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CONFERENCE REPORT

Rational Perspectives on the Paranormal: A Review of the Perrott-Warrick Conference Held at Cambridge, 3–5 April 2000

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Introduction

In April 2000, a conference was held in Trinity College, Cambridge, entitled "Rational Perspectives on the Paranormal". It was a rather unusual meeting, in that it was a conference *about* parapsychology rather than a meeting *for* parapsychologists. The *50* participants were almost exclusively academics and reflected a balance between active parapsychologists, informed sceptics and interested outsiders. It was therefore an interdisciplinary meeting, with the contributors coming from such diverse fields as physics, psychology, physiology, neuropsychiatry, philosophy, anthropology and parapsychology itself. It was hosted by the Managers of the Perrott-Warrick fund, and I was organizing the meeting in my capacity as Perrott-Warrick Secretary. This fund derives from bequests to Trinity College from Frank Perrott in 1937 and Frederick Warrick in 1956 for "the investigation of mental or physical phenomena which seem *prima facie* to suggest the existence of supernormal powers of cognition or action in human beings in their present life, or the persistence of the human mind after bodily death". Over the years it has supported a wide range of researchers at both senior and junior levels, but this was the first time it had been used to support a conference.

The rationale for the meeting was described by the Perrott-Warrick Chairman, Horace Barlow, in his preface to the programme. The question of whether supernormal powers of cognition and action really exist probably divides educated members of modern Western civilisation as sharply as any other issue. If it is true that the human brain can receive messages and control things paranormally (i.e. in ways that cannot be explained in terms of presently understood science), then this undermines the beliefs of most scientists and runs contrary to the experience of almost everyone who actually investigates the brain. Sceptics may take the view that one may expect many things to occur that

seem to be beyond normal explanation, simply because one underestimates the conventional inferential powers of the human mind. On the other hand, what is considered normal has changed a great deal over the past century and will probably change even more in the future. We should therefore also extend our scepticism to arguments for rejecting the paranormal out of hand. In particular, we should recognize how little we understand the phenomenon of human consciousness. Until we can fit *that* better into a rational scheme of things, we cannot dismiss anything that involves consciousness simply because it requires acceptance of what is currently regarded as paranormal.

Professor Barlow's preface also stressed that we should be sceptical about explanations that claim to be entirely rational, because we rarely, if ever, have all the evidence required for a fully rational belief. In particular, we are very prone to accept as rationally valid the commonly held beliefs of our own particular 'tribe'. We are extraordinarily social animals and, whether we like it or not, our views are centred on group opinion, from which we can deviate only a little. This means that beliefs held to be rational are often inconsistent with each other and vary with time and place in a way that they could not if they were really determined by reason alone. Therefore we should be sufficiently open-minded to accept the possibility of paranormal powers and sufficiently critical to abandon claims for their existence if shown to be false. Progress will be made only when we can decide one way or the other, but there may be many cases where the verdict will have to remain 'unproven' for quite a while.

One of the aims of the meeting was to learn about recent developments in the field from parapsychologists themselves and to discern how their claims, if true, might affect our view of the world. For this reason about a third of the participants were active parapsychologists. Of course, many people question whether paranormal phenomena exist at all, so it was important to hear the counter-arguments. Although this was not intended to be a confrontational meeting, a number of informed sceptics were therefore present and invited to voice their criticisms. The other purpose of the meeting was to provide an opportunity for interdisciplinary dialogue between people inside and outside the field. On the one hand, it permitted experts in the subject to address a wide range of open-minded and influential scientists from other disciplines. On the other hand, the outsiders were able to describe *their* perspective of the field and give their views about what directions it should take in the future.

The conference comprised seven presentation sessions, each of which consisted of a number of talks focusing on a specific theme. The successive themes were: the connection between parapsychology and mainstream psychology; weighing the evidence for psi from laboratory studies against criticisms from the sceptics; possible links between psi and physics; relating psychic experiences to our current knowledge of physiology and neuropsychiatry; cultural and historical aspects; the evidence for survival and spontaneous (non-laboratory) phenomena; and philosophical considerations. Three of these sessions were followed by general discussion periods, in which points raised in the

presentations could be debated in more detail. There was also a final discussion on the future of parapsychology. Due to the interdisciplinary nature of the meeting, talks were non-technical and relatively short. However, for those with physics backgrounds, a specialised workshop took place on the second evening.

It is not clear to what extent the meeting succeeded in its purpose. Some of the parapsychologists may have been disappointed that the sceptics did not change their views more, but there was only time to present a small fraction of the evidence for psi, so perhaps this was unsurprising. Also, some aspects of the subject (e.g. the anthropological and philosophical ones) were dealt with only superficially, another consequence of the meeting being so short. Nevertheless, the fact that the conference was hosted by Trinity College—with a fair sprinkling of Nobel Laureates, Fellows of the Royal Society and Knights of the Realm—was itself something of a public-relations achievement. It was also gratifying that a whole page was devoted to the conference in Physics World (a prestigious professional science journal), with some follow-up coverage in the *Guardian* (a British national newspaper). The existence of psi may still be controversial, as evidenced by some of the exchanges at the meeting, but at least inquiry into its possible existence seems to be gaining respectability.

Parapsychology and Mainstream Psychology

The first day provided a general introduction to the subject, with particular emphasis on attempts to study paranormal phenomena in the laboratory. This is the main focus of university-based research. This emphasis was timely because one of the most striking developments in the last decade has been the extent to which the subject has now attained academic acceptability—at least in the UK. As discussed by Matthew Smith, in his overview of UK-based research, this is reflected by the fact that a large number of people (about 50 in the UK alone) have now obtained a PhD in parapsychology, many of whom have gone on to obtain permanent academic positions in psychology departments, where they give lecture courses in parapsychology, continue to pursue their research in the subject and supervise PhD students of their own. The emerging picture is a very promising one, with parapsychology being incorporated within mainstream psychology and gaining respect as a valid area of investigation.

The Perrott-Warrick fund can itself take some credit for this; directing money to people working in universities was always seen as a sensible strategy to bestow the subject with academic respectability. Indeed, many of the first PhD students in parapsychology were supported by it. Donald West, in his review of the history of the fund, noted that both Perrott and Warrick were interested in Spiritualism, but the purpose of the fund goes well beyond this, so that the money has been used for a broad range of projects under the general umbrella of psychical research. In the early years the funds were used almost exclusively to support students, but the income of the endowment has steadily increased, so that it is now able to support senior academics as well.

The main reason for the encouraging state of affairs in UK universities, however, is the pioneering efforts of Robert Morris, who holds the Koestler Chair at Edinburgh and supervised many of the first PhDs. The cautious approach to the subject which characterizes his school has won the field new-found respect, as emphasized by the fact that he recently served as President of the Psychology Section of the British Association. It was therefore very appropriate that Professor Morris himself continued the theme with his discussion of what areas of research are pertinent to the future of parapsychology. He highlighted the importance of developing research strategies which are in line with generally accepted principles of scientific methodology, maintaining a balance between adequately controlled experiments and the need for ecological validity (i.e. some connection with the phenomena observed in the outside world). Professor Morris discussed some of the research that he and others at Edinburgh University were currently undertaking, emphasizing how this was part of a bigger, international effort. One of the main areas of interest was to develop means of discriminating between what is not psychic but looks like it and what may reflect genuinely new means of interaction beyond those presently understood by science.

The way in which the methodologies introduced in parapsychological experiments can contribute to other fields of psychology was discussed by Caroline Watt. Over the years there have been many criticisms and challenges to methodology and the field has responded with ever tighter protocols, which diminish room for fraud and error. This has particular implications for mainstream psychology, which Dr. Watt believed had benefited greatly as a result. She highlighted four features of parapsychology which are relevant here: mental phenomena; controversial claims; empirical questions; and repeatability issues. It seems that parapsychology has great value in its contribution to mainstream science, as well as playing a unique role in the investigation of anomalous phenomena.

Evidence for Psi from the Laboratory and Criticisms of This

There was not time to review all the developments in experimental parapsychology, so the first afternoon session focused on two particular ones—DMILS (Direct Mental Interaction with Living Systems) and Ganzfeld. These have been the focus of intense activity in laboratories throughout the world over the last few decades and perhaps come closest to providing evidence for a 'reproducible' effect. (Later speakers discussed evidence for psi from psychokinesis and remote-viewing experiments.) The talk about DMILS was presented by Deborah Delanoy, who had recently been appointed Professor of Psychology at University College Northampton. These experiments look at the interaction between an individual's cognition and the psychophysiological responses of another sensorially isolated living system (such as the galvanic skin response of another human being). She described the results of more than 50

double-blind experimental studies in both Europe and the USA which have pursued this approach and obtained significant results. Of particular interest were 'staring' experiments, in which one person observes another person through a video camera and tries to influence them remotely.

Adrian Parker then discussed the Ganzfeld findings. This method has been used since the 1970s to assess telepathic communication in a laboratory environment. It attempts to enhance anomalous cognition by using a combination of aural (white noise) and visual (diffuse pink light) sensory backgrounds to induce a special state of consciousness in the subject. The agent is then presented with one of four picture targets and the subject later tries to identify the correct one on the basis of impressions received during the session. Dr. Parker emphasized the need to discover something new about the Ganzfeld and reported on his own experiments at Gothenburg, which were oriented to this goal. These experiments involved using movie clips as targets and had achieved a 40% success rate (compared to the 25% expected by chance). For the purpose of analysis, the subjects' impressions were superimposed on the film in real time and a qualitative analysis of the best hits showed that many correspondences occurred at the correct time. This suggests that psi-mediated information may be processed in similar ways to normal perception.

How convincing is the evidence that these experiments provide for paranormal powers? In the second session of the afternoon, three well-known sceptics who had studied the subject matter in depth raised questions about this. The first was Richard Wiseman, the current Perrott-Warrick Scholar working at the University of Hertfordshire. He spoke of the value of scepticism in modern parapsychology, emphasizing the importance of having a balance of viewpoints in such a controversial field. The influence of sceptics had led to increased rigour in parapsychological research methodology, with an increased understanding of deception and self-deception from work with fraudulent or potentially fraudulent psychic claimants. He also stressed the value of work undertaken jointly between proponents and sceptics of psi. This is especially important in a field where the results of laboratory studies seem to depend on the experimenter's own expectation (the so-called 'experimenter' effect). He cited the example of his own work with Marilyn Schlitz on the staring effect, in which they had used exactly the same methodology but elicited different results—he did not find psi, whereas she did.

Chris French is another sceptic who aims to assess parapsychological claims via a combination of his own experiments and critical perusal of the literature. He runs an Anomalous Psychology Research Unit at Goldsmith College, London, and his activities qualified him well to assess both the positive and negative aspects of scepticism. He also discussed the history of scepticism about the paranormal and described where it stands today. The role of groups such as the Committee for the Scientific Investigation of Claims of the Paranormal (CSICOP) was examined and possible insights from the study of the psychology of belief and disbelief were discussed.

David Marks drew a distinction between exceptional *experiences* and how those having such experiences *interpret* them. Summarizing the contents of his recent book on the subject, he discussed what he saw as the main claims for psi from parapsychologists in the period 1974–1994: remote viewing in the SRI (Stanford Research Institute) and Stargate experiments; Ganzfeld ESP; ability to detect unseen staring; ESP in pets; and the ESP, PK and clairvoyant ability of Uri Geller. In each case he rejected the possibility of genuine psi and argued that normal processes—a combination of methodological flaws, sensory cues, imperfect randomization, selection of best cases, subjective validation, inappropriate statistics, outright deception, trickery and fraud—excluded the need for any paranormal explanation.

Discussion Between Sceptics and Advocates

Ed May emphasized that there were good, bad and indifferent aspects to scepticism. He conccdcd that Marks' criticisms had led to improvcmcnts in his SRI work, but there was disagreement over the issue of subjective validation in assessing remote-viewing experiments. This issue was also prominent in the discussion of the Ganzfeld work. Susan Blackmore felt that the correlations reported in Parker's presentation were unimpressive and just provided information about top-down processing in subjective validation. Parker countered that he was trying to obtain *qualitative* information about ESP in the Ganzfeld and not just increase the evidence for it. Nevertheless, he felt that the correlations between the target and the subject's impressions in real time were particularly impressive. Wiseman argued that the correlations only seemed impressive because they were selected from a large database. His own meta-analysis of the Ganzfeld experiments with Julie Milton suggested that the overall results were not significant. He conceded that Kathy Dalton's results were impressive, but he suspected that there might be no significant effect if these were excluded. Carr asked whether just one successful Ganzfeld experimenter would suffice to persuade the sceptics. Marks felt that two or three might suffice, but what had made Ganzfeld exciting was the fact it was supposed to work for everybody.

Max Velmans wondered why uniformity among experimenters was so crucial because Wiseman's most interesting finding was that he and Schlitz got different results in the same experiment. However, Wiseman stressed that this experiment was only marginally significant. The important point is that sceptics should engage in dialogue with successful experimenters in order to determine what makes them so. Morris stressed that about half the Edinburgh experimenters were successful and they were trying to identify the characteristics of the successful ones. The question was raised of whether subjects need to know about the experimenter's reputation in order for the experimenter effect to work. West stressed that in his studies with Fisk in the 1950s, one of the first investigations to highlight the experimenter effect, the subjects did not know who selected the

targets, but this was not always true in recent experiments. It was stressed that other branches of science are also dogged by the experimenter effect, and Gregory speculated that psychology experiments with deliberately grotty apparatus might get poor results just because of the effect on subject expectation. Fotini Pallikari asked whether parapsychologists who elicit positive results are good or bad experimenters or just involved in the psi process. May argued that parapsychologists have—by and large—more rigorous protocols than psychologists.

Psi and Physics

The second day of the meeting focused on how the study of paranormal phenomena might shed light on or be influenced by other branches of science. Foremost among these is physics, and the whole morning session was devoted to this. This emphasis was well placed because most scientists now adopt a 'reductionist' view, in which the scientific description of the world is seen as a hierarchy with physics at the base. It therefore seems unlikely that parapsychology will ever be accepted as part of mainstream science until there is some physical effect which has been unambiguously demonstrated and which can be described by a theory which makes at least some contact with physics. The fact that the physical world has turned out to be much weirder than common sense would suggest has led some people to argue that there might well be room for the sort of phenomena studied by parapsychology. In particular, concepts such as quantum-mechanical interconnectedness have for the first time hinted that consciousness may play a role in physics. Six well-known physicists discussed these issues but from very different points of view.

Fotini Pallikari reviewed the experimental evidence that mind can produce statistically significant deviations from chance in supposedly random physical processes. She placed particular emphasis on the micro-PK database deriving from the work of Helmut Schmidt and Robert Jahn and co-workers, arguing that one needs some alternative statistical paradigm to explain this. The standard interpretation is that PK produces more 0's than 1's (or vice versa) in a binary output, so that the average shifts in one direction or the other. However, the orthodox analysis does not always reveal such a shift. The new type of analysis is based on fractal theory and involves a different type of deviation from chance. Dr. Pallikari explained that electronic noise (which is used as the source of randomness in most PK experiments) displays features of chaos—with 'windows of order' among the sequences. She claimed that there is a new effect when human intention is applied to random systems, which acts as a kind of 'mental glue', leading to long chains of similar events rather than shifting the overall average. Her analysis may detect deviations from chance even when the old type of analysis indicates no effect on the average.

Three physicists explored the connection between quantum theory and psi. Nobel laureate Brian Josephson discussed how quantum entanglement provides

a new source of connectedness between spatially separated systems. This alone cannot explain paranormal phenomena, but it may be possible to explain the communication aspect of psi if one considers space as a potentially active participatory medium. Professor Josephson argued that this idea could account for the experimenter effect. Henry Stapp emphasized that one must understand normal interactions between mind and matter before trying to model paranormal ones. He presented a formal proof that quantum theory can explain the former and argued that small deviations from the normal rules could potentially account for the latter. On the other hand, Basil Hiley concluded that quantum theory is unable to explain normal mental phenomena and so we certainly need to go beyond this in order to explain psi. He believed that one cannot separate the observer from the observed—mind and matter are two aspects of the same process—and he described the relationship between mind and matter in the implicate order picture of the late David Bohm.

Several other physicists were disenamoured with the quantum approach. Ed May, after describing the SRI remote-viewing experiments and the Stargate work, warned against invoking the 'oddities' of different disciplines in the search for an explanation of psi without sufficiently examining more traditional approaches first. He felt that there were several difficulties with the quantum explanations and described a purely classical model for psi phenomena. He also discussed the intriguing recent claims that there is a strong correlation between psi performance and such effects as local sidereal time and the gradient of Shannon entropy in the target picture.

Paul Werbos—renowned for his contribution to neural network theory—also emphasized that one needs something more radical than quantum theory. Bell's Theorem proves that one must choose among three interpretations of quantum theory: (1) the mainstream view that there does not exist any objective reality at all; (2) non-local realism, which invokes action at a distance; and (3) the backwards-time view, in which local realism is regained at the cost of assuming that causality can occasionally flow backwards. Unfortunately, none of these concepts leads to the kinds of phenomena of interest to parapsychologists. One might imagine that the backwards-time interpretation could help explain the presentiment work of Radin, Bierman and Libet. However, it is hard to imagine how the kinds of apparatus needed to test these ideas in the context of quantum optics could have anything to do with the brain. To admit a broader range of paranormal phenomena, one would have to deviate much further from today's knowledge and postulate esoteric biology in addition to exotic physics. Mental behaviour would seem better described by neural network mathematics than physics.

Psi and Psychophysiology

On the second afternoon, we learnt how recent findings from physiology, perceptual psychology and neuropsychiatry bear upon claims for the paranormal. Many of the speakers in this session were rather sceptical about the

existence of psi and cautioned against unnecessarily attributing experimental anomalies to psychic influences. In any case, the issues raised were of fundamental importance and must be addressed if the field is to obtain general recognition by scientists working in these more conventional areas.

Horace Barlow's talk on normal and paranormal psychophysics focused on the visual system and emphasized that experiments analyzing human and animal responses to very weak visual stimuli had led to surprising but satisfactory physical explanations for the lower limit of what we can see. He felt that there had been many opportunities for psi to interfere in normal perceptual investigations, but this had not yet happened. What is different about parapsychology experiments, he suggested, is the small amount of data, the insufficient effort devoted to getting the experimental conditions 'right' before data collection is started, and the failure perhaps to appreciate how difficult it is to do conclusive experiments using observers who are clever, opportunistic or unconscious cheaters. Also, anomalies remain just anomalies until they can be fitted into a wider framework, so it is unfortunate that the claimed results have not been related more closely to previous knowledge.

Richard Gregory talked about the various kinds of perceptual illusions and their different causes. He stressed that perception is very dependent on top-down cognitive influences. This can affect the interpretation of a signal and produce corresponding cognitive illusions. Illusions may also occur for *physical* (especially optical) reasons, as well as due to *physiological* errors of neural signalling. Professor Gregory stressed that this was relevant to the theme of the conference because knowledge of illusions is important for evaluating reports of paranormal experiences. He felt that there was little evidence for such phenomena. He emphasized how little we know about the brain itself and suggested that we should be redirecting our energies to understanding this intricate organ.

We then heard from Susan Blackmore, whose Research Unit at the University of the West of England was at the time supported by Perrott-Warrick funds. She was interested in those anomalous experiences that are 'on the edge of the real'. Many spontaneous reports of paranormal experiences seem to occur in borderline states of consciousness, such as the hypnagogic state between wakefulness and sleep. Are such experiences due to misinterpretation of a normal event or is confusion between reality and imagination itself psi-conducive? To answer this question, she had solicited descriptions of such experiences and obtained nearly 400 accounts. Surprisingly, the vast majority had indications of sleep paralysis, a state in which the mind is active and the person believes they are awake, but the body is paralysed. She described recent research assessing cognitive confusions between reality and imagination via the induction of false memories. The first set of experiments seemed to find evidence for psi but not the replication studies. Although Dr. Blackmore is sceptical about the existence of psi, her research into anomalous experiences associated with sleep and dreaming illustrates how a sceptic can still make an

important contribution to the subject; by focusing on the experiences themselves, without committing herself to any specific interpretation, she was producing results which are of interest to both conventional psychology and parapsychology.

The neuropsychiatrist Peter Fenwick then spoke on Near-Death Experiences (NDEs). Recent studies have revealed several features of NDEs that do not conform to the usual reductionist view, in which consciousness is no more than an epiphenomenon generated by the brain. For example, NDEs can occur when a patient is unconscious, which is a time when modules of the brain responsible for the construction of the world are off-line, so this implies that NDEs may not be purely subjective. Dr. Fenwick felt that NDEs provide some hope of escape from the 'Galilean impasse' because 'flatliners' should not carry conscious information and yet seem to. Death-bed visions, which occur in the 24 hours preceding death, also raise significant difficulties for the reductionist paradigm because many of the accounts involve some form of paranormal contact with the relatives of the dying person. These are challenging and interesting findings, with an obvious bearing on the 'survival' issue.

Discussion About Near-Death Experiences

Blackmore challenged Fenwick's interpretation of NDEs, because it is not clear whether such phenomena might be due to the sort of brain activity expected as one enters or leaves unconsciousness. Indeed, there might be lower-level brain activity, which would be undetected in the studies described. On the other hand, Blackmore stressed that she did not regard consciousness as a mere epiphenomenon generated by the brain and she agreed that it was important to combine analytic studies of anomalous mental experiences with internal investigations (e.g. via meditation). The difference between Fenwick's and Blackmore's interpretations of NDEs triggered considerable discussion. Some felt that Fenwick's interpretation was just a matter of faith and that there was no need to invoke a metaphysical (untestable) explanation. David Fontana emphasized the importance of the *veridicality* of information obtained during an anomalous mental experience, and this is distinct from the issue of what produces the experience. Blackmore did not accept that there was veridicality, but she agreed that it would be interesting if it could be demonstrated that something was experienced when the brain was dead. West asked about the specificity of NDE reports, wondering how they differed from Fear-Death Experiences (induced when people in lethal situations expect to die but do not).

Gregory pointed out that all sensation is generated by the brain and even most normal perception is 'projection', something which Marks regarded as even more miraculous than ESP. Barlow pointed out that there is considerable uncertainty in how temporal sequence is stored in the brain and queried whether NDEs really occur at the time of near-death rather than being pseudo-memories

generated upon awakening. Marks argued that the same could apply to dreams, but Blackmore disagreed with this and claimed that it is well established that dreams occur in real time. Fenwick felt that Barlow's suggestion and attempts to explain NDEs as a result of anoxia were contradicted by the lucidity and sense of greater reality associated with NDEs, although Tony Percy wondered whether this might just be an artefact of confabulation.

Cultural and Historical Aspects

The final session of the second day focused on anthropological considerations. Although this was a rather short session, it highlighted many of the points underlying the rationale for the meeting. Hoyt Edge presented a paper on the importance of cross-cultural studies in parapsychology. Psychic functioning has traditionally been understood as a mental phenomenon. We can recast parapsychological phenomena as a function of the physical world rather than the mind, but there is a problem explaining psi within physicalism. For example, most non-Euro-American cultures have non-atomistic, non-dualistic (and hence non-physicalistic) worldviews. A study of paranormal functioning in these cultures provides alternative conceptualizations of psi. It also indicates which parapsychological claims are universal and which are culturally constrained.

Annekatrin Puhle discussed changing attitudes to the paranormal from both theoretical and historical viewpoints and asked what we can learn from combining the two. From a theoretical perspective, she claimed that phenomena in general, including paranormal ones, are neither rational nor irrational. Rather, there is a rational decision to declare such events as belonging to reality or non-reality. From a historical perspective, she pointed out the affinity between paranormal phenomena and the ideas of the Romantic period about the unreal world. In particular, she discussed the historical changes in the interpretation of ghostly phenomena. She then combined these theoretical and historical considerations to offer a new perspective on the paranormal.

Evidence for Survival and Spontaneous Psychic Phenomena

The first session of the final day focused on 'survival' research, a topic directly pertinent to the remit of the Perrott-Warrick trust. Laboratory researchers sometimes shy away from this emotive topic—a reflection perhaps of the split which occurred more than a century ago between Spiritualists and the more scientifically oriented members of the Society for Psychical Research (SPR). This tension still persists today because, although the evidence for survival can be studied with the same scientific rigour as the evidence for laboratory psi (i.e. with care being taken to confirm the accuracy of the accounts and the veridicality of the information obtained), its interpretation remains problematic.

Possible evidence for survival comes from two directions: reincarnation

research and alleged communications from discarnate spirits via mediums. Erlendur Haraldsson set the scene for the first by giving a description of his work over the last 12 years with children from a variety of religious backgrounds who claim to have memories of previous lives. Children start speaking of past lives at the age of two or three and the memories usually continue until the age of five. Two-thirds of the remembered deaths are premature and many are of a violent nature. He described several of the 'solved' cases, i.e. those where the story of a child matched the details of the real death of another individual.

Ian Stevenson, the pioneer of research in this area, spoke next and discussed several case studies in which there seemed to be biological markers matching the features of the dead person: for example, whiter skin or a birthmark in the same location as the fatal wound in the dead person. Such cases confound the claims of most modern biologists that genetic factors and environmental influences adequately account for all the differences between human individuals. Examples of this have even been reported for twins. No conjoined twins have remembered previous lives, but two pairs of separated one-egg twins have done so and the lives they recalled seemed to accord with differences in their behaviour.

Archie Roy then spoke about mediumistic communication. Although this area is rather neglected by academic parapsychologists, it is rich in potential and he reviewed some of the best historical cases, as well as more recent studies. There are three possible explanations of the information mediums provide. The first is that it proves that survival of death has taken place; the second is that the information is obtained not from beyond-the-grave communication but via body language and verbal responses by the recipient; the third is that 'super-psi' may be at work, with the medium obtaining information either clairvoyantly from the outside world or telepathically from the memory of the sitter. Professor Roy favoured the survival explanation and discussed some interesting results from recent triple-blind experimental work with mediums which supported this view.

The next session focused on spontaneous paranormal effects (i.e. those which occur in real life rather than in the laboratory). These are much more dramatic than effects observed in the laboratory, but they are also harder to control and the strength of evidence is very dependent on the reliability of eye-witness testimony. Spontaneous *physical* phenomena are particularly controversial because they are prone to trickery. Although developments in modern technology now afford greater sophistication in the monitoring and authenticating of such effects, this is offset by the fact that such phenomena now seem to be much rarer. Particularly striking (and controversial) are the effects which occur in the presence of 'physical' mediums—percussive sounds, movements of small objects, 'materializations' of hands and so forth. Alan Gauld discussed what would constitute good evidence in reports of such dramatic phenomena. He stressed that strong claims in parapsychology require strong evidence and, in cases of physical phenomena, this means recording the events, making sure evidence is backed up and ruling out misperceptions and other interpretations.

He focused on a case of special historical interest: the 'Hope-Rayleigh' investigations of the Austrian medium Rudi Schneider, who was the last of the 'great' physical mediums and the first to be investigated with what might be regarded as modern technology.

Apparitions and poltergeists were discussed by Tony Cornell, one of the leading investigators in this area and co-author with Gauld of a classic work on the subject. Apparitions are recorded in all societies and there are several cases which are possibly indicative of survival, but he argued that such phenomena provide rather ambiguous support for this notion. The majority of poltergeist cases are person-centred and this may indicate that a merely human faculty, such as psychokinesis, is involved. Contemporary researchers of spontaneous cases do not appear to have discovered the real causes of these experiences. This becomes particularly apparent when examining the results of case investigations over the last two decades, in which sophisticated instrumental controls have been used in attempts to verify the occurrence of physical paranormal effects but with little success. Nevertheless, such phenomena are of great interest to psychical researchers because they seem to involve the same sort of psychic processes which occur in the laboratory setting.

Discussion of Survival and Spontaneous Phenomena

In introducing the discussion, chairman David Fontana paid homage to the early pioneers of the SPR. Much of their efforts had focused on studying evidence for survival—partly to counter the tide of materialism of the time—and the volume and quality of the literature they produced was outstanding, even if little read by sceptics today. Roy also stressed the importance of studying the old literature and he urged parapsychologists to leave their laboratories occasionally and investigate the more impressive macro-psi effects which arise in the field. Parker asked what sort of projects the Perrott-Warrick funds might most usefully support. Stevenson emphasized the importance of biological research, urging in particular MRI studies of the brains and internal organs of people claiming memories of previous lives. Wiseman suggested that some 'solved' reincarnation cases may be due to chance coincidences and ambiguities in the reports. He asked why Stevenson had never made up stories of past lives in order to test the reincarnation hypothesis. Stevenson replied that he would be uncomfortable being involved in such a deception. He agreed that it would be possible in principle to test whether the person claiming to be reincarnated could distinguish between real and false members of his former village, but Gauld felt that this would involve an enormous amount of work and would be too time-consuming.

The role of the percipient in apparitional experiences was raised and Cornell wondered why investigators so rarely see anything themselves. Andrew Huxley recalled that his mentor, William Rushton, a former President of the SPR, had drawn attention to the 'shyness' of psychic phenomena. Psychics were put off by dry, unemotional laboratory conditions and discouraged by sceptics looking for

fraud. Cornell stressed that laboratories also lack the emotional component, which is such an important feature of spontaneous psychic experiences. John Poynton stressed that the relationship between fraud and genuine psi was a subtle one. Zulu witch doctors often used tricks to elicit genuine psi, and Batchelder had used the same technique in his investigations with home circles—sometimes deliberately mimicking paranormal physical effects in order to induce the state of mind necessary for the real ones to emerge.

Psi and Philosophy

The final afternoon began on a philosophical note, by addressing whether there is a philosophical context for a rational understanding of paranormal phenomena in the modern scientific age. Philip Allott first described the sort of 'idealist' philosophical framework which might be able to accommodate psi. What the various forms of idealist philosophy have in common is that they do not accept the 'normal' view of the relationship between mind and matter, in which the mind regards matter as something external to it and intrinsically different from it. For the idealist, the human mind constructs its own view of the Universe, a view which is certainly not the Universe as it 'really' is but which is not merely an illusion. It follows that there may well be characteristics of the Universe and capacities of the human mind that are not 'normal'. The paranormal may be located at the intersection of the transcendental and internal consciousness.

John Beloff, one of the founding fathers of academic parapsychology in the UK, then discussed whether science and the paranormal can be reconciled. He described various positions that one can adopt towards claims of the paranormal. He argued for a dualistic approach, in which paranormal phenomena result from the intrusion of the mind into the physical world, with the mind sometimes acting separately from the brain. He favoured the view that one should acknowledge the evidence for paranormal phenomena but deny that they necessarily conform to scientific laws because science is confined to the realm of the physical world. This rather provocative view suggests that psi may be fundamentally anarchic, which would be a severe blow to people trying to bring paranormal phenomena under the umbrella of science.

The Future of Parapsychology

The conference concluded with a general discussion about the future of parapsychology. The participants were asked to address four issues: (1) Will the growth in academic respectability of parapsychology continue or fizzle out? (2) Will the schism between sceptics and advocates ever be resolved? (3) Will laboratory and field investigations of parapsychology draw closer together? (4) Will parapsychology ever become part of mainstream science?

In introducing the first topic, Carr stressed that parapsychology may have become academically acceptable—in so much as it is now pursued in university

departments—but the subject matter has still not gained general credibility. Also, professional parapsychologists are so far confined to psychology departments and the pursuance of the subject is still taboo in physics and biology departments. Therefore, it is important to ask whether the acceptability of parapsychology will continue and extend into other academic disciplines. Gregory stressed that one needs a clear-cut phenomenon before deciding whether to investigate it and he was still not convinced this existed. For example, he would be interested if people could be shown to predict horse-race winners. Fontana countered that people *can* sometimes predict horse-race winners but that the effects are generally sporadic. Roy emphasized that predictability is not always an essential feature of science: astronomers cannot predict when supernovae will occur or when asteroids will collide with the Earth, but they can still study them.

In addressing the schism between sceptics and advocates, Barlow stressed that some issues seemed relatively clear-cut (e.g. the sidereal time effect mentioned by May and the mediumistic tests described by Roy) and so should be resolvable within a few years. He therefore wondered what progress would be made by the next Perrott-Warrick meeting: would advocates admit they were wrong about some things or would Wiseman finally find some phenomenon in which he could believe? Wiseman stressed that one of the problems is that the experiments are always changing, so that the goalposts are never the same. Research should be more systematic. Sceptics and advocates at least agree on the key issues, so they should identify these and then co-ordinate different laboratories around the world.

In introducing the third topic, Carr stressed the various differences between laboratory and field research. The former is academically respectable but dry and unemotional; the latter is more dramatic but hard to control and more likely to be dismissed as fringe science. Also, the phenomena involved seem qualitatively different: micro-PK in the laboratory versus macro-PK in poltergeist cases; mere statistical correlations in laboratory ESP versus striking information transfer in some apparitional cases. Although university researchers place more emphasis on laboratory work, it must not be forgotten that the subject started in the field. The schism between the two approaches is therefore unfortunate and one must hope that this will decrease in the future. Fontana argued that life and lab studies should inform each other and to some degree already do so. For example, ESP experiments indicate that psi is independent of space and time, and this suggests that survival may be possible. West wondered whether life and lab phenomena really are so different since the Pearce-Pratt experiment in the 1950s showed that laboratory studies can yield just as dramatic effects as real life. With the right subjects, laboratory effects need not be tiny, and Stevenson urged experimenters to focus more on star subjects.

Regarding the last topic, the future development of both experiment and theory will presumably determine whether psi eventually becomes part of mainstream science. Stapp anticipated that the status of the PK data should be

resolved soon. If future progress in our understanding of quantum theory leads to a 'participatory' interpretation, then the combination of the two could allow the subject to become scientifically acceptable within (say) 50 years. David Rousseau suggested that psi will not be generally accepted until there is an economically viable application of it (e.g. a PK light-switch). Chris Clarke commented that complementary medicine already provides such an application. Pallikari argued that theoretical understanding must always precede technology, but Rousseau pointed out some counter-examples. In any case, because some psychic phenomena involve an interaction with the physical world, it seems clear that some sort of extension of physics is required. Indeed, such is the dominance of the reductionist view, in which physics is seen as underlying all science, that it seems unlikely that psi will be generally acceptable among scientists unless some future paradigm of physics can accommodate it.

The role of the media also attracted some discussion. Although tabloids carry reports of the subject, they treat it sensationally and mainstream journals still havc a definite bias against it. Josephson drew attention to the antagonism from the science journal Nuture. Although Targ and Puthoff s remote-viewing experiments were published there, as was a review of Dean Radin's book, *The* Conscious Universe, there had been strong attacks on the homeopathy work of Benveniste. Matin Durrani, an editor of *Physics* World, stressed that advocates must be prepared to put their heads above the parapet if the subject is to be taken seriously. Perhaps meetings such as this would lead to a change of culture. In closing the meeting, Carr drew attention to Barlow's introductory remarks, in which he stressed that what is regarded as rational is culturally and historically dependent. He expressed the hope that what appears irrational today may appear rational tomorrow!

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