
PARAPSYCHOLOGY IN SEARCH OF A PARADIGM

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This paper, or rather a part of it, is an attempt to examine the present state of parapsychology as a science. This task can, of course, be undertaken from somewhat different points of view and with different criteria of assessment. What I have in mind is the application of the very important and illuminating concept of *paradigm* made famous by T. S. Kuhn.¹ The word “paradigm” has many distinct, though somewhat related uses, even within the work of Kuhn, not to mention its many different senses in, say, grammar or “ordinary” English. We will return to this primary, ordinary English, sense at a later stage in this paper. The Kuhnian sense in which the word has come to be widely understood, signifies the body of theory and methodology which provides the unifying basis for the practice of science at a particular time. A paradigm serves as the conceptual and methodological framework for scientists working in a particular field at a particular time. It not only determines the character and direction of research in the appropriate science, but, implicitly at least, even legislates as to what sort of entities or phenomena may or may not be said to exist. The natural question to ask in our present context would be whether parapsychology could be said to have a paradigm.

But before we tackle this question, perhaps another, more fundamental one, needs to be raised: Is parapsychology a science? For if it's not a science—nor likely to be one, as some no doubt would wish to add—then whether it has a paradigm becomes at best an idle question, at worst wrong-headed. While I am not unmindful of the considerations that could be brought up to deny the claim, let us, for the sake of the argument at least, accept that parapsychology is a science.

Even those who accept this claim unhesitatingly, however, will hardly wish to maintain that parapsychology is a “normal” science, i.e. one which operates within the framework of an established paradigm. The latter claim would, in my view, be so palpably false as to require no argument. This would still leave two possibilities to be considered.

Parapsychology could be said either to be in the “pre-paradigm” phase of development or, arguably, in a state of “crisis,” awaiting a *paradigm-shift*—the state that heralds a scientific revolution. The relatively short time for which parapsychology has been in existence as a distinct field of research would seem to suggest, very strongly indeed, that it is still awaiting the emergence of its first full-scale paradigm. But since I wish to argue that there is a way of looking at parapsychological work which does not render the second alternative absurd, I intend to discuss both the possibilities in some detail.

Starting on a rather light note, there is one aspect of work in parapsychology today which may create the illusion that research in the area is already paradigm-based. According to Kuhn,² one symptom of the emergence of a paradigm in a particular science is that its practitioners no longer address their research reports to the generally educated public nor do they feel obligated to justify the use of each concept or principle introduced. This latter task is left to the writers of textbooks and the former, perhaps, to the “popularizers” of the field. Consequently, the research reports appear by and large in short articles in professional journals, and become increasingly more technical. This phenomenon, for whatever it’s worth, can be said to be already occurring in parapsychology, even though books, other than texts and not necessarily collections of articles, are still being written—perhaps a few too many!

But such appearances notwithstanding, the state of what I shall call “theoretical anarchy” within contemporary parapsychology will hardly support the view that research within it is paradigm-based yet. At best, it seems to me, we have a collection of “mere facts,” but perhaps not even that, since there are many, not necessarily outside parapsychology, who still challenge the factuality of one or more of the claims to important discovery. Even the Helmut Schmidt effects in PK experimentation,³ technically, perhaps, the most sophisticated experiments in parapsychology, have not proved susceptible to systematic replication.⁴ This is hardly surprising. Kuhn, quite correctly, says, “No natural history can be interpreted in the absence of at least some implicit body of intertwined theoretical and methodological belief that permits selection, evaluation, and criticism. *If that body of belief is not already implicit in the collection of facts—in which case more than mere facts are at hand—it must be externally supplied, perhaps by a current metaphysic, by another science, or by personal and historical accident.*”⁵ (Italics mine.) In the absence of a well-integrated and coherent theory, implicit or explicit, reports on so-called facts as well as their refutations may simply be the products

of individual commitments to incommensurate models, attitudes and idiosyncracies; and the line between fact and fiction will be hard to draw.

Parapsychology may not, strictly speaking, have the *schools* characteristic of the early stages of a science's development, but that there are many competing models, methods and metaphysical commitments operative in the field can hardly be disputed. How else could one account for the co-existence in the field of various "physical radiation" models for, say, telepathy and clairvoyance;⁶ an account of psi phenomena in terms of the "hidden variables" of quantum mechanics;⁷ the many different forms of "synchronicity" for the "explanation" (?) of ESP phenomena;⁸ claims as to the phylogenetic origins of "psi" ability,⁹ the multi-dimensional view of time recommended for the explanation of precognition;¹⁰ and the confident assertions of the demonstration by psi phenomena of the existence of the mind,¹¹ not to mention the existence of the soul required for survival and mediumistic communication? A measure of confusion reigning in the field—due largely, I think, to the lack of theoretical underpinning for its facts—is provided by the opening paragraph of John Beloff's review of *Philosophy and Psychical Research*, of which I am contributing editor. "It used to be taken for granted," says Beloff, "that, if the evidence for paranormal phenomena were valid, this could not but have far-reaching implications for the entire structure of beliefs embedded in our science, philosophy and common sense. Controversy, therefore, centred upon the crucial question of validity. More recently, however, the view has been put forward that, even if the basic parapsychological evidence were to be accepted at face value, nothing would follow from it. At worst we should be left with a whole lot of anomalies that we should not know what to do with but no drastic revision of our existing outlook would be called for. If I may be permitted to coin a term," Beloff continues, "I would like to call this view 'Flewism' in honour of its most original and able exponent Flew. . . ."¹²

Since Beloff evidently regards "Flewism" as some sort of infectious disease, I can only feel relieved that he does not directly consider me afflicted. But in defence of those fellow contributors to the volume who, in Beloff's opinion, have shown symptoms of acute Flewism, I must say that, given the fluid state of theorizing in parapsychology, Flewism cannot easily be shown to be inconsistent or unwarranted. Since parapsychology does not itself have a clear unambiguous view of what is or will be established or refuted by parapsychological phenomena, it is not entirely fair to accuse Flew, or any other

philosopher of parapsychology, of "negativism," physicalism or general skepticism, even if the profession of these views were somehow shown to be undesirable.

The view that parapsychology is an "infant" science, very far yet from the development of a paradigm, is so eminently plausible that it may seem paradoxical, if not absurd, to suggest that it could, or should be seen as being in a state of crisis or of a "breakdown of normal scientific activity," so often the precursor of a paradigm-shift. Undoubtedly, the suggestion can only be made on a special interpretation, and we will come to that shortly. But let us first note that the *symptoms* characterizing the pre-paradigm phase of science are bound to be similar, in many ways, to those of the breakdown of a reigning paradigm. In the former state there is no generally accepted theory; in the latter there is a theory but it can no longer account for important sets of data: the scientific community has encountered genuinely recalcitrant facts, or *anomalies*, which demand a new paradigm. According to Kuhn, "The proliferation of competing articulations, the willingness to try anything, the expression of explicit discontent, the recourse to philosophy and to debate over fundamentals, all these are symptoms of a transition from normal to extraordinary research."¹³ Practitioners of parapsychology should have no difficulty whatsoever in recognizing these symptoms either in their own work and feelings or in those of others in their larger community.

Central to the characterization of scientific activity as extraordinary or revolutionary is the concept of anomaly, the discovery of facts that stubbornly refuse to fit accepted theory. Now, it is possible, indeed quite plausible, to treat parapsychological phenomena as anomalies within the existing theoretical framework of the natural sciences, especially perhaps of physics, but possibly even of physiology and biology. The use of terms like "*parapsychology*," "*paranormal phenomena*" and "*extrasensory perception*," lends credibility to this interpretation. Indeed, most of the fundamental terms of parapsychology proclaim, loudly enough, that in their initial articulation parapsychological phenomena were seen as anomalies, phenomena that should never have occurred if the natural scientific view of the world was correct. This interpretation may also explain why, as parapsychologists often complain, scientists tend to dismiss paranormal phenomena as absurd without examining the evidence for them. The dismissal occurs, not because scientists are dishonest or obtuse, but because, as scientists, they cannot accept these phenomena until a new paradigm incorporating present anomalies as normal facts has

appeared. Not entertaining recalcitrant facts is a well-known feature of paradigm-based science; and the history of science abounds in examples. If the parapsychologist wishes to have his research findings accepted by the scientific community at large, he has to wait until the required paradigm-shift has occurred, either as a consequence of his own or someone else's work. At this stage, parapsychology does not seem to be making much progress towards creating the conditions that could bring about the paradigm-change, if that is what is required. Neither the appropriate kind of theory nor the methodology seem to me to be on the horizon.

The foregoing discussion may perhaps be taken as indicative of what one might call an identity-crisis for parapsychology, an uncertainty about its "self-image." It does not seem to have been able to decide whether it should fashion itself after, say, physics, the most developed of the natural sciences; psychology, its nearest kin in the social sciences; or perhaps, even after classics or history. An outsider reviewing research done in the field since its beginnings is bound to notice work characteristic of all three, if not of more, distinct disciplines. Rarely, if ever, does parapsychological research bear the marks of an independent and unique kind of inquiry. This can be interpreted as a basic indecision about paradigm in its ordinary English sense, i.e. a failure on the part of parapsychology to decide which, if any, of the existing disciplines, e.g. physics, biology, psychology, classics, should serve as the model or example of its own activity. Some of the more sophisticated, automated experiments in parapsychology, e.g. those of Helmut Schmidt and others, have the appearance of advanced experimental work in the developed natural sciences. But at the same time, work resembling that in *Phantasms of the Living*,¹⁴ though on a less ambitious scale, which consists largely of comparison and classification of case histories—typical of research in history or classics—still appears in parapsychological journals and books. Not only its name, *parapsychology*, but a great deal of its research since the pioneering days of Rhine and Soal have, perhaps consciously, been fashioned after psychology.

This should be neither surprising nor regrettable. After all, psychology set out to be the study of the mind, or psyche, and only later adopted the methodological goal of identifying mind with behavior, which has now become the dominant trend in contemporary psychology. Such methodological behaviorism, however, cannot take parapsychology very far. And this for two reasons. In the first place, the typical examples of parapsychological phenomena do not as a rule present much, if any, observable *behavior* which will set them apart as

identifiable paranormal phenomena; always it's the *information* or effect produced that does so. Moreover, parapsychology, unlike psychology, seems to, and perhaps needs to, explicitly postulate non-dispositionally interpreted *abilities, powers* and *energies*, often expressed by terms such as "psychic power," "psiability" or "psychic energy." In this context, it may be interesting to note that R. Harré and P. F. Secord have recently argued that psychology—social psychology at any rate—needs to postulate real human powers, "liabilities" and natures for an adequate explanation of human social behavior.¹⁵ If this argument wins the day, then, perhaps, psychology and parapsychology may find themselves working within a broadly similar, though not identical, framework.

This failure of parapsychology to develop its own unique identity could be said to spring largely from the contingency that it has not succeeded in developing, or adopting, a coherent theory of its own which will allow the treatment of its data as a normal (in the sense of expected) set of facts, rather than as anomalies within the existing paradigm(s) of other scientific disciplines. The message remains the same if parapsychology is seen as requiring a transition from infancy to adulthood as a science. The emergence of a full-fledged paradigm, insofar as it involves the appearance on the scene of a Newton or an Einstein, cannot be the object of conscious planning or preparation; that will have to await a historical accident. But pending such a development, and without prejudicing (as far as possible) its scientific status and aspirations, there is no reason why parapsychology should not adopt a metaphysical theory, if one were available or could be constructed. The history of science demonstrates that in its pre-paradigm as well as revolutionary stages, a science often operates within the framework of metaphysical theories which may later either be abandoned altogether or, unusually, transformed into scientific paradigms.

In what follows I shall, with not inconsiderable trepidation, attempt to outline a speculative-metaphysical theory, using various concepts from traditional Indian philosophy.¹⁶ In saying that these are Indian philosophical concepts, it is not at all my intention to claim that they are in any sense exclusive to the Indian tradition. On the contrary, many of them have their counterparts in non-Indian religious philosophies, even though the terms used are often not easily inter-translatable across the different cultures. Consequently, it's unlikely that the proposed theory will appear altogether strange to any religious-philosophical tradition.

If parapsychological phenomena are genuine, then what they

demonstrate, above all, is the vastly greater complexity of both man and nature than what our common sense or science has yet given us reason to believe. Only with the explicit recognition of this complexity can we even begin to hope to accommodate psychic phenomena as warranted facts rather than absurd anomalies. This complexity has been a strong and recurrent theme of the earliest Upanishadic literature in India and has provided the backdrop for the speculation of many subsequent systems of metaphysics. The expression of this complexity, often in esoteric and mystical jargon, has taken many different forms. But the substantive theme seems to be that neither man nor nature is what it seems to be "at first sight."

The description of man, for example, as a complex of body and soul is regarded as correct, but only as an inadequate first step toward a true account of his reality. The self or soul (*ātman*), the ultimate essence of man, is hidden beneath many "layers" of not-self, just as the nucleus of the onion lies hidden behind its many layers of skin. The ordinary man may stay quite happy believing that he *is* his material body. But as he learns to be discerning and introspective, he would begin to experience some unease at this identification. Through a series of faltering, but increasingly more revealing steps, he may learn to identify himself, next, with his desires and impulses, then with his mental states, then again with his rationality, until, finally, he experiences himself as being identical with the ultimate ground of the universe (*Brahman*). In view of this identification, at different stages, with different entities or principles, man could be said either to *be* many different selves, or, more appropriately, to *have* different "bodies": (1) the material (*annamaya*), (2) the vital (*prānamaya*), (3) the mental (*manomaya*), (4) the rational (*vijñānamaya*) and, finally, (5) the "cosmic" (*Brahmamaya*). The specific details perhaps do not matter. What does matter is the belief in the Indian tradition that the realization by man of his essential non-materiality gradually frees him from the operations of the laws of matter.

Just as man has these many "levels" of selfhood, each succeeding level more "real" than the preceding, so the universe, or nature, has many different levels of reality too. These could be said to be: (1) nature with its manifold, as revealed to ordinary perception (*virāta*), or the world of commonsense; (2) the world as the manifestation of physical energy (*hiranyagarbha*), or the world of science; (3) the world as created by the causal energy of a personal God (*karana* or *īshvara*), or (perhaps) the world of religion; and, finally, (4) the eternal, impersonal ground of the universe (*Brahman*), the world of the mystic or the liberated.

This parallel between the increasingly subtle and more real aspects of man on the one hand and of nature on the other, both culminating in *Brahman*, suggests that in the final analysis man may be the world in microcosm. Any process of self-discovery, therefore, must at the same time lead not only to the increasingly fuller understanding of nature, but ultimately end in a state where knowing nature (as something external) can hardly be distinguished from the experience of identity with its ground. This is obviously referring to a state of mystic vision and I must not presume the competence to say much more about it. But the similarity with Spinoza's cognition *sub specie aeternitatis* and the *amor dei* as the inevitable product of this state, is too striking to be missed.

In what form and with what typical characteristics one would experience his self or indeed nature, will be determined by his *state* or *level* of consciousness or awareness. The Indian tradition speaks of at least four different states of consciousness, three of them empirical commonplaces and the fourth a metaphysical or transcendental construction on the first three. The first is the waking state which is "outwardly cognitive," "enjoying the gross" and is "common-to-all men."¹⁷ The second, the dreaming state, is "inwardly cognitive" and enjoys the "exquisite, the brilliant"¹⁸ etc. The third is the state of deep sleep, "enjoying bliss" and is just a "cognition mass"¹⁹ i.e. "unified or undifferentiated" awareness. (It is, perhaps, because deep sleep is still characterized by this amorphous consciousness, that on waking we do not experience any significant breach in the continuity of our consciousness.) And, finally, there is the, hypothetical, transcendental state of consciousness (*turiya*) which presumably results in the experience of identity between the individual self (*ātman*) and the ground of the world (*Brahman*), but which is otherwise regarded as unique and indescribable.

The progression through the increasingly deeper levels of awareness, revealing the subtler and deeper levels of one's self as well as of nature and culminating in the experience of identity with *Brahman*, is believed to have the following consequence. The discovery by man that he is essentially non-physical gradually frees him from the "limiting conditions" of space, time and causality, principles which organize and govern matter alone. This freedom from limiting conditions can also be viewed, positively, as the attainment of various *powers* (*siddhis*). Parapsychological phenomena such as ESP and PK, on this view, are instances of this power and, understandably therefore, *appear* as violations of the laws governing space, time and causality. *In principle*, anyone could acquire these powers, if he were to put in the required effort. In practice, however, it is considered unlikely that

everyone will succeed, for the goal of "self-realization" is exceedingly hard to achieve. Yoga and other, similar, "practical" disciplines are believed to help in this process. One could say, without sounding too facetious, I hope, that these disciplines provide the "technology" for the discovery of deeper levels of the self and, coincidentally, for the attainment of the attendant powers. But the tradition insists that a true seeker is unlikely to be motivated by the attainment of these powers and equally unlikely, when he has attained them, to use them for self-aggrandizement or for any other selfish end.

This theory is metaphysical and it would be neither possible nor profitable to pretend otherwise. We set out, in the absence of a paradigm, to construct a theory which will allow paranormal phenomena to be viewed as normal and expected, rather than anomalies; and this I think it does. But a metaphysical theory which aspires to provide genuine explanations of empirical phenomena, must have *some* empirical consequences and must lend itself to empirical, preferably experimental, models. To what extent, if any, this theory does so, must ultimately be left to be judged by parapsychologists and scientists who are equipped to translate abstract ideas into empirical and experimental terms. I claim no competence whatsoever in this respect. But a few general remarks may not be out of place.

First of all, the belief in the Indian tradition is that the concepts employed in this theory are not altogether, perhaps not at all, speculative. They are regarded as the expression, howsoever inadequate, of the personal experiences of sages and seers of antiquity. Moreover, Yoga and the like have consistently been claimed in the tradition to be *practical*, as against, say, *Sāṃkhya* and some other systems of philosophy, which are regarded as theoretical. Now there can be no obligation, *a priori*, to treat these claims as true. But, on the other hand, to treat them as false, without thorough examination, will be pedagogically wrong, especially when ideas resembling the above in some respects have come to form the basis of certain forms of contemporary "scientific" practice.

Psychoanalysis is founded on the idea of levels of personality; and if the Indian doctrine of levels of selfhood is metaphysical in character, it must share that characteristic with psychoanalysis. The differences may be those of degree and detail rather than of basic insight. Similarly, recent researches into "altered states of consciousness" induced by the use of drugs and the practice of meditative and other techniques, has lent some plausibility to the idea of levels, or discrete states, of consciousness. Charles Tart, who has done a significant amount of work in this area, has coined the term "discrete altered states of

consciousness," "d-ASC" in short.²⁰ Likewise, the contrast between the commonsense and scientific views of the world has in recent years been sharpened to such a degree that the hypothesis of the discovery of an altogether new perspective need no longer sound altogether absurd. A great deal more research in these and other pertinent areas must, of course, take place before one would be in a position even to claim *general* plausibility for the theory outlined above. Until that happens, it would remain metaphysical but, hopefully, neither too abstruse nor absurd. It is true that the theory postulates a final state of awareness which culminates in the mystic vision of identity between the self and the ground of the universe. In the context of certain other sciences this itself, and perhaps for good reason, may put the theory out of court. But parapsychologists would be less than openminded if they did not entertain the possibility of other paranormal phenomena being on a continuum with mystic experience.

At this point, it may be useful to mention that a theory such as this may be more easily tested by developing what Tart calls a *state-specific science*.²¹ If I understand him correctly, his suggestion is that if one wants to ascertain what happens, say, in a drug-induced state of consciousness and, more important, the validity of the claims made by people who have experienced this state, then one would need a science which is specifically designed to answer questions relating to the drug-induced state of consciousness. And, similarly, for other discrete states of consciousness. This would presumably involve creating a community of scientists who are willing and able to enter into drug-induced states, not just for the kicks—though, of course, this would be a bonus—but for the sake of making an objective study of the conditions, experiences, claims and after-effects of such states. The theoretical and practical problems involved in developing such a science must be quite considerable, and it may even be questionable whether such a study will ever amount to a science. In the context of drug-induced states, the idea seems to get off the ground because drugs can be administered as and when required. But since mystic states, for which presumably there would be a distinct state-specific science, are not known to be subject to voluntary induction nor at all easy to identify, it is extremely difficult to visualize how such a science could ever come into being. But since Tart is himself fully aware of the problems and perils involved, I will not here undertake any further criticism of his suggestion. All I would say is that perhaps the idea deserves careful investigation.

Viewed externally, scientific knowledge is, after all, nothing but the body of so-called facts and theories that a community of specialists has

agreed to accept. And if such a community can be created in relation to a particular discrete state of consciousness, then we would apparently have created a state-specific science for that state. Whether our theory is mere speculation or a correct account of reality will, then, have a simple test. In Kuhn's words "As in political revolutions, so in paradigm choice—there is no standard higher than the assent of the relevant community."²²

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¹⁶ The various concepts used in the outline occur over a wide area of traditional Indian philosophy. But for a relatively brief collation of these, see Chaudhuri, H., "Yoga Psychology," in *Transpersonal Psychologies*, edited by Charles T. Tart, London, 1975.
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²² Kuhn, *op. cit.*, p. 94.

DISCUSSION

STANFORD: Initially, hearing Dr. Thakur's remarks about paradigms might lead one to believe that there is a strong contradiction between the conclusions that he reaches in the initial part of his paper and my own. That may be more apparent than real, however, because of the considerations of the definitions of "paradigm," and because I believe that Dr. Thakur has been discussing in his paper the relations of parapsychology to what he calls "normal science," in terms of the relationship to the larger body of science. I don't understand the concept of paradigm, even in the Kuhnian sense, as necessarily implying

that. I think Kuhn talks about paradigms within specific sciences. A paradigm is not necessarily an over-bridging kind of paradigm across all sciences, and thus I think that in another definitional sense compatible with Kuhn's, it could be argued that we have had a paradigm within parapsychology. However, hearing Dr. Thakur's remarks makes me want to modify the title of my paper to say "Have Parapsychologists Been Paradigmless in Psiland," because I think Dr. Thakur has been more strongly focussed on the current state of parapsychology, whereas I have been immersed for well over a decade in a different kind of parapsychology than I think we're seeing right now. I would reaffirm my own interpretation that within parapsychology we have seen something like a Kuhnian paradigm, but I certainly wouldn't dispute with Dr. Thakur and suggest that this paradigm has in any sense been one which could be assimilated into some kind of general concept of a normal science that bridges across all the sciences. I do want to say something else here with regard to the latter remarks in your paper. Why should parapsychologists adopt a metaphysical theory instead of a specifically scientific one? I have my own answers to that which might or might not concur with those of Dr. Thakur. I think that a metaphysical theory, if it's taken more or less in the sense that you have suggested, might have a psychological use, and that is helping us break out of some of our sets, which is certainly something that we need if we don't come to take the metaphysical perspective too seriously. Also, I have noted elsewhere that out of some of these traditions come some specific suggestions that could lead to specific parapsychological research, and I think these are useful for us to study. One final comment; you are advocating state-specific science, and I would want to take strong issue with that as a way to proceed in parapsychology or in any other scientific area. While I'm in sympathy, I think, with the purposes behind such a formulation, I can't help but feel that such state-specific science leads to a kind of solipsism, because it says that we can determine when persons are in the same state by the fact that we'll see emergent agreements and laws, and this is where you get your state-specific science. But it's obvious that you have to have an external criterion for being in a state, otherwise somebody will come along and disagree and say you're not in the same state. Well, we're all, perhaps, in a similar state of consciousness now, but we certainly wouldn't all agree about what is lawful or meaningful as we've seen some examples in this conference. So I think there is a serious problem in the state-specific science concept, in that it can lead to solipsism unless it's further refined.

THAKUR: I'm delighted to note the first conversion to my cause, especially because you have offered to change the title of your paper. It is true, that I have deliberately taken a rather large meta-physical theory to use as a unifying set of concepts which, hopefully, will allow us to get after some of what I might call "the rot" in other areas. Finally, and this is a more serious one, I share your misgivings about Charles Tart's idea of state-specific science, but I have said in my paper that he is, himself, fully aware of the problem and he talks about it at great length. I just didn't want to do the intellectually dishonest thing of ruling him out of court. There is some promise and all I have recommended is that the idea should be given serious consideration. So if it qualifies, perhaps there is something there.

BELOFF: I would like to go on record as a skeptic with regard to the Kuhnian concept of a paradigm. For that reason I rather regretted that Professor Thakur spent so much of his paper discussing what I consider to be essentially the idle question of whether parapsychology is or could become a normal science in the Kuhnian sense, instead of devoting much more time to what I consider a far more fascinating question, as to whether these insights into Indian philosophy could help to give us a perspective on parapsychology. Incidentally, although we have at this conference had three papers, as Professor Thakur pointed out, with "paradigm" in the title, I consider that only two of them concern paradigms in the Kuhnian sense. What Dr. Rex Stanford gave us was, I consider, simply a particular theoretical model and none the worse for that. In fact, much the better for it, but it was not what Kuhn understood by a paradigm. Now I think it's very important—you know the word "paradigm" is bandied about so much—it's terribly important to know what we are talking about, and I think it's very desirable to remember that in Kuhn's book which launched this concept (*The Structure of Scientific Revolutions*), he does not touch upon the social and psychological sciences. His concept is clearly inspired and fueled, I would say, by the idea of the revolution in physics which obviously was very prominent in his mind. He applies it also in the history of chemistry and a few other well established sciences in the physical area. And there has been an enormous amount of controversy, of a rather tedious kind, as to whether psychology has ever acquired a paradigm, whether behaviorism was a paradigm, and so on. None of this debate, it seems to me, led anywhere and I think it would be far better to simply skip this whole approach and ask more important questions.

THAKUR: I'm entirely in agreement with what you say. The reason I

talked at any length about paradigms at all was more out of defensiveness than anything. I thought that if I were going to go to a conference of parapsychologists and tell them that they haven't got a paradigm or a "super theory," they probably would be offended, so I was trying to put some flesh on my charge. But it is quite true that it is the second part which is the more interesting job, and I would love to do some more elaborating of this perhaps on a subsequent occasion. It is a huge area and I don't think I could do it justice in one paper, so probably some time in the future I may come back with a bit more.

MAUSKOPF: Maybe because I'm an historian rather than a philosopher or a psychologist or a parapsychologist, I see use and interest in talking about paradigms. I would disagree with Dr. Beloff here. But I would agree with him and with Rex Stanford in what I understood to be at least implicit in their comments, that the use of paradigms has perhaps been coarsened in the papers here. Reified is perhaps a better word. There is an entity, a paradigm which every science worth its salt must possess and at some time, t_1 , it doesn't have it and at some time, t_2 , it does have it, and parapsychology is still in t_1 time and ought to be moving towards t_2 . Now, in our own studies of the history of parapsychology, my colleagues and I, in fact, try to use the paradigmatic concept in more flexible ways, in line, I think, with what Dr. Beloff suggested about paradigms if they exist in the social and the behavioral sciences. Specifically, we see, and we think we can justify parapsychology at least as having passed through a partially paradigmatic stage—paradigmatic both in terms of its theory and method, and also in terms of its institutional structure. I'm referring to the period of the 1930s and 1940s following the publication of Rhine's book *Extrasensory Perception*. Now I think that book and the subsequent work in America and England, in fact, did lay down most of the components of a paradigm that Kuhn is talking about, and it's a rich and complex concept. There were specific methods focused on; there were specific problems considered to be the important ones; others that were considered to be ruled out, and there was even the sketch—and this is, I think, where the paradigmatic concept in full blown form doesn't apply—there was a sketch of a theory. A sketch which strikes me in many ways as similar to yours. That is, it was basically a nonmaterialistic sketch of a theory which strongly asserted that parapsychological phenomena evaded the laws of physics as they were then known; evaded normal temporal and spatial requirements, etc., and I think Rhine in *Extrasensory Perception* and his followers hoped that this sketch would be articulated in the

way I gather you're hoping your sketch, an Orientally-derived theory, will be articulated. Now as it has transpired, it wasn't articulated, it didn't continue to move on. I think the reasons it wasn't articulated had as much to do with social and institutional factors as they did with philosophical and metaphysical ones and even methodological ones.

THAKUR: I wasn't intending to get involved in comments on the social sciences at all. I was trying to avoid it, but since the subject has been brought up a second time, I would say very briefly, that, as far as I'm concerned, I don't believe the social sciences, psychology and sociology for instance, have a paradigm. Now this is not damning in itself, but what is unsatisfactory is that neither of these disciplines seems to have a unified structure, so that a lot of work done is of a very *ad hoc* kind, and the least I expected to convey by way of a message was that parapsychology should not unthinkingly get into that state. On the second point, I note that Rhine's sketch wasn't articulated—it was somehow thrown out of court, in a way, which is very unceremonious. The social and institutional factors that you talked about and that made that situation occur, should include, I believe, an undue deference for so-called scientific objectivity that took over and that was a very important nineteenth century trademark. I think we know much more about science now; enough to get out of that particular mystique and therefore draw certain lessons from this. So maybe this sort of theory has a better chance than it had in the early years.

PENELHUM: I can't contribute anything at all helpful on the debate about what a paradigm is, but the discussion that has gone on with regard to this, has revived a certain misgiving that was with me as Dr. Thakur began. I seem to understand that a paradigm is something that belongs to a specific science, like physics or chemistry, and he says it doesn't belong to the social sciences as yet. I am beginning to wonder whether we have any right to take for granted that parapsychology is a specific science in that sense. It seems to me that it's quite possible that people of a certain type of mentality (conceptual elasticity, ability to accept facts that others wish to overlook) might band together to study all those things that nobody else will pay attention to, and these might turn out to be a very heterogeneous bundle of phenomena. The people who studied this heterogeneous bundle of phenomena might acquire a name, and this name might be "parapsychologists." It seems to me that we cannot take for granted that there is a theoretical unity among those phenomena, and their explanations, that seems to be taken for granted in your discussion of there being a paradigm for parapsychology. My second comment

relates to your extremely interesting resort to Oriental, specifically Hindu, ideas to develop a theory—I'll stop talking about paradigms, if I may—a theory to provide a framework for the interpretation of parapsychological phenomena. I have an anxiety of a different kind here. I would take an explanatory theory to be something which would have to provide some way of integrating the phenomena, showing systematic interconnections between them. Now, if I understand the tradition that you lean upon here correctly, the fundamental perception on which it rests, which derives from mystical practice, is the perception of the unreality of many of those phenomena in relation to some ultimate reality. Now, I am very worried about the notion of explaining phenomena in terms of their ultimate unreality. It seems to me that if you try to do this, then the phenomena become conceptually parallel to those phenomena called miraculous in western theologies. That is to say, they are in essence things which show there is a higher reality than the ones that you are seeking to explain. (In connection with your suggestion that one might rope together those prepared to participate in certain types of drug-induced experiences in order to test the theory, it seems to me that if these experiences are parallel to mystical states (which, of course, is controversial) it would seem that what they would do would be merely to duplicate the perception of the unreality of the phenomena which are to be explained.) I worry about this as a mode of explanation. It seems to me that to interconnect phenomena systematically, predict one on the basis of the other, is quite a different enterprise from determining on the basis of the one that the other is unreal.

THAKUR: There's a great deal in that, and I am absolutely certain that in order to satisfactorily answer all those, I'll need a great deal more time than I have. In relation to the first part of your general comments, that it is not that I am saying parapsychology should have a paradigm in the sense that the physical sciences have, the drift of my argument is that that's not what one should be after, because when I come down to propose the theory, I'm specifically talking about a speculative-metaphysical theory, not a paradigm. If you allow me to put it this way: physics, chemistry and these natural sciences may be said to have a paradigm in the sense that they have a theory as well as a methodology. The social sciences, I believe, neither have a distinctive methodology nor a theory which will unify the data in the way it should be done in a properly objective systematic study. Learning from their experience, as it were, parapsychology should at least be avoiding this absence of a theory altogether, a theory which

might give us the unifying framework. Hence, I propose a meta-physical theory.

About the unreality of things at a certain stage, this is one of the beliefs that happens to be ascribed to Indian thinking in general, but that's a complete misrepresentation. There are many very different systems of Indian philosophy, and only one of them goes in that direction, and the concepts that I have used are derived from very many different systems. So it's not as though it is built into this theory that the universe be viewed as being essentially unreal, certainly I'm not for it. Now, if this still happens, I don't know whether I would like to pre-judge this possibility. Remember, I have talked about many different levels. On most of these levels there should be no question of the world being in any sense unreal, but perhaps at the mystical, the highest plane, as you say, this is conceivable and if that happens, well, that's the way it is. I would hate to say anything more than that.

FRENCH: What interests me is that, given the suggested metaphysics, as I understand it, the notions of space and time and causality are at best instrumental at a certain level of awareness, and yet it seems to me those notions are essential, as we understand it, to explanation. I'm wondering if the explanation, at the level of awareness that you're considering, might be that what the parapsychologist is interested in would then become redundant or totally unnecessary. I'm also wondering if your view of a paradigm isn't indeed the ordinary notion and that what we have here isn't a scientific paradigm that might arise from the metaphysics you suggest, but something like a religious paradigm or even better still, a community interest of some kind. Beyond that, I'm wondering if you haven't done something that parapsychologists have been wanting to do for some time, and that is turn the worm, as it were, on the sciences. If we adopt the metaphysics you suggest, then don't we have the same kind of things to say in criticism of the standard sciences that they have been saying all along about parapsychology? Doesn't their work become less significant and the work of the parapsychologist more significant if we adopt your view? Is it not true, that scientific knowledge becomes specific for a state that, given the metaphysics, is of a lower level or grade than the state of interest to parapsychologists?

THAKUR: I do want to make a distinction between explanation by cause and explanation by reason. Now, it is true that the physical sciences largely do what is called explaining by causes, and therefore, of course, space/time and causation are important. But there is another kind of explanation—explanation by reasons. I would have thought

that at the particular level I'm talking about, at a higher level, if you like, the explanation of those phenomena will be in terms of reasons rather than causes. Now whether, in fact, the adoption of my sort of theory would imply that the sciences, as it were, become less prior, I'm not sure. But if that happens, I don't think it would worry me in the least, because it is a feeling I have, that the sciences have probably misled themselves a little and certainly have misled us a little, and a check of some sort, whether in terms of a theory or anything else, probably couldn't do much harm.

GRUBER: I want to add a remark on Dr. Thakur's interpretation of a paradigm, somewhat referring to what John Beloff and Seymour Mauskopf pointed out. I think that Dr. Thakur said that a theory and a methodology are required for parapsychologists shifting from pre-paradigmatic science to paradigmatic science. But in Kuhn's sense paradigms also exist without any theory. I think this is pointed out in Kuhn's remarks in "Reflections on my Critics." He says that any scientific community has had a paradigm whether or not it has provided a theory involved in this paradigm. Compare, for example, systematic botany and zoology under Linnaeus, or Rhine's scientific program which started with what Margaret Masterman called an artifact paradigm.

THAKUR: Well, I don't know that I will, in Kuhnian terms, anyway, be particularly sympathetic to accepting that a paradigm can simply and only involve a methodology without a theory. I have a feeling that, in fact, biology up to Linnaeus is regarded as a pre-paradigm science just for that reason, so I don't feel that I would quite agree with your suggestion. What I'm after is, really, the emphasis on the community. There are, as Penelhum pointed out earlier, certain sorts of phenomena requiring investigation; certain sorts of people who like investigating those. Now if they had a theory which gave them an overview of what they are doing and why they are doing what they are doing, it will be a good thing. That's all I'm after. I don't think it would be a particularly interesting exercise for me to look for anything more or try to mime or mimic anything else, whether it's physics, biology, or what have you.