

# Metaphors and Metaphysics

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## 1. Cultural background in message understanding

Culture is a net of information exchange basing upon messages. To say anything about understanding within cultural communication one should study the very structure of a message. It seems that any message consists in at least five elements:

sending – a node within the culture net projects and constructs the information transfer

coding – the message is encoded in a specific language pattern

medium – material carrier of the information

decoding – the language of the message is identified and the content is read

receiving – understanding of the message

The process of understanding is engaged in the first and the last stage of communication and therefore the abilities of constructing and understanding a message are to be examined<sup>1</sup>.

It is obvious that a message cannot contain all intentional content of information which is transferred. Only a part of it is encoded in a language leaving space for interpretation and evaluation of the message received. It is here where the problem of understanding starts. Leaving some otherwise important factors like control of understanding, ability to control the process of understanding etc. let us concentrate on the very important element of communication which is metaphor. One should underline that in natural language it is impossible to clearly distinguish primitive notions. One can only state that some concepts are more easily understood than others. This important fact results in the lack of formal definitions in natural language. Instead we meet more or less precise clarifications of concepts. Clarifications lie not in the structure of the language but in the structure of understanding of the message. The process of clarification ends not in defining the concepts but in the receivers acknowledgement that the content of the message has been understood. The clarification procedures can be various. Still one can easily notice that the smaller is the cultural distance between the sender and the receiver of the information the higher is the effectiveness of such clarification procedures. For instance, people of the same profession easily decode messages unreadable for those from the outside of the professional group. Similarly, people from the same cultural community share the same associations to the concepts used within such group. Such interpretational proximity is based upon sharing the metaphors. What is a metaphor then?

Concerning metaphors as a means of communication (informational perspective) is usually seen as a kind of semantic problem. Thus the question on ability to translate a metaphor to a more comprehensible language phrase is put forward within linguistic approach, while philosophers rather concentrate themselves on pointing out that metaphors should either be eliminated or are just meaningless. Nonetheless, metaphors are still present not only in ordinary (common) language but also in science.

A metaphor is a way of transferring large amount of information (not in the sense of quantitative Shannon formula, but rather author's corrected formula<sup>2</sup>). From this perspective one can see a metaphor as a way to transfer synthetic information, which otherwise would require much more words. Concise form is undoubtedly an advantage but it is not the most important aspect of metaphors.

A metaphor is a way to appeal to subjective impressions through objective structures – linguistic, metaphysical etc. It plays a function of instruction "Do it and see the results!" i.e. imply the received structure and you will get the proper "message". The quotation marks here are important as we would like to reserve the notion of a message to purely linguistic transfer while the essential role in a metaphor play not the words but the way they are organised – the structure. That is the reason why metaphors function at multiple levels:

poetic - transferring psychological feelings the structure transferred results in reproduction of the similar emotions in the receiver as were present in the sender),

comparative – which point out to similarities between structures of different concepts. focusing attention on the way the ideas can be organised (this lies beyond the pure linguistic level, as the original words used in a metaphoric phrase do not matter that much as the pure structure) – this can be used the point out to analogy for instance

metaphysical – which serve as structural patterns for building up concepts. These are especially interesting from the perspective of science study. As it was already mentioned there are no primitive notions in natural language although there are concepts with which no utterance construct would be possible. For instance, hardly any physical description lacking the concepts of time, space or cause is imaginable. These concepts not only are not defined but it is also impossible to explain them literally. Let us recall St. Augustine stating that whenever he is asked what time is he does not know, but when he is not asked than he knows. Such knowledge is of an intuitive character and when verbalised is unavoidably expressed metaphorically in statements like "time is a mobile image of eternity". Feebleness of such metaphor lies in the lack of analogy as the concept of time is in fact closer for us than the concept of eternity. The need for metaphoric expression is apparent nonetheless. Without a metaphor nothing could be said. It is easier to measure time than to express its meaning semantically.

<sup>1</sup> Płazowska Anna, Płazowski Jan, Suwara Marek, *Media*, DIALOGIKON XI ISBN 83-233-1077-7.

<sup>2</sup> Płazowski Jan, Suwara Marek *Measuring the Uncertain, Remarks on Entropy and Information*, Proceedings of 25 International Wittgenstein Symposium - Kirchberg 2002.

In any case, however, any purely semantic analysis does not and cannot reveal the meaning of a metaphor. The reasons are of two kinds:

first consist in the statement that informational content of a metaphor mostly lies in its structure not in the meanings of words used to build it,

second is bound to the way narrower structural objects function within wider ones.

The authors are especially interested in the problem of metaphysical metaphors as those which act in the widest culture context and decide not only on the feeling of community but also on the common picture of the world. One cannot avoid metaphysics when considering the origin of any scientific theory. Yet, many would disagree that metaphysics is necessarily an integral part of the scientific inquiry. It is, however impossible to present certain conjectures in a precisely definite and explicit way. Where some see just a vague, imprecise statement, a temporarily valuable mean of expression at best, others distinguish a well constructed metaphor. The metaphor helps to embrace what is at first incomprehensible, and with this ability it serves as a mean of expression of our metaphysical beliefs. In order to present metaphysical entanglement of scientific theories, it is useful to demonstrate their relation to the notion of *metaphor*.

## 2. Antique concept of metaphor

For a long time metaphor was considered as a genuinely uninventive and limited cognitively. One can distinguish two main reasons for this philosophical prejudice. On the one hand we still share the strong belief in Aristotelian philosophy, on the other, the glow of empirical positivism with its contempt for any metaphysical enterprise remained intensive in spite of time span. There are many ways to prove our sentiment for Aristotle, but hardly ever one experiences such a strong and direct appeal to his heritage, as one does in case of Aristotle's notion of metaphor. Nevertheless, it is not his definition of metaphor *per se* that earned metaphor its bad name. Aristotle categorized metaphor in the department of *Poetics* and characterised it as a supplement to a regular, descriptive language. The reception of the notion of metaphor for a long time was determined by this fact alone.

The crucial feature of the reception of Aristotle's *Poetics* was the emphasis on the essential limitations of metaphorical language. For it is Aristotle's opinion on poetical language that it should show clarity and lack of vulgarity<sup>3</sup>. The intended effect was to be obtained through the moderate use of elaborate vocabulary such as a metaphor. Equating the metaphor with the simile and ornament, alongside with the conviction that it has no bearing on meaning and is cognitively futile, has determined the concept of the metaphor for the Aristotle's heirs. The arising division between the language of science and language of poetry has only strengthen the exclusion of the metaphor from the former.

## 3. Metaphors in scientific understanding

Two separate factors have changed that state of affairs. First one is connected with the disenchantment with the picture of science as closed system of empirically verified sentences. Various fields of contemporary science provide theoretical predictions that cannot find empirical verification. Aiming at description of those regions of reality that one cannot hope to gain direct access to, requires use of a metaphor. Trying to abandon such metaphorical depiction for the sake of some fully rational representation, is not always possible. Heisenberg writes:

„ [This] picture<sup>4</sup> allows you to guess how other experiments might come out. And, of course, then you try to give this picture some definite form in words or in a mathematical formula. Then what frequently happens later on is that the mathematical formulation of the "picture" or the formulation of picture in words, turns out to be rather wrong. Still, the experimental guesses are rather right. That is, the actual "picture" which you had in mind was much better than the rationalization which you tried to put down in the publication. That is, of course, a quite normal situation, because the rationalization, as everybody knows, is always a later stage and not the first stage. So first one has what one might call an imprecision of how things are connected, and from this imprecision you may guess, and you have a good chance to guess the correct things."<sup>5</sup>

Second factor concerns with the development of the theories voicing the mutual dependence between the theoretical content of science and the nontheoretical context. These theories emphasize the influence of psycho-sociological factors upon the development of science. Here one finds the sociology of science that attempts to depict the relation of the contemporary picture of reality to science, and the influence the latter has upon the former. Such an interdependence does not infringe the quality of rationality of science, however it accepts as righteously scientific concepts that were traditionally excluded from its domain. It leads directly to major revision of significance of both metaphysics and metaphor in the development of science.

Many philosophers of science consider the acceptance of the above-mentioned thesis as ascription of the relativistic and irrational attributes to science. Thus, although they accept the importance of metaphysics in a process of constructing the general picture of reality, when involved in science, they consider it as a dispensable addition. A similar practice applies to metaphor. It is accepted that it serves well in a process of comprehension and that is useful in education, but still its value for science is judged inadequately.

The simile, thus the metaphor, have always been a useful tool in hands of scientists. Many theoretical models have found an adequate metaphorical formulation. It seems that the status of metaphor in science has changed alongside with the recognition and appreciation of its cognitive content. It lessened the still strong tradition of categorizing the metaphor together with simile.

<sup>3</sup> Aristotle, *Poetics*, Penguin Classics, 1997.

<sup>4</sup> "Picture" is for Heisenberg some general idea (he even uses the word "feeling") which is a result of observation and which *instructs* us, in some general way, about an experimental situation.; quoted in: Radman Zdravko *How to Make Our Ideas Clear with Metaphors* in: *From a Metaphorical Point of View* ed. by Zdravko Radman, de Gruyter, 1995, p. 242.

<sup>5</sup> *op.cit.* p. 242.

„We need the metaphors in just those cases where there can be no question as yet of the precision of scientific statements. Metaphorical statement is not just a substitute for formal comparison or any other kind of literal statement but has its own distinctive capacities and achievements.”<sup>6</sup>

Although it seems to be natural to ascribe the cognitive content to metaphor, the formal recognition of the fact appeared together with Max Black formulation of “interaction view” of metaphor. On Black’s view the successful metaphors do not have to convey to the reader or hearer some quite definite respect of similarity or analogy, nor can analogy, however elaborate, capture the cognitive content of metaphor. Nevertheless, Black seems to guard a traditional stance when ascribing the function of metaphorical language to the pretheoretical stages of the development of discipline. The proposal of Richard Boyd appears to be more farsighted, when he discriminates the class of metaphors whose characteristics - the particular sort of open-endedness or inexplicitness, do not distinguish them from more typical cases of scientific terminology<sup>7</sup>. Boyd argues that their function is a sort of *catachresis*, that is, that they are used to introduce theoretical terminology where none previously existed. Noteworthy here is the fact that, whatever the theory, the same attributes that formerly excluded the metaphor from the scientific discourse, have now determined its indispensability in a process of comprehending the structure of the world. The notion of metaphor has evolved from the definition of abbreviated simile to the state where a quality of subject’s creativity is acknowledged in a process of metaphor’s construction. The ability to use the metaphor is no more an otiose activity. The very possibility of creating it, depends both on cognitive capacity of subject as well as on the character of the relation to the world. The metaphor equipped with such attributes as necessary inexplicitness, vagueness and ambiguity serves as a tool for comprehension of the complex and relentlessly changing reality.

#### 4. Metaphors in language

The metaphorical expressions are so common in an everyday language that they are recognizable as a literal rather than figurative use of language. Only those expressions that violate the common use of language are treated as genuinely metaphorical. Certain expressions became so colloquial, that no one recognises their metaphorical character.

Regardless of specialization or opinion on status of science, one cannot avoid certain basic presuppositions or even mystical beliefs on nature of the world when beginning his scientific enquiry. As time goes by, what has served as a figurative expression of certain beliefs might turn out to be literal expression of basis of our scientific knowledge. The assumption that we are able to produce some true statements on structure of our world is grounded in a metaphysical belief that reality *is* a unity that can be a subject of description or cognition. The metaphor makes metaphysics an essential element of scientific depiction of the reality.

Metaphor is a part of language, which in authors’ opinion is a system i.e. its parts are strongly related to each other, and therefore it is impossible to analyse a metaphor outside its context both linguistic and cultural. Leaving linguistic analysis to linguistic studies one has still remember that cultural background in understanding metaphors cannot be eliminated. The ways structures of our knowledge of the world are organised (distinguished and related to each other) is deeply embedded in metaphysical picture of the world characteristic to a given culture. Those embeddings usually called archetypes are different for different cultural “species” and thus the meaning of a particular metaphor can be easily lost in translation.

<sup>6</sup> Max Black, quoted in: Boyd Richard *Metaphor and theory change in: Metaphor and Thought* ed. by Andrew Ortony, Cambridge University Press, 1993, p.482

<sup>7</sup> Boyd Richard *Metaphor and theory change in: Metaphor and Thought* ed. by Andrew Ortony, Cambridge University Press, 1993, p.482.