for understanding the multivocality displayed by the Ladakhi bride-taking ritual is a thorough analysis of the present image-schematic mappings. While the example is perfect for demonstrating the tremendous importance of imagistic similarities, it

also shows that isolating these similarities from propositional knowledge makes little sense and would only impoverish our understanding.

More importantly, the present case study allows getting a handle on the general issue of multimedia cognition. In its amazing scope of symbolic media the ritual features a kind of multiple iconicity or, speaking in Haskell's terminology, an entire matrix of analogical transforms of a central image schema (including some variation between subversions of the schema): First, remember that the theme of gaining vitality is represented as the ritual entry into a realm, i.e. the forceful crossing of a CONTAINER boundary, and the arrow as representation of a PATH, both the penetrative path of conquest and the path of divine energy. One intriguing discovery here is the *isomorphism between the symbolic utensil and the structure of the event*. In other words, what the young men themselves do is analogous to what the arrow they carry with them usually does, namely penetrating. This indicates that there can be image-schematic similarities even between things and events. Several ethnographic examples that may be taken as indicative of the same observation are brought together in Tilley's work on material metaphors (1999: 68-76; see in particular page 74).

How such a mental similarity between a static object and a dynamic sequence is possible, may require some further explanation. A cognitively convincing answer is provided by Dewell's (1994: 355) aforementioned observations on the possible uses of an image schema transformation that he calls the profiling of segments. Dewell argues that a part of a trajectory, a profiled segment, cognitively may come to stand for the whole of an imagined path. This simply means that it is sufficient to perceive or imagine a characteristic part of the trajectory to automatically reconstruct the whole of it. In this way a static object is capable of evoking a movement on a trajectory. By sticking an arrow in the ground, the path that it ideally would have taken is evoked. The central post of the Ladakhi house connecting the world of gods and the world of humans, similar to the Christian church spire, points upwards and beyond itself. Especially in the case of converging lines we perform a mental or visual scanning in which we move towards a certain point. Just as our experience with everyday objects in motion teaches us about the conservation of impetus, our scanning equally has an impetus that takes our mental motion beyond the limits of the scanned object. For a survey of the experimental evidence on this basic aspect of the human scanning faculty, I refer the reader to Gibbs and Colston (1995).

Returning to our example, we can venture the guess that the planted arrow is also interpreted as ESTABLISHED LINK. The arrow evokes the trajectory it would ordinarily have covered to reach its present location. By following the trajectory back to the people who launched the arrow, a link between the point of origin and the end point of the arc is constructed in the imagination. If this is the case here, the arrow might well function as a symbolism of an established social tie between wife-givers and wife-takers, a tie that is

cognitively the result of an evoked image-schema transformation that lets us trace a path backwards.

Apart from imagistic isomorphisms between artifacts and event structures, there can also be isomorphism between word meanings and the former two. Although it should be clear by now, let me spell out again what it means that words can be homologous in structure to things and actions. It is obviously not the phonemic structure of words meant here, although iconic effects of this kind may also be frequent. When I speak about the image-schematic structure of words I mean the structure found in the mental images that words elicit mainly through their conventional definition. The idea that linguistic images and ritual actions can be isomorphic is implicitly present in much past anthropological literature. A brief, but apt example comes from Fernandez' (1977: 111) analysis of the Gabonese revitalization cult Bwiti. A main metaphor motivating the ritual is that of 'one-heartedness' which is affirmed at several points of the religious ceremony. When the participants come back from the forest, where they have made appeals to the ancestors lingering there, they file back into the chapel and begin to spiral more and more tightly together until they form a compact mass with candles held above their heads so as to form a single flame. It is not difficult to see that the metaphor of 'one-heartedness' and the spiraling motion share an underlying image schema transformation: In both case there is a movement – in the one case mental in the other physical – from a multiplex to a mass in which the individual entities merge. This similarity presumably obtains because the metaphor of 'one-heartedness' elicits a mental image where separate entities are brought into a common focus or projected into a single container. This is also in line with the more detailed analysis of Bwiti in chapter 10, where I claimed that ontological unification is implied by a spatialized co-signature that is elicited by the non-linear rhetoric of preachers.

CONCLUSIONS

Highly consequential conclusions about the exploration of imagistic thought follow from the presented Ladakhi and the Gabonese examples. For the theory of ritual and for the understanding of modern media the fact can hardly be overrated in theoretical importance that in some contexts a single image schema underlies the shape of objects and emblems, the structure of human actions, the external formal structure of language, the phonetics of language, the structure of mental images evoked through language, and proprioceptive body imagery alike. The Ladakhi example demonstrates how a core image is manifested in different symbolic forms and how it can reinforce a cultural master schema.

Given the previous analysis, it is evident that image schemas play a central role in the explanation of a phenomenon called the 'multivocality' of symbols, a term coined by Victor Turner (1967, 1969). Due to their abstract and skeletal nature, image schemas can be given

multiple readings, depending on their context. Being an unspecified and malleable structure, the same core image can appear at different stages, on local or large-scale levels of a sequence, and in varying symbolic guises and perceptual modes. The image-schematic topologies shared between perceptual structures of artifacts, perceived action structures of events, bodily proprioception, words meanings, iconic features of a symbolic medium, and phonological image schemas indicate that these modes operate in continuity. We may assume that a major avenue towards explaining powerful cognitive models in culture lies in the analysis of what I would call 'image-schematic multimediaplexes'.

What is more, multimedia image schemas also touch on the issue of diversity within unity in cultural thoughtscales. They constitute 'core themes with outriggers': Any multimedia schema, in its various manifestations, allows for sub-varieties and conveys related, but non-identical ideas. For example, the many imagistic ideas expressed in the bride-raid stand in a family relationship, in which all members share some features via the vitality nexus, but each member also contributes very idiosyncratic characteristics. The core imagery model highlights a degree of cognitive integration, because mappings between different media create symbolic unity, and at the same time diversity in the connotations, because the schemas would remain anemic without elaboration: While core imagery interrelates several thematic fields and facilitates associative inferences within and between domains, the connotative dimension of a mental structure depends heavily on the performance-bound context.

A number of methodological conclusions emerging from all this which point to a transdisciplinary agenda I will turn to forthwith in the final overview.

Conclusion:

Imagery and Metaphor in Culture Revisited

This work ends with a final overview. Its objective is to survey the novel theoretical claims that I think most important and to tie loose ends together. It also aims at presenting my new terminological suggestions in a coherent fashion and at discussing basic issues of methodology.

IMAGE SCHEMAS AND METAPHORS AS INTERPRETIVE CONSTRUCTS

Let me start with some cautioning words about methodology and the role of theory. We have to bear in mind that image schemas and conceptual metaphors are hypothetical constructs that have to be indirectly inferred from a set of data. They are postulated as likely explanatory models for linguistic patterns, evidence from experimental and developmental psychology, or for ethnographic observations. As elsewhere, the interpretation of data is beset with several typical problems here: For example, often we speak of a conceptual metaphor's entailments as if they logically follow from the metaphor, while, in truth, only the sum-total of so-called entailments made us postulate the metaphor to begin with. In the first chapter I also pointed out that linguistic findings on metaphor can be either interpreted as stored as prototypical exemplars, as abstract image schemas, or both together, and it is often difficult to decide between these alternatives without experimental data. Next, it is highly important to take care not to posit conceptual metaphors at a too general level. Clausner and Croft (1997) point out eligibility restrictions for mappings in the case of the too inclusive formulation *THEORIES ARE BUILDINGS*, while Kövecses (2001) does the same thing for *ANGER IS FIRE*. All these problems point to the importance of abstaining from reifications of our theoretical constructs, into which we can ourselves get entangled very easily.

In the third chapter I have illustrated the problematic of theoretical reifications by reviewing a long-lasting squabble about the relative importance of 'metaphors' and 'cultural schemas'. The long and the short of my argument was that any metaphoric reading has to vie with alternative (but often cognate) interpretations for principled reasons, e.g. with explanations on the basis of several 'propositional' themes and a cultural schema organizing or governing them. An example of multiple possible interpretations were Quinn's (1991) reading of her data on American marriage concepts as circumscribed by eight themes (sharing, lastingness, mutual benefit, etc.) and one organizing background schema, while Kövecses (1999) claimed that all these themes are already encompassed by the metaphor *MARRIAGE IS UNITY* and its various entailments. Generally speaking the problem is this: Depending on one's interpretive ingenuity, it is frequently possible to come up with a high-level metaphor that accounts for an amazing number of utterances within a discourse domain. However, the mere plausibility of

these interpretations does not automatically imply their *cognitive reality* in the minds of the people we study. The looming danger is that the more unified (and convenient for exposition) our theoretical constructs are, the poorer their predictive capacity for discursive details becomes, so that a single metaphor cannot easily bear the brunt of explanation alone with complex domains such as marriage. The other way around there is no sensible reason why 'themes' or 'propositional schemas' should 'govern' individual metaphors to an extent that these are no more than expository devices.

This, however, does not mean that we stand devoid of useful criteria for the assessment of our explanatory models. I would advocate choosing a multi-level model that has predictive power both for the discursive details and for cognitive background characteristics. In particular, a good model should explain a maximum of pragmatic usage features of a metaphor or any other conceptual structure and, at the same time, its trans-domain conceptual constituents:

- (1) It should explain changes and shifts in metaphor use within short discourse passages, e.g. why one theme of discourse can be based on various alternative kinds of image schemas like ENTITY, LINK, PATH, and PROCESS at the same time.
- (2) It should explain how less obviously metaphoric ('literal') predications on the subject matter come about, i.e. if they are derivative of a conceptual metaphor, if they emerge from a dually-coded system, or if they constitute a system of which metaphors are themselves derivative.
- (3) It should take into account the effects of different discourse contexts on the choice of metaphors and images used for a theme, i.e. the impact of other available schemas cued by the immediate setting.
- (4) It should shed light on similarities with related items of cultural knowledge that either come in as background knowledge or partake of larger networks. This means that cross-domain relations provided by basic ontological metaphors and scenarios applicable across domains have to be considered. Ultimately, domains should never be analyzed in complete isolation.

Summing all this up, which description of a folk-model among several plausible, but vying alternatives has the greater explanatory power can only be decided on the basis of a careful analysis of natural discourse or interviews. In my view, a solely corpus-based approach is inadequate with respect to complex domains for principled reasons: While it can come up with plausible interpretations (which *may*, no doubt, be correct), in cases of doubt it offers no useful criteria for checking which interpretation is more accurate. Such criteria have to be discourse-based and emerge from contextualized pragmatic usages.

On top of all this, the plausibility of our theoretical intuitions also rests on other pieces of ‘convergent evidence’ of multidisciplinary origin (cf. Lakoff/Johnson 1999). Convergent evidence includes evidence gained through the same method in other cognitive domains, evidence about the same domain gained through other research methods, and general domain-invariant findings (e.g. from cognitive psychology, neuroscience, or cognitive ethology). In addition to the requirement of having explanatory power for empirical data the metaphors or image schemas that we hypothesize should also be in accordance with our broader cognitive theory. The more interdisciplinary our theory is and the greater the number of research methods it draws on, the surer we can be of our intuitions. Regarding the novel kinds of imagery I proposed in Part II convergent evidence plays an even more significant role: It is near impossible to directly confirm hypotheses about metaphors and imagery at a large-scale level (such as plot-structure) or about generic image schema tools (such as the radial category image schema). These claims rest almost exclusively on indirect evidence and rely on their mutual fit with findings on memory cues and restrictions, inferential behavior, Gestalt perception, cultural schemas and interpretation defaults, discourse rules, reader response, etc.

METAPHORS AS CREATORS OF THOUGHT SYSTEMS

It has been established in the first chapter that metaphors can be classified in a number of relevant ways. One important criterion appears to be particularly interesting for social science and philosophy – a metaphor’s extension within, its relation to, and its defining power over the larger cultural thoughtscape. Metaphors can be relatively isolated, whereas others prefigure entire cultural thought models of lesser or greater scope. In the category of widespread cultural thought patterns we find various forms of cohesion: Some metaphors operate jointly and form clusters or scenarios. Simple metaphors (i.e. either thematic constituents or the very ontological primitives) extend over many domains. Other metaphors form networks. And, a few powerful metaphors assume an organizing role for large amounts of other conceptual material. Taken together, this vindicates the frequent practice of reading metaphor as shorthand for the interconnectedness of cultural cognition in general. Here are what I think the most important principles by which metaphors are organized:

(1) One kind of data points to metaphors that form complex mapping systems in a domain or that use recurring basic constituents across domains:

- a. *Duals*: Of late, so-called metaphor duals have been discovered, i.e. metaphor pairs for one target domain that are alternatively instantiated and share a part of their logic (Lakoff/Johnson 1999). Dual systems are often simply alternative viewing arrangements on the same matter, for example when time is understood in English as

either a moving object relative to a static self or vice versa. Of course, there can also be triple or quadruple metaphors (Yu 1995 documents a triple for Chinese time).

b. *Multi-metaphor scenarios*: Clusters of sub-metaphors for one target domain can also be larger in number than in the previous category and they can include types more distinct than alternative viewing arrangements. Metaphors describing the different phases of a complex scenario constitute one important type of this. The classic example is Lakoff and Kövecses' (1987) study of anger showing that the conceptualizing the phases 'cause of anger', 'anger', 'attempted anger control', 'venting', 'retributive act', etc. takes different metaphors.

c. *Alternative metaphors for a domain*: Many alternative source domains for the same target can exist in parallel, usually highlighting somewhat different aspects, e.g. LOVE IS UNITY, LOVE IS A COVENANT, LOVE IS A COLLABORATIVE WORK OF ART. In some cases these can be organized by an overall schema that specifies which metaphor covers which aspect. A sub-case in which a cluster brings together more fine-grained conceptual items can be seen in the different meaning aspects of any target domain, provided it is fairly complex: It is typical of all structural (i.e. multiple) mappings that the diverse aspects of the target are characterized through a combination of several primary metaphors (cf. Grady 1997b on theories and Kövecses 2001 on complex systems). Even though the primary metaphors are firmly joined together in the more complex metaphor, they may be also said to lead an existence of their own, since they individually occur in many other complex metaphors as well.

(2) Other devices create metaphor networks, either for the purpose of merging conceptual material that usually stands apart in our experience or for mutually strengthening between the sub-models of a higher-scale model:

d. *Nodal key domains* constitute a single source domain (e.g. house architecture, as exemplified by Blier 1987 or Bourdieu 1977) that metonymically unites a large number of metaphors in a single experiential locus. A stronger unity of the individual metaphors is thereby suggested, e.g. for unfolding a cosmology. Most significantly, ritual action almost invariably involves nodal key domains.

e. *Floating signifiers* constitute a similar mechanism. The term refers to a single source domain or a whole piece of (usually attention-grabbing) discourse that is used across many different social contexts, while being given different readings in each. As the same source is ostensibly projected onto different target domains, this connection makes a clear statement about their respective contexts belonging together at a higher plane of meaning.

f. *Cross-buttressing or macro-metaphoric relations* were the terms I suggested where a complex model underlying a great portion of cultural discourse (such as the entire epistemology of modern biomedicine described by Gordon 1988) includes several about equally important metaphors that mutually corroborate and stabilize each other.

(3) There also was a discussion of several kinds of higher-level (i.e. *generic*) ordering mechanisms of the mind, which have the function of structuring reasoning either within or across cognitive domains:

g. *Master metaphors and hierarchization*: In his analysis of political worldviews and morals in America Lakoff (1996) uncovers the master metaphor THE NATION IS A FAMILY, which is added to by a large number of other morality metaphors. Of course, it is debatable to whether one of these many metaphors plays a directing role for the rest or whether they form a cluster of equals. However, what the family metaphor minimally does is to fix the common discursive ground between conservatives and liberals, despite the fact that they develop deeply conflicting interpretations of how children in a family should be raised (and, by metaphorical implication, how citizens of a nation should behave). While the family metaphor is characteristic of both ideologies, their factual antagonism results from a different preference order – we might also say hierarchization – of the other connected morality metaphors.

h. *Embedding in a shared generic-level model*: While not precisely uniting opposed ideologies, another kind of master metaphor brings together related concepts in a higher-order model. Kövecses' (2000) analysis of metaphors for emotions and for rationality reveals such a model, in which the two are opposed as agonist and antagonist in a FORCE relation and thus become mutually defining in a higher-level model. This points to the conclusion that, at least in some cases, a very broadly defined domain can be under the sway of a single ontological metaphor (i.e. a simple image schema such as FORCE, PATH, LINK, PROCESS, or ENTITY).¹⁴⁹

i. *Transdomain models*: A foundational schema, thematic schema, or a thematic metaphor occurs when the same complex knowledge structure, imagery or other, informs so many domains that it either integrates the everyday discourse of a culture (such as Strauss and Quinn's 1997 self-reliance theme in the U.S.A.) or that it creates a weave of cosmology (such as Shore's 1996 Aboriginal walkabout schema). We can assume on the basis of Quinn's work that complex cultural schemas of this sort

¹⁴⁹ This can, by Kövecses' data, be true for the model Americans use for summarily reasoning about emotions and reason, while the many individual emotions, of course, feature a range of ontologically different metaphors.

encode a number of individual metaphors simultaneously. On the basis of Shore's work we can surmise that they most likely employ multiple codes for this.

j. *Imagery preferences*: Cognitive templates, a notion I developed in chapter 5, refer not to metaphors or even any kind of specific conceptual model, but to wide cultural preferences in how imagery is used. This can, e.g., mean a general preference for constantly recombining basic Gestalts in different configurations, as Shore's (1996) modularity schema suggests for the U.S.A., or it can mean a preference for using image schemas in heavy abstraction and without complements of rich imagery, as I suggested on the basis of a comparison between Judeo-Christian and Chinese thought styles.

TYPOLOGICAL DISTINCTIONS OF IMAGERY

If imagery has been used as a catchall term in this work, this has happened on purpose. The main rationale for this choice was that the designated cognitive phenomena operate in a functional continuum in real-life contexts. Also, a broad imagery framework allows studying cultural representations in an integrated fashion, while covering a relatively large number of interesting phenomena. Another reason for an inclusive approach is that the same experimental findings from psychology and neuroscience have a bearing on all of these phenomena. For example, we can assume that similar brain functions are responsible for all sorts of imagery phenomena. In sum, there is presently a growing cluster of 'convergent evidence' from several disciplines that can be grouped around imagery theory.

At the same time, since quite diverse aspects of the mind-body have been subsumed as imagery, analytical distinctions are necessary for the sake of theoretical clarity. Since much of past metaphor theory has been committed to a not overly theory-saturated style of exposition – a fact that no doubt accounts for its broad popularity –, I advocate giving a stronger emphasis to a series of typological distinctions. In a bird's-eye view, I have proposed the following (partly overlapping) distinctions relating to usage types of imagery:

(1) The most basic distinction among types of imagery and, more particularly, of image schemas, already to be found in earlier work (e.g. Johnson 1987), refers to the sensory mode in which an image is perceived or imagined. Imagery comes in the following modes:

- a. *proprioceptive*, possibly including aspects of *emotion*
- b. *tactile*
- c. *olfactory*
- d. *gustatory*
- e. *acoustic*
- f. *visual*

Of these modes of imagery the visual, tactile, and acoustic types afford the possibility of a dynamic change in time; in the other modes most people find it difficult to imagine or perceive complex sequences. Some imagery modes imply distance from the observing or imagining person, most notably vision, while others involve a high degree of experiential immediacy, most notably proprioception and tactile images. It is also noteworthy that several or all of these perceptual or imaginative modes can be fused in a multi-modal ('iconic') resemblance based on a central image schema.

(2) With regard to the possible loci of imagery either in conceptual knowledge of the mind or in preconceptual knowledge of the body I proposed a tripartite distinction for achieving a greater terminological precision in the embodiment debate:

- a. *Non-objectified body imagery / proprioceptive body awareness* refers to image-schematic knowledge structures, simple or compound, that are stored primarily in the procedural memory system (but can emanate from or can be mapped onto conceptual image schemas). The proprioceptive and kinesthetic senses are very strongly involved here. We may call this type 'primary embodiment'.
- b. *Objectified body imagery* is conceptual imagery closer to the threshold of consciousness or above it, in which image schemas, simple or compound, are used to imagine states of the own body as seen by an external observer. Ordinarily, the visual mode of imagination is involved here. (Note, however, that objectified body images frequently have a non-objectified counterpart). This type we may call 'conceptual embodiment'.
- c. *Objectified external imagery* is the term I chose for mental images of all other objects and people in the world that have nothing to do with our own body. A concept of this kind can be characterized as embodied only in a weaker sense, and only to the extent that it draws on image schema modules that have been originally acquired in childhood through kinesthetic experience, but have since started an autonomous conceptual existence in our mind. We may call this type 'indirect embodiment'.

(3) With regard to the necessary and frequent interaction between embodied and conceptual knowledge I have distinguished two complementary functional principles of metaphorical transpositions (I dubbed this nexus 'metaphor in the vertical mode' in chapters 1 and 4):

- a. *Projection* from proprioceptive body awareness into conceptual imagery is the case when a knowledge item is first acquired through body practices by an individual (e.g. in early childhood) and then used as a more abstract conceptual structure, either adding to the embodied sense or even entirely split-off from the original bodily motivation. A split-off is the case when a formerly embodied schema starts a conceptual existence in its own right, while the resonance of body awareness

subsides. More often, however, knowledge is double-coded both as embodied awareness and conceptual meaning.

b. *Retrojection* from conceptual imagery into body awareness is the case when a knowledge item is first acquired by an individual through an abstract piece of body-related discourse (e.g. through school learning or narratives) and only then gradually discovered in the own body as well. This happens by virtue of image-schematic structures that are increasingly imagined as existing in the own body. Discursive metaphor can thus trigger embodied states in people. Not only explicitly body-related discourse can produce this effect; other symbolic metaphors can also be subconsciously evocative of body structures (e.g. in depth psychology). Overall, the principle of retrojection accounts for the power, impact, and immediacy of many metaphors in discourse.

(4) With regard to the complexity of imagery and its degree of situatedness in social context I have proposed a distinction between two broad kinds of image schemas:

a. *Basal image schemas*, also called *image schema modules*, function as building-blocks of more complex conceptual models. PATH, FORCE, BALANCE, UP-DOWN, ITERATION, etc. are already acquired in early childhood as kinesthetic modules. These and other basal image schemas must be called modular since they occur as elementary constituents of a plethora of different experiences – they are truly transcontextual mental entities. By consequence, they are too abstract to involve a significant amount of emotional or context-bound imagery.

b. *Domain-specific image schema compounds* are images in which several basal building-blocks are superimposed and mentally stored as one integrative Gestalt. These compounds are usually closely linked to a particular social setting, most typically the one in which they were first acquired. What makes image schema compounds distinct from basal schemas is that they are capable of evoking situation-specific emotions and other connotations. Although the meaning-carrying level, here too, lies in the image-schematic skeletons, these are likely to be bound up with some rich imagery. Many compound image schemas are the result of experimental metonymies, i.e. important social situations in which the involved features were co-present.

Regarding this terminological split I have emphasized that a cognitive approach to culture should cultivate a double-view on basal and compound schemas. At all costs, we must avoid according higher ontological status to basal schemas without necessity or reason, as has been implicitly done by scores of past authors. Implying that the compounds are in truth no

real schemas any more is just as wrongheaded, since compound imagery is still schematic (though perhaps less) and the function that of an expectational structure.

(5) With regard to the time scale and locus of imagery we can distinguish two broad groups of representational structures:

- a. *Static, localized image schemas* can be found in pictorial representations, artifacts, single semantic meanings, gestures, or short procedural schemas. They are not very noticeably extended in time and can be processed as a whole.
- b. *Temporalized, dynamic, and translocal image schemas* involve imagining events of noticeable duration either as a single process or as a condensed 'one-shot' image. A condensation into a core-image can result when imagining the structural features of temporal events. One such kind of schema was referred to as an image-schematic 'plot gene'. Furthermore, translocal imagery can be evoked through 'megametaphors', i.e. through surreptitious, cumulative cues that blend together into a richer image that is not present in any single section of a text or narrative. All in all, both the selection of core-features of a continuous event as well as the adding up and blending of individually occurring features from several sub-events can induce translocal imagery.

(6) With regard to the kind of cognitive function performed by imagery I have drawn a graded and continuous distinction between content-related schemas and image-schematic tools. This distinction is based, both, on their degree of schematicity and their cognitive function:

- a. *The semantic pole of imagery* refers to imagery evoked by individual symbols, words, or language at the phrase level or slightly higher. Formal features of texts underlying so-called 'iconic' phenomena (e.g. the formal structure of a poem) are not semantic imagery in the strict sense, although they do not belong into the second category below either. They exist at an intermediary level between semantic content and purely transcontextual tool schemas.
- b. *Co-functional imagery (i.e. image-schematic co-signatures)* refers to extremely general and multi-functional tools of cognition, which involve image schemas at the utmost level of abstraction. In addition to semantic schemas, the generic schemas for radial category structures, Aristotelian categories, feature bundles, event schemas, or causality schemas are – according to Lakoff (1987) – based on our experience with spatialized image schemas. Co-functional imagery of this sort, as I propose to call it, assists the semantic pole of imagery in that it provides a background skeleton of expectational structures (about events, categories, causality relations, etc.) into which on-line cognition is inserted. This backdrop can either emerge from conventionalized cultural schemas or it can be newly cued in an ongoing event. It is worth noting that

many co-signatures are likely candidates for cultural universals, since they are relatively independent of the content of cultural beliefs.

THEORETICAL GAINS ACHIEVED THROUGH THE SPATIALIZATION OF FORM HYPOTHESIS

The perhaps most consequential new claim in my treatment of image schemas has been that they, among other things, shape broad cognitive tools that are operative across a high number of domains and tasks. This means nothing less than that the nature of generic multi-purpose mechanisms (working either as universal or culturally acquired expectational patterns) is understood through – or, we might say, assembled out of – image-schematic elements. Thus, we do not only understand the structure of particular concepts imagistically, but also the prototypical structures of the mechanisms that organize, relate, and integrate groups of conceptual images. This is the claim sketched out by George Lakoff (1987) as the ‘spatialization of form hypothesis’ and discussed in detail by Paul Deane (1991, 1996).

Accordingly, it is not unlikely that image schema tools are used on a routine basis to imagine the overall structure of events or of causal relations, the linkage of attributes of a concept into one, the complex structure of radial categories, the nature of metaphorical tension, the apartness of ontologically different belief spaces, or even the enablement of religious beliefs through transcendent principles. I gave the hypothesis a more precise theoretical form under the heading of image-schematic co-signatures or co-functional imagery: As stated above, co-functional imagery earns its name because it assists the semantic pole of imagery. Its function is to provide a background skeleton of expectational structures into which on-line cognition can be inserted and together with which it dialectically develops, as a theme unfolds. After this theoretical definition I surveyed four lines of argument in favor of the spatialization of form hypothesis that can be found at present:

- a. Spatialized forms are a plausible explanation for certain linguistic patterns in grammar. For example, they explain why so-called ‘head structures’ are needed as a conceptual ‘hub’ (CORE-PART SCHEMA and LINK) whenever we connect one subordinate phrase of a sentence with another in order for the combinations to make sense.
- b. Spatialized forms converge with data from selective impairment studies in the neurosciences that investigate the overlapping and integrative functions that our brain regions responsible for spatial cognition perform. They are also made plausible by recent model implementations from artificial intelligence, which suggest how an integration of dissimilar cognitive task, such as semantics and movement, may be ‘wired’.
- c. Spatialized forms explain inclusion hierarchies and the continuity of schematic forms from the semantic word- or phrase-level via an intermediate level of generic

schemas up to a level of multiple-domain tools. Findings on metaphor indicate that some lower-level relations, such as Kövecses' (2000) ANGER schema, can simply be inserted into higher-level schemas for EMOTION or even, at a level of even higher inclusion, for MENTAL STATES in general, which are all defined by force-relations.

d. Spatialized forms are consistent with the hypothesis that our folk- or experts' theories about thought and language, such as the model of metaphor as a CONDUIT transaction between separate SPACES, might in fact be simplified version of the co-signatures that we subconsciously employ.

If the spatialization of form hypothesis proves to be correct, the consequences for our understanding of the human mind are vast. The notion underwrites the general view submitted by cognitive linguists that semantics and the general operational structures of syntax operate in the same fluid cognitive medium and are therefore continuous. By consequence, a high-level structure can under certain circumstances turn into a more specific one by enrichment and a low-level one can become a high-level one by abstraction. This in turn also explains how general tools may emerge through the repetition of, or as the historical precipitate of, specific semantic meanings. This is discussed in Heine's grammaticalization studies (1995, 1997a,b). (I would like to note in a brief aside that whether the continuity of individual semantic meanings and cognitive tools commits us to a completely a-modular view of the mind I dare not say; yet I would advise skepticism.)

I also discussed an interesting working hypothesis that is a logical corollary to the spatialization of form hypothesis. As Palmer (1996) foreshadows, complex propositions may be but high-level arrays of compressed imagery of which only the formal contours are in mental focus, as long as we do not return to a more specific viewing arrangement again. If my surmise holds true (and if the involved principles of condensation and contour perception can be worked out in detail) this supports a view of the mind operating in a unitary imagistic code. Transpositions between imagery and prepositions would then obey space logic and the rules of imagistic transformation described by Langacker. Even though my proposal begs the question of what accounts for phenomenal differences between analog and digital codes and surely leaves a number of other questions unanswered, it warrants further testing as a general framework for understanding representations (see Gärdenfors 2000 for an startlingly broad theory of space-logic).

ONTOLOGICAL KINDS AND ONTOLOGICAL DYNAMICS BASED ON IMAGERY

Another remarkable consequence of the spatialization of form hypothesis is that it paves the way for a cognitive definition of ontological kinds. Basically, ontology has to do with the differential phenomenal 'feel' of concepts, for example the intuition that processes are

something fundamentally different from entities. Langacker's (1987a) account of imagistic mechanisms in linguistic meaning, e.g. his explanations of word kinds, leads to the hypothesis that we classify ontological kinds simply on the basis of our noticing different generic Gestalt features in things. Building on this assumption I have sketched a theory of substance and processual, as well as mixed ontologies:

(1) Substance ontologies and especially essence beliefs can be explained through my notion of abstract quality spaces and their reified version, which I have named the 'realm' construal:

a. Certain mental 'regions' in the imagistic thoughtscape are construed as a homogeneous mass in order to represent the deeper 'sameness' of superficially different things belonging to that region. Bestowing a mass construal on a region results in what I call a 'realm' (or, alternatively, a sort of general SAMENESS image schema). The rationale for this terminology is that the inner part of a realm is conceptualized as determined by one homogeneous quality feature, which we may dub its 'rule'. The realm imagery functions as a totally abstract representation of a cluster of attributes and their essential sameness. As recent findings by Hirschfeld, Keil, Atran, Boyer, and others suggest, a representation of essence is often involved in cultural models without people actually understanding the underlying attributes. Refining Boyer's (1994a) argument of 'pseudo-natural kinds' by recasting it in terms of imagery, I suggested that the absence of specific attributes in essentialist concepts is possible by virtue of imagining a container-like region with perfectly schematic (i.e. qualitatively unspecified) contents.

b. Realm imagery can also assist the reification of all sorts of complex conceptual arrays or even entire epistemologies in cultural discourse, because it allows their condensation into a single term. Based on the complex signification of the Nuer concept of 'spirit' as AMBIGUITY schema I argued that any kind of higher-level cognitive relations, such as second-order similarity relations, can be reified if a realm image is projected on them. This allows using the realm image as a simplified token representation.

(2) The central role of profiling and selective focusing was discussed in various (partly overlapping) respects, including a theory of trope relations:

a. Learning culture means activating the right regions together, including the recognition that one can metaphorically stand for the other (Toren 1993a), but also that the tropical order of source and target can in some cases be inverted (Wagner 1986).

- b. Culturally thematic concepts correspond to regions frequently foregrounded in an unusual number of other representations.
- c. The focus on and the choice of sub-regions as parts of larger thematic wholes specifies either immediate discourse subjects (Cook 1993) or preferred explanatory concepts. In addition, the degree to which speakers tend to impose a clear-cut profile reflects their cultural style of keeping an issue vague or nailing it down.
- d. Links or overlaps between mental regions can express ontological separation or unity of notions, such as the Cartesian discourse on 'thought' and 'emotions', which performs an ascription to two ontological realms of fundamentally different nature.
- e. The insertion of a discourse into a specific background can express the ontological locus of a concept. An example is the Ifaluk folk-model of emotions in which emotions are set into the ontological background of interpersonal and public interactions instead of the background of inner experiences, as it is done in the West (Lutz 1988).
- f. The extension which the boundary of a region is given specifies the 'width' of concepts that are embedded in other relations, e.g. the space of the self as reaching into the larger family space or, alternatively, as being confined to the subjective space (Bloch 1992).
- g. The understanding of a relation as either a metaphor or a metonymy may result from alternative construals of a single mental scene as either two separated domains or two sub-domains embedded in a shared continuum. Hence, in discourse and ritual it is usually possible to let metaphor slip into metonymy and vice versa, depending on the intended emphasis. The polytropes involved in the Bororo and Kayapó bird rituals exemplified this wandering between metaphoric, metonymic, and synecdochic vantage points as the ritual proceeds (Turner 1991).

(3) I gave a number of examples of processualist ontologies, which are all based on a widespread use of the PROCESS image schema as an interpretive template (i.e. expectational structure):

- a. To some extent processualist ideologies, although rare, can be found in everyday folk-models, as in Cannells's (1992, 1999) example from the Philippines. The ideology of the people of Bicol fosters an awareness that lets them de-emphasize the permanence of seemingly fixed states and minimally lets them abstain from a frequent use of reified concepts in the domains of social and cosmological relationships.
- b. Full-blown and explicit process ontologies can be found in experts' theories, especially in South and East Asian religions. The Buddhist core-tenet of the ever-changing nature of reality involves a particularly strong ontological processuality

schema. Here, the deeper nature of the mundane world is understood as totally conforming to a CONTINUOUS FLOW schema, whereas spiritual enlightenment means overcoming this very schema. Moreover, it was suggested that the CONTINUOUS FLOW schema is often combined with other schemas in complex theories, e.g. with the SYSTEM schema in the 'co-dependent arising' belief of Buddhism.

(4) I argued that imagery theory does impressively well in explaining the dynamic nature of ontologies: I selected a number of respects, though this list could, no doubt, be continued:

- a. The dynamically shifting vantages in ritual polytropes mentioned above are one example, in which either the metaphoric or metonymic aspects of a setting are profiled.
- b. A mixed model of process and substance, as exemplified on basis of the Chinese *qi* concept, is possible by virtue of a stereoscopic view on two Gestalt arrays that are encoded within the same overall model, but as alternative foregrounded profiles (cf. MacLaury 1995, Hill/MacLaury 1995).
- c. A related, but different kind of model rests on discursive imperatives to repetitively perform radical Gestalt switches between totally incompatible images. This was exemplified by educational paradoxes in Buddhism in which INCLUSION and IDENTITY image schemas are postulated simultaneously and the mind has to skip back and forth between them.
- d. By looking at the rhetoric of the Bwiti ritual (Fernandez 1982) I discussed how religion can reshape ontology. I argued that the ritual involves the gradual deconstruction of the image-schematic default for serial causal sequence (the IMPETUS schema, a.k.a. 'billiard-ball' model) through a barrage of metaphors. A homogeneous image-schematic foil is built up in the default's stead, with the purpose of evoking the unity of all things. The general hypothesis I have drawn from this was that predications through rhetoric or ritual can dynamically reshape default imagery of all sorts, thereby enabling the shifts in ontology from everyday knowledge to religious understandings or serving any number of other rhetoric purposes.

(5) I hypothesized the existence of a learning default or representational default called the 'nodal schema'. Here a central (but very schematic and vague) concept acts as a linking hub for a series of surrounding ideas for any of the following purposes:

- a. The nodal schema is attached to not fully understood concepts whose centrality, however, is already being recognized by learners. By the same token, the schema structures concepts or words attached to so-called 'floating signifiers', i.e. mental

entities that are of recognized salience, but whose content changes depending on the context.

b. A slightly similar schema might explain that many rituals radiate outwards into the larger ontological regions from which their symbolic material emanates. This usually happens with the purpose of producing a holistic cosmological statement. For example through a ritual that metonymically unites a specific animal and a specific human being the participants of the ritual may acquire an image of the two underlying domains themselves being ontologically blended.

MULTIMEDIAPLEXES AND INTERDISCIPLINARITY IN A CONTINUOUS WORLD

It is unfortunate that the imagery-based approach has long been unduly restricted to the study of linguistic phenomena. Image schemas can be found in a great many different symbolic media. I brought together ample evidence from anthropology showing that ritual action, habitus, dance, and music operate on the basis of the same kind of mental imagery as speech. Altogether, I discussed at least six cognitive media in which image schemas can be imagined or directly perceived as meaning-carrying devices:

- (1) Structures inherent in states of bodily proprioception;
- (2) Structures of natural objects, artifacts, and pictorial representations;
- (3) Structures of natural events and human actions;
- (4) Formal features of the symbolic medium in language or music;
- (5) Mental scenes evoked through words or gestural symbols;
- (6) Phonologically or musically evoked image schemas.

Among these each kind of analog cognitive structure can be mapped onto any other by virtue of image-schematic similarities. The regular way in which the mind performs projections between modes suggests a strong continuity of cognition. While this hypothesis is most significant in itself, it entails an even more important conclusion: Frequently, especially in ritual or modern media events, various symbolic media interact with one another, either for the purpose of reinforcing a core-image or for producing other effects such as irony. The conglomerates of meaning arising from such a process I called *image-schematic multimediaplexes*.

My sketch of multimediaplexes bears not only on the subject matter itself, but in further consequence on how academia is carved up into disciplines. Most importantly, the continuity and interspersing of cognitive media in culture carries strong methodological implications for future linguistics, discourse studies, and cognitive ethnography. It quite plainly points to an interdisciplinary agenda. By consequence, the now often heard rallying cry for the integration of academic disciplines around cognitive theory and its multiple methodology invites

choosing imagery theory as a major point of assembly. The genius of the imagery approach lies in the fact that it explains language with reference to general mental operations not specific to language. For uniting disciplines in a common cognitive endeavor the approach is full of promise, though the existing potential has not yet been exploited to its fullest. To this effect, Hill and Mannheim (1992: 394) criticize the prevailing 'linguacentrism' in cognitive linguistics, a criticism also voiced by Palmer (1996: 140). I agree that a cognitive linguistics without cultural pragmatics or without a focus on non-verbal evidence for cultural schemas is of restricted value. At present, the most promising integrative steps come from the analysis of pictorial metaphor, sign language, and gestures. Deplorably, everyday artifacts, event structures, habitus, or proprioceptive knowledge have not been given nearly the same amount of attention. Cultural anthropology affords a counterbalance here. Its genius lies in the fact that it has – at its best – always pursued a multi-level approach spanning material objects, ritual and action, the body, and language, even though it is slower in embracing cognitive theory and carrying it into fieldwork. An integrative agenda between language, culture, and cognition has been given expression in Palmer's praiseworthy programmatic call for a 'cultural linguistics', but also by more typical cultural anthropologists such as Díaz de Rada and Cruces (1994: 116), who point out that language and other sources of meaning are continuous in social practice, with the consequence that "practical experience cannot be easily labeled as 'extra-' or 'prelinguistic' (or, consequently as 'merely linguistic' either)".

For all these reasons, the imagistic approach to multimedia cognition permits no other conclusion than the increased adoption of transdisciplinary research designs. On the one hand, more joint work by ethnographers and linguistic fieldworkers needs to be conducted in the future, while on the other hand each discipline should broaden its purview along the following lines:

- (1) Most generally, anthropologists can benefit from the fairly consistent terminology supplied by cognitive linguistics and from its method of systematic metaphor analysis. Ethnographers are called upon to make use of (and cross-check with) existing studies on cultural schemas and metaphors gained through interview-based cognitive methods, or, if their research design permits it, to conduct systematic interviews themselves. A particular challenge for cognitive anthropology is to focus on body knowledge more than in the past. It should systematize its interpretive skills through an applying metaphor and schema analysis as a method of tracing proprioceptive knowledge structures (perhaps the most hidden and elusive image-schematic medium). What we know about the acquisition of universal structures of bodily meaning (cf. Johnson 1987) comes in as a useful theoretical backdrop here. Ethnographers should also take to a more systematic examination of image-schematic structures in human actions. This means that they should develop forms of

on-line notation for complex actional patterns or perhaps use film and computerized methods of analysis, as ethologists now already do in the study of gestures or habitus. Finally, with respect to the theoretical foundations in the study of culture, ethnographers of ritual, dance, music, or everyday behavior should increasingly use the powerful apparatus of imagery theory to express and specify their findings in a terminology compatible with cognitive theory.

(2) Linguists, on the other hand, should extend their more typical research focus on semantics in at least three directions, mainly situated in pragmatics: First, it seems recommendable to go beyond corpus-based cognitive studies of language, because some domain-specific aspects and most pragmatic variations will not be captured otherwise. Next, linguists should extend their methodological scope to include 'megametaphors' and other large-scale image schemas in narrative. This will in turn require developing methods for tracing how large- and small-scale cues intermesh in cognition in the act of reading or listening. Finally, going beyond the study of language proper, cognitive linguists and pragmaticists of all shades should express a systematic interest in research on gestures, habitus, artifacts, emblems, body feelings, and action structures. For example, they should adopt techniques of locating features in social action that iconically replicate either language form or semantic imagery. Especially the study of implicit social ideology, an agenda that many linguists pursue today, requires a broad recognition of various mediational structures in discourse and an analysis of how these interact (as exemplified in Scollon's 2001 'mediated discourse analysis').

CODA

At the end of our journey, what is the upshot for the general study of culture? My most fundamental conclusion is that, because image schemas occur as multimediaplexes in most real-life situations, we must adopt a diversified methodology. Although ethnographers have always been following an inclusive approach to meaning, what has by and large been absent from their work is the integration of the various studied symbolic levels within a comprehensive theory of bodily and mental meanings that is rooted in the cognitive sciences. In its totality, the approach to schemas and metaphors laid out in the present work, then, attempts to bridge the gap between 'linguacentrism' in cognitive linguistics and the relative scantiness of cognitive theory in anthropology. I hope that my study breaks some new ground in explaining where and how disciplines can work together. The notion of the dynamic and multi-modal image schema forms a common ground that explains in cognitive terms how the mind integrates the subject matter of various disciplines. Since a variety of symbolic modes operate in a single medium here, researchers from diverse fields trading in meaning

should take this as a serious clue where their approaches meet and through which theoretical instruments they can communicate. This includes the following fields or branches of the same: literary studies, theater studies, media studies, dance, history, sociology, political theory, theoretical linguistics, the diverse philological sub-disciplines, anthropology, ethology, archeology, psychology, philosophy, theology, or therapy.

All said and told, my plea is that we cannot afford to overlook the tremendous potential for a more unified cognitive theory of cultural representations and for a transdisciplinary rapprochement that the imagery approach to schemas and metaphors holds in store. Today the often voiced "I can respect what the others do, but it is simply not the business of my discipline" runs the risk of cementing divisions long obsolete under the cognitive paradigm. Only if image schema theory is taken seriously as a cultural, multi-modal, embodied, situated, and multimedial endeavor we can reap its full promise. If, however, a genuinely interdisciplinary imagery approach manages to establish itself as a point of crystallization (perhaps in tandem with the now spectacularly rising and theoretically complementary theory of blends), we can expect a lasting boost to the cognitive social sciences and, with it, a betterment of their recognition-factor alongside with the natural sciences working with the cognitive paradigm.

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¹⁵⁰ In keeping with common usage all titles in the English language are listed with capitals here. The few other language titles adopt the usage most common in the language.

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