# Debating Psychic Experience

## Human Potential or Human Illusion?

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*Foreword by Ruth Richards*

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# Foreword: Pondering Exceptional Human Possibilities

Ruth Richards

> This is in the end the only kind of courage that is required of us: the courage to face the strangest, most unusual, most inexplicable experiences that can meet us. The fact that people have in this sense been cowardly has done infinite harm to life; the experiences that are called "apparitions," the whole so-called "spirit world," death, all these Things that are so closely related to us, have through our daily defensiveness been so entirely pushed out of life that the senses with which we might have been able to grasp them have atrophied. To say nothing of God. (Rilke, 1986, pp. 88–89)

It is an honor to write this Foreword, to commend those creative investigators and scholars who have been willing to look, to explore, and to take risks. These individuals have not believed blindly—in fact they have done anything but. What, after all, is the harm of looking scientifically at a compelling topic, say, at purported psi phenomena—or processes of energy or information transfer "currently unexplained in terms of known physical or biological mechanisms" (Bem & Honorton, 1994, p. 4)? Unobjectionable indeed is the way this book proceeds: with careful consideration of all sides of the question—and with adequate information so that we, in our own creative and open-minded wisdom, can judge for ourselves, and make up our own minds.

Is not this how science is supposed to work? Let's generate a hypothesis and test it rigorously. What's the problem with doing this? None, one might think.

What after all do we tell our graduate students? Or tell, for that matter, our young children? Find a question. Take a look. Science, after all, is supposed to do this. Make a prediction and see what happens. Good research can support, or reject a hypothesis, statistically speaking, and help us see if there is something there to pursue (or not). Yet this logical and sensible orientation we promote in Research Methods 101 does not tell the whole tale; it does not account for human bias, fear, and our all too human unconscious commitment to certain beliefs. This includes, I learned some years ago, the so-called "taboo topics" (Richards, 1994). Do not tamper with these. We scientists may approach them at our own risk.

I first read about taboo topics in a book edited by Norman Farberow (1963) with a foreword by Gordon Allport. Back in the 1960s, what were the topics we might customarily swerve away from? Death, the list went, along with sex, suicide, homosexuality, parapsychology, graphology, religion, hypnosis, and politics—the last involving international relations and, remarkably, questions of "peace." Fortunately, today, most of these areas have become much more open to inquiry.

But what about parapsychology? Is it still taboo? According to Farberow (1963), "taboo" has two meanings—"sacred" on the one hand, or alternatively "dangerous" or "forbidden." Of course, it may mean both at once. Yet taboos "all serve the same goal," he continued, "preservation of the status quo" (p. 2). Indeed they can be so powerful that they evoke major defensive countermaneuvers. "People 'pass away'; they do not die. Extrasensory perception is just too far beyond credibility, so why bother investigating?" (Farberow, 1963, p. 6).

How surprised I was then, one February morning in Boston, in 1993, to read a major headline about parapsychology on the front page of the *Boston Globe* (Chandler, 1993). And furthermore, it was positive! Or at least, this front page feature was asking us to be very open-minded skeptics. The American Association for the Advancement of Science (AAAS) had been meeting in Boston, and one presentation, published later by Bem and Honorton (1994) in the prestigious *Psychological Bulletin*, had people buzzing. Their meta-analyses of two major ESP ganzfeld databases had supported anomalous information transfer in the highly controlled ganzfeld conditions even including electrical and acoustical isolation and computer generation of stimulus orders not known even to the investigator. That is, inexplicably, information had made it from one room to another, from a random computer generator, to an isolated individual acting as receiver, across multiple studies. And everywhere, it seemed, the methodological "i's" had been dotted and the "t's" crossed.

So compelling was this AAAS paper that Harvard University's Psychology Chair, Robert Rosenthal, was quoted in the *Boston Globe* as saying, "The statistical evidence [in the study] is quite clear . . . that there is a phenomenon there that does require explaining" (as cited in Chandler, 1993, p. 8). The final published article was entitled, *Does Psi Exist?: Replicable Evidence for an Anomalous Process of Information Transfer* (Bem & Honorton, 1994).

The point is not to argue whether or not "psi exists." For the present discussion, it does not matter. It is, rather, about whether we have freedom of inquiry

in our scientific endeavor. It is about whether there is fairness and objectivity in what researchers study—including what gets funded—and then in what becomes of the results. It is also about the difficulty, socially and scientifically speaking, of asking certain questions and then keeping that conversation visible. In the previous example, when a taboo finding finally did reach the light, quite publicly and unavoidably, it even became headline news.

Significantly, the ruckus faded in time. For example, a major book, *Varieties of Anomalous Experience: Examining the Scientific Evidence* (Cardeña, Lynn, & Krippner, 2000) (the title is taken from William James' groundbreaking book *Varieties of Religious Experience*), was published in 2000 by the American Psychological Association. One of its three editors includes Stanley Krippner, the co-editor of this volume. The book is a model of scientific presentation and critical thinking, published by one of the most respected mainstream presses in psychology. Surely, things were shifting somewhat. Yet we know from many sources how the selection and presentation of scientific knowledge is far from being an objective process in general, never mind in parapsychology (Myers, 1990; Richards, 2007). If one looks, for example, at the *Psychological Bulletin* (rather than a specialized journal in anomalous phenomena), how many articles on parapsychology will be found, compared to, say, reports on mainstream topics of perceptual or cognitive functioning? The area still seems relatively taboo.

Some may rightfully say there are special problems in these investigations. For instance, certain phenomena may strike irregularly, like a bolt of lightning. Take an alleged precognition, for instance; how can this event be called up at will (Combs, 2010)? And if it cannot be elicited in controlled experiments, then how, some say, can it be studied? Nonetheless, multiple replications can be cited for many anomalous phenomena (e.g., Radin, 1997). Combs (2010) has suggested that parapsychologists may be held to a vastly higher standard of evidence than are researchers in other areas.

Indeed, what if these researchers *are* playing by the rules? What if the findings *are* valid? The topics are of momentous importance, potentially enlarging on the laws of nature, potentially altering our worldview. Do we really want this to happen? How far could such resistance take us? How does an all-too-common investment in the status quo relate to the question of scientific freedom, for us, for the public, for researchers in all areas? And how can a citizen even begin to evaluate the evidence for any controversial topic if a doubting editor or other "gatekeeper" has already marginalized or eliminated it? We cannot judge a phenomenon when the data are invisible.

Would it be different, one might ask, would the unconscious resistance be less, if potential benefits to us and our daily lives were more evident? For instance, if there were clear benefits for our health or longevity? Consider, for instance, research supporting new and powerful ways of healing (Achterberg et al., 2005; Krippner & Achterberg, 2000), or work that suggests that death (another taboo topic) may in some ways be less fearsome than suspected (Greyson, 2000). Or consider that we have transpersonal ways of relating and knowing that could expand our human possibilities and life meaning. Indeed considerable work has been done on

transpersonal psychological assessment (Friedman, MacDonald, & Kumar, 2004; MacDonald, LeClair, Holland, Alter, & Friedman, 1995), and this opens further doors to research. With a clear view of benefit to our lives, would there be less fear, more enthusiasm? First, one needs to know that some promise exists, what has already been researched, how good the evidence is and what it means for us, and then what else needs to be explored. That is the way of the researcher.

It is important, in this regard, that risk-taking and bravery are central to personal creativity (Richards, 2007), never mind creativity in conducting research. Each of us who takes a creative chance, whether as *initiator* or *appreciator* of innovative work, is taking a brave and powerful step. As creative initiators, we are true upstarts, presenting the world with something that could change it—and perhaps change us! Rollo May (1975), aware of these enormous challenges, even wrote a book called *The Courage to Create*.

What keeps us comfortably in line, and stills our protests? There can be both internal and external resistance to novelty, and this can even take on major proportions. Some of the present readers have, possibly, at one time or another, had a difficult boss, a teacher or, earlier in life, a harried parent who resisted some essentially brilliant idea, without even giving it a fair hearing. Things can get even scarier in the greater world when groups of people self-organize *unconsciously* to repel unpopular scientific (or political) views—perhaps for reasons having nothing to do with science, logic, or fact (see Richards, 2007). For example, a graduate student, whose research supported a once entertained but later marginalized theory of cellular membrane transmission, was told by his superior that, in spite of his findings, "membrane pump theories were correct and [other perspectives] had been disproved" (Bloom, 2000, p. 188). Thus, should the student throw out his doctoral findings? What happened to open-minded inquiry?

It can take creativity to respond to the new, as well as create it, along with openness and flexibility to change one's life or worldview accordingly. A large demographic labeled as *cultural creatives* (Ray & Anderson, 2000) is now showing unusual potential for certain types of personal and social change in Western culture.

It is worth noting some stellar persons from the past who kept open minds where parapsychology was concerned, alongside other celebrated names who dismissed the area outright. The physicist Hermann von Helmholtz, for example, was a sworn disbeliever no matter what happened, not unlike the dismissive research supervisor mentioned before. According to Allport (1963), Helmholtz insisted that "absolutely no evidence, not even his own experience, could convince him of telepathy, 'since it is manifestly impossible' " (p. viii). By contrast, physicist Wolfgang Pauli (1955) and Carl Gustav Jung (1955) together published companion treatises (Jung & Pauli, 1955), bringing together support for anomalous phenomena including alleged synchronicity.

Furthermore, Arthur Koestler (1972) in *The Roots of Coincidence*, noted that, despite the hostility of mainstream psychology, "the giants had always taken telepathy and allied phenomena for granted—from Charcot and Richet through William James to Freud and Jung. Freud thought that telepathy entered into the relations between analyst and patient . . . " (p. 13). Koestler also noted the

eminence of past presidents of the British Society for Psychical Research. Included were three Nobel Laureates, ten Fellows of the Royal Society, one Prime Minister, and a diverse and celebrated group of philosophers and physicists.

What does such "expert validity" tell us? Nothing, really. We still need to view the evidence for ourselves. Yet this lineup of eminent figures does remind us that this is not just an area for charlatans and hucksters (who may indeed have given it a bad name). We, ourselves, perhaps more like the eminent figures above, are scientifically oriented and creative. Can we ourselves keep an open mind toward new phenomena, and not reject them outright just because they clash with our current worldview and beliefs?

This is just what the editors and contributors to the current book are asking us to do: to keep our minds open and our assessments fair. These contributors are to be celebrated for their bravery, for being willing to tread new ground, with honesty and with rigor. They follow in the footsteps of Nobel Laureate Marie Curie who told us, "Nothing in life is to be feared. It is to be understood" (as cited in Benarde, 1989, p. v).

Some of these contributors advocate acceptance of the evidence for anomalous phenomena. Some refute the same evidence. Yet all take the risk to address these phenomena. And all ask us to pay good attention. One might also add, they ask us to make the public discussion of these topics *less* taboo in our culture. We the readers can learn a lot from this book and, by doing so, can also help change the norms for cultural discourse.

Our creative response, in any case, is to show up with open minds and creative curiosity, matched fully by critical thinking: to give the new a chance. On the one hand, we do not want to be taken in by some faddish belief that has no basis, the wishful thinking of somebody's fantasy, which may nonetheless spawn dozens of popular books. Yet we do not want to miss "the big one" either, and be left standing on the corner saying "the world is flat," while right behind us, through a store window, a television set shows a satellite orbiting a spherical globe. May our assessments as readers then be neither inflated by wishful thinking nor limited by prejudice.

Let us recall that there has been enough interest in the topics of this book to have crossed centuries and continents and to have intrigued both charlatans and Fellows of the Royal Society. Now it is our turn. We should take a very good look at the evidence. Perhaps we will not be convinced. Fair enough. Yet let us also recall that many a scientific advance has come from dismissive beginnings—only to elicit a later embarrassed retraction. Whatever the verdict in this case, may the present readers be among those who get it right the first time.

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# Introduction: An Invitation to a Debate

Stanley Krippner and Harris L. Friedman

Over the millennia, people in all known cultures have reported phenomena that are described in the English language as *psychic*, among other terms used. These alleged psychic phenomena appear to defy conventional notions of time and space, as when information supposedly has been received or transmitted in inexplicable ways or when influence purportedly has been exerted without the use of known agents such as muscles or machines. These reports serve as inspiration for those known as *parapsychologists* who attempt to study these experiences from the perspective of Western science. These investigators implicitly conclude that psychic phenomena warrant study, whether or not they may be ontologically "real" (rather than delusory or illusory), or they simply would not invest their time in conducting such studies. Although parapsychologists suspect there is something important about these phenomena, even if that suspicion turns out to be unwarranted, many of them go further by advocating that the extant research findings already have solidly demonstrated the existence of psychic phenomena, even though current scientific beliefs may be inadequate for fully explaining them. In other words, many parapsychologists attribute the inability to explain psychic phenomena as due to the limitations of the prevailing scientific understandings, not due to the veracity of the phenomena.

On the other hand, there are those who can be called counteradvocates who doubt the veracity of psychic phenomena. They tend to believe that virtually all of these reported phenomena can be explained away through what is already known

within such fields as psychology, psychiatry, medicine, biology, anthropology, physics, and related disciplines. Counteradvocates generally regard the widespread popular belief in the validity of psychic phenomena as "a frustrating fact of life" (Dennett, 2006, p. 304) and a sad commentary on the lack of critical thinking and gullibility pervasive in modern society.

However, there has been a surge of interest in the ongoing debate between advocates (or proponents) and counteradvocates (or critics) of parapsychology exemplified by a series of recent books by authors not associated with parapsychological research, who have noted what they perceive as its unfair treatment over the decades (e.g., Broderick, 2007; Carter, 2007; Lloyd Mayer, 2007; Powell, 2009). These writers, each with impressive resumes and advanced academic degrees, have joined the ranks of the advocates for the importance of parapsychological research—and, as one writer phrased it, "It's time for parapsychology to come in from the cold" (Broderick, 2007).

The counteradvocates, however, insist that there is nothing to be brought out of the cold, a perspective developed by recent writers, such as J. C. Smith (2010), carrying on debunking traditions. Examples of such debunking efforts include Paul Kurtz's (1985) *A Skeptic's Handbook of Parapsychology*, which contains chapters written by several contributors to this book, and Victor Stenger's (1990) *Physics and Psychics*, which uses the principles of contemporary physics in an attempt to refute the possible existence of psychic phenomena.

What can one believe about parapsychology? The counteradvocates attempt to debunk the field, claiming it is based on unwarranted assumptions that violate the very laws of nature on which all knowledge rests, and that its findings are unsubstantiated, claiming it has consistently failed scientific tests. Some of these critics allude to incompetence or even make innuendos about intentional fraud to explain away some of the more compelling findings. In contrast, the advocates for the legitimacy of these findings persistently present evidence supportive of the existence of psychic phenomena, much of which exceeds the standards of acceptance set in comparable scientific fields such as mainstream psychology. Some of these advocates also make innuendos about conspiracies to suppress their work, regardless of the quality of any evidence they might present. Amidst this rancor, including its various charges and countercharges of impropriety, many people not directly involved in this controversy find parapsychology a fascinating topic but are frustrated with the many competing views. The way the evidence actually points, supporting or not supporting psychic phenomena, cannot be easily determined in this cacophony.

But this is also true for so many other important human endeavors. Global climate change is an example of an area in which complex data are differentially interpreted. Although almost the entire scientific community acknowledges that climate change is really occurring (and at an alarming rate, see Houghton, 2004), there is a vociferous minority who deny that climate change is real (e.g., Leroux, 2005). A third group agrees that climate change is occurring but doubts that human activity is the crucial cause (e.g., Taylor, 1999). The unpredictability of the weather, as well as various vested interests competing for different positions

on this controversy, leaves many people not directly involved as players within this controversy in utter confusion. Of course, this gets translated into few firm conclusions about climate change being unanimously accepted, resulting in a lack of coherent social policy to address what is potentially humankind's greatest challenge since evolving as a species. This failure to achieve a consensus is accompanied by discord, including conspiracy theories from both sides. Opponents of climate change argue that the proponents have somehow rigged the scientific data (e.g., Spencer, 2008), while the proponents of climate change argue that opponents are profiting from their opposition (e.g., Gore, 2009). Although the fate of many species, including humanity, may ultimately rest on how climate change is handled (or ignored), this example illustrates the difficulties of knowing in complex areas where interpretations can vary greatly, especially when accompanied by divisive accusations that are passionately fueled.

The prevailing controversies around psychic phenomena are in some ways comparable to disputes over many divisive issues, not just the role of human activity in possibly accelerating climate change. How we deal with such competing claims, where supposed experts vie against each other to convince the public one way or another, indicates toward a deeper issue, how we might fundamentally see our world and choose to live our lives. In the case of AIDS, for example, viral causation has been established to the satisfaction of mainstream science (e.g., Blattner, Gallo, & Temin, 1988), but some investigators hold that the HIV virus requires co-factors so a viral theory alone is inadequate (e.g., Root-Bernstein, 1993), while others reject the link between the HIV virus and AIDS completely (e.g., Duesberg, 1988). And the controversy over AIDS is obfuscated in some groups by a cloud of moral beliefs regarding this disease that raises the emotional level of almost any discussion.

To put this into a broader context, the evolution of modern thought can be seen as emerging from a constant struggle between sacred-religious and secular-scientific beliefs. One of the more recent aspects of this ongoing conflict involves controversies between beliefs in "randomly-driven" evolution (e.g., Dawkins, 1986; Shermer, 2002) as opposed to so-called "intelligent design" (e.g., Behe, 1998). Prevailing scientific opinions tend to reject the scientific viability of "intelligent design," but the number of Americans who accept the data for Darwinian evolutionary theory is exceeded by those who disbelieve (Harris Poll, 2005). Despite the near unanimity of the scientific community that evolution provides a sufficiently inclusive accounting for change over time within biological phenomena, the "randomness" descriptor has not been unequivocally established, according to advocates of "punctuated equilibrium" (e.g., Gould, 1980) and "dynamic systems" models of evolution (Laszlo, 1987). These do not ascribe to "intelligent design" speculations, but balk at the term "randomness" because it bypasses the role of organism/environment interaction (e.g., Pembry et al., 2006). Indeed, Darwin did not attach the word "random" to such words as "variation" and "natural selection," much less the widely used term "blind chance."

Laszlo (1987) has opted for a model in which "life continually explores novel combinations of structures and functions as existing species interlock their

catalytic cycles in shared habitats and jointly converge in higher-level systems" (p. 82). In the meantime, some of the more extreme advocates of "chance variation" have modified their positions (e.g., Dawkins, 2009). But it remains unsettling for much of the scientific community to even consider the possibility of any forces providing a viable alternative to the assumption of randomness as the source of biological diversity, and so a hard-line position is often taken to defend a narrow view of randomly driven evolution, despite some of the limitations of such a view.

In these three examples, there are the "cranks" who disclaim the viral etiology of AIDS, who dismiss the notion that the world is getting warmer and who advocate an "intelligent design" origin of the universe. There are also the "mavericks" who accept the evidence for global warming, the viral linkage with HIV/AIDS syndrome, and Darwinian evolutionary theory, but refrain from accepting mainstream explanations for their specific causes or modes of action. As readers go through this book, they might ask themselves whether parapsychologists are "cranks" or "mavericks." If they are the latter, there is hope for rapprochement with established scientific principles, especially as these might broaden; if they are the former, the gulf between advocates and counteradvocates likely will only widen. In all fairness, we must note that some extreme counteradvocates are considered "cranks" by members of the parapsychological community.

Any belief in nonmaterial forces acting under principles other than randomness, let alone possibly moved by "supernatural" forces, such as the actions of gods and spirits, has essentially been banished from the secular scientific worldview, with few exceptions, the field of parapsychology being one of these. In essence, parapsychology is the secular-scientific study of what formerly would have been seen as the sacred, the so-called "miracles" that defy rational understanding. In this regard, to even entertain the possibility that such phenomena could exist is to allow a chink in the armor that has been used since the Enlightenment to wrest power away from religious authority. It is our belief, however, that the long struggle between the "sacred" and the "secular" may lend itself to a synthesis, something we will consider in our concluding comments. For now, it is important to set the stage for an exciting series of position statements, and retorts to each others' positions, from a group of renowned advocates and counteradvocates of parapsychology, by discussing briefly some of the basic issues and approaches in parapsychology.

Parapsychologists use the term *psi* (short for psychic) when referring to reported interactions between organisms and their environment (including other organisms) that appear to transcend the physical and biological demarcations of Western science. Examples include remote perception (often referred to as "extrasensory perception" or "psi gamma"), remote influence (often called "psychokinesis" or "psi kappa") and survival of bodily death (or "psi theta"). Remote perception is often subdivided into "clairvoyance," "telepathy," and "precognition," while remote influence (or perturbation) can be categorized as "influence on static objects" (such as purported metal-bending), "influence on distant objects" (such as attempts to influence random event generators or falling dice), and "influence of living objects" (as in anomalous healing experiences).

Parapsychology is the field of disciplined inquiry that studies psi experiences by arranging controlled experiments and systematic observations to determine if any of these experiences are more than just subjective in nature. Parapsychology began as an interdisciplinary field consisting of psychologists, psychiatrists, physicians, neuroscientists, anthropologists, historians, and members of several other disciplines. However, the field has reached a state where a common body of practices, especially concerning research methodologies, has evolved making it necessary for all serious parapsychologists to have mastered a considerable literature and skill set. As a result, what was once a multidisciplinary field has moved to being interdisciplinary and toward becoming what Minati and Collen (1997) have called a "transdisciplinary" area of inquiry, one in which separate disciplines are transcended and a common body of knowledge is assumed.

Parapsychologists hold varying opinions regarding the authenticity and veridicality of psychic experiences. Indeed, an investigator can be considered a parapsychologist even if he or she is not convinced that there are subjective psychic experiences that can be considered objective psychic events. In their chapter in *Varieties of Anomalous Experience: Examining the Scientific Evidence* (Cardeña, Lynn, & Krippner, 2000), Krippner and Achterberg (2000) differentiated "experiences" from "events," the former referring to subjective reports (e.g., of unusual healings and other inner experiences) and the latter referring to documented outcomes that can be observed by others, in other words the possible veridicality of an experience. Two people may report an experience in which they saw a bright light suddenly appearing in the evening sky. Photographic data may establish this experience as an event. Even if established as an event, however, one person may explain the bright light as a comet, while another may attribute its brightness to radiation from an unidentified flying object (UFO). Additional study may establish whether or not the comet explanation could be verified. If so, the comet trail becomes a known event. If not, the UFO explanation would become one of several alternative explanations, subject to further analysis and study. If no conventional explanation is forthcoming, and if no UFO debris is located, the experience could remain in limbo, perhaps indefinitely.

The situation with psychic experiences is somewhat analogous. Many psychic experiences, upon close examination, become classified as conventional events—instances of misperceptions, misattributions, false memories, perceptual illusions, convoluted cognitions, or even downright fraud. Other psychic experiences do not yield so easily, and those are the ones that many parapsychologists insist are actual events, verifiable instances of precognition, psychokinesis, and the like. In other words, they may represent a poorly understood phenomenon, such as a yet to be verified human capacity, rather than something simply illusory or delusory.

Most parapsychologists are members of the Parapsychological Association (PA), the Society for Scientific Exploration (SSE), the Society for Psychical Research (SPR) or all three. Many counteradvocates are members of the Committee for Skeptical Inquiry (CSI), a group of scholars and laypeople that maintains that "the scientific paradigm is their surest guide for sound thinking and living" (Anon., 2009, p.10). Needless to say, most professional parapsychologists

would agree with this statement. In principle, someone could be a member of all three groups; one of the editors of this book (i.e., Krippner) is a member of the PA, the SSE, the SPR, and an associate member of the CSI. He is also a member of the Skeptics Society, whose Web site states that its mission is "to serve as an educational tool for those seeking clarification and viewpoints on those controversial ideas and claims." The other editor (i.e., Friedman) has no affiliation with any of these organizations.

This book is an invitation to a dialogue between those advocates who take the position that psychic experiences are often valid events that represent extraordinary human potentials, in contrast to those counteradvocates who hold that these experiences, although possibly worthy of study, are basically a human delusion or illusion. In either case, we believe that science has a great deal to learn from continued rigorous examination of these experiential reports and findings that may or may not rise to the level of being consensual events—and we hope that this book will make a contribution toward that end. Some readers may decide that parapsychology might not be ready to come out of the cold, but we hope that they will conclude that, at the very least, it deserves more than a comfort blanket.

The following section provides a brief introduction to the contents of the book.

Dean Radin, in "A Brief History of Science and Psychic Phenomena," describes how fascination with psychic phenomena is evident in all cultures, can be traced throughout history, and that it persists at all educational levels. These phenomena permeate the world of popular fiction and entertainment, but it is less well known that many aspects of modern scientific techniques (including blinded protocols, use of statistical analyses in the behavioral sciences, and development of the electroencephalograph) were stimulated by scientists' interests in studying psychic experiences. His chapter introduces the advocates' claim for the legitimacy of parapsychology, as well as a sample of its many findings.

In "Attributions About Impossible Things," James Alcock in contrast argues that, while parapsychological researchers continually strive to establish a scientific basis for parapsychological phenomena, their research efforts are plagued by a number of serious problems that keep them from achieving acceptance within mainstream science. Alcock claims that many researchers sidestep these problems through defensive attributions that try to explain away the lack of acceptance within science in terms of failings on the part of mainstream scientists, not on problems within parapsychology. Alcock maintains that it is deep-seated belief, rather than tangible scientific data, that motivates the continuing search for evidence of what he calls "impossible things."

In "Parapsychology's Achilles Heel: Persistent Inconsistency," Ray Hyman continues this counteradvocate theme by asserting that, although some parapsychologists argue that the evidence demonstrates the existence of paranormal phenomena, a growing number of parapsychologists admit that the evidence is inconsistent, elusive, and non-replicable. If they are correct, and the more than a century of parapsychological research demonstrates that they are according to Hyman, then parapsychology has failed to achieve its goal of becoming a science

with a demonstrable phenomenon. Hyman emphasizes that, although many parapsychologists admit not having a repeatable effect in the field, they persist in claims that psi is real and, indeed, may even argue that resistance to scientific observation is an essential property of psi itself, which he concludes begs the question.

"Reflections of a (Relatively) Moderate Skeptic" continues this theme as a personal reflection upon the current state of parapsychology and also upon what sort of evidence might cause its author, Christopher C. French, to move from currently believing that psi probably does not exist to possibly believing that it probably does. Issues discussed in this chapter include the scientific status of parapsychology, difficulties in assessing meta-analyses, problems with replicability, and the need for parapsychologists to demonstrate some practical applications of psi.

In "How I Became a Psychic for a Day," Michael Shermer recounts his deceptively enacting the role of a psychic, astrologer, tarot card reader, and palm reader—and how easy it was to dupe people with his enactment. In the process he deconstructs how cold readings, warm readings, and hot readings are done, how psychics, astrologers, tarot card readers, and palm readers appear to talk to the dead, read people's minds, tell them about their past, and predict the future. Shermer's skeptical analysis reveals that many convincing phenomena can be duplicated through fraud by using a process of subtle psychological manipulation at the expense of those naïve enough to be duped. This is presented as the advocate's *coup de grace*, namely if these convincing phenomena can be so easily faked, it can also be argued that there can be little confidence placed in the whole range of psychic phenomena investigated.

Chris Carter, in "Persistent Denial: A Century of Denying the Evidence," argues the other side, that consistent, replicable evidence for the existence of psi has been amply provided—contrary to what the critics of parapsychology continue to insist. Carter maintains that, if this were any other field of inquiry, the controversy would have been settled by the data decades ago. However, he also points out that the data of parapsychology challenge deeply held worldviews, worldviews that are concerned not only with science, but also with religious and philosophical issues and, as such, the evidence arouses strong passions and, for many, a strong desire to dismiss it. Carter presents a strong case for the advocate position, including a direct challenge to the frequent claims that parapsychologists may be disingenuous by presenting an equally compelling case for why the counteradvocates also might be disingenuous.

In the second part of this book, the advocates and counteradvocates square off against each other, making comments on the previous chapters, noting their points of disagreement and, surprisingly, what they have in common. This section is followed by essays by Richard S. Wiseman, a counteradvocate and Stephan A. Schwartz, an advocate. We, the editors, then provide our perspectives on this debate, hoping that readers will have enjoyed working their way through the divergent positions taken by our chapter authors. Final salvos are fired by Damien Broderick, an advocate, and Elizabeth Loftus, a counteradvocate. A glossary of terms brings our book to a close. We hope that this anthology represents a

worthwhile contribution to a long-standing controversy, even though our intention has been to illuminate, rather than resolve it.

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