

## UNDERSTANDING AND EXPLANATION

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Human beings never seem to be satisfied with simply taking their experience of the world as it comes to them; they *will* insist on trying to understand and explain it. We are, all of us, philosophers, just as all of us, like M. Jourdain in *Le Bourgeois Gentilhomme*, speak prose without knowing it. By "understanding" and "explanation" I mean finding a frame of reference within which our experiences fit, so that every individual piece of experience can be seen as a particular example of a wider class which behaves according to certain observed regularities. The regularities we dignify by the name of "laws of nature" and the more addicted we are to philosophy the wider the scope we seek for the laws which describe how things behave. The most philosophically scientific of us would like to find a single equation comparable to Einstein's  $E = mc^2$ , or some single unified field theory from which, as a single premise, we could unfold the whole magnificent panoply of phenomena, like those Japanese paper flowers that open up when they are thrown into a dish of water. If we could do *that*, we feel, we could have explained the world and we would understand why it is as it is.

The difficulty comes when we ask different kinds of people what sort of an explanation gives them the best understanding of the world around them. Some people are happy with a concise mathematical formula like  $E = mc^2$ ; others say that nothing could be more concise and explanatory than a three-letter word, G-O-D for preference. Some people see personality as the basic irreducible datum, whilst others see personality as the most complicated imaginable interplay of biochemical and electro-neurophysiological interactions and in need of a great deal of further analysis into its component subdivisions. Different people see the world around them as explicable in terms of different frames of reference.

I have been speaking theoretically for too long. Let us look at one or two examples. This conference is about parapsychology, philosophy and religious concepts and I am a clergyman, so my first example had better be from the Bible. In St. John's Gospel (12.27-9), Jesus has been teaching the bystanders about the need to die if they are to gain eternal

life. Suddenly, he changes gear and begins to address, not the people around him, but God. "Now my soul is in turmoil, and what am I to say? Father, save me from this hour. No, it was for this that I came to this hour. Father, glorify thy name. A voice sounded from heaven: 'I have glorified it, and I will glorify it again.' The crowd standing by said it was thunder, while others said, 'An angel has spoken to him.' Jesus replied, 'This voice spoke for your sake, not mine.' " That is an account of an unusual incident—in religious language, a miracle. Immediately it has happened, there are three possible explanations, which satisfy three different kinds of people. It is not too fanciful to call them the rationalist, the parapsychological and the religious explanations.

The rationalist fits his understanding within categories he already knows and understands: "it was thunder." What happened was perfectly natural and understandable and it was the focus of a religious misunderstanding by which that natural event was interpreted in supernatural terms. It is the same kind of explanation that reads of the contest between Elijah and the prophets of Baal (1 Kings 18) and talks of a flash of summer lightning. An explanation like that can be a reductionistic or irreligious explanation, but it need not be. St. Augustine (*De Civitate Dei*, book 21, chapter 8) said that a miracle was not "contrary to nature" but "contrary to what is known of nature." He would not be worried if natural explanations were to be accepted for all the miracles in the Bible, since the guiding hand of God could as easily be seen behind the regularities of nature as behind their temporary suspension. Last year, a flash from the sky shot down on York Minster and destroyed the whole of the roof of the south transept. Nobody denied that it was lightning, but there were some people who said that the lightning's target and timing showed that it was an act of divine displeasure at the consecration of David Jenkins as Bishop of Durham in that building three days previously. (I am equally sure that they were wrong, but that is another matter.) So, in the incident from John 12 which we are examining, it could have been that a fortunately-timed clap of thunder was interpreted as a divine response to the prayer of Jesus, and who is to say it was a mistaken interpretation? The point is that the explanation is wholly in terms of phenomena which are natural and readily understood.

The parapsychologist (and here, I admit, I am taking a bit of a liberty with John 12 in order to make a point) has no explanation of the phenomenon, but he cannot deny that something has happened, so he takes it at its face value and may even give a non-explanation of it in order to make the incredible sound more acceptable. "An angel spoke to him." Yes, there were words and they made an intelligible message.

There must have been something objective about it. We can't see how it happened, so we will use a term to describe it, *angel*, which leaves things open, but doesn't really explain. Parapsychology is full of descriptive terms which do no explaining, but they do have the useful function of allowing us to speak of the otherwise unspeakable. Telepathy, ectoplasm, psychokinesis, morphic resonance, synchronicity; they are no more than labels put onto exhibits in a museum of curiosities, but at least they allow us to put similar exhibits in close proximity, and one day we will find an explanation which satisfies instead of simply describing.

The religious explanation puts the whole thing into personalistic and purposive terms. Clearly, the author of John's Gospel wants his readers to believe that God answered the prayer of Jesus and, for him, that is a sufficient explanation. The world and everything in it is to be seen as an outworking of the purposes of God. He created it, for reasons best known to Himself, and that is why everything in it is the way it is. No other explanation is necessary. If we can discover the purposes of God, we shall understand as much as we need to understand about the world.

Thus we see how a single incident can be explained to the satisfaction of different kinds of people in very different ways. Each explanation starts from different premises and takes quite different backgrounds of thought for granted.

I am a member of a diocesan team of advisers on psychic disturbances and the same kind of possibility of multiple explanation is constantly with us as we seek to bring relief to troubled people. For example, the typical poltergeist case to which I may get called (the typical case, not the outstanding or untypical one that is so interesting that it gets written up and published in a parapsychological journal) can have the same three types of explanatory framework: rationalist, parapsychological, or personalistic. Inexplicable noises and bangings in the house have made the people who live there get jittery and from that point the whole thing begins to build up. Maybe it remains on the purely auditory level, but sometimes there are reports of things being lost and found, or moved, or even thrown around. Eventually, there may be a sighting, usually of an ill-defined gray figure not seen particularly distinctly and not doing anything in particular except, perhaps, gliding across the room and disappearing. The family takes all this in a manner which is anything but calm, scientific and unemotionally intrigued. It is usually terrified almost out of its wits. Eventually, the local vicar is called in. If this happens, the invariable request is for him to exorcise the place and get rid of the spirit that is troubling it. In other words, it is the

personalistic model which comes immediately to the lay mind and it is in terms of this model that relief is sought.

If the local clergyman calls me in to advise, he will find that my initial approach is rationalistic. What natural kinds of bumps and squeaks in a house could possibly have been misinterpreted as evidence of personal activity, or what kinds of human activity could have been misinterpreted as the activity of spirits? What is there about this particular family in this particular house which has enabled this particular misinterpretation to be held? Is there someone in the family who, consciously or unconsciously, is putting on the show and hoaxing the rest into believing that they are harboring an ill-intentioned spirit? What (to use a rather portentous term) are the interpersonal psychodynamics of the situation?

Sometimes that rationalistic approach brings relief and, after appropriate counseling, is accepted by the family and lays the ghost. "Appropriate counseling" involves dealing with the jitters that have allowed the misinterpretation to take hold and that may involve the long process of working on the interpersonal psychodynamics to heal the hurts that one member of a family may be receiving from, and inflicting upon, the others. So it is not a simple case of sailing in with a rationalistic explanation and sailing out again with everything done and dusted. It is, rather, a long process of pastoral care in winning the confidence of the troubled family and counseling them back to as close to normality as possible. Professional psychiatric help is often appropriate.

Sometimes, however, the rationalistic approach is not sufficient and the counselor who is alive to the parapsychological possibilities may have to bring that side of things into his reckoning. There may be genuinely paranormally-caused noises as well as the usual sounds of furniture crackling in night-time temperature gradients. There may well be paranormal movements of objects. There may well be paranormal disappearances and apparitions. If he thinks that this is the case, the counselor will then try out a parapsychological explanation on the case. The usual one is that the emotional tensions within the household are becoming so severe that they are being released in a physical form. Emotional or psychic energy has been building up and can only be discharged by conversion into such phenomena as raps, bumps, the malfunctioning of electronic equipment or the movement of objects. If the family can be counseled to accept a parapsychological explanation of this kind, then in the majority of cases the trouble subsides often dramatically and instantly. If a case like this is misdiagnosed as the activity of a *geist* which is poltering about, it could well be that the disturbances continue, and eventually the "spirit" which is causing the

trouble is "seen." In other words, the emotionally disturbed family produces a subjectively-generated hallucination as a validation to themselves that the personalistic explanation of what was going on was the true one. The ghost which appears is characteristically vague and formless and is often interpreted as a "gray lady" or a nun in a long habit because the features and clothing are not properly formed.

A poltergeist which was clearly linked with tensions within a household and ceased as soon as the tensions were resolved, occurred in my area a few years ago. The family in question was befriending a series of troubled characters, including a university lecturer who was in danger of losing his job. One night the seven-year-old son of the family came into his parents' bedroom at 3 a.m. and said he could hear marbles being thrown about. His father thought it was more like wineglasses being smashed and went downstairs to sounds as of a party going on ("except," as he said, "it was more sinister"). The room was empty and the noises ceased on entry. The next morning the lodger, who had been undergoing a particularly anxious period, had a critical interview with his psychiatrist and learned that his job was safe. The noises were not heard again. In this case, I found that the most effective form of exorcism was to send the family a photocopy of D. Scott Rogo's article on "Psychotherapy and the poltergeist" from the *Journal of the Society for Psychical Research* (Vol. 47, 1974, pages 433-46).

Whether the parapsychological explanation of the poltergeist as the externalization of internal emotional tensions is an explanation or simply a description of the inexplicable is, of course, another matter. Whether we call it a poltergeist or an example of recurrent spontaneous psychokinesis, we only satisfy those who wish to be satisfied by such phrases. What is important to the family concerned is that the explanation has brought relief from an otherwise intolerable situation. What more do we want? We ask no more than that of our psychiatrists. They do not deal in explanations, but in the relief of misery. Whatever works, satisfies.

There are other occasions on which the third, or personalistic, type of explanation will seem the most appropriate. J. Stafford Betty records a case in the October, 1984 issue of the *Journal of the Society for Psychical Research* (Vol. 52, pages 345-365). It has come in for criticism in a more recent series of notes (*ibid.*, Vol. 53, 1986, pages 87-100 and 248-54) and Dr. Betty seems to me to have got the worse of the arguments, but if he is correct in his assessment of the case, the woman for whom the house in question was built seems to have impressed her personality on it so strongly that when she died and the property changed hands, she had to let the new occupant know just how un-

welcome her rearrangement of the bungalow was. Dr. Betty believes that this case fits the hypothesis of a "discarnate agent" as the cause of the poltergeist disturbances better than it fits an explanation in terms of the emotional strains on the new owner who moved into the bungalow after the earlier owner had died. Where I part company with him is when he goes on from there to demand a single explanation for all poltergeist cases and, on the evidence of the case he has just put before us, to demand that that explanation be the one which in his words "puts the geist back into poltergeist." I am not so single-minded a proponent of the law of parsimony. Procrustean beds make inconvenient furnishing for our mental rooms. Better to retain a variety of possible options and be free to treat each case as best befits its unique combination of features. Some poltergeists seem to demand the hypothesis of a discarnate agent. Many do not.

The same range of alternative explanations is available when one considers the possibility (or not) of a rite of exorcism as a way of curing a psychically disturbed person. To some people, the existence of demons and the possibility of their taking up their abode within the bodies of human victims is basically likely and scripturally attested. Not only so, but actions based on such premises are shown to have positive therapeutic effects. Yet, to other people the successes of exorcists are due to collusion with the mistaken views of their patients and an understanding and an explanation of what is going on will move within an entirely different universe of discourse, a discourse which uses such terms as "possession syndrome," "hysterical dissociation," "multiple personality," or "delusional beliefs."

And so we might go on, multiplying examples to show how it is possible to look at the same phenomenon and yet look for understanding and explanation in vastly different ways. It is time, however, to look at parapsychology and ask what is the proper—or, for that matter, the most profitable—kind of explanatory model to aim at when we are constructing our theoretical edifices. Are parapsychologists to ally themselves with the mechanistic or the personalist type of theorizing?

During the course of the last century, parapsychology has tended to look in the mechanistic rather than the personalistic direction in its search for understanding. That may have been because it thought that personalist explanations were using far from irreducible concepts; but my guess is that the real reason was that personalist ideas are too close to religious ones and parapsychologists fear that contamination from that direction would make it unacceptably suspect in the scientific camp. Science has made its most startling advances where it has dealt with numbers and precise measurement and where the personality of the

experimenter has been treated as an irrelevant matter external to the experiment and of no scientific interest. If only parapsychology could become as reputable as physics or engineering, then the scientists would really have to take its findings seriously! After all, parapsychology started in the late 19th Century as a reaction to religious and quasi-religious assertions and counter-assertions, in the hope that an investigation "without prejudice and prepossession, and in a scientific frame of mind" would be able to solve in a generation what religion had argued about since the dawn of time. So it was that in the 20th Century the study of spirits and mediums declined and the study of card-guessing and statistical analysis took its place. F. W. H. Myers could entitle his classic *Human Personality and its Survival of Bodily Death* (1903), but J. B. Rhine gave up on that topic because he thought the prior questions had not been properly asked. So survival of death figured less and less in the indexes of the parapsychological journals and even human personality seemed to be lost in psychological aptitude tests and multivariate inventories which could be statistically analyzed.

The determination that parapsychology should be scientific and the equation of science with enumeration rather than description, led to the wild-goose chase described in an earlier conference in this present series—that for the repeatable experiment. The "Repeatability Problem in Parapsychology," however, was only a problem because the terms of the question, the rules of the game, were set in the language of mechanism rather than of personality. Parapsychology should be scientific, yes, but "scientific" does not only mean "mechanistic and numerical." "Scientific" should mean "investigating phenomena with tools and concepts appropriate to those phenomena, and not with inappropriate tools and methods." The biological sciences are much less mechanistic than the physical ones, and it can be seriously argued that (for example) medicine is not a science but an art. We need to match the subject we study with the method we use to study it; it is seriously unscientific to try and study a subject with an inappropriate method. The results will often tell you more about the method than the subject, as with the amateur marine biologist who dredged the seabed with a net with a three-inch mesh and came to the conclusion that the sea contained no creatures less than three inches long. Similarly, if we study parapsychology as if human subjects are clones which can be put into the same functioning position by simply being put into the same experimental set-up, we will conclude that we cannot get a repeatable experiment. Once we realize that people exist at a level of complexity unimaginably greater than that of metal bars in an engineering laboratory, we can give up the search for the repeatable experiment without

thinking that we are giving up on the scientific method. Repeatable experiments are all very well at lower than personal levels. By the time the personal level has been reached, there are so many hidden variables that the conditions can never be the same in any two experiments, so the results should never be expected to repeat themselves. Perhaps that can free parapsychology from the delusion that it will only be scientific if it is statistical and numerate and that it will only be accepted by the scientific establishment if it can repeat its findings at will.

A living human can be studied either as an organism with a mind and purpose, in which case the proper questions to ask will be questions couched in terms of purpose—teleological questions; or it can be studied as a set of electrophysiological reflexes, in which case teleological questions are an improper intrusion and the questions we need to ask are those about ion potentials and chemical reactions. Neither set of investigations will tell you the whole story about the body in question. Each will tell you things about the organism which make sense in terms of the way the questions were framed and make no sense at all if the wrong terms are used. The same complementarity seems to go through science at all sorts of levels. At the subatomic level there is the old question of whether the electron is a wave or a particle. That depends on whether you ask it questions in wave language or in particle language. At another level, the psychiatrist can cure his patients either by using a Freudian approach or by a Jungian one, and he asks different questions in each case.

We need to realize that as the subject under investigation becomes more complex, so the range of proper questions to ask of it will vary. Questions which it is entirely proper to ask of living cells are entirely improper to ask of a subatomic particle; questions it is proper to ask of a race or society may be meaningless if asked of an individual. If, therefore, parapsychology is studying the interactions between a sentient human being and his environment, it is proper to ask questions which are relevant to sentience.

Roger Sperry, Nobel laureate, has some wise words on this subject in the series of Isthmus Lectures published in the Summer 1983 issue of the *Journal of the Perkins School of Theology* (Volume 36, No. 4, pages 21–32). He was arguing against the view that sees the laws and forces of the universe as blind, impersonal and without feeling or purpose and that tries to explain everything in the value-devoid, quality-devoid concepts of quantum physics. Those concepts, he said, are all right when they are used in quantum physics, but when we move up the scale from the sub-atomic to the molecular, and from the molecular to the living, we find that what becomes significant are things like



spacing and timing, and that the special forces which distinguish living things from the non-living are emergent, holistic properties of the living entities themselves, which have to be considered as wholes, not as irrationally thrown-together concatenations of parts. And (page 25), "these higher, vital, holistic phenomena and properties of living things are just as real, and just as cause-effective, and deserving of scientific recognition as are the properties and laws of molecules and atoms, or electrons and protons." The point here, Sperry continues, "is not only that new forces and new laws of the universe emerge at higher levels and that the higher cannot be fully explained or understood in terms of the lower. . . . The further point . . . [is] that in the reciprocal interaction of lower and higher levels the higher laws and forces (once evolved) exert downward causal control over the lower forces. The lower level forces in any entity are enveloped, overwhelmed and overpowered by the higher."

Mind exists and can control matter. Dualism is a legitimate option. Is there also an entity at a higher level which can control mind? To ask such a question does not immediately give the *carte blanche* to any spiritistic theory within parapsychology, nor does it say that we don't need to postulate that the laws of physics operate on human material. Sperry has already (page 23) had a strong swipe at "myths of heaven, hell, astrology and the hereafter, witchery, the occult, the mystic, the paranormal and everything else that modern science rejects." But what it *does* allow (and in so doing, shows that that swipe of Sperry's is unnecessarily constricting in its effects) is the investigation of all these doubtful realms, providing the method of investigation is appropriate to what is being investigated. Examples of inappropriate argumentation are those people who think they can legitimate the Biblical miracles by extrapolating the quantum view of subatomic particles to the macroscopic world, without taking any account of the effects of probability theory on the change in scale; or those who are so blinded by the second law of thermodynamics that they cannot believe that purposive organisms can order their environment in such a way as to prevent its entropy rising. It is not that quantum theory is wrong because it cannot handle pattern factors, nor that pattern factors are illusory because they cannot reduce to quantum effects. Neither is wrong and we need both—at the appropriate level of complexity. If we are to explain and understand the world around us we need a hierarchy of explanations which are not mutually exclusive, but in which the higher control the lower, so that there is room for blind chance when blind chance is the appropriate explanation and for purposiveness when there is evidence of purpose.

This kind of understanding may help to free parapsychology from undue dependence on laboratory experiments of contrived simplicity, and enable those who want to study it *in vivo* and to ask questions about how psi operates in real life situations, to do so without feeling that they are the unscientific poor relations of the laboratory statisticians with their card-decks. Perhaps we might even replace the Zener card with the Tarot card and find better evidence for precognition! We could even find ourselves asking some of the questions the early pioneers asked about human personality and its survival of bodily death and get a little further towards an answer than they did.

If, however, we try to do so, we shall come up against what is the real bane of parapsychology—the search for the unambiguous result. In the Rhine era, the ambiguity was over whether experiments were explicable in terms of telepathy or precognition or psychokinesis, and it seemed that it was just not possible to produce a set-up sophisticated enough to be explicable in terms of one of these concepts and absolutely and logically impossible in terms of the others. That led us to talk about GESP because the ambiguity of explanation was irreducible. When we go on our search for proof of survival of death, it seems that, logically speaking, our results are just as ambiguous. The super-ESP hypothesis will never be got rid of. Somehow, for any single datum within parapsychology, there is a multitude of logically possible explanations. Some of those explanations may seem to us more likely than others—for myself, for example, I still find survival a more likely explanation than super-ESP—but the point is that each alternative explanation is logically possible, and we need to move higher than the formal logic of experiment and deduction if we are to decide which explanation to accept.

This may seem unsatisfactory, but it is a situation with which we have lived for long enough to have to begin to accept it as an irreducible datum, the one assured fact which has emerged from a century of parapsychology. If we *did* accept it, it would be a liberating discovery which could stop us driving parapsychological research up innumerable blind alleys. The same sort of thing happened to the idea of the unavailability of having to deal with probability-distributions within quantum mechanics. Einstein could not stomach that idea and was wont to protest that “God does not play at dice with the universe”; but in the end it had to be accepted that, at the quantum level, certainty was an inappropriate concept and all we could meaningfully talk about was a probability-distribution. I suggest that multiple explanations in parapsychology are as irreducible as probability-distributions in subatomic theory and that we shall never succeed in devising an experimental set-up, for example, that will prove telepathy without a peradventure of

a suspicion of PK, or that will prove survival of death without a suspicion of the data being explicable by super-ESP. So stop trying to do the impossible and instead spend your time exploring the psychic dimension in its natural habitat, to see whether you can find an explanation of your data which fits into a total picture of the world, a picture which hangs together in a convincing way.

What will convince as a total picture of the world? Here we come to the highest and most all-embracing of the levels of complexity about which Sperry was talking in his lecture. The explanation which brings us the greatest understanding will be the one which resonates best with an overall world view which we accept because it makes sense to our whole lives. The basic premise of such a world view is beyond our capability to question, because it is as basic a premise as the answer to the question "Why is the universe here at all?" For Sperry it will be the premise that the universe as a whole is rational. For the theist it will be the premise that behind the universe is a purpose which is, at least, personal. For the Christian it will be the premise that that personal purpose can be scaled down to human understanding as the Father of Jesus Christ and the originator of the Holy Spirit. But such explanations are on a scale far beyond anything that is empirically provable. They have to be accepted, if they are acceptable, simply because to do so gives a frame of reference within which the phenomena of this universe (each at its appropriate level) can be fitted in a rational way. The religious word for such an attitude is "faith," but it is an attitude which is appropriate in secular and scientific settings as well as in religious ones. "Faith" is a stronger term than the word "belief." It has overtones of "trust" and of the commitment of the person who exercises it—commitment which is shown by his actions and his life-style. We have faith in the rationality of the observed universe. We have faith that at some stage those awkward phenomena of parapsychology can be fitted into a world view which will be acceptable to hard-nosed scientists without denying either the reality of experience or the rationality of the universe.

My faith is that it is proper for the parapsychologist to ask the questions which his discipline raises, because there is a level at which only the parapsychological question makes sense. At a different level the laws of physics and chemistry may be sufficient, but when one brings the sentient human mind into the equation, we are on a different level. The data of parapsychology show us that there are situations in which the explanation which is couched in mechanical terms or physical or chemical terms, is too simple to be satisfactory. A sentient mind can, for example, arrange its environment so that within a predetermined

space the entropy diminishes instead of increasing. That doesn't disprove the second law of thermodynamics; it only shows that at an appropriate level of complexity that law does not have the final say. Similarly, it may simply be the case that laws which say that telephones only ring when the right circuit is activated by a caller, or that ornaments stay on a mantelshelf unless someone pushes them, do not apply in a particular set of circumstances involving a particular arrangement of human beings in a particular relationship; or that the laws of information transfer do not hold when psychic sensitives are around; or that there is a power behind the universe which can on occasion alter the physical configuration of spaces within that universe. The laws of physics and chemistry may apply when the parapsychological complexity has been leached out, just as Newton's laws are good enough for situations where the Einsteinian sophistications are too small to have any effect. As a parapsychologist I do not find that unlikely.

Besides being a parapsychologist, I am also a man of religion. There, too, I have questions to ask of the universe and I ask them in terms of personal (or super-personal) purpose. I find that at that level, personal questions make sense and the answer my religion gives is an answer that satisfies me as to why there is a universe at all and why I am a part of it. But the answer only makes sense on religious premises, at a level of complexity and organization at which I can speak of the purposive creator of all that is, from the subatomic to the interstellar. But that's another matter, which would suit a religious conference better than a parapsychological one. I have said enough for the time being.

### DISCUSSION

HALL: I liked your paper very much, Michael. I have two major points that I would like to talk about. One is an emphasis on the personal and the uniqueness, the individuality of the person that has to be taken into account in laboratory experimentation. The other is an emphasis on the universe as consisting of hierarchical levels. Now you mentioned Roger Sperry. The year after Sperry spoke at the Isthmus Institute dialogues in Dallas we had a session on parapsychology, which has not yet been published. At that Robert Jahn of Princeton made a very great impression with an emphasis on what he called personal signatures of a particular subject over an immense number of runs that he did with various unselected subjects. Now that seems to me to be some of the best data, showing a very individual variation that can be measured

in parapsychological performance. It goes a long way toward emphasizing the individuality of things. Now the second point, the hierarchical levels. It seems to me that one of the difficulties that we struggle with is that the universe may very well be set up that way and that what physical science looks at are those levels beneath the human. Those appear to be substrates of human consciousness. In Polanyi's sense of marginal control, the disruption of the lower level will cause the loss of the higher level. But it will not allow for the emergence of the higher level, it will not explain the emergence of it. And what we are dealing with in parapsychology is the view from the human level, not down like physical science, but up toward the emergent realities of individuating growing human nature. It is in that direction that such concepts as God and religious language become important. Now one last comment and this applies also to Steven Rosen's paper on the non-dual duality. It seems to me that Jung's concept of the psychoid nature of the archetype goes very far to cover both the non-dual duality and this problem of emergent levels from the human, the need to look that way in parapsychological research instead of to levels beneath the human.

PERRY: Thank you very much, I am with you in that. I am glad you have picked up those two particular points about personality and the hierarchical nature. I think what I have done in the paper is to work with the hierarchical nature of the universe in terms of the way in which science says we must use concepts appropriate to the complexity of the particular situation. Therefore, we can use certain concepts at a subatomic level, others at a chemical level, still others at a biological level, at a human level, at a societal level. What I have tried to do, whether legitimately or not, is to extrapolate from that and to say that as a parapsychologist I see that there are certain concepts which parapsychology has not entirely taken on board which show that we are dealing with human beings rather than mechanisms. And then, to extrapolate even further; as a man of religion I want to add a further level to that, wherein I can bring in my concept of the God behind the Universe who is not necessarily either matter or spirit or mind, but something above and beyond and hierarchically controlling. One gets the hierarchical control as you rightly say from above rather than from below. What we have not yet explained and do not yet really understand is why those different levels emerge and what happens at the border between the levels. What happens at the border between the level of the subatomic and the atomic? What happens at the level where probability is occasionally determining, but not always determining? Have we perhaps got something happening at the interface between levels

which causes mental effects to have physical concomitants in the neurones of the brain? Again, are we in some of our parapsychological experiments just on the border line between the human and some other hierarchical level? Those are the questions which excite me at the moment, but I do not really see an explanation for them. I am simply using words in order to try to come to terms with what I find it very difficult to think about.

ROSEN: The comments just made are extremely interesting. Earlier, Michael, I thought you were describing a neatly stratified hierarchy which sounded rather linear to me. From that point my thoughts turned to modern hierarchy theory, which, instead of neatly stratified and well laid-out hierarchies, speaks of "twisted" hierarchies. This is a more recent cybernetic concept. Then you spoke of the all important "twilight zone" between levels. If one is going to shed any light on that region between, one cannot rely on a linear concept of stratified levels. One's thinking has to become somewhat more "perverse" about the nature of hierarchies. Perhaps we need the notion of twisted hierarchies and hierarchies that collapse and hierarchies whose levels penetrate one another. This might illuminate the question of what lies between the levels, whereas the ordinary concept of stratified levels blocks that understanding.

PERRY: We are very neat and tidy creatures by nature, or perhaps I am by nature a neat and tidy creature. I like to see everything properly boxed up and produced in a gift pack. Unfortunately, reality isn't like that. My temptation is always to oversimplify reality, for instance, by talking about appropriate levels and appropriate concepts. Then I have to remind myself that where it really gets interesting is where you are in between those levels. There are some places where the levels work very happily indeed. Parapsychology, religious miracles and so forth are at inter-levels. When you talk about the twisting back, we come to the Moebius strip again and the Klein bottle and what have you. Yes, indeed, this is where the puzzlement begins, because that is where the tidiness of my attempt to put meaning and understanding within the Universe begins to break down. Perhaps we ought continually to remind ourselves that everything is a mystery. The Universe is not quite as neat and tidy as we try to make it appear.

HALL: I wanted to see if I could enlist Dr. Servadio in the discussion of hierarchies. It seems to me that one of the most subtle points of observation about the emergence of more comprehensive wholes out of lower levels is in the psychoanalytic process, where one deals with a great deal of ambiguity about what is the real identity, what is the real point of reference. That is an area that is very personal, as Michael

has emphasized, and it is intended to be scientific. It is very difficult to speak of in the abstractions of theoretical discourse. I wondered if there was anything that you might say from that point of view?

SERVADIO: The only thing I think I know, is that Freud went far to formulate his theory of sublimation, but at the same time his students were never able to give a reason for the process of sublimation in a way that did not call in something that is spiritual, to use the well known word. Recently, I published a paper in an Italian review of psychoanalysis trying once more to go beyond what has been said about the sublimation process by very well known psychoanalysts, among them Edmond Bergler for instance. I expounded my views on the sublimation process saying finally that one could not completely understand sublimation if one went on to neglect some spiritual springs which are the origins and the roots of the sublimation process. This article, first of all, was presented to an Italian psychoanalytic congress and then it was published by a psychoanalytic review. It aroused no sharp criticisms or rebuttal from my psychoanalytical colleagues. As I say, this is by far the most that has been done about this particular problem.

BALDUCCI: Preternatural can not be considered as an hypothesis of explanation, because thanks to parapsychology the hypothesis of explanation must be natural. To recognize the preternaturality it is necessary to prove it in each case. The instrument of such demonstration is psychiatry and particularly parapsychology. It would surely be unwise for a scientist to deny a priori the existence of preternaturality. If God and the angels, the demons and the souls of the dead are reality, who then can prevent them from operating, even in very exceptional situations? The scientist gives us the possibility of discovering one, two, three cases, but does not give us the hypothesis of a solution because hypothesis is not for one case, is not for one type of phenomena. So I am glad because in your paper there is another voice after mine to tell scientists not to forget God as a solution, as a hypothesis, an explanation. The possibility of the intervention of God is very rare and we cannot ask scientists to design an instrument to recognize God's role.

PERRY: I think that begins to talk in the same terms as the pantheist terms that we heard in the first lecture this morning. Not that science is one explanation and God is another alternative explanation, but rather that they are hierarchical and that scientific explanation is to be seen within an explanation which sees God as the relationship which envelops and controls all the rest.

BALDUCCI: I did not approve at all of the pantheistic explanation. In the Catholic Church the pantheistic view is condemned by the Holy Office. There are two things I want to tell you. The first thing is about

the replicability problems in parapsychology. Parapsychological phenomena derive mainly from the spirit. But we cannot forget that the body is also important. In mystic philosophy and theology there is separation of the spirit and the body only after death. In life there cannot be a total separation. There can be some independence from the body as an instrument. It is the exertion of this independence of the spirit from the body that, for me, is the explication of parapsychological phenomena. I devote many pages to this point in my publications, *Gli Indemoniati* and *La Possessione Diabolica*. Replicability will be possible, not like in physics, but something there will be. Also I think that replicability is one of the reasons for science to study the phenomena. If it is not possible to have a minimum of repeatability, maybe science cannot study it. That is one point. The second point is in answer to your statement that "after all parapsychology started in the late 19th Century as a reaction to religion." I don't think so. Do you have the proof to defend this? For me parapsychology is a discovery of the spirit. It came in the last century after a period of rationalism. This is proved by the fact that when parapsychological phenomena appeared the first explanation was religious, the spirits, spiritism. The scientific explanation after spiritism was not materialistic, it was spiritual. I think that everybody was thinking that the origin of parapsychological phenomena was the spirit. There were two spiritualistic orientations, animistic and physiological. We can't forget these points of explanation.

PERRY: As I read the early history of scientific parapsychology it was an attempt to apply the scientific method where the religious method had not succeeded in reaching certainty. The religious method came a generation earlier in spiritualism and was still leading to so much doubt that the early founders of the Society for Psychical Research, though they were religious-minded people, wanted to use the scientific method rather than a religious method to arrive at truth. The rest I think we must leave as time has defeated us.