Rational and Irrational Intentions

An Argument for Externalism

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An Argument for Externalism[1]

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There is plenty of evidence, e.g. in mathematics, in the sciences, and in economics, that rationality is paramount to all other cognitive powers. There is further evidence that intentions are borne and originate in the mind. We therefore might be inclined to conclude that rational intentions are brought about in the mind internally by the best of all cognitive powers. In this case it would be enough to analyse mental representations which are antecedent to decision making in order to find the basic ingredients causing rational or irrational intentions. But there is neither evidence for representations of this sort nor for mental causes of rational intentions. It is true that intending is a mental state or act, but it would, indeed, be false to believe that intentions are produced or brought about internally, i.e., without reference to the external world.[2]

Some intentions seem to be irrational although their mental origin is not different from the origin of rational ones. I shall argue that this indifference of origin of rational and irrational intentions is due to the fact that intentions – like all volitional attitudes - have external meanings. This implies that the criteria of rationality themselves are external to the mental activities of reasoning and intending. 'External' here means that the contents of volitional attitudes are individuated by the objects they are directed to and not by the mental acts or performances of intending themselves.[3] I shall further argue that the indifference of origin of rational and irrational intentions sheds light on the hybrid nature of rationality. For the sake of argument I shall use examples from the theory of choice. The gist of my argument is that intentional states enable us to choose mental acts, speech acts or non-verbal actions without reflecting alternatives beforehand.[4] This links up with the debate about voluntary action in this volume. Proust in her present paper tries to jump the belief-desire-model and follows K. Bach holding that some actions – "minimal actions" as they are called – neither presuppose conscious decisions nor intentions. My claims are a lot weaker. From what I

[1] I would like to acknowledge my gratitude to Martin Rechenauer, Bettina Walde, Sabine Massen and Tillmann Vierkant for helpful discussions and valuable criticisms and recommendations.

[2] Intentions may well refer indirectly to internal entities. I may, e.g., intend to go for a walk in order to overcome my headache, or I may intend to solve a mathematical problem by using a certain method of proof. But I cannot intend any pain, or pleasure, or mathematical operation directly.

[3] This is in accordance with what the late Miss Anscombe wrote in her seminal book *Intention* (Oxford 1957): „... intention is never a performance in the mind..."(p.49)

[4] For arguments to the same effect see K. Bach („A Representational Theory of Action", in: Philosophical Studies 34 (1978), 361-379) and J. Proust in this volume.

argue, actions may be intentional even if they do not result from deliberate choice. I therefore need not tackle the belief-desire-model myself.

Volitional attitudes and external meanings

It is not obvious why volitional attitudes, like, e.g., intending or wanting, should have external meanings. It is textbook knowledge that these attitudes are akin to other forms of intentionality or intentional states like, e.g., believing, or perceiving. As a common feature intentional states are directed to some objects[5]. If I intend or want to go for a walk it's the walking which renders content to my intending or wanting. If I believe that two plus two makes four it's a piece of arithmetic which is the content of what I believe. No independent meanings, no 'intending as such' nor 'believing as such' seem to be left if I omit the walking or the arithmetical operation, respectively. Therefore, over and above their word-meanings 'intending', 'believing' and other intentional states have no cognitive or semantic content of their own.

There are some attitudinal differences worth being noted. While the intentional states of believing and knowing represent cognitive attitudes, intending and wanting belong to the group of volitional attitudes. Being members of different families of attitudes the contents of believing and intending differ significantly in terms of their temporal conditions of satisfaction. While I may believe, or think what is already known, I cannot intend or want what I believe is already the case. I may, of course, intend, e.g., to close the front door, not knowing that somebody else already did. From a subjective point of view the external meanings of volitional attitudes are not constitutive to these attitudes as they stand. In other words, the objects or contents which give meaning to these attitudes are – at least from the viewpoint of the person who entertains these attitudes - not yet existing. If I intend, or want to feel pleasure or are in fear of pain, it's not the actual pleasure I'm intending or wanting, and not the existing pain I fear but future pleasure and future pain, respectively.[6] Volitional attitudes are in general directed to the future, while cognitive attitudes are to all tenses. In terms of tenses there is even a slight difference within the family of volitional attitudes. I may, e.g., have always wished or wanted that some event never occurred but it wouldn't make sense to intend that something in the past was or was not the case.[7] Wittgenstein's famous

[5] ‚Objects' here stands for all sorts of things like, e.g., thoughts, spatio-temporal objects, feelings, and ideas.
[6] L.Wayne Sumner in his Welfare, Happiness, and Ethics (Oxford: University Press 1996) characterises wants in a similar way.
[7] It is possible to have intentions concerning the past. I may, e.g., intend that some past event is or will not be known by others. The conative attitude here concerns the knowledge of some facts by other people but not the facts themselves.

note in his *Tractatus* (6.373), that the world is independent from my own will, is true at least for the past.

Intending and choosing spontaneously

The cognitive function of all intentional states may be described as the mental capacity to choose or select objects of knowledge, volition, and action without reflection. 'Choice without reflection' sounds awkward and paradoxical. But we do, indeed, direct our attention to contents or things without consciously considering alternatives. Without being able to offer a reason why we, e.g., turned our attention to this person rather than that one we choose objects of seeing, thinking, wanting, and intending without knowing why in the moment we do.[8] Let us call the choice brought about by intentional states 'mental choice'.[9]

There is some unwelcome vagueness to this kind of choice. While we know mostly what makes us choose what we believe, do, or say, we need not know exactly what makes us choose our intentions and wants. There are two obvious exceptions, first, long-term wants and intentions which already exist, and, second, rationalisations. Long-term intentions keep arousing deliberation and reasoning. If I always wanted to hike in the Hindu Kush I shall keep thinking about how to realise this intention till I find the opportunity to really do so. As to rationalisations, we are, of course, in retrospect, always able to answer the question why we intended or wanted to do something or other. But rationalisations must not be sincere and are not terribly reliable if we are really interested in finding out what made us choose our intentions. Leaving long-term intentions and rationalisations of intentions aside, in order to entertain volitional attitudes we need no reasons to do so. In other words, we need no states of affairs which may count as reasons for intending or wanting. Volitional attitudes may well be taken spontaneously.

Now, 'spontaneity' is a rather vague notion with an air of delusion. It should, therefore, need further qualification if it is of any use at all. The spontaneity of choice in the domain of intentional states or acts has two connotations, first, being undetermined, and, second, being caused or enacted without deliberation. Considering the first, volitional attitudes may count as being spontaneous in so far as they are brought about by mental choices which are – at least from the first person point of view - causally undetermined by any earlier choices. It is important to differentiate between conscious and subconscious causes. If I hold that a consciously taken choice of mine is causally undetermined this will not preclude

[8] In a similar vein T.M. Scanlon proposes: „Not only perceptual beliefs, but many other attitudes as well arise in us unbidden, without conscious choice or decision." (What We Owe to Each Other, Cambride (Mass.)/London: Harvard University Press 1998, 22)

that there may be subconscious causes at work. This leaves room for conditions, constraints or causes of choice which are either presently or generally unknown to the chooser but possibly sub-consciously valid or empirically evident in psychological research. Considering the second of the two connotations of spontaneity, volitional states may be called spontaneous if their choice is not inaugurated by a process of deliberation or reasoning. This leaves further room for all sorts of "gut reactions"[10] determined by instincts, fears, or paranoia. In brief, spontaneous choice of intentions is choice without conscious motive and without deliberate reason.

Both these connotations merge in one and the same kind of example: E.g., my spontaneous intention to go to the cinema after my friend told me she couldn't make our date for dinner this evening. May be I am disappointed and angry, may be not; may be I just heard good news about the movie before, may be not. My intention is still spontaneous, independent from whether I could have chosen something else. Probably, after deep and thorough psychological scrutiny it will become obvious that there are bundles of causal chains which explain why I chose the intention to go to the cinema as against the theatre or staying home. Subjectively, my choice will still remain as having been taken spontaneously. It is not causally determined by earlier choices of the same or of a similar kind and it is not taken after reasoning or deliberation. This leaves enough room for long term intentions, emotions, aesthetic attitudes, and tastes to influence spontaneous mental choices of intentions and wants. These are some of the stronger candidates for the bundles of causal chains which might in the end explain my spontaneous choice of intentions.

Mental choice

I introduced the notion of 'mental choice' claiming that it is the capacity of intentional states to choose their own objects and thereby their contents. The exercise of this cognitive function is far from clear. We are, at least conceptually, at a loss to explain in detail the faculty of directing and guiding ones perceptual and cognitive attention to whatever available contents of intending. We therefore, gladly, take it that these contents individuate what we intend. But, of course, in order to avoid circular explanations, we shall not hold that these contents will direct our attention externally. Otherwise, the intentional contents would cause their respective intentions backwards, as it were.

To direct ones attention to an object rather seems to be a process of mutual fit in which an individual's attention and the special features or even attractions of an object merge nicely.

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[9] I shall consider some aspects of mental and rational choice later. Both kinds of choices can be represented in standard and non-standard versions of choice.

It looks as if the direction of ones attention is a co-operative mixture of active and passive between a subject and an object. On the background of a subject's pro-attitudes, including emotional dispositions, likings and dislikings, one and the same object seems appealing at a time but not at another one. In the latter case the person will not even take notice of it. If I like walking and if I want to take a break, going for a walk may seem appealing. But I may not even think of talking a walk although I'm taking a break. This active-passive interplay is a simple picture of what is going on when we intend to do, say, or know something.

We choose – as I argue above - many of our intentions to do something spontaneously without being knowingly or consciously determined or caused by earlier mental choices of the same or of a similar kind. It would, e.g., not make sense to say that I now intend to go for a walk because I had the same intention before. But the relation between intentions, actions, and habits is tricky. Although habits and actions following a rule are repetitive they are still intentional activities. They express what someone is up to, i.e., his or her intention-in-action.[11] The tricky bit is that the expression of intention of each action-token is in a way guaranteed by the action-type. A certain action-type or habit is known to express a respective intention-in-action. If I use the common words and gestures to greet people my behaviour will be identified as greeting independent from further intentions of mine.

Nevertheless, habits do not cause but represent and express intentions. My habit of greeting people is not the cause of my greeting Paul or Luisa. I don't greet everybody. Habits need some training and if they are well trained they become long term attitudes which we are prone to follow. In so far habits make it easy to choose affiliated and conventionally used actions. But action-types or habits will not cause action-tokens. The further are necessary in order to identify but not sufficient to execute the respective action-tokens. The choice of an action-token is open and leaves room for spontaneity. This may be underlined by an example from the realm of the reproductive arts. A pianist performing will know his program by heart. His maturity to interpret the pieces of music in his own individual way is beyond his technical ease. His individuality and authenticity thrive on top of his technical brilliance. Spontaneity in this case as in all other cases of intentional actions with strong habitual and repetitive aspects presupposes a high amount of practical knowledge which operates successfully without deliberate choice. Spontaneity is neither obviated by subconsciously valid causes nor by practical knowledge or repetitiveness.

Looking closer to my own intentional actions I might find that some of my intentions – like in the case of greeting - are not really chosen by myself but rather prompted by the

[10] I borrow this phrase from Donald Calne (Within Reason. Rationality and Human Behavior, New York 1999, 23).

social grid of rules and habits and their sanctions and gratification. My intentions in other cases might even result from evolutionary training to avoid pain and to pursue happiness. Here, again, in the social and in the evolutionary case emotional dispositions and evaluative attitudes come into play. I might as well find that consciously acquired and trained emotional dispositions and attitudes often do the whole job of choosing even without the gravitational forces of evolution and the social grid. Finally, all these dispositions and attitudes are mine and there is nothing wrong or awkward if I claim authorship for choosing my intentions on the basis of my emotions and psychological dispositions.

But then, why 'mental choice' and not just 'choice'? Indeed, because choice even if it is taken after deliberation, calculation, or reasoning, may still be spontaneous. It seems to be an unwarranted prejudice that deliberation, reasoning, and similar mental operations count as being void of or even obviate spontaneity. Choosing mentally is nothing else but choosing, i.e., deciding about alternatives. All choices can be spontaneous independent from their antecedent conditions. In order, e.g., to find an elegant and economic mathematical proof one needs good ideas, and they got to be spontaneous even if the mathematical techniques and operations are common practice among mathematicians. What is left of the above mentioned two connotations of spontaneity? Mental choices are spontaneous in so far as they are neither consciously caused after deliberation nor by earlier choices of the same kind. Nevertheless, mental choices may have bundles of subconsciously valid causes and they may be accompanied by conscious operations of reasoning and deliberation. But all these conditions are not sufficient to explain the choice consciously taken.

Rationality and rational choice

Like intentionality, rationality too has a functional meaning. It's, again, a cognitive function which resembles the type of mental choice just described for intentional states. But while the mental choice of intentions is generally spontaneous, the degree of spontaneity in rational choice is to be clarified. Some differencies between mental and rational choice seem to be obvious. As against mental choice, the choice we perform rationally – so it seems - is caused by conscious motives and explained by deliberate reasons. If it is following deliberation and reasoning the rationality of choice is taken in a wide sense implying non-instrumental aims and purposes like, e.g., self-respect or social justice.[12] Rationality in the

[11] The causally undetermined role of a person's intention in action is analysed by Miss Anscombe (loc.cit., 34-37).
[12] Rationality in the wide sense implies a number of models like, e.g., expressive rationality, and bounded rationality. Useful surveys are offered, e.g., by B.R. Wilson (ed.), Rationality, Oxford: Blackwell [3]1977; F.Hahn, M. Hollis (ed.), Philosophy and Economic Theory, Oxford: University Press 1979; M.Hollis, S.Lukes (ed.), Rationality and Relativism, Oxford: Blackwell 1982.

wide sense is often used as a synonym for 'reason'. As I mentioned above, deliberation and reasoning does not obviate spontaneity.

In a narrow sense rationality in terms of rational choice has an instrumental meaning. This type of choice is based on motives of gain relative to some purposes or aims. It seems that these motives make choices successful by making decisions clear and predictable. In its latter sense, the rationality of individual behaviour is unanimously defined by the axioms which determine the maximisation of expected utility.[13] Nobody will deny the importance of rationality in the wide sense, nor will anybody ignore that the model of rational choice offers a clear and useful normative model of individual decision making under certainty, risk, and uncertainty. Under certainty every agent knows exactly the utilities of his action. Under risk or uncertainty utilities are gauged by probabilities. The Bayesian rule tells the agent to maximise his subjectively expected utilities.[14] Every rational agent behaves as if he is motivated by the maximisation of expected utility. The theory of choice tells us how the agent realises his motive rationally, i.e., with the utmost success relative to some intended aim.

There is no need to go into the details of expected utility theory. Thinking about rational intentions it will be enough to recall two of the major features of rational choice: first, its psychological groundwork, and, second, its axiomatic structure. The psychological groundwork is more or less expressed by the motivational force of expected utility maximisation. Francis Edgeworth's famous conjecture – in his *Mathematical Psychics* (1881) - that all individuals are driven by their pursuit of gain is a possible but not wholly adequate descriptions of the psychological nature of this very motive. It must not necessarily be the case that in rational decision making I am intending to get more of a certain good for myself. It's not greed which motivates my decision but the optimum of outcomes relative to certain aims independent from their egotistic or altruistic nature. *Why* humans want to take successful decisions is imbedded in their psychological groundwork and may remain opaque. *What* they want to be successful in is made transparent by the rational decisions themselves. This is how human psychology and mathematical axioms are co-ordinated. On top of the psychological groundwork a small number of axioms tell us how rationality works in order to maximise expected utility. With the axiomatic layer rational action and social exchange in general is modelled on economic action. Edgeworth described the economy as a bazaar, "an arena in

[13] For the sets of axioms for rational choice under certainty and one for rational choice under uncertainty see S.Hargreaves Heap, M.Hollis, B.Lyons, R.Sugden, A.Weale, The Theory of Choice, Oxford: Blackwell 1992, 5-11.
[14] The Bayesian rule contains a subjective probability function and a subjective utility function. Both these functions come down to the value of expected utility.

which everyone is free to haggle with everyone else."[15] I won't pursue Edgeworth's economic ideas here. But the way he gives pure exchange economy a mathematical face makes it obvious how rationality ascends from the psychological and motivational groundwork via the mathematical structure of exchange to the maximisation of expected utility. There is no doubt, rationality in the narrow sense has psychological roots. At least in theory, it originates from non-rational dispositions. But these dispositions do not explain the decisions people take. The theory explains their rationality externally on basis of the pay-offs they gain.

Rational paradox and the contexts of choice

Historically, we may now remember Hume's notorious plea for the passions as being the masters of reason. But I don't think that this piece of history is of any help if we want to understand rational intentions. What we learn from expected utility theory – if we want to - is that the psychology at the bottom of the theory will never carry us anywhere near rational choice on its own. The problem is that non-rational dispositions and motives are blind and clueless without the theoretical scaffolding which is offered by expected utility theory. Therefore no Humean internalist will be able to explain the rationality or irrationality of choices. On the other hand expected utility theory is empty and inefficient without the motivational force from some psychological groundwork. It is difficult to explain how motives become forceful without cognitive guidance. One may, of course, try Hume again that the passions press reason into slavery and make them willynilly develop the theory needed. Instrumentalism is definitely not void of plausibility. As long as my motives are strong enough I'll do anything I can to realise my intentions; this is the message of instrumentalism. But, as we know from the sub-optimal results of non-cooperation in the Prisoner's Dilemma, the dictates of the passions will not guarantee maximal success not even with theoretical help. Too easily rationality turns into irrationality.[16]

Obviously, the fit between the psychological groundwork and the instruments offered by decision theory to reach success is not quite happy. And I am not trying to improve it. I am rather interested in the incongruency itself and what we learn from it. It tells us, first, that we cannot generally proceed from the mental or psychological origin of intentions to rational outcomes even if we know what we should do to behave rationally in terms of the theory. It tells us, further, that our preferences do not agree with those norms of rationality that the standard theory prescribes. The axiomatic structure of the theory seems to be unable to

[15] Robert Sugden, „Anarchic Order", in: S.Hargreaves Heap, M.Hollis, B.Lyons, R.Sugden, A.Weale, The Theory of Choice, Oxford 1992, 191.
[16] This is in brief the message of Amartya Sen's „Rational Fools: a Critique of the Behavioural Foundations of Economic Theory", in: F.Hahn, M.Hollis (ed.), Philosophy and Economic Theory, loc.cit., 87-109.

account for what very many of us take to be the most rational thing to do. The story I have in mind is the Allais Paradox.[17]

The French economist M. Allais published a paper in which he criticised some of the axioms of expected utility theory.[18] His idea was to argue that people choose contrary to some of the assumptions made by the standard theory.[19] In order to show this Allais offered two problems which are described by the following lists. The pay-offs on these lists are in money in whatever currency:

Problem 1: choose between

A: 2500 with probability 0.33 2400 with probability 0.66 0 with probability 0.01	B: 2400 with certainty

Instead of problem 1 you now face a slightly different problem.

Problem 2: choose between

C: 2500 with probability 0.33 0 with probability 0.67	D: 2400 with probability 0.34 0 with probability 0.66

As it turned out in experiments[20], many people choose B in Problem 1 and C in problem 2 and only few people choose A and D, respectively. This is, indeed, what Allais supposed. Let us consider the risks implied in the two problems. A is obviously riskier than B. It seems unreasonable to take the risk of getting nothing for a relatively small increase. Most people will therefore reason that it seems preferable to be on the safe side and choose B instead of A. In problem 2 C looks a bit riskier than D, but here it seems reasonable to take the higher risk for the larger pay-off.

Why should these choices be paradoxical? The paradox is due to expected utility theory. According to the axiomatically grounded recommendations of the theory, if I choose B in problem 1 I shall have to choose D in problem 2; and if I choose A in problem 1 I shall have to choose C in problem 2. The axiom which obliges me to follow this course of decision

[17] I borrow Robert Sugden's version of the story in his „How People Choose", in: J.Hargreaves Heap e.a., loc.cit, 45.
[18] M. Allais, „Le comportement de l'homme rationnel devant le risque: critique des postulats et axiomes de l'école américaine", Econometrica, 21 (1953), 503-556.
[19] There are other paradoxes of a similar kind trying to question the empirical adequacy of the postulates of utility theory, e.g., the Ellsberg Paradox; for details see D. Ellsberg, „Risk, Ambiguity, and the Savage Axioms", Quarterly Journal of Economics, 75 (1961), 643-669.

making is the independence axiom. It tells us that any preference between A and B should not be influenced by components which are irrelevant. If it is irrelevant for my choosing B (2400 with certainty) that a higher amount (2500) is offered with probability 0.33 this very option must be ignored in problem 2 as well. I must prefer D to C. But if I prefer A to B in problem 1 I obviously go in for better outcomes even if they are offered with lower probability. I am even prepared to ignore an outcome offered with certainty. In order to choose consistently I have to prefer C to D in this case. Those who choose B in problem 1 and C in problem 2 are sinning against the independence axiom.

It should be easy to correct expected utility theory if it doesn't suit human behaviour. We could, e.g., delete or modify the axiom of independence, as it seems to be too demanding. Allais' paradox arises because people choose options which are irrational in terms of the theory. It seems over-ambitious and counter-intuitive to blame people for behaving irrationally just because they choose – unimpressed by the theory - according to their own expectations of winning.[21] Their intentions to win certain pay-offs seem to be both rational and irrational. Either the theory is wrong or people's choices are, depending on which perspective we choose. This is what I mention at the beginning where I claim that some intentions seem to be irrational although their mental origin does not differ from the origin of rational intentions. The external meanings which determine the contents of intentions in these cases are either the pay-offs chosen by a great majority of people or the pay-offs offered by the standard theory. But the rationality or irrationality of both of these options are determined externally by the respective pay-offs.

Both of those pay-offs are external to the psychological groundwork or motivational dispositions of ordinary choosers. People's preferences for pay-offs depend on the contexts in which the pay-offs are offered to them. The preferences for pay-offs neither derive from individual psychological dispositions nor from the individuals' internal representations of long-term preferences like, e.g., life-plans. On the other hand, people's general attitudes towards risks and pay-offs are primed by their characters. But my personal character will not explain each of my choices. My timidity, e.g., will prompt me to choose a pay-off offered with certainty. But, first, I won't take any of the pay-offs which are certain if the risks of considerably larger pay-offs are reasonable. Secondly, any success of mine will give buoyancy to my taking greater risks in the next round of choices. My former timidity will

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[20] One of the most well-known experiments was undertaken by Kahnemann and Tversky; see their „Prospect Theory: An Analysis of Decision under Risk", Econometrica 43 (1979), 263-291. The pay-offs in the above lists are taken from this experiment.

[21] T.M. Scanlon rightly argues that violating axioms of choice is not enough to criticise people as being irrational (What We Owe to Each Other, loc.cit., 31).

only return after one or two unfortunate decisions before my confidence to win is strengthened again. Choices will always express timidity or boldness or other characters but the latter do not explain the choices themselves. This is a further reason why people's intentions to choose are determined externally.

The external nature of the contexts of choice is finally evident in Robert Sugden's Regret Theory.[22] I need not go into the mathematical details of the theory in order to give a brief sketch of Sugden's basic idea. While Allais tries to liberate choosers from the axiom of independence Sugden is prepared to give up the axiom of transitivity for individual preferences. This is illustrated by his example: Imagine three situations E, F, and G and their respective probabilities p(E)=0,1, p(F)=0,4, and p(G)=0,5.[23] These situations figure in two options of choice A and B:

Option A

0 - if E or F	1000+e - if G

Option B

1000 - if E or F	0 - if G

The pay-offs are in money and 'e' is an amount slightly larger than 0. Now, as long as the set of options is limited to A and B almost every theory will recommend A. The picture changes if there is one further option C available.

Option C

5000 - if E	0 - if F or G

Considering the order of preferences {A, B, C} Sugden argues if e is sufficiently small B is preferable to A. Option C changes the original order of preference of A over B. The switch of preferences from A to B and the implied violation of the axiom of transitivity is easily explained: If we choose A and E occurs our regret will be considerably deeper with option C than without. Of course, it all depends on the negligibility of e. Nevertheless, the change of preferences is brought about externally by a contextual change.

[22] Robert Sugden, „An Axiomatic Foundation for Regret Theory", Journal of Economic Theory 60 (1993), 159-180.
[23] p(E)=0,1 reads: the probability that E occurs is 0,1.

I shall neither discuss the general consequences of weakening the axiom of transitivity nor shall I defend Sugden's Regret Theory. His theory plausibly and convincingly shows that the alternatives of choice are not to be characterised by some intrinsic features of the alternatives themselves but by their mutual relations. These relations change relative to the contexts in which the alternatives of choice are offered. Finally, whenever these contexts change our preferences change as well.

The incongruency which I mentioned earlier between the psychological groundwork of decision making and the standard theory of rational choice is partly overcome by the different strategies of either weakening the axiom of transitivity or giving up the axiom of independence. In both cases the norms of rationality are adjusted to the possible changes of individual preferences. It is now possible to proceed without paradox from the psychological groundwork of decision making to the revised standards of rationality. Whatever revision of the set of axioms of the standard theory of rationality we accept the very possibility of revising the set corroborates the externalist account of rational decision making.

After all, both the analyses of mental and of rational choice showed that intentions are individuated by external meanings. While this issues from the spontaneity of mental choice in volitional attitudes it is due to the contextual character of preferences in rational choice. It first seemed that rational choice was not spontaneous but governed by the single motive to maximise expected utility. The advantage of the single motive seemed to be that it makes decisions clear and predictable, and that it guarantees maximal success. If this was the case rational choice would be determined internally by an intrinsic motive of gain. We now see that this is not the case. Obviously rational decision making is influenced by external factors to be found in its context. And these factors are beyond the control of the standard theory of choice. Each individual's psychological groundwork including character, emotions and evaluative attitudes play a role.[24] This is not surprising but it shows how inept the internalist Humean picture of the passions pressing reason into slavery is, at least from the view-point of rational decision making. The passions are too clueless and changeable to control reason. On the other hand, reason is unable to control the passions to the same effect.

Finally, rational choice can be as spontaneous as the mental choice of intentions. Even if we assume that we all share similar motives the choices we make are not caused by these motives directly. We choose our intentions to maximise our expected utilities basically the

[24] As Donald Calne resumes: "We favor certainty if we are dealing with a potential gain and uncertainty if we are facing a potential loss. These attitudes are emotional – we minimize our anxiety by making decisions in this way." (D. Calne, loc.cit., 288)

same way as we choose intentions mentally, i.e., independent from the clues and fixations which might have accrued from earlier choices.

At the beginning I mention the hybrid nature of rationality. Rationality is at least in its narrow, instrumental sense a hybrid. It is partly based on some psychological groundwork or motivational set and partly on theoretical and axiomatic structure. None of these parts is sufficient for rational decision making, and their relation is – as we learnt from Allais and Sugden – precarious. Why is rationality a hybrid? Because it combines two incongruent ingredients, psychological groundwork and theoretical structure. The mutual influence of these counterparts to form a coherent whole is ad hoc and a matter of compromise.

In order to determine the rationality of intentions we need to know their objects in a context of alternatives. Neither the psychological groundwork nor the theoretical structure of the standard theory offer a universal and conclusive basis to judge whether intentions are rational or not. Rational intentions are determined externally. No intention is intrinsically rational. The consequences of this observation in ethics are to be considered carefully at least for theories which are based on the intrinsic nature of moral rationality.[25]

[25] The most prominent example is I. Kant who in his Groundwork of the Metaphysics of Morals argues from the intrinsic goodness and moral rationality of the „good will".