to which a skeptic is now driven when confronted with evidence for which there is no plausible counter-explanation. Lastly, if in the future new cases of a spectacular nature should arise, the basic believer will be in a better position and better prepared to deal with them.

Notes

a. I discussed the logical status of Hume's argument in my previous paper (see p. 142 and note f). See also the final paper of this volume.

b. For a recent reassessment of the Hodgson Report on Blavatsky, see Harrison (1986).

c. It is all the more ironical in that Carrington went to the trouble, prior to Palladino's arrival in the United States, of circulating prospective sitters details of her detected frauds and of the best methods of controlling for them. See Carrington (1954).

d. Since I wrote my paper, Adrian Parker (1988) has drawn my attention to an adverse report by a German researcher (Lambert 1954) who had originally been impressed by the Eva C. phenomenon but had been shown certain stereoscopic photos by Eugene Osty at the Institut Métapsychique after Geley's death that were strongly indicative of fraudulent constructions. Undoubtedly Lambert's disclosures detract from the case for Eva C. and, indeed, her reputation never recovered from them, but do they demolish it? Inglis himself discusses at length the Lambert evidence (1984, pp. 240–2) but comes to the conclusion, which I would endorse, that it cannot cancel out all the arguments for thinking that Eva C., like Palladino, was *a genuine physical medium.*

Parapsychology and Radical Dualism

Having in a previous paper in this volume (pages 123–132) given my reasons for doubting whether there could be a physical explanation for psi, I now take up the theme again in this paper and argue that, since this disposes of physicalism—i.e., the doctrine that every real event must have a physical explanation—the existence of psi, if it does exist, leaves us with no viable option other than radical dualism—i.e., the doctrine that the domain of mind is radically different from the domain of matter.

The paper was originally presented at the 26th Annual Convention of the Parapsychological Association held at the Fairleigh Dickinson University at Madison, New Jersey, in August 1983. An abstract duly appeared in Research in Parapsychology 1983 *but, in the course of the convention, I was approached by Frank Tribbe who asked if the paper could be published in full in the* Journal of Religion and Psychical Research *for which he is chairman of the publication committee. I duly consented and the article eventually appeared in their January 1985 issue. It was there followed by papers from Alan Anderson, Steven Rosen, Frank Tribbe and Evan Walker (in that order) each of whom had been invited to comment on my contribution. I was not asked in turn to reply to my distinguished critics but a final commentary was provided by the eminent philosopher-theologian Hywel D. Lewis who, as I knew, shared my dualistic standpoint. With the reprinting of this article in this context, I am taking advantage of the occasion to reply to my critics with an "Epilogue 1990."*

By "radical dualism" I mean the view that mind and matter denote separate domains of nature which, nevertheless, interact with one another at certain critical points. I use this term in preference to the more familiar "Cartesian Dualism" in order to avoid such criticisms or misunderstandings as may be attached to Descartes' own formulation of the problem. Radical dualism thus stands in opposition to the view that mind is no more than an aspect of,

a function of, an attribute of, certain brain activity. On this latter view, while mental concepts may well be necessary if we are going to talk intelligibly about our own or others' experience or behavior, they can have no real explanatory force since everything we do or say or think is ultimately dependent on the state of the brain conceived as a purely physical system. We may call this the physicalist position since it is based on the idea that all explanation, in the last resort, rests on the laws of physics, and it is, unquestionably, the orthodox position on the mind-brain relationship at the present time in neurophysiology, psychiatry, experimental psychology and, even, philosophy of mind, at any rate in the English-speaking world. This position must be distinguished from pure materialism, that is the idea that there is no such thing as mind or that mental processes are reducible without remainder to physical processes or to behavior. Pure materialism is, I contend, a philosophical mistake and therefore not a genuine option at all. The choice, as I see it, is between radical dualism and the weaker forms of dualism which merely deny any autonomy to the mental component of the psychophysical organism. As for idealism, the idea that mind alone exists, which is the only other monistic option, while it is logically unassailable, it is so fantastic that there are today few explicit idealists although, as we shall see, it underlies a good deal in current thinking especially where this concerns the interpretation of modern physics.

The thesis that I shall try to defend in this paper is that if we admit the existence of psi phenomena, the orthodox-physicalist position becomes very hard to sustain and radical dualism then becomes the most plausible alternative. Conversely, if we reject or ignore the existence of psi phenomena, then, while there may still be good philosophical reasons for doubting the truth of physicalism, we lose the only empirical grounds we have for challenging the orthodox position. This is important because physicalism claims to represent the scientific standpoint and draws support from advances in brain physiology and artificial intelligence whereas radical dualism appears by contrast as old-fashioned, unscientific and barren. My thesis is not, of course, new. On the contrary, right from its inception, one of the strongest appeals of psychical research was precisely the prospect it afforded of vindicating the autonomy of mind against what then appeared to be the teachings of science. Nevertheless, it is a thesis that is constantly contested, not least by critics who are themselves active parapsychologists. I make no apology, therefore, for restating in my own way the case for radical dualism given the reality of psi. Obviously, in the space available, I cannot hope to rebut all the possible objections that could be brought against my thesis but I am hopeful that I can draw attention to the principal arguments in its favor.

The crux of the argument is this. For my thesis to be false we would have to show either (a) that physicalism could survive the acknowledgment of psi phenomena or (b) that such phenomena do not, after all, involve any special mental powers or functions, hence their existence, whatever else it implies,

lends no support to the doctrine of radical dualism. Hence, if neither proposition (a) nor (b) can be upheld, my thesis stands. Let us start, then, with proposition (a).

Those who study the brain would, I take it, agree that nothing that we have so far learnt about the brain would lead us to think that the brain might be capable either of paranormal cognition (ESP) or of paranormal action (PK). For example, while many cognitive processes can already be simulated using a suitably programmed computer, we obviously would not even begin to know how to program the computer to exhibit ESP. Now it could, of course, be argued that this limitation is due entirely to the rudimentary state of existing brain science. However, I propose to show that it follows inevitably from more fundamental considerations. To make my point I shall discuss the case of telepathy since, of all the varieties of psi phenomena, it is widely believed that telepathy should be the most amenable to a physicalistic interpretation. At all events to discuss precognition or PK in this context would merely compound the difficulties which physicalism would face. If, then, we find that not even telepathy can be understood in terms of brain activity we can feel more confident that the same is true *a fortiori* of the other manifestations of psi.

Let us start, then, by asking how, in normal communication, an idea in the mind of A is conveyed to the mind of B? To this question the answer is not in doubt: it is done by means of language. The idea is first expressed in some linguistic form by A, using a language that is familiar both to A and B, the signals are then duly perceived by B who interprets them as expressing the original idea. Let us next ask what would have to be the case if telepathic communication depended likewise on the transmission of physical signals of some sort? We might imagine that the idea, suitably encoded in A's brain, was somehow able to modulate radiation emanating from A's brain which in due course was picked up in B's brain where it was duly processed and decoded. But then the inescapable question presents itself: how did B manage to decode correctly the relevant telepathic signals? Was B, perhaps, born knowing the appropriate code or did he, at some stage of his development, learn the code? Either answer rapidly reduces to an absurdity. How could the brain be innately programmed to recognize the coded equivalent of any idea that might arise in another person's mind or brain? What if the idea in question was some human creation that does not exist in the natural environment, how, in that case, could evolution have equipped our brains to respond to such a concept? Obviously the telepathic code would have to be acquired just as we have to acquire knowledge of our native language. But then, when and where and how is this knowledge acquired? It is only necessary to pose this question to realize that such an acquisition, of which at no time are we ever aware, would be an absurd fiction. Moreover, even if we were to assume that, in telepathy, it is not ideas but words which are transmitted (which would imply, incidentally, that telepathy could never function across a language divide even then we get no

nearer to an explanation. For the letters or phonemes as encoded in A's brain would still have to be transferred to B's brain and, once again, we would have to decide whether B's brain was innately programmed to recognize the coded equivalent of these linguistic signals or whether B's brain acquired the capacity to decode them in the course of its development and, either way, we reach an impasse.

An objection that could be raised at this point—and I am indebted to Michael Thalbourne for bringing it to my notice—is as follows. Let us suppose that what is involved in telepathic communication is not any kind of semantic operation but rather the transmission of an image, a form or may be a sensation. After all, many ESP experiments suggest that what is apprehended is not any sort of conceptual idea but rather some purely formal aspect of the target picture or scene. Let us suppose that A is thinking about, or looking at, an apple. As a result certain centers of A's sensory cortex are activated and this might set up some kind of a resonance which then served to activate corresponding centers in B's sensory cortex so that B became aware of something round and green in his imagery. We might perhaps invoke Sheldrake's morphic resonance as the mechanism responsible. This may not be the kind of physics that the physicalist would welcome but we can let that pass. Now, however, a different question presses down on us: how is B able to resonate with A's brain rather than with the brain of C or D or indeed any other living brain? Certainly nothing in Sheldrake's concept of morphic resonance suggests an answer. On the contrary, the whole point of Sheldrake's theory of learning is that the changes that take place in one brain automatically facilitate similar learning in all other brains of the same species and that irrespective of time and place. Unless, therefore, some mechanism could be suggested to explain the kind of selectivity that telepathy would require we do not have even a glimpse of a tenable physical theory. There is, for example, nothing in the situation that could correspond with the tuning mechanisms whereby a radio receiver picks up the signal from a specific transmitting channel and sheer proximity, the obvious factor on the analogy of sensory communication, would clearly be inapplicable in the case of telepathy.

Would the prospects of a physical theory be any better if we took clairvoyance as the critical phenomenon rather than telepathy? We would at least be dealing then with a single brain, one that presumably would have to be endowed with something like a radar system. The difficulties here are manifold. For, even if the requisite energy were available to operate such a system it could only work if the scanning beam could be suitably modulated by the target object in such a way that the reflected signal could then be decoded in the subject's brain. But one has only to spell out what would be involved if we took the radar analogy literally to realize how irrelevant it is to the case of the standard clairvoyant test situation where one is dealing with pictures or symbols inside envelopes.

Some of you may, at this point, feel that I have already spent too long belaboring a communication model of ESP considering how few parapsychologists still take it seriously. Those who are still intent on finding a physical theory of ESP tend nowadays to turn to quantum theory to point the way. At the subatomic level we encounter many strange phenomena that provide counterparts to phenomena which at the macroscopic level would be deemed paranormal, for example, the property known as "nonlocality" that is said to govern the behavior of two particles which, though no longer in contact, remain nevertheless in a correlated state. Could ESP exemplify this principle of nonlocality? But the most comprehensive and developed theory of psi to take quantum theory as its point of departure is the so-called observational theory. This is based on the assumption that every physical system persists in a state of indeterminacy up to the instant when it is observed and so becomes determinate. All that we can know about such a system prior to the intervention of an observer is the distribution of probabilities with respect to the possible values that it can assume when it is observed. If, then, we allow our observer the power to influence that distribution in a given direction, we have all that, in principle, we need to account for those nonrandom effects we identify as a psi effect. Such an observer is then said to represent a "psi source."

Whether observational theory is scientifically or even logically sound, whether, as some critics allege, it generates insoluble paradoxes, whether it derives from a misinterpretation of quantum theory stemming from an idealist metaphysic, these are all still matters of fierce controversy which are, perhaps best left to the experts to resolve. The question we have to consider for our present purposes is whether, granted that such a theory is legitimate, it would provide a physicalistic explanation of psi phenomena? To answer this question it should help if we first ask what exactly we are to understand by the key concept, "observation"? Does an observation necessarily imply conscious awareness? Or, can the observation be performed by any suitable recording instrument, by which term we may include in this context the brain itself? If consciousness *is* essential—and physicists, I may say, appear to be very much divided on this issue in quantum theory—then it follows that there is at least one mental function, i.e. conscious perception, which would possess a power that is not that of the brain itself, namely the power to produce retroactive PK. And this contradicts the thesis of physicalism. The attempt to assign a physical meaning to consciousness by calling it a hidden variable (whatever that may mean in this context) as E.H. Walker has done, seems to me to beg too many questions to save the situation for physicalism. If, on the other hand, consciousness is *not* essential, then we are left without any explanation as to what it is about brains that could make them potential psi sources. And without at least some vague indication as to how brain activity might produce retroactive PK nothing in observational theory would lend any support to the physicalist thesis.

The collapse of physicalism that must inevitably follow the recognition of psi phenomena would not, however, suffice to establish radical dualism unless we can show that such phenomena are definitely attributable to mind. At the present time there are various models of psi which challenge what has been called the "psychobiological paradigm." I have space here to consider only the two which I believe are the most influential. According to one school of thought, which I like to call Flewism, in honor of its most articulate exponent, the English philosopher Antony Flew, nothing of any philosophical import would follow from the mere existence of paranormal phenomena and, *a fortiori,* nothing of any relevance to the mind-body problem. The main argument to which it appeals is that paranormality can only be defined in negative terms, in other words it is, precisely, the inexplicability of the phenomena that makes them of interest to the parapsychologist. But, from such purely negative characteristics, we cannot hope to derive any positive conception such as would be implied in calling them manifestations of the mind. A secondary argument stresses the capriciousness and unpredictability of the phenomena which make them quite unlike the manifestations of any other known mental ability or skill.

Flewism has a superficial plausibility, especially for those of a positivistic turn of mind. Extrachance scoring, it is sometimes said, it just extrachance scoring and we have no right to capitalize on such statistical anomalies by dignifying them with concepts like ESP. This view, however, misses some crucial points. I will try to illustrate what I mean with the help of an analogy. From the bald fact that someone has been officially designated an "alien," it does not follow that that person is without ethnic identity of any kind. All that follows is that from the official scientific standpoint, it is necessary that paranormality be defined in negative terms in the first instance and treated as an anomaly *pending* discoveries concerning the basic nature of the phenomena in question. The subsidiary argument of the Flewists fares no better. It is true, of course, that those who are credited with psi ability seem to have precious little control over its manifestations. But psi is by no means unique in this respect among the known range of human abilities. We have very little control over our intuitions or our occasional creative inspirations and none whatever over our ability to dream. These are all vital aspects of our mental activity but they are largely at the mercy of our unconscious. It might indeed be less misleading if we were to refer to psi as a gift rather than an ability insofar as the latter may suggest skill and achievement, but that is very far from saying that it is not a property of mind. Moreover if we leave aside the fact that this putative ability is, in the existing state of knowledge, neither controllable nor trainable, we will find abundant evidence from the parapsychological literature that it behaves much like any other psychological variable. Thus we find that there are marked individual differences, that performance is highly sensitive to the prevailing psychological conditions and atmosphere and we find, above all, that it displays in some degree that unfailing sign of genuine mental activity, intelligence and purposefulness. This last point is true even of routine laboratory tests considered a somewhat degenerate manifestation of the psi faculty.

The other main school of thought which I shall discuss in this connection is that which takes an acausal view of psi phenomena. It urges us to reject the commonsense view that there must be a *causal* connection between, say, the choice of ESP target and the successful ESP response or between instructing the subject to aim at a certain PK effect and the production of that effect. Such causation, it insists, would have to be essentially magical. We should recognize, instead, that the relationship in question is strictly coincidental. But the coincidence, in this case, is not, as the skeptic would conclude, a mere accident, it is one imbued with profound psychological significance. Under the rubric of "synchronicity" psi phenomena are thus, at one stroke, taken out of the arena of mental activity and transferred to a realm of what one can only call "cosmic destiny." Astrology and the various rituals of divination involve similar significant but acausal correspondences which it is assumed are somehow embedded in the web of our personal lives.

As expounded by a Jung or a Koestler it is a seductive idea but does it yield a viable and comprehensive theory of psi? As Bob Brier remarked recently in reviewing a new book on precognition, synchronicity is not so much an explanation of phenomena as a redescription of the puzzlement which they provoke and Flew has rightly pointed out that we do not talk about something's being a coincidence unless the conjunction in question has some subjective psychological meaning for us. It is not, therefore, at all easy to say just what we add to an account of a given psi phenomenon by calling it an instance of synchronicity. The nearest that I can come to grasping this concept is to take a literary analogy. Coincidences are common enough in works of fiction because they are deliberately put there by the author for the sake of the plot. To talk of meaningful coincidences in real life is to treat life as a kind of cosmic drama with the implication that these incidents are prearranged by whatever agency we hold responsible. When Descartes first put forward the doctrine of radical dualism in the 17th century, many contemporary metaphysicians declared that it was inconceivable how two such disparate entities as mind and body could ever interact. Accordingly some, like Leibniz suggested the idea of a pre-established harmony, mind and body do not interact but events are beneficently prearranged so that whenever I perform an act of will my limbs move in the appropriate way and, similarly, whenever my sense organs are duly stimulated I experience the appropriate sensations. Synchronicity extends the idea of a pre-established harmony to the case of psi phenomena and it strikes me as no less unparsimonious in the assumptions that it has to make. In both cases, it is far simpler to suppose that a causal transaction is, indeed, involved.

This concludes my case so I will proceed to sum up. The thesis I put forward was that, if we accept the parapsychological evidence, we must abandon physicalism. Physicalism can be made compatible with normal mental activity but not with paranormal mental activity. The reason is that every attempt to account for psi phenomena in terms of brain activity inevitably breaks down. In the case of a physical communication model it breaks down, not as is often supposed because we do not know of any suitable radiation that could act as the carrier of the information but, rather, because there is no conceivable way in which the message could be encoded at the source and decoded at the receiving end. The attempt to overcome this objection by appealing to some kind of morphic resonance linking one brain with another is useless unless there is some principle that would account for the selectivity that is involved. Resort to quantum physics and the observational theory brought us no nearer to the goal of a physical explanation for either we have to invoke consciousness, which is not a physical variable at all, or we have simply to attribute psi capacity to the brain without any indication as to why brain activity should have this consequence. Having thus shown that physicalism cannot work, once psi phenomena are admitted, the question then arose as to whether such phenomena must necessarily be ascribed to the mind. We discussed two alternative positions: (a) that such phenomena might turn out to be pure unattached anomalies of nature, trivial hiccups in an otherwise orderly cosmos or (b) that they could be due to an acausal matching of events as implied by the idea of "synchronicity" as some basic cosmic principle over and above space, time, and causation. Since neither of these positions could offer a plausible account of psi we conclude that radical dualism is the obvious alternative to physicalism granted the existence of psi.

Epilogue 1990: Reply to My Critics

In a lengthy paper "Pragmatic Dualism and Bifurcated Idealism," Evan Walker takes me to task for saying that psi phenomena afford the only empirical evidence for challenging the physicalist position. He insists that, whatever some physicists may have said to the contrary, QM (quantum mechanics) does *require the introduction of a conscious observer in a way that treats consciousness as a nonphysical variable. I am in no position to dispute what Walker may say about QM, one way or another, but I find him an uncomfortable ally. He says, for example, "But things have now proceeded beyond the point of an arguable issue. The tests of Bell's theorem now show factually that the physicalistic interpretation of an outside independent reality apart from observation is specious." Does this mean, I wonder, that there just* was *no universe until conscious observers came on the scene? But, if so, whence came these conscious observers? This, indeed, would be idealism with a vengeance and I must repudiate it.*

Hywel Lewis likewise objects to my saying that parapsychology alone affords the empirical basis for challenging physicalism. If we reflect carefully enough, he insists, on the nature of our consciousness, for example on our experience of pain, it becomes intuitively self-evident that such experiences cannot be equated with any set of physical conditions. I agree with Lewis and I share his intuitions. Unfortunately, so many neuroscientists and "neurophilosophers" that I come across evidently lack such intuitions. On the other hand, if psi were *to be demonstrated beyond cavil, they would be truly stymied.*

Frank Tribbe is also of the opinion that "apart from psi there are a number of areas where empirical data support mind supremacy." He discusses certain fringe developments in the life sciences by way of illustration including the work of the late Harold Burr and the more recent theories of Rupert Sheldrake which have been widely publicized. I can make no comment with regard to Burr, but, with regard to Sheldrake, who interests me very much, I would agree that, if he were to be vindicated, this would indeed necessitate a radical revision of the prevailing scientific world view that has hitherto provided the justification of physicalism. For example, the Sheldrake effect is supposed to apply even to certain inanimate systems such as the crystalization of new organic compounds. However, all this is still very speculative, at present Sheldrakean science is even more controversial than parapsychology itself.

Both Alan Anderson and Steve Rosen raise yet again the problem that baffled Descartes himself, namely how, on a radically dualist position, mind and matter could ever interact in the first instance. Anderson declares that I set myself "the impossible task of defending a universe divided against itself," while Rosen complains that I fail "to provide the smallest affirmative clue as to how mind—radically disparate from body as it is purported to be—can enter into causal interaction with the body." Their respective remedies, however, are very different. Thus, Anderson, in his brief commentary, defends the idealist option which I had the temerity to dismiss as too fanciful. He, on the contrary, can make no sense of matter conceived as an "independently existing, lifeless meaningless, purposeless something." Rosen, on the other hand, in his much lengthier critique, takes his stand on a monistic or holistic conception of the universe inspired, as he tells us, by Spinoza rather than Descartes and by such modern thinkers as Alfred Whitehead.

What, then, can I say except that we must agree to differ? I can only reiterate what I have said elsewhere that I know of no logical argument that would exclude the possibility that a cause might be of a radically different nature from its effect. I would side, here, with Hume who argued that, in principle, anything could be the cause of anything else and only observation can establish what causes what. As to whether I have been too harsh on idealism, it may be that I have a blind spot in this connection. I would concede that idealism does *make some kind of sense given a theistic frame of reference and*

where I and Anderson part company is precisely that I lack his religious commitment. Hence I have no problem in accepting the stuff of the universe as "lifeless, meaningless and purposeless" as science appears to indicate. On the contrary, my problem is why, under some divine dispensation, the world should have the semblance that it does.

Rosen's universe, on the other hand, insofar as I can make anything of it and insofar as it may be relevant to psi, strikes me as a reversion to the animistic universe of the hermeticists, neoplatonists and other practitioners of natural magic who flourished so vigorously during the Renaissance before the mechanistic universe of Galileo and Descartes had yet established its supremacy. Understandably, Rosen, too, clasps Sheldrake to his bosom. I have some sympathy with this approach inasmuch as I believe that psi is more at home in the context of traditional magic than it is in the context of science. Where I would take issue with Rosen is in his attempts to enlist modern physics to his aid.

Extreme Phenomena and the Problem of Credibility

In August 1987, the Parapsychological Association held their annual convention at the University of Edinburgh. Robert Morris, the newly appointed Koestler Professor of Parapsychology, had been appointed chair of the program committee and it was he who invited me to give a talk on a topic of my own choosing. What follows is based on that talk. The present version is the result of the revisions I made after I had been invited, by a group of Australian academics, to contribute a chapter to a book they were editing to be called Exploring the Paranormal: Different Perspectives on Belief and Experience *(Zollschan et al. 1989).*

Here I take further the ideas I put forward in the chapter I had contributed to the Skeptic's Handbook of Parapsychology *(Kurtz 1985) (see pages 147–64). While I have no quarrel with those who, for reasons of caution or conservatism, prefer to suspend judgment as to the reality of the paranormal, I wanted to challenge those who, like Antony Flew, claim on general principles the right to dismiss all evidence purporting to demonstrate the existence of the paranormal no matter how strong it may otherwise appear. Here I have selected five historical cases for which no credible counter-explanation has ever been offered which are not merely paranormal but outrageously so, thus making it all the more imperative for the skeptic to try demolishing them. I conclude by discussing what we are to do with such cases if we do decide to "take them on board with us as part of our intellectual baggage."*

The Problem of Credibility

From time to time one comes across a claim about which one can say only that it makes one gasp. It goes so far beyond anything in one's experience, it makes such a mockery of all one's presumptions about what sort of a world it