CROSS-CULTURAL RATIONALITY

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The decisive issue for any relativist thesis is the relativity of rationality. In the final analysis, no defence of relativism is worth the trouble if it has to give in on the question of the relativity of reason. It is, I think, a recognition of this fact that constitutes the theoretical impulse behind Peter Winch's well-known article 'Understanding a Primitive Society'.[1] In this article Winch takes Evans-Pritchard's Famous Study[2] of witchcraft among the Azande tribe as the basis of his discussion and argues against Evans-Pritchard that we cannot declare the Azande beliefs and attitudes with regard to witchcraft and oracles irrational on the grounds that they are full of what appear to be flagrant contradictions. In his article titled 'Rationality'[3] Charles Taylor has taken the stand that while Winch is correct in refusing to describe the Azande beliefs as irrational, he is mistaken in implying that we cannot compare the Azande system of beliefs with other belief-systems and judge the relative superiority or inferiority of their standards of rationality. This claim of Taylor involves a number of issues which are as relevant today as they were when Taylor wrote his article nearly two decades ago, not only to the question of cross-cultural rationality but also to the larger question about the possibility of a version of relativism that can offer an alternative to hegemonic and totalising absolutism without itself lapsing into an irrationalist sort of subjectivism. This fact, in my view, makes Taylor's response to Winch an ideal background for discussing these issues, without clarity on which, the relativism-absolutism debate is likely to remain the confused impasse that it has been for quite sometime now. So, to discuss a few of what I believe to be the central issues in this debate, I have followed the following procedure in this article : I have

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recapitulated Taylor's arguments at some length but in such a way as to throw the main issues into relief, and discussed some of them with reference to his views. Then I have discussed some of the remaining issues in a somewhat broader context, for which I have made use of a crucial concept developed by Ian Hacking.

I

Theoretical and Atheoretical Cultures

Taylor begins his article by asking if we can understand rationality purely in terms of the notion of consistency. He answers that while the notion of consistency plays a significant role in determining rationality, our notion of rationality is actually richer than mere conformity to the formal requirement of consistency. He suggests that this fact becomes clear when we raise the question whether there are standards of rationality which are valid across cultures. It is in this context that he discusses Peter Winch's article. Very briefly, this is the gist of Winch's article: Evans-Pritchard had observed in his study of the Azande tribe that in their beliefs about witchcraft, the members of this tribe were flagrantly self-contradictory. On one hand they believed that there was a witchcraft substance which could be found in the intestines of witches. On the other hand, when a post-mortem examination of the intestines of the suspects conclusively demonstrated the absence of any such substance, instead of conceding that the suspect in question was not a witch, they continued to treat the question whether or not the suspect was a witch as an open one. On the basis of this inconsistent attitude, Evans-Pritchard had argued that the Azande tribe were irrational. In his article Winch rejected this conslusion by arguing that the basis on which the charge of irrationality rested involved the altogether mistaken assumption that Azande notions of witchcraft constituted a theoretical system in terms of which they were trying to gain a quasi-scientific understanding of the world. It is certainly correct that consistency is a primary requirement in the construction of theoretical systems. But the Azande, argued Winch, were not even attempting to construct a theoretical system. They were not playing that language game at all. So, to accuse them of irrationality would be analytically misguided and even morally wrong. The basic mistake here, according to Winch, is that we are trying to judge atheoretical cultures with the criteria of theoretical cultures,

not realising that they cannot be compared with regard to standards of rationality.

Taylor's position is that although Winch is generally right in his refusal to go along with Evans-Pritchard in calling the Azande irrational, the final conclusion he (Winch) draws that two cultures cannot be compared and judged as to their rationality on the basis of such comparison is mistaken. Why?

According to Taylor, we typically tend to make two opposite kinds of mistakes in such matters: Either we straight away assume that the culture being studied has a tradition of theoretical understanding and that the practice or belief in question is part of an attempt at such theoretical understanding, and finding that it involves contradictions, conclude that that particular belief or practice and by extension the entire cultrue is irrational;, or we try to defend that culture by explaining that particular practice in terms of a frameworks other than that of theoretical understanding such as the symbolic or expressive frameworks where contradiction does not matter. In the case of the Azande, Evans-Pritchard makes the first kind of mistake while Winch makes the latter mistake. From the fact that the Azande do not seem to be perturbed when confronted with contradictions, Winch draws the inference that witchcraft (in the Azande culture) belongs to the (atheoretical) domain of symbolic or expressive practice. On the basis of this inference he argues that we should not consider the Azande tribe irrational since it is wrong to judge an atheoretical culture with the standards of a theoretical culture. The activities engaged in are different and it would be wrong to assess them according to identical criteria.[4] If, for instance, we try to understand magic as a sort of proto-technology -- a less effective, pre-scientific attempt to gain control over Nature, and evaluate it according to the criteria of modern science and technology, it is bound to appear ridiculously inefficient and downright irrational. But this, Winch says, proves nothing. We must always consider the possibility, in fact the likelihood, that magic is not a proto-or infantile technology, but an altogether different sort of activity with aims that have nothing to do with control of Nature. They may, for instance, constitute forms of expression intended as reflective frameworks that would facilitate

a deeper understanding and a more tranquil acceptance of the vicissitudes of life. In ignoring that possibility we would be violating a fundamental principle of the study of human action which says that human action must be understood, at least initially, on its own terms.

This view of Winch, as we can see, involves a thesis of incommensurability. The central, though implicit, question here would be whether there are common standards of rationality applicable to incommensurable paradigms. Evans-Pritchard seems to hold that they do while Peter Winch would appear to maintain that they don't. Taylor, however, feels that matters are far from being so simple as Winch's view implies.

Evans-Pritchards' view is that the ability -- and more pertinently the willingness -- to negotiate contradictions is the hallmark of rationality in all circumstances. For Peter Winch, on the other hand, logical consistency is relevant only in the context of theoretical understanding. Taylor feels that Winch is perhaps a little rash in deciding that the principle of consistency need not constrain Azande beliefs. He argues that it is perfectly possible that the Azande care very much about contradictions but have different ways of ironing out the inconsistencies of their belief-system. That is, they might have a different set of assumptions as to what should count as an exception, which situations should be treated as constituting extenuating circumstances and so on -- assumptions which would become explicit and operative if their framework were to be extended in the direction of theoretical understanding. The fact that a culture does not have a tradition of theoretical understanding does not necessarily mean that they would tolerate contradictions. However, according to Taylor, there is another point which is a great deal more important than this one. It is to do with the fact that in making the assertion that a certain culture does not have a theoretical tradition, we are assuming that the theoretical-atheoretcal dichotomy is universal and applicable to all cultures.

Winch's view, as we said, is that the Azande beliefs about witchcraft represent an atheoretical culture which is characterised by the desire to 'express an attitude to contingencies' while the theoretical approach involves the attempt to 'control those contingencies'. Taylor finds this absolute

contrast between the two approaches problematic.[5] He argues that this contrast itself is the product of a very doubtful analogy between the two paradigms-- the Western and the Azande. He points out that Winch himself is aware of this fact and tries to mitigate the dichotomy by suggesting that there is an expressive relation *in addition* to the controlling relation which is ignored by the Western anthropologist.[6] But, Taylor argues, once you allow the pragmatic-symbolic, manipulative-expressive dichotomy as applicable at a trans-cultural level, it matters little in terms of what permutations of the pragmatic and the symbolic you describe a culture. The very acceptance of this dichotomy constitutes an insufficiently radical critique of ethnocentricity.[7] This and other such dichotomies are a part of the Western paradigm and are the consequence of the transition from premodern to modern science in the seventeenth century which involved the purging of the symbolic and expressive dimensions from the scientific enterprise. Therefore, to transpose this dichotomy to other cultures and explain them in terms of some type of contrast or combination of the two terms of this dichotomy, is to fail to understand the depth of the incommensurability involved. However, Taylor gives a peculiar twist to his argument at this point and argues that *contra* Winch, incommensurability, far from being an obstacle to comparison, in fact constitutes the condition of its possibility. But before discussing this very interesting claim, there is another point which I wish to discuss. This concerns the specific content that Taylor tries to give to the substantive dimension of rationality, which is supposed to provide the basis for a comparative judgement of standards of rationality of different cultures.

In the course of explaining why universality cannot be accorded to the theoretical-atheoreical divide, Taylor traces the origin of the tradition of theoretical understanding and explains what it actually means. According to him, theoretical understanding aims at a disengaged perspective. In theoretical understanding we do not try to understand phenomena in terms of how they impinge on our lives, but as they are in themselves. (The fact that such a disinterested knolwedge yields consequences which impinge on our lives in many ways does not alter the fact that any interest in those consequences does not primarily orient the enterprise of theoretical understanding.) Tracing the origin of this paradigm to Classical philosophy,

Taylor points out that according to Plato in the *Republic,* to have real knowledge of something is to be able to 'give an account' of it.[8] On this basis he argues that the notion of 'articulation' which is linked to the concept of rationality in Western philosophical discourse would be central to theoretical understanding, since where theoretical understanding is applicable, the best articulation comes from a disengaged perspective. In other words, 'the demands of rationality are to go for theoretical understanding where this is possible'.[9] Consequently, in European culture, theoretical understanding represents the manifestation of rationality. This means that there is a substantive dimension of rationality which progresses ineluctably in the direction of an increasing theoretical understanding. In other words, theoretical understanding is the *telos* of substantive rationality, in contrast to the requirement of consistency which characterises formal rationality. But what would be the *telos* of substantive rationality in those domains of a paradigm which are not amenable to theoretical understanding? It cannot be consistency since as I pointed out earlier, for Taylor consistency is a formal criterion which, while applicable to all paradigms, is an internal criterion in the sense that it can be applied only to assess the coherence of relations between the different elements of a paradigm. Taylor's statement that it is the set of 'human activities of articulation which give the value of rationality its sense',[10] seems to imply that there are modes of articulation applicable to the nontheroetical domains and which serve as the criteria of their rationality. By extension he seems to suggest that it is on the basis of the standards of articulation that different cultures can be compared as to their level of rationality. But how are the standards of articulation to be evaluated? What are the criteria that define the degree of success achieved in articulating reality? It turns out that they are nothing other than the extent of understanding of the natural world as measured by the predictive and manipulative ablity rendered by it. But is this not a criterion internal to modern science? Taking the example of the science of High Renaissance and the modern science initiated by Galileo and others, Taylor argues that it is not. He concedes that the Renaissance sage may have valued, say wisdom, above manipulative ability and measured his science with that standard. But, according to Taylor, we canot set aside the tremendous technological spin-off generated by modern science because

greater control over Nature is a necessary part of the objectives of any science. In other words, knowledge and understanding provide recipes for action, and better knowledge provides better, more efficient recipes for action. Taylor puts this in the form of a crisp equation: there is no scientific advance without increased technological applicability.[11] It must be pointed out, however, that in giving this equation, Taylor shifts the basis of its relevance. At this point in his argument he holds, not that increased technological applicability is the reason why we should prefer modern science to that of high Renaissance, but that increased technological applicability *show* that modern science is superior to the science of High Renaissance. This is, of course, a familiar argument from Realism which argues back from the success of prediction and manipulation to the correctness of the description on which the prediction and the manipulation are based. That. there are several serious problems with that argument and that the entire gamut of relativist positions represented by Kuhn, Feyerabend and others are based on a consideration of those problems is something that, I think, Taylor himself would not deny. So I will avoid going into the debates surrounding arguments from Realism, and concentrate on two points which are more pertinent to the issue of rationality. They are 1. The means-ends characterisation of rationality and 2. The relation between relativity of truth and the relativity of rationality.

Taylor's argument that the technological success made possible by modern science testifies to its superior rationality is an apllication of the view according to which rationality consists in the employment of successful means to achieve desired ends and conversely an irrational person is one who acts flagrantly in violation of his own objectives. That this instrumental view of rationality is a needlessly narrow view is, I think, fairy obvious. By leaving out the rationality of 'ends' out of the picture, it presents not only an impoverished but a distorted idea of the relation of rationality to values. This view, for instance, cannot offer a coherent account of religious beliefs. In any case, since Taylor himself consicers this notion of rationality at the beginning of his article but subsumes it under the notion of consistency,[12] he cannot possibly treat employment of successful means which is a derivative of consistency as the substantive dimension of rationality. Moreover, the separation of means and ends is a species of abstraction

that presupposes a theoretical matrix as a context. Therefore, the means-ends relation wouldn't seem to be a very promising candidate for the substantive dimension of rationality. (I am my self inclined to the view that the notion of 'good reasons' is a much more promising candidate, and shall devote a considerable part of section II of this articlee to defend that view.)

The second point concerns the relation between the relativity of truth and the relativity of rationality. Taylor's argument about the success of modern science confuses between these inseparable but distinct things.[13] Considering modern science as a body of knowledge or a set of theories about the world, and comparing it with, say, the Azande belief-system, we might be able to easily show that the former offers a correct description of the world while the latter does not. But to do this is only to prove that the Azande belief-system is false. It does not amount to proving that the Azande tribe are irrational for believing what is false. For what is at issue is not possible superiority of modern science to the Azande belief-system but the putative suiperiority of the standards of rationality characteristic of modern science over those of the Azande culture. the bare assertion that modern science shows its superior rationality, firstly by virtue of its valid claim to have achieved a more perspicuous order than premodern science in articulating the natural world and secondly by virtue of the fact that it has provided the means to develop superior tools and weapons, involves an indefensible normative grounding of rationality in knowledge or in the acquisition of some 'objectively' true beliefs.[14] But such an attempt to argue from knowledge to rationality, at best, simply broadens the basis of comparison. It replaces the merely formal, general criterion of consistency with a specific, substantive criterion of knowledge. But this move does not provide us any better means to meet Winch's objection, since what is at issue is whether or not the substantive dimension of rationality is relative.

So, it would seem that on the one hand Taylor agrees with Winch on plurality of standards, and on the other hand insists on universalising the mode of substantive rationality peculiar to modern science and using it as a criterion for evaluating different cultures. However, Taylor doesn't see any inconsistency in his position. According to him the plurality permits comparison because it is a plurality of the incommensurable. He says,

> ...I entirely agree that we must speak of a plurality of standards. The discourse in which matters are articulated in different societies can be very different, as we can see in the Azande disinterest in explaining away the paradox Evans-Pritchard put to them in witchcraft diagnosis. The standards are different, because they belong to incommensurable activities. But where I want to disagree with Winch is in claiming that plurality doesn't rule out judgements of superiority. I think the kind of plurality we have here, between the incommensurable, precisely opens the door to such judgements.[15]

In other words, cultures are more incommensurable than Winch realised. But contrary to what Winch imagines, their incommensurability far from precluding the possibility of comparison, makes comparison possible. This is the intriguing claim to which I alluded a while ago. Taylor tries to substaniate this claim by introducing a crucial distinction between the 'different' and the 'incommensurable'. If this distinction and the claim based on it are valid, obviously, the very idea of incommensurability will have to be rethought. As is well-known, Thomas Kuhn and those who have followed him have used the notion of incommensurability to argue against the possibility of comparing two paradigms.[16] Taylor, on the contrary, seems to be holding the exact opposite. It is evident that this issue is not only central to Taylor's disagreement with Winch, but is crucial to the entire debate on relativism and therefore worth serious attention.

The Different and the Incommensurable

Taylor suggests that two activities may be different from each other but not incompatible with each other. On the face of it this is a simple enough distinction. There may be two activities which are concerned with two different things. On the other hand there may be two activities which are actually two incompatible ways of doing the same thing. The former do not occupy the same logical space but the latter do. This is the meaning of the assertion that the latter are incommensurable. And precisely because they are incommensurable, they can be compared. The approach of medieval science and that of modern science, for instance, constitute incompatible and hence incommensurable ways of explaining how the world is. The former is grounded in a notion of 'correspondence' between different levels and domains of reality while the latter operates with a totally different

basis for seeking explanation of natural phenomena. And since they constitute incompatible approaches to the same problem, they represent a case of incommensurability and therefore they can be compared.

Taylor argues that the realation between the modern culture and the Azande culture is similar. They are not different but incommensurable. Therefore, while it is wrong to use the same conceptual dichotomies to describe the two, it is a mistake to imagine that they cannot be compared. They can be compared precisely because as incompatible attempts to make sense of the world, they occupy the same logical sapce. According to Taylor, Winch correctly recognises that primitive magic and modern science, for instance, are not different bur incommensurable, but from this fact he draws the quite erroneous conclusion that they cannot be compared and hence no comparative judgements are possible. But,

> ...incommensurable activities are rivals; their constitutive rules prescribe in contradiction to each other. Only where two activities are simply different is there no question of judging one to be inferior version of the other, and perhaps in some cases of inferior rationality.[17]

It follows that modern scientific culture and the Azande culture can be compared and judged in terms of their standards of rationality. Now, I think this simple looking contrast between 'defference' and 'incommensurability' is unworkable for the simple reason that it is based on a confusion regarding two closely related points: 1. The proper unit of incommensurability and 2. The referentiality of a paradigm.

In brief, firstly, Taylor's distinction depends upon a confusion whether incommensurability is a property of entire cultures (or paradigms or conceptual schemes) or of activities (or beliefs) which constitute a culture.[18] My contention is that this makes considerable difference. Secondly, Taylor does not examine carefully enough the distinction between the way the reference of a paradigm and that of a constituent of a paradigm is determined and the relation this distinction has to the question of incomensurability. Let me elaborate.

Let us take, by way of example, two practices, say, worship and healing. These are two different practices with entirely different objectives. They are not incompatible with each other. There is no reason why they

both should not be done together (or pursued together) simultaneously without any friction. It makes no sense to compare them and judge one of them to be inferior to the other. On the other hand, if we take two different practices of healing, say, modern medicine and faith-healing, they are not different practices in the strict sense but are two versions of the same practice, two incompatible ways of dealing with the same phenomenon and having the same objective which is healing sickness. They are incommensurable in the sense that they cannot be mapped on to each other. They are based on incompatible descriptions of what sickness is and how it can be cured. None of the elements of one can be fixed in a relation of correspondence with those of the other. But, inasmuch as they refer to the same aspect of reality (disease) and have the same general objective (healing), one can meaningfully compare them and judge one of them as inferior to the other in its analysis of illness and its stated objective of healing it.

Now, taking the second point of confusion first, the crucial issue concerns the assertion that the two incommensurable activities are about the same aspect of reality or that they have the same objective. In other words, the question here is as to how precisely we are to understand incommensurability in the context of referentiality. If we can speak of an explanation or theory of a particular phenomenon obtainable in two rival paradigms does it mean that they are not incommensurable, inasmuch as those phenomena (that is, their boundaries) and the criteria of identifying them seem to be common to the two paradigms? If we answer this question in the affirmative, it will have some interesting consequences, one of which will be that if two paradigms are really incommensurable, they cannot be seen to be so. In other words, we cannot meaningfully speak of two demonstrably incommensurable paradigms *and* they are comparable. It is in this context that the fact that in discussing comparability Taylor moves from a particular activity to the paradigm as a whole brings in the question of what is the true unit of incommensurability.

Let me begin this part of the discussion with a quotation from Taylor. He says that

> ...Incommensurable ways of life seem to raise the question insistently of

> who is right. It's hard to avoid this, since anyone seriously practising magic in our society would be considered to have lost his grip on reality, and if he continued impervious to counter-arguments, he would be thought less than fully rational. How do you keep this judgement from extending to the whole way of life in which magic fits?[19]

I think this passage clearly shows the kind of confusion that can arise if we are not suffciently alert in distinguishing between a paradigm and its elements. Here Taylor first refers to a person practising magic in the modern western society and rightly states how such a person would be considered less than rational. The implication, one assumes (and there is sufficient warrant in Taylor's account for this assumption), is that the irrationality consists in the conflict between the practice of magic and the paradigm embodying the modern western society. But immediately he moves on (in the last sentence of the passage quoted) to the case of a culture of which the practice of magic is an integral element. He does not seem to realise that this is not a valid move. The fact that a certain practice is incongruous in a certain cultrue and anyone who does not realise that incongruity is less than rational does not justify our extending it to the assertion that if there is a culture in which that practice is not felt to be incongruous, that culture must be regarded as less than rational.[20] What we find here is, in effect, an arbitrary move from an incongruity resulting from a conflict between one element of a culture and its other elements to an incongruity that is the manifestation of the conflict of a culture with something outside that culture.

The important point here is that we appeal to the notion of a paradigm precisely in order to deal with the question whether the fact that in a certain culture a particular belief or practice is considered irrational constitutes sufficient ground for holding that any culture whatsoever in which such a belief or action is permissible must itself be irrational. We should not forget that a paradigm is primarily a frame of reference. The very idea of a paradigm implies that we cannot judge any particular belief or action except with reference to the paradigm of which it is an element. To reject this assumption is to reject the very notion of a paradigm or a conceptual scheme. But Taylor does not seem to be rejecting that idea since he does entertain the concept of incommensurability which is of a piece with the notion of

paradigm. However, the point I wish to make here is that, to invoke the notion of paradigm is to recognise that individual beliefs or practices cannot be compared directly but only through the mediation of frameworks of which they are elements. But the fact that the elements of two frameworks cannot be compared means not that those elements are incommensurable but that the frameworks are incommensurable. It is this distinction that I want to emphasise. But why cannot elements of different frameworks (or paradigms) be incommensurable?

My answer is : Because commensurability is a structural property. By this I mean that commensurability is basically a matter of coincidence of conceptual structures. This implies that it makes no sense to speak of the commensurability or otherwise of two simple elements. Either they are the same or they are different. That's all. We can meaningfully speak only of the commensurability or incommensurability of two complex conceptual units on the basis of the overlap or otherwise of their internal organisation. In other words, it is absurd to talk of the incommensurability of two beliefs or two activities. We can only talk about the incommensurability of two beliefs-systems or two cultures or at the most of two practices insofar as these are complex phenomena comprising several beliefs and activities. Of course, if two activites are sufficiently complex, one can speak of their incommensurabilty but we can do so only in terms of the coincidence of their respective (internal) conceptual structures.

Now let me connect this to the issue of referentiality. That it is more or less possible to determine the reference of the paradigm as a whole does not mean that the reference of its constituents would be uncomplicated. To take an extreme case for the sake of clarification, the ultimate paradigm would be a worldview in the comprehensive sense of the term. There need be no confusion regarding the referentiality of two such ultimate paradigms for the simple reason that they are both concerneed to explain the whole reality -to explain all that exists. On the other hand, referentiality becomes problematic in the context of specific regions within paradigms. When people from two paradigms point in a certain direction, there is no way we can be certain that they are pointing to the same fragment of reality. If the boundaries of that fragment as mapped in each paradigm are

at all coterminous, then the paradigms in question are not, *in that particular conceptual region,* strictly incommensurable.[21] In a pair of significantly incommensurable paradigms coterminous referentiality would be impossible except in a very rough sense. What the proviso granted here means is that there may be coterminous referentiality sufficient for the purposes of knowing that some particular theories or conceptual apparatuses from two paradigms are concerned with roughly the same region of reality. But it would never be exact enough to constitute a strict identification of the phenomenon concerned, leave alone allowing comparative judgements. To revert to the example of healing, we can say that two systems of healing may be concerned with restoring health or removing sickness but this identity is only of a rough sort. In one of the paradigms sickness may mean sickness of the body while in another it may include sickness of the mind or even sickness of the spirit. Similarly in different paradigms the norms of health may differ very drastically: in one paradigm, health may mean health of the body, in another in may mean a certain condition of the entire psycho-somatic system, and in another paradigm it may even include the ethical dimension or some other dimension of life that is not even recognised in the other paradigms. In such a case, we cannot speak of the different practices of healing as identical either in their description of a stage of affairs or in their objectives. More particularly, when we come to the constituents of the two systems, such as classification of diseases, their aetiology and so on, their devergence becomes even more pronounced. However, to emphasise the point of more immediate relevance, we must understand that whatever similarity there may be, we cannot contrast it with 'difference' and identify it with 'incommensurability' as Taylor does. Incommensurability is the property of paradigm as a whole. Two paradigms are (to whatever degree) mutually commensurable or incommensurable. Within each of those paradigms there would be constituent elements-specific theories, practices etc. of which we can say that they are concerned with *approximately* the same phenomenon. This sameness is neither identical with incommensurability nor is it a consequence of incommensurability. All that can be said is that, as a rule, there will not be found two different theories about the same thing in the same paradigms and that if there are two different theories about the same sort of things,

they must belong to two differnet paradigms, and insofar as paradigms are incommensurable with each other, it is not absurd to talk of two conflicting theories about roughly the same phenomenon even though they belong to incommensurable paradigms. But all this leaves the main question here unaswered whether we can compare two activities directly, i.e. without reference to their respective paradigms? The reason why this question remains unanswered is that the difficulty of bringing about a convergence of the reference of two theories about the 'same' phenomenon is actually an index of the degree to which those theories are entrenched in their respective paradigms. That is to say, the notion of a paradigm implies that any concept or theory is an element of a structure and therefore it cannot have isolated reference but rather its referentiality is a function of the entire structure. But Taylor, while making use of the concept of a paradigm, appears to treat referentiality as prior to the structurality of the system that constitutes a paradigm. In order to see whether this move by Taylor is valid we will have to look at how paradigms are structured.

I have tried to bring into focus some of the fundamental, unresolved issues relevant to the problem of relativism using the Winch-Taylor debate, particularly Taylor's response to Winch. I think we can, for heuristic advantage, subsume these issues under the rubric of three broad questions: 1. What is rationality--or more manageably--what is it to be rational? 2. Of what sort of entities is rationality a possible attribute? and 3. Is there a (nontrivial) rationality-invariance between paradigms?

Now, in the rest of this article I shall try to answer these questions without particular reeference to Taylor's article. The three questions I have mentioned above are closely related to each other and consequently, although I discuss them more or less separately, there will be many points of overlap. I hope that does not affect the cogency of the arguments I offer.

II

Rationality: Beliefs, Practices and Persons

Let me begin with the first question and offer an answer comprising what is perhaps the simplest and least controversial, minimal notion of rationality. *To be rational is simply to have reasons.*[22] However, to say

just 'reasons' is not enough since there can be good or bad reasons, valid or invalid reasons. The problem of rationality is the problem of determining what counts as a good or valid reason. What makes the problem complex and refractory is the fact that it is not easy either to locate the source of the criterial for determining good reasons or to decide their exact status. One of the ways in which this problem can be made a little more manageable is to ask, 'What is it to *have* good reasons?'

So, before proceeding further with the question 'what it is to be rational?', let me bring in the second of the three broad questions I listed above and try to answer it in the light of the minimal notion of rationality with which we have started. The question is : Of what sort of entities is rationality a possible attribute? Or to put it more simply, what sort of things can be rational or irrational? I mean this question, at least to begin with, in a fairly simple sense. For instance, it is obvious that inanimate material objects cannot be rational or irrational.[23] About some other candidates, however, the answer does not seem to be so obvious. I mean such things as facts, beliefs (and sets of beliefs including belief-systems such as cultures and world-views) and practices. Among these, 'facts', although they are probably the most intractable entities--conceptually speaking--philosophers have to deal with, perhaps do not present much of a problem. I think it would be agreed that there are no such things as rational or irrational facts. Facts might be intelligible or unintelligible. But this feature of facts does not warrant us to say that facts are rational or irrational. To invoke the definition with which we started, facts do not have reasons. So, it is not unreasonable to conclude that they cannot be rational or irrational. (For that matter, I do not suppose there is any definition of rationality as per which facts can be argued to be rational or irrational.) Now let us look at 'practices'. Practices seem to be different. We do speak of irrational practices. Moreover, practices would seem to be amenable to the definition we have agreed to. Practices must have reasons. Irrational practices are those which are backed by bad reasons while rational practices are those that have sound reasons behind them. But what is it really to say that a practice has good reasons behind it?[24]

As far as practices are concerned, it is probably not so difficult (as

opposed to beliefs, which I shall come to presently) to sort things out. Practices are deliberate, purposive activities, and to say that a practice has good reasons behind it is to say that it will achieve the purpose intended. But intentions, once again, are entertained only by persons. Strictly speaking, a practice does not have an intention. In other words, if an action p is such that it leads to the consequence q, and if I intend q, I would have good reasons for doing p. To put it simply, actions have neither purposes nor intentions. To say that an action has purpose is just an elliptical way of saying that the person performing the action intends the consequence that (he believes) would follow from that action. This in turn means that to say that a practice has a good reason behind it is to say that the agent engaged in that practice correctly believes that the consequences intended by him will result from the actions which constitute that practice. Hence, in the strict sense, practices do not have reasons, and consequently, the question of their being rational or irrational does not arise.[25] To say that a certain practice is irrational is just a casual way of saying that the person engaging in that practice does not have good reasons (howsoever those reasons may be determined) for doing so. What I have said does shift the question to beliefs, since the rationality of a practice is a matter of the rationality of the beliefs regarding the efficacy of the practice. But as I shall argue, to talk of the rationality of beliefs is to be no less imprecise.

One does hear a great deal about rational, particularly about irrational beliefs, and by extension about irrational belief-systems and cultures and so on.[26] Superstitions, for instance, are usually defined as irrational beliefs. In fact, most discussions on relativism and related issues one way or the other involve taking a stand about the rationality and irrationality of beliefs. (This is what I was referring to when I said at the beginning of this article that rationality constitutes the decisive issue for relativism). But in precisely what sense are there such things as rational or irrational beliefs? We do of course speak of reasons for belief. It would appear reasonable to say that an irrational belief is one without good reasons for holding it. But certainly, this does not mean that beliefs *have* reasons. *We* have reasons for holding the beliefs. Beliefs are by themselves simply true or false. They are taken (by us) as true or false depending on their relation to facts or on their logical relation to other beliefs whose truth is not in question. To be more

precise, once again, we decide whether they are ture or not on the basis of their relation to facts etc. or to be even more exact--on the basis of our perception of their relation to facts, etc. Propositions by themselves do not point to the corresponding facts nor do facts point by themselves to the corresponding propositions. We identify a fact -- and this identification is not always a matter of simply picking one fact from a collection (I will elaborate this point later on) -- as the one corresponding to the propositions under consideratoin. To put it more simply, beliefs are true or false and they have criteria which determine their truth or falsity. But criteria are applied by us according to certain rules. And rules, as Wittgenstein has pointed out, are not part of the furniture of the world. Nothing comes with a set of rules that are applicable to it. We make the rules and we decide which rules to apply.[27] Which rules are to be applied depends on the context. However, we must be very clear as to what such an assertion means. Contexts are not given. It is not as if its respective context surrounds a fact, a belief or rule like an atmosphere and all we have to do is to refer to it. Nothing exists in a vacuum. But everything has infinite number of overlapping facts surrounding it, standing in some relation to it. Whatever has a relationship with an entity -- no matter how remote the relation -- is an element of its total context. When we talk about contexts what we mean is not that total context but the *relevant* context. But relevance is a matter of selectivity, of decision. However, that decision is in turn, as any decision must, guided by our reasons. So, persons decide whether or not a belief is acceptable on the basis of what they regard as pertinent reasons. In other words, it is persons who have reasons for holding beliefs. To repeat the point, beliefs themselves do not have reasons, and are not therefore, rational or irrational. It is persons who are rational or irrational depending upon whether they hold whatever beliefs they hold for good reasons or in the absence of good reasons. This means that the frequent tendencey to indentify rationality with holding true beliefs and irrationality withholding false beliefs is largely misguided -- unless we mean 'true' according to the paradigm whose rationality is under consideration. But this qualification would make the statement question begging. In fact, it would be less misleading to assert that the truth of one's belief *as such* has very little to do with one's rationality. It is only the goodness or adequacy

of my reasons that determines my rationality. It is perfectly conceivable that a person may have excellent reasons for holding what turns out to be a false belief. Conversely a person may hold a true belief without a good reason or for altogether wrong reasons. To put it in the terms used in the traditional definition of knowledge as justified true belief, it would be accurate to say that rationality is not a matter of true beliefs but of justified beliefs.[28]

To sum up this part of the discussion, rationality is not an attribute of facts, practices, beliefs or theories. It is an attribute of persons and it has to do with the rightness of the reasons which prompt them to say, believe or do something. Any talk of rational or irrational beliefs and practices is at best a rather misleading short-hand for saying that a person is rational or irrational in connection with those particular beliefs or practices.[29] In other words, for saying that the person has no good reasons for entertaining those beliefs or for engaging in those practices. But what precisely is it to have *good reasons?* To ask this question is to ask what constitutes rationality.

So, once more we return to this central question, but this time fortified, so to speak, with the understanding that rationality is an attribute only of person.

We started with the simple notion that to be rational is to have good reasons. However, I think it needs to be expanded a little and restated: to be rational is to have good reasons for one's total behaviour. What this expanded definition implies is that rationality cannot be determined -- in a significant sense -- by the presence or absence of good reasons for occasional behaviour. It also implies that rationality is not a matter of isolated good reasons, but of an entire network of good reasons. Both these points, I think, are fairly evident any elaboration. However , there is one aspect of the first point which I believe is of some consequence. Let me briefly allude to it.

Although it is not, strictly speaking, incorrect to speak of a person's behaviour being rational or irrational on a particular occasion, rationality, in a nontrivial sense, is a holstic attribute. I mean 'holistic' in the sense in which happiness can be said to be a holistic attribute. I may of course reproach someone with acting irrationally in a certain situation, but in doing

so I am taking his rationality in general for granted. Now the significant aspect of this matter to which I referred above is this: a form of hermeneutic circle is involved in proper judgements of rationality. We make judgements regarding the total behaviour of a person or culture on the basis of our interpretation of the rationality of that person in particular situations. At the same time, we judge the rationality of particular actions only against the backdrop of our assumptions as to the overall rationality of the person. My reason for attaching some significance to this fact is that it shows that judgements of rationality involve interpretation much more than is usually recognised, and more importantly I think this fact points to the appropriateness of a structural account of rationality.

As for my second claim that the notion of isolated good reasons is incoherent and that good reasons must form a network, in a way it follows from the first point. If rationality is to be judged on the basis of total behaviour, then there must be some consistency to the criteria which determine the good reasons appropriate for beliefs and actions on different occasions. What would be the nature of this system of criteria? In other words, what would be the nature of the self-suporting circle of good reasons that constitutes rationality? To answer this question I have found a concept that has been developed by Ian Hacking very helpful. This is the concept of 'styles of reasoning'[30]

Styles of Reasoning

Ian Hacking remarks the fact that relativists have generally taken recourse to the concept of a paradigm or a conceptual scheme. They have argued that there is no such thing as objective, universal truth; that a proposition is true only relative to the conceptual scheme of which it is a component. This concept of conceptual scheme has been criticised by a number of thinkers such as Davidson as being incoherent.[31] While agreeing with this criticism, Hacking suggests that there is, however, another thing which is a source of epistemic relativity which is quite distinct from a conceptual scheme and which is not vulnerable to the Davidsonian kind of criticism. This other source of epistemic relativity is what he calls a 'style of reasoning'. A style of reasoning is the distinct mode of thinking which

generates new and characteristically different propositions. That is to say, while different conceptual schemes assign different truth-values to the same set of propositions, different styles of reasoning would issue in different sets of positive or truth-value assignable propositions.

Hacking argues that there have been different styles of reasoning in operation, not only in different cultures but at different periods within the same culture. He gives the examples of different styles of reasoning that came into being at different periods within the western scientific tradition: the mathematical reasoning of classical Greece, the experimental approach of Galileo and the statistical method of contemporary social science. Hacking explains in detail the distinction between conceptual schemes and styles of reasoning and the reason why the latter cannot be argued out of court with the arguments generally marshalled by the absolutist. To elaborate this matter a little, Hacking feels that if difference of truth-values is what distinguishes different conceptual schemes, then Davidson's criticism that the very notion of a conceptual scheme positing a dichotomy of a reality and a conceptual scheme through which it is expressed is incoherent since we cannot put ourselves in a position from where we could judge if others have concepts or beliefs different from our own, is valid.[32] But different epistemological traditions, according to Hacking, are not distinguished by different conceptual schemes as much as by different styles of reasoning. And a style of reasoning is characterised by the fact that it does not provide criteria to decide whether a proposition is true or false but *generates propositions which are amenable to being judged true or false.*

This idea of styles of reasoning offers a new ground for relativism. Hacking argues that this form of the relativist thesis is not only invulnerable to Davidsonian criticism, but also has the equally important virtue that it does not lapse into an indefensible kind of subjectivism. Rather it supports a kind of relativism that allows us to continue with our own epistemological tradition or style of reasoning inasmuch as it has proved fecund and looks promising, while respecting other traditions embodying different styles of reasoning. The reason why this form of relativism encourages us to respect other traditions is that it is based on the recognition that it is not possible to make a comparative evaluation of different styles reasoning:

> We cannot reason as to whether alternative systems of reasoning are better or worse than ours, because the propositions to which we reason get their sense only from the method of reasoning employed. The propositions have not existence independent of the ways of reasoning towards them.[33]

This concept of styles of reasoning fairly approximates to the dimension of substantive rationality that I am trying to sketch here in contrast to the concept Taylor has developed which consists in successful articulation of reality. I am also in agreement with Hacking on the fundamental character of styles of reasoning as well as on the virtues of the healthy kind of relativism it promotes.[34] However, there are two significant respects in which I find Hacking's account unsatisfactory. First, Hacking does not elaborate on what the structure of a style of reasoning is like. Second, I am inclined to believe that there is more to a style of reasoning than Hacking allows. Regarding the first point, I think that the structure of a style of reasoning can be best understood in terms of a network of good reasons I am trying to describe here. As regards the second point which is the more important one, I believe that once we analyse the structure of a style of reasoning, we can see that in fact the activity of generating new propositions and the activity of assigning truth-values to propositions are not separable activities, but are the two inseparable, essential components of a single activity. This revised concept of a style of reasoning, I think, not only explains the diversity of epistemological traditions more coherently but also proves of greater explanatory use in the context of debates concerning the possibility of relativism.

Good Reasons

Let us begin with a specific question. Given that to be rational is to have good reasons for one's beliefs, how do we decide what constitutes a good reason for holding a particular belief? To put it more simply, what is a good reason?

A reason is, of course, a justificatory belief. It could be logical, factual or causal, normative or some other kind. An important feature, however, is that a reason is a complex entity comprising at least two components. Let me explain what I mean with the help of a very simple example. Someone says, 'It is going to rain.' If we ask him the reason for his belief, the

answer would be, say, something like, 'The sky is cloudy.' But this is not the complete answer as far as the statement of the reason is concerned. There is a second component which is usually left implicit which would be something like 'And whenever the sky is cloudy, it rains.' This second component states the rule which connects the first component to the belief in question. One might say that in a narrow sense the first component is the reason for the belief and the second component is the justification of the reason, and the two constitute a unit since, properly speaking, only a justified reason is a reason.

There are a few things here which deserve close attention. First of all, it should be noted that the first component represents a cognitive belief in the broad sense that it refers to a state of affairs. It is connected to other such beliefs and it would ultimately terminate in what would be regarded as cognitively self-evident or foundational beliefs. The second component states a rule or which it is an instance or an application, it would generally constitute an element in a network of several such rules. Any belief-system whatsoever involves both: chains of cognitive beliefs and networks of rules. In Ian Hacking's account only the second component constitutes a style of reasoning. The view I am trying to defend here is that a style of reasoning involves the combined operation of both these components. Or if we wish to state the matter in terms of the relativity of reason and the relativity of truth, I would say that as against Hacking's attempt to defend the relativity of reason (which he identifies with his notion of style of reasoning) and argue against (or rather acquiesce in Davidson's argument against) the relativity of truth which he associates with the concept of a paradigm, I would like to argue that these two types of relativity are actually two inseparable aspects of a single phenomenon, and that this phenomenon, which in my view represents a style of reasoning properly, is not so distant theoretically from the notion of conceptual scheme or paradigm as Hacking imagines. I hope this claim becomes more intelligible when we try to understand the operation of the tow components of a 'reason' in the context of my earlier thesis that reasons are the attributes only of persons.

Take the first component. As I said a while ago, it describes a state of affairs. Now, let us concede for the sake of argument that it would be incoherent to relativise the truth of the belief constituting this component,

only noting for the present that the notion of a paradigm or a conceptual scheme would imply such relativity. Even if the truth of that belief is 'objective', the more crucial question is: how does that belief come to be the reason for the original belief in question? Let me explain this with the help of the example I gave above. Even if the belief (or observation) that the sky is cloudy is 'objectively' true, it would be a mistake to imagine that this particular belief somehow presents itself as a reason for the belief that it is going to rain, that it somehow points to the belief that it is going to rain. It does so only to the person who believes in the second component which states that whenever the sky is cloudy, it will rain. It is the person's acceptance of the second component which prompts him to select that particular belief (that the sky is cloudy) as a candidate for the first component. And the second component is not grounded in any self-evident, universal belief but is an element of a netweork of rules. To explain this point with the help of our example, even where it is true that the sky is cloudy now, I pick up that fact as a reason for believing that it will rain *only because I believe in the rule which states that it will rain whenever the sky is cloudy.* This latter is not a selfevident, universal truth 'given' to me, but is the product of my style of reasoning. But, one might object, this network of rules cannot possibly be altogether arbitrary. It must have a cogent relation to the beliefs whom it connects. Certainly. But the point is, what constitutes a cogent relation is itself a matter of rules, and those rules are as much a part of that network as any other.[35]

Let me briefly recapitulate some of this discussion before proceeding further. Rationality is a matter of having reasons for one's beliefs. So, if we take a belief p held by a rational person, it would have a reason. That reason would be, natrually, itself another belief, say Q. In order to be a good reason for P, Q must fulfil two requirements. First of all, in order to be a good reason, Q must be a true belief. A false belief, obviously, cannot be a good reason. Secondly it must be a belief concerning P. But both the requirements are, in different ways, problematic. As for the first requirement, how exactly the truth of Q is determined is an open question, since the conditions of truth would in turn involve a chain of rules and good reasons. But it is the second requirement which is more complicated. The belief Q does not in some self-evident way present itself as a reason for P.

The relation of *Q* to *P* as a valid reason for the latter is the function of a rule. That rule is represented by another belief *R*, although of a different kind. We might call it a regulative belief. This regulative belief has the function of what you might call an epistemological connective (in contrast to logical principles). It states whether *Q* is a good reason for holding *P*. Hence, *Q* and *R* together form, properly speaking, the good reason for holding. *P*. My claim has been that a style of reasoning consists of a framework comprising an inter-related network of both categories of beliefs. I now want to sketch a model of the structure of a paradigm incorporating these features that I have been discussing.

The Structure of a paradigm

Let me begin by reiterating my reservations regarding Hacking's claim that Kuhnian paradigms differ from each other only in the assignation of truth-values to a common stock of propositions. I think a correct interpretation of the notion of a paradigm would show that the Kuhnian concept definitely implies something like Hacking's style of reasoning. However, I think one can identify the quite understandable reasons for Hacking's misreading of the Kuhnian concept. One of the reasons is, of course, the paradigmatists' somewhat misplaced and -- as Barry Barnes and David Bloor have pointed out-- totally unnecessary emphasis on (un)translatability.[36] There has been a tendency to describe incommensurability or even the very relation between two paradigms almost exclusively in terms of translation, as a result of which translatability has been treated as conclusive proof of the incoherence or at any rate the invalidity of the concept of paradigms or conceptual schemes. But a more serious reason, I think, is related to the fact that not enough attention has been paid to the possibility that the structure of a paradigm may be heterogeneous. I believe that this possibility makes a very significant difference to almost all issues connected with relativism. More particularly, I want to argue below that once we look at the total structure of a paradigm focusing on its heterogeneity and in that perspective look at the role of regulative beliefs, it becomes easier to understand the relation between the plurality of paradigms and the diversity of the substantive dimension of rationality.

In this part of the discussion, however, I shall not try to separate

questions relating to the structure of a paradigm and questions relating to a comparison of different paradigms since I think the notion of a paradigm (as much as that of a conceptual scheme) implies the possibility of a plurality of paradigms, and therefore to discuss the structure of a paradigm is to implicitly refer to the possible diversity of that structure. The notion of styles of reasoning (even in Hacking's version) has a similar implication since Hacking is not concerned to merely point to the existence of a hitherto unknown element in universal epistemology but to suggest the existence of different styles of reasoning incarnated in different epistemological traditions. So. also, the thrust of my own argument in speaking of 'regulative beliefs' is to draw attention to the fact that different cultures with their distinctive belief-systems exhibit different modes of substantive rationality which is effected by the possibility of a variety of systems of regulative beliefs (with concomitant cognitive beliefs).

There are three levels at which two paradigms can be contrastred with each other: 1. Truth-values of propositions 2. Meaning of concepts and 3. Corpus of positive propositions (or beliefs). According to Hacking, as we saw, different epistemological traditions, insofar as they are characterised by their own individual styles of reasoning differ, not with respect to the first or the second, but the third of these three features. I am trying to argue, on the contrary, that these three features of paradigms are interrelated and that their interrelatedness flows from the fact that a style of reasoning actually involves the assignation of different meaings to concepts and the assignation of a pattern of truth-values to the totality of propositions that characterise a paradigm, in addition to the undeniably crucial activity of generating a distinctive set of positive propositions that constitute the paradigm, and that in the final analysis, there is not such a great difference between the notion of conceptual schemes or paradigms and domains of styles of reasoning as understood by Hacking. But what is the ground of that activity of reasoning, variations of which, following Hacking, we have called styles of reasoning? Or putting it another way, where is the network of regulative beliefs grounded.

Sameness and Significant Difference

The most fundamental categories are that of identity and difference.

It is the system of identity and difference which is the source of all perception, all understanding, from which arises the activity of concept formation, of implicit definition (of what a thing is and what it is not), and of classification. It is the structure of identity and difference which gives rise to concepts and propositions or beliefs which are descriptions of the inter-relation of particular units of identity and difference -- a concept describing a convergence of certain propositions and a proposition in turn describing the relation of some concepts. From them arise series of other, usually more complex, concepts and propositions. It is at this point that the chain of good reasons begins. It begins with an intuitive recognition and application of identity and difference. The structure of perception and the principles of reasoning begin there. But how is diversity possible in this network of identity and difference? It becomes possible, primarily -- as we learn from the insights that constitute structuralist thought -- because of the fact that it is difference which is primary and identity is derived from an interplay of difference. The question whether or not difference is 'objective' is not meaningful since our very capacity to objectify something is structured through difference. However, there is one important point about identity and difference which must be grasped if we wish to understand how these constitute the ground of any paradigm.

Absolute identity and difference are pure abstractions or rather idealisations which play no role in the basic structure of our understanding. The effective form in which they operate in understanding is that of 'sameness' and 'significant difference'. That is to say there *always* are criteria to determine identity and difference. Of course, a thing is identical only with itself and it is different from everything else. But this is a purely formal notion which is of no use for understanding reality. It is when a thing moves in time or space that the question of identity is called for in the context of reality. In that event, it becomes a question of 'sameness'. This substantiation of identity as sameness is, even at the outset, a matter of a decision : decision as to whether or not a thing is the same, or in other words, whether or not its identity is affected by change of time or place (or change of perspective). Similarly in the case of difference (our priority to identity here is, needless to say, purely heuristic), the perception of difference is based on criteria -- minimally, perceptual criteria. Only an observable

difference is a difference. In any classification, what operates is this notion of 'significant difference'. And what constitutes a significant difference is, once again, a matter of criteria. The notion of consistency, too, is grounded in this interplay of sameness and significant difference. Consistency is a matter of maintaining the gap between sameness and significant difference. That is the reason why consistency must remain an intra-paradigmatic affair. Here, however, a question may arise: if even the notion of consistency is grounded in their interplay, how is the validity of the criteria which determine sameness and significant defference to be determined? But inasmuch as this is a question about meta-criterional principles, that is, principles that lay down the conditions of valid criteria which constitute the ground of any framework of understanding, I doubt if there is an alternative to treating it as axiomatic that meta-criterial principles are always and necessarily self-validating. As Barnes and Bloor have argued with reference to Lewis Carroll, Susan Haack and others, all logical principles including the allegedly sacrosanct rules of deductive logic are self-justificatory. Both induction and deduction which are 'our two basic modes of reasoning are in an equally hopeless state with regard to their rational justification.'[37] However, this is not to suggest that the fact of their self-validating character by itself proves that there cannot be a set of transparadigmatically invariant regulative beliefs or core principles of styles of reasoning. Whether there is only one, universal style of reasoning or there is a variety of radically dissimilar, incompatible versions of it, at the most basic level the validating principles must be necessarily self-validating. The basis of diversity of styles of reasoning, the possibility of plurality in the ground of our framework of understanding, that is to say, the possibility of different systems of sameness and significant difference, lies elsewhere. That basis lies, in the final analysis, in the diversity of something like what Wittgenstein has called 'forms of life'.[38]

The real problem in this context, however, is to reconcile the plurality in the ground of our framework of understanding that follows from the undeniable fact of the diversity of forms of life with the equally undeniable fact that -- in Strawson's phrase -- understanding presupposes the existence of 'a massive central core of human thinking which has no history'.[39] I believe, however, that thes two facts are not irreconcilable. I think the

existence of such a core need not preclude the possibilty of diverse styles of reasoning, diverse paradigms, diverse modes of rationality. But before proceeding further, there is another question which appears to have a bearing on the possibility of plurality of paradigms but doesn't. It is the questions whether it is feasible to operate with a concept of a non-definite reality. There is a variety of formulations of this question in different philosophical traditions, whose common denominator is 'whether or not there is a matter of fact'. Any position such as the one I am taking here, I think, must be necessarily Kantian -- or if you prefer, phenomenological --on this point, and is to the effect that to speak of the structuring of reality is to bracket such a questoin. The notion of definiteness is dependent on the structure of identity and difference. To say that something is definite, even to say that 'something is' is to place it in that structure. If to say so is, in some sense, Idealism, perhaps one need not be unduly apologetic about it, since any worthwhile epistemological itinerary must begin in Idealism and proceeding through intersubjectivity terminate in Realism. However, the relevant point here is that the assumption of a primary cognitive structuring of reality per se does not have any implication for pluralism of paradigms. That pluralism has its basis in the fact that human reality is necessarily situated and that situatedness has variations, or in other words, in the fact that man can be correctly understood only as an 'engaged agency', and in the further fact that the background which constitutes that engagement and conditions his entire orientation to reality is not singular.[40] My attempt here is to reconcile this fact with the fact of the core of ahistorical thinking insisted on by Strawson, by suggesting that human reality as engaged agency has many levels, all of which are not homogeneously shared intersubjectively.

My reference here is to a simple and fairly obvious fact, though I think the very obviousness of this fact has caused its implications to be overlooked. We, as a species, are quite similar to each other at a biological level, at the level of sensory, neural equipment but exhibit considerable dissimilarities at the emotional, imaginative and intellectual levels.[41] I find the model of a number of multi-layered pyramids with different apices resting on the same base useful to illustrate this fact.[42] As per this model, the base which is common to all the pyramids represents the sensory level.

It refers to the fact that inasmuch as purely physical perception -- at the level of sense-data -- can be isolated, it can be seen to be fairly uniform across the species (the proviso is very important as I shall presently explain). The upper layers of the pyramid represent the psychological, intellectual, creative, cultural levels and as we move up the pyramid towards these levels, there is a great diversity of perception. At these levels the object is not perceived in the same way be two individuals from different backgrounds. Another way of stating the same fact would be to say that there is a dimension of complexity to perception and that in the case of complex perception, the perspectives available are several and different from each other. Now, the problem is that, more than disagreement as to whether actually the human race is so constituted cognitively, confusion as to what would be the consequences if it were so constituted has dominated discussions on the possible grounds of relativism. Therefore I want to spend a while clarifying the structure of the situation rather than argue for its *prima facie* plausibility. To this end let me introduce an extremely simple hypothetical situation which is actually something of a thought-experiment.

Assume that the world is divided into two groups of people, one of whom (A) can distinguish two colours, say red and green.[43] The other group (B) can distinguish three colours, say red, green and blue. Now, there is no way these two groups can decide whose perception is correct or even relatively more correct. From the viewpoint of group A, the group B would be seen as arbitrarily introducing a spurious distinction within a single colour -- green. From the viewpoint of group B, group A would be seen as being unable (or unwilling) to make a valid distinction between green and blue. There would be a complete communcation deadlock between the groups caused be an unbridgeable perceptual divide. What is the 'same' for group A is a matter of 'significant difference' for group B. That is to say, the two groups have organised the world into two different structures of identity and difference. As a result, we find that the there is a divide between the two groups on all the three counts: concepts, set of propositions and truth-values of propositions. The concept of blue is present in one conceptual scheme while absent in the other. Propositions regarding the colour blue would exist in one of the schemes but not in the other. The same proposition such as 'The sky is green' would be true in the first

scheme while it would be false in the latter scheme. Further, *some* propositions about red and green would be mutually translatable while no proposition involving the colour blue would be amenable to translation. Now, I am not suggesting even for a moment that human beings exhibit such a divide at the level of sensory perception as such. As I said above, insofar as we are a single species, we share the same sensory apparatus and functions. The differences, at whatever level they are obtained, are the result of divergence at the level of complex gestalts. My reason for using this hypothetical situation for illustration is that I think it quite faithfully represents the structure of incommensurability. That is, it does not help us decide whether incommensurability is obtained in a particular situation, it tells us what to expect In case there is incommensurability. The point I want to make with the help of this model is that contrary to what Ian Hacking seems to assume, paradigms differ not only in relation to truth-values of propositions but necessarily also in relation to the repertoire of concepts and the capacity to generate propositions.

I think this model helps to see clearly the exact status of the notion of rational and irrational beliefs and the idea that somehow true and rational beliefs on one hand and false and irrational beliefs on the other make natural pairs.[44] If group A says 'x and y are both green' and group B insists that 'x is green while y is blue', conceding that the world is closer to the group B description,[45] it still makes no sense to say that the former belief (or statement) is irrational. It is no doubt false. But it is not rational or irrational in addition to, or in spite of, being false. The only legitimate question would be whether *the person or group* holding that belief is rational. The answer, as I have argued above, is that insofar as group A has good reasons to hold that belief and group B has no way of convincing them that their reasons are not good enough, we would not be justified in calling group A irrational. On the other hand, a member of group B would be irrational if he held that belief. But he is irrational not because he is upholding a false belief but because he is refusing to acknowledge on that occasion the significant difference between green and blue (which, insofar as he is a member of group B he must be acknowledging as a matter of course on all other occasions), and hence is being inconsistent.[46] In other words, consistency is a matter of consistent interpretation of identity and

difference. And that interpretation is relative to a paradigm, or to put it more accurately, the ground of a paradigm consists of the rules for interpreting identity and difference into a structure of sameness and significant difference. Further, two such groups stand in a mutual relation of causes versus reasons. For group B the belief of group A is matter of causes -- their possible colour blindness. Similarly for group A the belief of group B would be a matter of causes -- their possible hallucinatory makeup. In other words, whatever falls outside our own circle of good reasons we tend to consign it to the realm of causal explanation. Reasons and causes (of human behaviour) are coterminous with the boundaries of the ground of a paradigm -- reasons falling within and causes falling outside the boundaries.

Now, the next question is this: if the human species is not, as I have admitted, divided at the purely sensory level and if all human beings share the basic principles of logic, at what level do the differences of styles of reasoning originate? It is not very satisfactory to suggest that somehow differences emerge at the cultural level (In the very broad sense) where imagination, emotion, creativity etc. come into operation. The answer I am suggesting is that differences emerge in the process of the integration of sense-data into larger structures which constitute meaningful wholes.[47] Or more accurately, I would say that the notion of 'integration into larger srtuctures' implies alteration of the relationality of the elements. Further, the greater complexity permits greater diversity. The direction of the variation of the larger structures is determined by the fact that the rules that govern or mould the integration originate from the imaginative, creative faculties. That is to say, the structuring of reality at the level of such meaningful wholes is not shared by the entire species but is culture-specific.[48] As we move up the pyramid towards more complex structures, the greater is the divergence. However, it would be a mistake to imagine that perceptual atoms, so to speak, at the level of sensory perception, are perceived in the same way by all members of the species and that differences appear only when they are combined into different, cultrually determined, larger, complex units. The whole point of the notion of sameness and difference is to draw attention to the fact that the delineation of identity and difference at even the most basic level is determined by forms of life. In other words, every

level of cognition involves the organisation of the cognitive field into sub-structures which constitute elements of sameness and significant difference. That organisation is determined by the level higher than itself. The sense-data are elements of the lowest level and their organisation into a network of identify and difference is determined by the organisation of the level above it. To take a well-known example, how a person hears a sound is determined by the phonetic sapce that constitutes his native language. That is, two sounds are perceived to be 'the same' or 'significantlyu different' depending upon the phonetic organisation of the native speech of the hearer.[49] Does this mean then that there is total incommensurability at the level of sensory perception too? The answer is 'No.' Or more exactly, this entire way of looking at incommensurability in quantitative, all-or-nothing terms is a mistake. We must look at incommensurability in more consistently structural terms.

Let me formulate this point in terms of the model I have been using. Different paradigms are to a certain extent commensurable at the base but are increasingly incommensurable as we move up towards the apex representing the more complex perceptual and conceptual units. What this means is that the observational-sentence doctrine which posits a central core of some sharply identical concepts and propositions surrounded by a sea of utterly different ones is somewhat inaccurate. It would be more accurate to say that incommensurability must be understood as a gradually receding family resemblance. To put it a little more exactly, it is a matter of increasingly blurred boundaries of sameness and increasingly divergent rules defining exceptions reaching a point of total incommensurability at a certain level. For instance, if we take a series of binary concepts and the beliefs associated with them, such as black-white, edible-inedible, living-nonliving, good-evil, sacred-profane, the resemblance will be seen to gradually recede, reaching at one point a state of near-total lack of overlap requiring considerable imaginative effort for learning those concepts and beliefs and calling for some very contrived verbal manoeuvres for adequate translation. What constitute good reasons for holding the more complex binary oppositions have to be understood in terms of the simple dichotomies till we reach the level of simplest units of perception where the operation of the network of criteria that determine sameness and significant difference

is minimal. In fact the only justification for the pyramidal model I have employed is that it conveys this fact with greater perspicuity than the 'field' model used, for instance, by Quine.

Now let me recapitulate the point I made earlier to the effect that paradigms differ with respect to all three constitutive features i.e. the meaning of concepts, the truth value of propositions and the repertoire of positive propositions, and explain it with reference to the model I am presenting here.

At the level of sensory perception *per se,* as I said a while ago, the operation of the network of regulative principles which interpret identity and difference in substantive terms is not very significant. As we move up to more complex units of perception and thought, the role of this operation increases. This in turn determines the structure of perception at the lower level. However, this process is not homogeneous. All elements of the lowest level are not integrated to the same degree in the higher level structures.[50] There is a considerable quantity of residual elements which are not greatly integrated into upper level gestalts that constitute the common core of experience shared intersubjectively across different cultures and paradigms. The concepts representing these unintegrated elements are amenable to more or less simple correspondence. But the elements which are integrated in larger structures are defined in terms of the matrix of those structures (defined by more complex theories) and therefore the meaning of these concepts varies across paradigms. At this point, rather than simle correspondence appealing to intersubjective perception, interpretation must be brought in (bringing in its wake all the problems of translation which have served as the point of attack for most critics of the notion of paradigm or conceptual scheme). Once the meaning of concepts varies, inevitably the truth-values of propositions involving those concepts will vary. Further, the integration of concepts into larger structures is brought about by positing new relationships between the concepts. This leads to the generation of new propositions that articulate those relationship.

Given all this, what is to be said about rationality-invariance or the commonality of principles of rationality between paradigms, which is, after all, our central question? Can we speak of regulative principles of rationality

that are applicable to all paradigms? If such principles do exist, it would be possible to evaluate different cultures for the degree of their rationality as claimed by Taylor. My own inclination in this discussion has been to be sceptical about the existence of such principles. Let me now conclude with a brief defence of my scepticism in the light of the analysis of the structure of paradigms I have sketched here.

Rationality - Invariance

I have argued that rationality is a matter of good reasons for one's belief and that good reasons are, on the whole, relative to a paradigm. Let me explain -- and defend -- this claim by identifying 'good reasons' in the model of a paradigm I have employed.

I have suggested above that a good reason has two components. One component describes the situation and the other component articulates the rule by virtue of which the reason given is a valid reason for the belief in question. Now, the first, cognitive component is accessible from outside the paradigm depending on the extent to which it is integrated into larger gestalts. If it is relatively unintegrated and is a part of the common, intersubjective stock of cognitive beliefs, it can be evalutated from outside. On the other hand, if it is integrated into more complex belief-structures, its truth cannot be verified in any 'direct' fashion. Similarly, the second component of a good reason, which is the regulative component stating a rule or a criterion, forms network, If this network belong to the lower levels, it would relate to the common stock of unintegrated cognitive beliefs. Therefore it would be the product of inductive generalisations which are accessible from outside since those generalisations are shared by different paradigms. If the network belongs to the upper levels, that is, if it relates to complex beliefs which are integrations of lower-level beliefs, it would be deeply entrenched in the paradigm. In other words, it would involve concepts and propositions which are not available in other paradigms since the latter would have integrated their lower-level beliefs in a different, incommensurable pattern. Therefore, those higher level networks of the regulative component of good reasons would not be accessible from outside the paradigm. To put it a little more simply, inasmuch as the basic level of sensory perception is to a large extent commensurable, the chain formed

by regulative beliefs at that level would be commensurable. That is to say, good reasons at that level would be invariant across paradigms. As we move up to the upper levels, there is a diversity of the networks of sub-structures. That is to say, the overlap between the different pyramids representing different paradigms begins to diminish. At these levels the lateral networks of elements that represent the second component of a 'good reason' vary increasingly in different paradigms. At these levels incommensurability is greater, and good reasons would not be invariant across paradigms. This means that it is possible to evaluate the'good' reasons for those beliefs which are not integrated in the higher structures from the standpoint of another paradigm, but with regard to the 'good' reasons for those beliefs integrated into the higher structures, i.e. those beliefs which are deeply entrenched in a paradigm, it is not possible to evalutate them from outside.

This means that it is not possible to an equal degree to evaluate the good reasons for the beliefs of a belief-system. It depends on how little or how deeply a belief and the chain of reasons supporting it are integrated into the structure of the belief-system. This implies, as I have tried to argue, that incommensurability is not an all-or-nothing affair. The structure of a paradigm being heterogeneous, at certain levels, all paradigms overlap more or less completly, and at the level of greater abstraction, greater theorisation, they would differ considerably. Also, it is not necessary that all paradigms would be equally incommensurable with each other. To use the figure of a plurality of pyramids on a common base that I have employed, there may be pyramids which are only slightly non-overlapping. Their apices would be quite close together. While they cannot be mapped one onto the other, significant approximations would be possible. On the other hand, there may be paradigms which, after arising out of a common base, sharply diverge with very little overlap at the other levels. In such cases translation is initiated easily enough but as we move to beliefs more deeply entrenched in the respective paradigms, translation becomes a slippery business.

Now, speaking of judgements of rationality, I have argued that it is only persons who are rational or irrational. As I hope to have shown, it would be a mistake to make simplistic extensions from unintegrated beliefs

to the integrated beliefs or vice versa and make judgements about the system as a whole. If we make our judgements of rationality of a culture on the basis of unintegrated beliefs we may find that we share those beliefs and the good reasons supporting them and hence conclude that they are rational. On the other hand, if we look in isolation at the more intergrated beliefs and the reasons offered for holding them, we might conclude that they are irrational.

But can we make judgements of rationality concerning the choice of a paradigm? I do not think so. At any point whatsoever, to talk of rationality is to raise the question of possible good reasons behind a person's decisions or beliefs, and as I have tried to show, there cannot be free-floating chains of good reasons unanchored in any paradigm. There is no 'good reason' why the choice fo a paradigm should be an exception to this rule.

NOTES

I am deeply grateful to Michael McGhee of the Department of Philosophy, University of Liverpool, UK and the trustees of the Charles Wallace Trust for awarding me the Charles Wallace Trust Visiting Fellowship which enabled me to spend six months in Liverpool working on the broad theme of 'alternative rationalities'. But for that great opportunity this article could not have been written.

1. P. Winch, 'Understanding a Primitive Society', *American Philosophical Quarterly,* 1 (1964), pp; 307-324.
2. Evans-Pritchard, E. E., *Witchcraft : Oracles and Magic Among the Azande* (Clarenden Press, Oxford, 1937).
3. Taylor, C., 'Rationality', in *Rationality and Relativism,* ed., Martin Hollis and Steven Lukes (Basil Blackwell, Oxford, 1982).
4. *Ibid.,* p.92.
5. *Ibid.,* p.93.
6. *Ibid.,* p.93.
7. *Ibid.,* p.94.
8. *Ibid.,* p.90.
9. *Ibid.,* p.90.
10. *Ibid.,* p.105.

11. *Ibid.*, p.103.
12. *Ibid.*, p.87.
13. Their inseparability will be another point I will be discussing.
14. *Ibid.*, p.104.
15. *Ibid.*, p.105.
16. Kuhn, T., *The Structure of Scientific Revolutions* (University of Chicago Press, Chicago, 1950).
17. Taylor, C., p.99.
18. In Fact, there is persistent ambiguity, both in Winch and Taylor, as to whether their reference is to specific practices or to cultures as a whole. It is not clear in either of the articles whether it is the specific practice of witchcraft in the Azande culture which is supposed to be atheoretical or wherther the entire Azande culture is supposed to be atheoretical. It makes all the difference which it is. On the face of it, Winch seems to hold that the entire culture is atheoretical while Taylor seems to be talking about a particular practice or activity. But both make statements contrary to their apparent positions. Winch does not hesitate to make what appears to me to be an illegitimate jump from the character of a specific practice to the culture as a whole, while Taylor is not only guilty of this, but in addition, fails to grasp the implication that his refusal to apply the theoretical atheoretical dichotomy to all cultures will make sense only if he is primarily addressing the issue at the level of a specific practice and not the entire culture.
19. *Ibid.*, p.100.
20. Then there is the further point that Taylor moves from the possible irrationality of a person practising magic to the irrationality of a culture. I am not convinced that there exists a rule of inference permitting this kind of extension from the rationality of a person to that of a culture, given the fact that persons and cultures are two different kinds of entities. In any case, as I shall argue below, we can coherently attribute rationality (or irrationality) only to persons.
21. This of course implies that incommensurability is not necessarily an all or nothing affair. That is, it implies, firstly, that at some points a paradigm may be commensurable with another, and secondly that incommensurability may be a matter of degree inasmuch as the degree of overlap can be variable. This may appear to complicate the concept of imcommensurability to the point of making it incoherent, but I shall try to show that if we operate with a hierarchical model of the structure of paradigms, these two factors, far from constituting a complication,

help render greater coherence to the notion of incommensurabilitu.

22. I may appear to have settled on this definition a trifle too insouciantly as if I thought that there are no serious contenders in the field. That is not the case. I do deal, albeit briefly, with some rival definitions such as: rationality defined as 'successful employment of means', as 'capacity to acquire true knowledge' as 'capacity for rule-making and rule-application', at various points in this article and try to argue that they are either not comprehensive enough or can be subsumed under the definition I have opted for. That of course does not mean that there is no room for further discussion on this question. But, while I have not demonstrated the inadequacy of the other definitions, I think I am making a reasonably good case for defining rationality as having good reasons for one's behaviour.

23. Of course there is a dimension to this assertion which is far from simple. It is to do with such things as robots. There is a clear, unambiguous sense in which robots are inanimate material objects, but insofar as it seems that whether the aggregate of their abilities amount to intelligent behaviour is an open question, it might be argued that the question whether robots are capable of rationality cannot be treated as settled. However, I do not think we need to get involved in this question here. My assertion here means no more than that things such as rocks and pieces of furniture cannot be called rational or irrational.

24. In this connection I think there is need for greater clarity with regard to the logic of expressions such as '*x* has a reason', '*x* has a context' and '*x* has a justification', etc. I believe that while such expressions are serviceable enough in most contexts, in certain cases they tend to be seriously misleading, or at any rate, are a source of considerable confusion.

25 To make a brief allusion again to Taylor's position, this is the fact he fails to recognise when he places rationality in too close a relation to successful knowledge.

26. I should perhaps apologise for being so pedantic in this part of the discussion. But the quantity of imprecise talk about rational and irrational beliefs and practices and cultures in the literature dealing with relativism is simply appalling.

27. Harold Brown mentions a list taken from Elster (Elster, J., *Sour Grapes,* Cambridge University Press, Cambridge, 1983, p. 1) of the items to which the terms rationality is frequently applied. The list includes, 'beliefs, preferences, choices or decisions, actions, behavioural patterns, persons, even collectivities and institutions.' Harold I. Brown, *Rationality* (Routledge, London and New York, 1985) p.5.

28. Ludwig Wittgenstein, *Preliminary Studies for the "Philosophical Investigations"* (Basil Blackwell, Oxford, 1958), reprinted in *Philosophy in the Twentieth Century,*

Vol. Two, Ed. William Barret and Henry D. Aiken (Random House, New York, 1962), p. 721.

29. The View I am trying to develop here, as must be evident by now, can be understood in terms of the broader epistemological framework centred around the concept of 'personal knowledge' forged by Michael Polanyi. I think the relevance of Polanyis' framework for debates on relativism has not been sufficiently appreciated.

30. Hacking, Ian., 'Language, Truth and Reason', in *Rationality and Relativism,* ed., Martin Hollis and Steven Lukes (Basil Blackwell, Oxford), 1982.

31. Davidson, D., 'On the very idea of a conceptual scheme', *Proceedings and Addresses of the American Philosophical Association* 47 (1973-4), pp.5-20.

32. Hacking does not give either a detailed account of, nor an elaborate response to, Davidson's complex and compelling arguments since he is not taking issue with Davidson so much as discuss an alternative which may be unvulnerable to the latter's attack. For more or less the same reasons, I have also not attempted a detailed discussion of Davidson's critique.

33. Hacking, Ian., p. 65.

34. As I have indicated at the beginning of this article, I believe that the effort to explore the possibility of a positive kind of relativism, particularly in today's world, lacerated as it is by conflicts grounded in ethnocentrism and a domineering globalism, is of great importance. In this context I think that it is necessary to insist on the distinction between the two kinds of 'relativism' as much as possible. In fact, I even suggest that we reserve the word 'relativism' for the negative, subjectivist variety and employ the term 'pluralism' to denote the kind of relativism Hacking refers to. Such a terminological distinction, while trivial in itself, I think, will help us avoid a good deal of talking at cross-purposes that goes on in discussions on relativism and related issues.

35. This point, I think, further strengthens my argument that the ability to apply rules cannot be a satisfactory criterion of rationality since the notion of good reasons is more basic than that of rules. In this context too, the Wittgensteinian question (to which I have referred in the text) whether a rule can have an in-built rule stating the conditions of its applicability, and whether a situation can point to the rule applicable to it, I believe, favours the idea that an intuitive sense of good reasons is more primary and the ability to apply rules presupposes it. For an interesting discussion of the attempt to define rationality in terms of rules, particularly algorithms (rule which, when applied to a problem guarantes a solution in a finite number of steps), see Harold Brown's *Rationality*. Brown, Harold I. (Routledge, London and New

York, 1988), pp. 17-23.

36. Barnes, Barry and Bloor, David, 'Relativism, Rationalism and the Sociology of Knowledge', in *Rationality and Relativism,* pp.21-47.

37. *Ibid.*, p.41

38. The question as to how a particular form of life issues in a particular pattern of sameness and difference is indeed a very interesting one. However, I do not think it is the business of the philosopher to concern himself with this question. It may be the business of and a rewarding exercise for, the anthropologist or the psychoanalyst to try to trace those factors. What physical and emotional landscape, what primeval dreams and fantasies, what permutations of archetypes, what portions of the collective unconscious are the source of the basic modes of perception and reasoning of a culture is an issue of great importance. But the epistemologist can have nothing pertinent -- leave alone anything very significant -- to say about it. He must take it as a given and confine himself to analysing the structure of that determination.

39. Strawson, D.P.F., *Individuals* (Methuen, London, 1959), p. 10.

40. I have taken the term and the concept of 'engaged agency' from Charles Taylor's use of it in his analysis of the Heideggerian concept of finitude of all knowledge. Taylor argues that Heidegger's importance lies in fact that he helped contemporary philosophical outlook come out of a facile sort of rationalism which ontologised the contingent modes and procedures of rational thought by reading them into the very constitution of the mind and part of its structure. Taylor argues that the rationalism deconstructed by Heidegger had induced the illusion that man is a disembodied, disengaged thinker situated nowhere. Taylor uses the notion of engaged agency to suggest the fact that man's orientation towards the world is moulded by the context of his situatedness. He argues that the context is not, to use Michael Polanyi's concepts, part of our focal knowledge but is a part of our tacit awareness which is closer to a 'knowing how' than to a 'knowing what'. Although Taylor does not commit himself on this point one way or the other -- at any rate in this article -- I think that the notion of engaged agency is necessarily pluralistic. I don't think it makes sense to admit physical embodiment and deny cultural embodiment. What I am trying to do here can be said to be an attempt to exploit the gradation, so to speak, of defferent levels of embodiment. Taylor, C., 'Engaged Agency and Background in Heidegger', in *Cambridge Companion to Heidegger,* Ed. by Charles B. Guignon (Cambridge University Press, 1993).

41. I am not trying to be either very precise or very exhaustive here. My interest is to

draw attention to the general fact and point to its implications rather than argue out the details.

42. I have chosen the three-dimensional model of a pyramid to explain my meaning as a lesser evil since it is my feeling that the metaphor of a two-dimensional field has not been a great heuristic success. (I have in mind Quine's use of it with allusions to 'centre' 'periphery'). I am aware of all the pitfalls that attend the use of any such metaphor -- particularly a spatial metaphor. As for the talk about levels and hierarchies, I sympathise with the uneasiness it inspires and wish to clarify that all I am trying to suggest through this model is the fact of increasing integraion of perceptual and conceptual units. In invoking the notion of hierachies, I do not in the slightest mean anything normative.

43. Of course the colour perception of the human species does not show such heterogeneity. The matter has been too well established by the work of Berlin and Kay (*Basic Colour Terms,* University of California Press, Berkeley, 1969) To allow any doubts about it. I am using this example, as I have indicated, only by way of something of a thought-experiment, to illustrate the *structure* of the situation. On the other hand, as I have mentioned, If we take the perception of sound, we can see that it is structured by the phonetic space of the language of the agent.

44. This tendency is all too prevalent in the concerned literature. For example, Martin Hollis in his article 'The Social Destruction of Reality' after referring to Strawson's statement about the 'massive central core of human thinking which has no history' which I have discussed above, goes on to say that 'in ascribing beliefs, we must be able to start by discerning the true and the rational and to end with the false and irrational' (Ibid., p 75). If I am right even in the general direction of my argument regarding the meaning and the agent of rationality, it must be evident that Hollis's coupling of the true with the rational and the false with the irrational must be avoided at all costs. This fallacy is of course, as I have tried to point out, the consequence of the more egregious tendency to ascribe rationality to beliefs. However, subscribing to this way of talking for a moment, what can be said about the relation between the true and the rational and the false and the irrational is that it is obtained within a paradigm. But it must be pointed out that it is a contingent relation. All that can be said is that within a paradigm, what is regarded as a true belief alone will serve as a good reason and therefore it will be found that rational behaviour moves in alignment with true beliefs.

45. Of course this is an illegitimate, at any rate problematic, concession since the only legitimate picture of reality, or even a coherent concept of reality, to begin with, must be the product of intersubjective agreement. One of the points that become

clear through this mode, I think, is that, given the necessarily intersubjective character or reality, there is no way ontological disputes can be 'rationally' settled.

46. If We now look at the case of a person practising magic in a modern society where the culture of modern science prevails, we can see that he is irrational not because magic involves 'irrational' beliefs, but because he is inconsistent in the sense suggested here.

47. I hope it is clear that my use of the term 'sense-data' does not convey the impression that I am inclined towards perceptual atomism. My use of this term here is mere terminological expediency. My entire discourse, I hope, makes it sufficiently clear that I try to consistently hold to the idea of perceptual as well as conceptual structuralism.

48. It might, of course, also be a matter of individual capacity.

49. This is of course an almost comonplace insight of the structuralist doctrine. But the relevance of this insight for the undersatnding of commensurability among paradigms has not been, I think, sufficiently appreciated.

50. The idea that all the elements are gradually integrated until we reach one final unit in which everything is integrated -- a sort of Hegelian Absolute - is, I am convinced, a mistake. Some paradigms, particularly ideologies, may aspire for such monism. But that is another matter.