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PARAPSYCHOLOGY AND POSTMODERN PHILOSOPHY

The topic of parapsychology evokes various responses. Ridicule, good-natured or otherwise, is often the first reaction. Several years ago, in Claremont, California, where I teach, I delivered a lecture on which the present chapter is partly based. My then-dean, who has never been shy about expressing his prejudices, sent a note with his apologies for being unable to attend. The note said: "I'm sorry I'll have to miss your talk on Whitehead and the spook world." This friendly critic, furthermore, usually referred to a course of mine titled "Philosophy, Theology, and Parapsychology" as "Griffin's course on magic."

People's tendency to respond to parapsychology with a humorous put-down, however, is often combined with a suspicion that there might be something to it. In some cases, they are not able simply to dismiss all reports of paranormal events because they themselves have had some apparently "psychic" experiences, or they have heard accounts of such from friends whose honesty and sobriety they could not question. For example, my aforementioned dean told me during that same year about a house in Claremont in which, reportedly, the owners would often find a certain picture on the floor in the mornings. They would hang it back up, and the next morning it would be on the floor again. If it had been simply falling down during the night, it would have broken. There was no one else living in the house; and the owners were quite certain that neither of them was sleepwalking. My dean, knowing that the peo-

ple were neither liars nor crazy, did not know what to make of this.

Most of us have heard stories of this nature, according to which events occur that cannot be explained by "normal" physical causes and that appear, instead, to be the result of intelligent forces producing physical effects without the mediation of a physical body. In the literature, in fact, there are thousands of such stories deriving from every period of history and from every part of the world. If even a few of these stories are true, the implications are enormous.

For example, the presupposition of most modern liberal scholarship on the Hebrew and Christian scriptures has been that events of this kind cannot happen. Accordingly, all the reports in the Bible that we normally classify as "miracles" (except perhaps for those that can be reinterpreted as psychosomatic healing) must be explained away in terms of fraud, primitive credulity, poor observation, mythopoetic license, illustrations of purely spiritual points, and the like. The supposition that such things cannot really happen has been fundamental to "demythologizing" interpretations from David Friedrich Strauss in the middle of the nineteenth century to Rudolf Bultmann in the middle of the twentieth century, and this supposition continues to inform most scholarship today. If, however, we can establish beyond a reasonable doubt that events of this nature happen in our time, the major reason for assuming that they did not happen in biblical times is removed. This removal could lead to a significant change in biblical scholarship and in historiography in general.

That is only one example of the changes that would be implied if that picture in the house in Claremont really was being taken off its hook by an invisible force during the night. Reflecting on the implications of such an event could lead us to revise our views about the nature of the evolutionary process, the possibility of divine influence in the world, the relation between mind and body, the possibility of life after death, and the very meaning of life.

But how many people check out the stories about pictures being moved? How many read the scientific studies that have been carried out in laboratories on the alleged powers of certain people to move physical objects at a distance? Of those few who do some checking, how many then rethink the rest of their beliefs in the light of these facts? Most people, especially highly educated ones, either reject the stories out of hand, assume that there is some "natural" or "rational" explanation for them (taking both "natural" and "rational" to mean "mechanistic"), or else simply put them in that portion of their minds labeled "anomalies."

This last type of response is exemplified by a well-known philosopher of science whose stance and background make him particularly interesting to talk with about the paranormal. On the one hand, he is an avowed materialist; on the other hand, he had, while a graduate student, been closely associated with C. D. Broad, one of the few major philosophers of the twentieth century to have devoted extensive attention to parapsychology.¹

Shortly after I had learned of an article arguing that, contrary to customary belief, materialism is not necessarily incompatible with belief in paranormal events,² I asked this philosopher of science if he agreed. He said no, that it belongs to the very meaning of materialism that paranormal events are deemed impossible. Given that unequivocal response, I asked how he explained the fact that Broad had endorsed the genuineness of certain types of paranormal phenomena, such as telepathy. Did he think Broad engaged in fraud? Absolutely not; Broad was a man of the highest integrity. Did he then suspect that Broad was a poor observer, or had been duped by fraudulent or careless psychical researchers? No, that would have been very unlikely; Broad was an extremely intelligent and circumspect individual. So, how did this philosopher of science reconcile his knowledge that Broad accepted paranormal phenomena with his own belief that such phenomena are impossible? He didn't, he replied; he simply held his own beliefs and his knowledge of Broad's beliefs alongside each other.

In having a worldview that rules out the possibility of paranormal events a priori, this philosopher is not atypical. He is, in fact, unusual only in his acknowledgment that the data for paranormal events are sufficiently impressive to convince some reasonable thinkers. Intellectuals who share this philosopher's materialistic worldview more typically reject the evidence out of hand, either by refusing to examine it or by attacking the credibility of those reporting it—as typified by publications of the Committee for the Scientific Investigation of Claims for the Paranormal. As suggested by their acronym, CSICOP, they exist less to engage in scientific investigation of reports of the paranormal (sometimes called “psi”) than to serve as thought-police, blowing the whistle on all claims for psi.*

One member of this committee, C. E. M. Hansel, a British psychologist, refers to his books on parapsychological phenomena as “scientific” and “critical” evaluations,³ although they are travesties of the scientific approach. He considers that he has disproved a serious study purporting to demonstrate paranormal abilities if he can come up with some other possible explanation for the results, no matter how fanciful, and no matter how insulting to the intelligence and integrity of the experimenters. If Hansel's approach were used with regard to all scientific studies, virtually all of them would have to be thrown out.

* This evaluation can be confirmed by examining the official publication of CSICOP, *The Skeptical Inquirer*. The publication of this organization was originally called *The Zetetic Inquirer*. However, sociologist Marcello Truzzi, who was the editor, resigned from the organization, saying that it was interested only in serving as the case for the prosecution, not as an impartial forum in which all sides could be argued. He then began publishing a journal, called *The Zetetic*, to serve this role. For more details about CSICOP, see Richard S. Broughton, *Parapsychology: The Controversial Science* (New York: Ballantine Books, 1991), 81–85, and George P. Hansen, “CSICOP and the Skeptics: An Overview,” *Journal of the American Society for Psychological Research* 86 (January 1992), 19–63.

Whether evidence for the paranormal is rejected a priori, however, or simply set aside as anomalous, in neither case is there *philosophical reflection on the paranormal*, by which I mean primarily two things: (1) examining the evidence for paranormal influence open-mindedly, and then, if the evidence is credible, (2) asking how the occurrence of paranormal influence might be compatible with those “normal” causal processes that have in modern times been assumed to rule them out. This latter question involves asking how, if the so-called paranormal were accepted as genuine, the worldview that had ruled them out would need to be revised.

Most intellectuals, however, cannot examine the evidence “open-mindedly” because they have minds that are *not* open, but chock-full with a worldview that says that such things cannot happen. This worldview is usually, as I indicated in the introduction, one of the two versions of the modern worldview.

In the first section of this chapter, I discuss in an elementary way what parapsychology is and the ostensibly paranormal phenomena it studies, indicating what would make events “paranormal.” In the second section, I suggest that the main reason for the negative reaction to the possibility of the paranormal in the modern world, especially among intellectuals, is that the modern worldview rules out this possibility, and indeed was formulated in part to rule it out. The topic of the third section is the way in which wishful and fearful thinking interacts with both philosophical paradigms (worldviews) and empirical evidence to help account for the prejudice against the paranormal. In the fourth section, I suggest that parapsychology has shown the need for a *postmodern* philosophy. The fifth section suggests that Alfred North Whitehead has filled that need.

1. PARAPSYCHOLOGY AND THE PARANORMAL

In this book the term *parapsychology* is used synonymously with *psychical research*. “Parapsychology” was originally coined to refer only to the portion of psychical research that is carried out under scientifically controlled conditions, usually in a laboratory. Many parapsychologists, understandably, wish to hold fast to this distinction. The term has widely come to be used, however, as a synonym for “psychical research.” I am using it in this expanded sense.

Parapsychology or psychical research is sometimes defined as the scientific study of a certain class of events, now widely called “paranormal.” These are events in which paranormal influence occurs. (What exactly is distinctive of paranormal influence will be specified in the second section.) It is more accurate, however, to say that parapsychologists study *ostensible* paranormal events, meaning events in which paranormal influence *prima facie* appears to be involved. Adding the word “ostensible” is important: It means that one can be

a parapsychologist without necessarily believing in the reality of paranormal influence.* Nevertheless, in the following discussion, I will, for ease of expression, simply speak of paranormal events, assuming that they really do occur, adding the qualifier “ostensible” only when focusing on the issue of genuineness.

Paranormal phenomena are commonly divided into three major types. First, there are events in which a psyche receives influences that are not mediated through its physical senses. The term *extrasensory perception* (ESP) is used to refer to such events.

The two main forms of ESP are telepathy (which means “feeling at a distance”), in which one receives influence from inside another mind, and clairvoyance (sometimes now called “remote viewing”), in which one receives influences, sometimes resulting in sensorylike images, relating to the outer characteristics of things. (So-called precognition, generally classed as a third form of ESP, is better explained in terms of other forms of paranormal influence involving no [unintelligible] “backward causation” from the future to the present. This issue is discussed at the end of Chapter 2.)

Second, there are events in which a psyche produces effects in the world beyond its physical body without using this body to bring about these effects. The term *psychokinesis* (PK) is usually used as a blanket term for events of this type. The most common form of PK is the simple movement of physical objects: Matchsticks may be moved across a table, a string inside a closed bottle may be made to turn, or spoons may be bent, all without being touched. There are also more complex forms of PK, such as materialization and dematerialization, psychic photography, and some types of psychic healing. (Some types of effects brought about *within* one’s own body, such as stigmata, might be considered instances of PK, but I leave aside this possible refinement of the definition.)

The third major type of paranormality consists of experiences, such as messages from mediums and near-death out-of-body experiences, that are suggestive of the existence of psyches apart from their physical bodies. Although there are some allusions to evidence for life after death in the present chapter, the discussion of this third type of paranormality is reserved primarily for Chapters 3 through 8.

Parapsychology, then, is the scientific study of events of these three types. The first aim of this study is to determine whether ostensible paranormal events, in which paranormal influence *seems* to occur, are genuine—whether

* Besides implying that parapsychologists necessarily believe in paranormal occurrences, whereas they may not, the definition of parapsychology as simply the study of paranormal interactions also leads skeptics to suspect that parapsychology may well be a subject without a subject matter. Both of these problems are solved by the insertion of the qualifier “ostensible,” as suggested by John Palmer in “Progressive Skepticism: A Critical Approach to the Psi Controversy,” *Journal of Parapsychology* 50 (1986), 29–42.

they really do, at least in some cases, involve paranormal influence. Does apparent ESP really involve, at least in some cases, the reception of information that does not come through the sensory system? Does apparent PK really involve, at least in some instances, influence of the psyche that is not mediated through the body? Do some apparent communications from physically deceased individuals really involve paranormal communications? If so, is the paranormal communication sometimes best interpreted as deriving from the continued existence of the physically deceased person? The second aim of parapsychology, if the answer to any of these questions is affirmative, is to try to understand *how* these paranormal influences occur. This attempt to understand includes both the *philosophical* effort to understand the nature of this influence and the *scientific* effort to discover what laws, if any, are reflected in the phenomena.

The study of paranormal interactions takes two major forms. First, there is the study of spontaneous events, such as visions or voices that convey information to a person who had no way of acquiring this information from sensory perception. For example, people will sometimes learn through a vision, a voice, or simply a very strong feeling that a relative is in a crisis situation. Second, there are experiments in which subjects are tested for ESP or PK ability under controlled conditions. In these experiments the subjects may demonstrate paranormal abilities by producing scores significantly beyond what would be predicted on the basis of chance, or by producing directly observable effects, such as when someone makes spoons bend simply by thinking about them or by at most stroking them.

This scientific study has been going on in a continuous way for over one hundred years, since the Society for Psychical Research was established in London in 1882. There were some earlier investigations of decent enough quality to merit the term "scientific," such as those of William Crookes, England's leading chemist in the latter half of the nineteenth century. These earlier efforts, however, were by isolated figures or by societies that did not survive. So the founding in London in 1882 of the Society for Psychical Research, which still publishes the *Journal of the Society for Psychical Research*, is usually taken as the beginning of the scientific study of paranormal phenomena. This scientific study goes back almost as far in our own country, as William James and others founded the American branch of the Society for Psychical Research in 1885, which still publishes the *Journal of the American Society for Psychical Research*.⁴

Many people may wince at the use of the term "scientific" for this study. The still-dominant image seems to be of a bunch of "kooks and crackpots" studying phoney mediums in dark séances. A lot of this certainly has gone on. As with other fields, however, we should evaluate psychical research in the light of its best, not only its worst, moments.

With regard to the credibility of the practitioners, the list of well-known people who have become convinced that paranormal events do happen, some of whom were directly involved in psychical research, includes many otherwise

reputable figures. Among philosophers, the list includes Henri Bergson, C. D. Broad, Curt Ducasse, William James, Gabriel Marcel, H. H. Price, F. S. C. Schiller, Michael Scriven, and Henry Sidgwick. Among noted psychologists, the list includes Jule Eisenbud, Theodore Flournoy, Sigmund Freud, William James (again), Pierre Janet, Carl Jung, William McDougall, Gardner Murphy, and Rudolf Tischner. Among physicists, we have Sir William Barrett, David Bohm, Sir William Crookes, Thomas Edison, John Hasted, Pascual Jordan, Nobel-Prize winner Brian Josephson, Sir Oliver Lodge, Lord Rayleigh (John William Strutt, who received a Nobel prize in 1904 for his isolation of argon), and Helmut Schmidt. Among astronomers: Camille Flammarion and Sir Arthur Eddington. Among biologists: Alexis Carrel (who won the Nobel prize in 1912), Hans Driesch, Claude Richet (who won the Nobel prize in 1913), and A. R. Wallace (who came up with the natural-selection theory of evolution simultaneously with Darwin). Among literary figures: William Blake, Elizabeth Barrett Browning, Arthur Conan Doyle, Aldous Huxley, Maurice Maeterlinck, Thomas Mann, Gilbert Murray (who often demonstrated his own extrasensory abilities in parlor games), Upton Sinclair (whose book on the subject was recommended by Einstein),* Mark Twain, and W. B. Yeats. Among politicians: Frances P. Bolton (U.S. congresswoman for almost thirty years), Mackenzie King (prime minister of Canada for twenty-two years), and Arthur Balfour (prime minister of England from 1902 to 1905). This is hardly a list of “kooks and crackpots.”

In most fields, we take most of our beliefs on authority. We do not demand to look through the telescopes to see the red shift or demand to verify that the Cyclotron is really doing what the scientists say it is doing. We take the word of people who, we assume, are in position to know. Why, then, do we not take the word of at least some of the people listed in the previous paragraph and of the current parapsychologists, whose work is available in scholarly books⁵ and journals,⁶ that paranormal influence occurs?

It is mainly because we hardly ever hear of these facts. We simply are not informed, in the ways that we are informed about other matters, that these credible people became convinced of the reality of ESP and PK after spending time—in some cases a significant portion of their lives—studying the evidence for them.

* Einstein wrote a preface in 1939 for a projected German edition of Upton Sinclair's *Mental Radio*, in which Sinclair reports on successful telepathic experiments with his wife, Mary Craig Kimbrough Sinclair, and which was first published in America in 1931. Although the projected German edition was never published (the publisher went out of business), this preface, in which Einstein says that the book “deserves the most earnest consideration,” was included in the revised, second printing of the book (Springfield, Ill.: Charles C. Thomas, 1962). Of special interest is the fact that Einstein, who had witnessed some of the experiments, says that, although the results “stand surely far beyond those which a nature investigator holds to be thinkable,” Sinclair’s “good faith and dependability are not to be doubted” (ix).

We as a culture do not know of even the most famous spontaneous cases, although in their own time these cases were sometimes well publicized. Take the example of "Patience Worth." During World War I, a woman in St. Louis named Pearl Curran began receiving messages through a ouija board. The source of the messages identified itself as "Patience Worth," saying that she had lived in England in the seventeenth century. After a while Mrs. Curran did not even have to use the ouija board, as she began seeing the words mentally. Works of various sorts were dictated. There were historical novels from various periods. *The Sorry Tale* was a long novel located in Palestine at the time of Jesus. New Testament scholars said that it reflected amazingly accurate information about the ordinary daily practices of the people at that time. The reviewer for the *New York Times* called it "a wonderful, a beautiful, and a noble work." Another large novel was situated in nineteenth-century England, and its knowledge of the language, places, and customs of the time was so exact that it never occurred to a British critic of the book that the author was not British. Then there were hundreds of poems. Some of these were included in books of the outstanding American poetry of the year, with "Patience Worth" sometimes getting more poems chosen than the best-known poets of the time. (Of course, those who chose these poems did not know who "Patience Worth" was; i.e., they did not know how the poems were produced.) There were even debates about whether "Patience" was a better poet than Shakespeare! Besides the quality, magnitude, and variety of the work, all of which was far beyond the capacity of the rather meagerly educated Mrs. Curran, the speed at which the work was dictated was phenomenal. The dictation would come as fast as a stenographer could take it down, and it would go on for hours at a time. Also, "Patience" could go back and forth from one work to another. She would break off in the middle of a long poem to work on a novel for a while; then, perhaps after a week or two, "Patience" would pick up with the poem exactly where she had left off without any hesitation.

Mrs. Curran was studied by various people, including some of the leading psychologists of the day and various skeptics. It was one of the biggest stories of the decade, often getting front-page coverage in Europe as well as America. There has never been any consensus as to how to understand "Patience": Was she a discarnate entity communicating through Mrs. Curran, as she ("Patience") claimed? Or was she an aspect of Mrs. Curran's subconscious? Even if one said the latter, this was one of the most amazing phenomena of all time, with tremendous implications for the nature of human personality and creativity. Few people today, however, have heard of "Patience" and Mrs. Curran, even people in St. Louis, although the story had put St. Louis on the world map in the early part of this century.

There are dozens of other stories of this type, which were closely studied by reputable people and given wide coverage in their own day, but of which most people today are ignorant. Why is this? Mainly because these phenomena

lie outside what the modern worldview allows as possible, so they do not get incorporated in the curricular materials of our educational system.

The same ignorance exists about the fact that there are long-established psychical research organizations with reputable journals and rigorous standards. Many people do know that some work on parapsychology was done by J. B. Rhine at Duke University, but that is usually the limit of their information. They do not know that it was the well-known psychologist William McDougall, who left Harvard to go to Duke, who gave Rhine his start at Duke in the 1930s; they do not know that the *Journal of Parapsychology*,⁸ which Rhine founded, has existed since 1937; they do not know that many other centers of parapsychological study have existed, with some still going, and that the field has gone through many phases, moving considerably beyond the methods and presuppositions that dominated the work at Duke during the Rhine days; and they do not know that, thanks partly to the intervention of Margaret Mead, the Parapsychological Association has been an affiliate of the American Academy for the Advancement of Science since 1969.

This ignorance exists not only among the general public, but also, and in general probably even more, within the academic world. Most scientists, philosophers, and theologians still write as if ESP and PK were not serious possibilities. I say this not to castigate anyone: I myself was ignorant of the scientific study of these things until 1981, when I stumbled onto it in a book on the mind-body problem.* My point is only that, over a century after the beginning of the scientific study of this potentially most important subject, the ignorance about it in intellectual circles is still widespread.

I have suggested that the major reason for this neglect is that the modern worldview—or, to use the term that philosopher of science Thomas Kuhn popularized, the modern *paradigm*[†]—does not make room for paranormal influences. It rules them out a priori. By the “modern paradigm,” I mean a set of basic beliefs that came to be dominant in connection with the scientific revolution of the seventeenth century. This set of beliefs was associated with the paradigmatic achievements of Descartes, Galileo, Boyle, and Newton, and it was articulated further in the works of Locke, Hobbes, and the eighteenth-century *philosophes*. I turn now to a discussion of this modern worldview and why it has created such prejudice against the reality of the paranormal.

* The book was John Beloff's *The Existence of Mind*, which is discussed briefly in Chapter 3. Although, as I indicate there, I disagree with Beloff's (ontological) dualism and also his view that, aside from parapsychological evidence, materialism would be adequate, I will always remain indebted to him for opening me up to this realm of investigation.

[†] See Thomas Kuhn, *The Structure of Scientific Revolutions*. Although in the second edition, Kuhn drew back from his use of “paradigm” for an all-encompassing worldview (in favor of the more restricted meaning, referring to a paradigmatic experiment or discovery), the widespread use of this larger meaning has been one of the book's lasting legacies.

2. THE PARANORMAL AND THE MODERN WORLDVIEW

Although the discussion in the previous section presupposed a notion of what paranormal influence is, an explicit statement of that notion was postponed until this section. This statement cannot simply be copied from the cover page of a parapsychological journal, however, because the parapsychological community has not yet attained consensus on how to specify what is both distinctive of and common to all the phenomena it studies. There is, however, an implicit consensus: Pervasive of the literature is the presupposition that what is distinctive of the category of the paranormal is the idea of *influence at a distance to or from minds*. Both parts of this definition—"action at a distance" and "to or from minds"—are necessary to account for what is distinctive about paranormal events, as the ensuing discussion will make clear. The presupposition behind this characterization of paranormal influence, obviously, is that "normal" causal influence occurs only between *contiguous* events or things, at least if minds are involved.

It can readily be seen that the two major types of paranormal influence, extrasensory perception and psychokinesis, conform to this characterization. ESP involves a mind's *reception* of influence from a distance. Perception by means of the sensory system, by contrast, involves chains of causal influence between contiguous events. For example, when I see the tree outside the window in my study, the tree image results from chains of photons traveling from the tree to my eye, then chains of neurons from my eye to my brain. Extrasensory perception, if it occurs, is paranormal because it circumvents this system of contiguous causation. If I have a clairvoyant perception of the tree, the tree exerts causal influence directly on my mind. My mind, accordingly, has received causal influence from a distance. This idea is reflected in the terms "telepathy" and "remote viewing."

Psychokinesis (PK) involves the *exertion* of causal influence at a distance by a mind. In what we consider "normal" human action on things beyond the body, by contrast, the mind or psyche directly influences only its own body, usually its motor-muscular system. (I ignore for now the view that equates the mind with the brain and hence with one part of the body.) The body then brings about an extrasomatic effect, such as picking up a matchstick. The mind or psyche thereby brings about extrasomatic effects by means of a contiguous chain of cause-effect relations. In psychokinesis, however, this chain is circumvented, as the psyche brings about extrasomatic effects, such as moving a matchstick, directly, without using the body. That it is causal influence at a distance that makes such an event paranormal was reflected better in the older term *telekinesis*.

That causal influence at a distance to or from minds would be involved in the third type of paranormality, which involves the existence of psyches apart from their (biological) bodies, is not so readily apparent. There are two ways,

however, in which it can be subsumed under the general characterization. In the first place, one can describe this third type, as I did earlier, not directly in terms of discarnate existence, but in terms of various *experiences* (such as mediunistic messages and out-of-body experiences) that are suggestive of discarnate existence. These *experiences* all apparently involve influence at a distance to or from minds. Many students of the paranormal, however, think, not without some justification, of the out-of-body state as itself paranormal. Even so, this third type of paranormality arguably fits the general characterization, because the existence of the psyche apart from a physical body would probably involve both extrasensory perception and psychokinesis. I will suggest in Chapter 3 that this is indeed so.

In any case, the crucial question is why this kind of causal influence, involving influence at a distance to or from minds, should be so controversial. Why should modern minds be so convinced that it cannot occur? The answer, I suggest, is primarily that the distinctively modern worldview, sometimes called the “modern scientific worldview,” not only excludes this kind of causal influence, but was in part *created to exclude it*. As Brian and Lynne Mackenzie say, the paranormal events studied by parapsychologists are not simply “anomalous” in the sense of being a “specifiable class of events which just happen to conflict with the scientific conception of the world.” Rather,

they were established as paranormal by the genesis of the scientific conception, and are not definable separately from it. The “paranormal” was established as such by being ruled out of nature altogether. . . .

The incompatibility of parapsychology with modern science is neither accidental nor recent, but is built into the assumptive base of modern science itself. It is because the aims and claims of parapsychology clash strongly with this assumptive base that the field attracts such hostility.*

This view, that the worldview associated with modern science was created in part to exclude what we now call the paranormal, is supported by sociologist of science Jerome Ravetz:

The “scientific revolution” itself becomes comprehensible if we see it as a campaign for a reform of ideas *about* science. . . . Scientific revolution was primarily and essentially about metaphysics; and the various technical studies were largely conceived and received as corroborating statements of a challenging world-view. This consisted essentially of two

* Brian Mackenzie and Lynne S. Mackenzie, “Whence the Enchanted Boundary? Sources and Significance of the Parapsychological Tradition,” *Journal of Parapsychology* 44 (1980), 125–66, at 143, 153, 135. My agreement with the Mackenzies is, however, only partial; see the next footnote.

Great Denials: the restriction of ordinary faculties such as sympathy and intelligence to humans and to a remote Deity; and *the relegation of extraordinary faculties to the realms of the nonexistent or insignificant.*⁹

What was it about the new metaphysical worldview that ruled out what is now called the paranormal? The Mackenzies point to the central issue by quoting a statement made by scientist George Price in his attack on parapsychology, "Science and the Supernatural." "The essence of science," said Price, "is mechanism. The essence of magic is animism."* The new metaphysics for science introduced in the seventeenth century was called, of course, the "mechanical philosophy." Insofar as we are removed from the debates of the time, we may assume that the chief point at issue in speaking of "mechanism" was an exclusive focus on efficient causes, in distinction from "final causation." The real bite of mechanism, we may suppose, is that, by excluding all self-determination, it entails complete determinism. This was indeed one of the central issues, but not the only one. An at least equally crucial meaning of the "mechanical philosophy" was that action at a distance was proscribed.

Mary Hesse has pointed out, in her study of the idea of action at a distance in physics, that this idea lost favor through the introduction of the mechanical philosophy of nature, according to which its particles were purely material, having no inner, hidden ("occult") qualities that could possibly exert or receive influence at a distance.¹⁰ This philosophy implied that all causation must be *by contact*.

Other historians have added that this implication was not simply an incidental side-effect of the mechanical philosophy but a central intention. Richard Westfall says:

All [mechanical philosophers] agreed on some form of dualism which excluded from nature the possibility of what they called pejoratively "occult agents." . . . All agreed that the program of natural philosophy lay in demonstrating that the phenomena of nature are produced by the mutual interplay of material particles which act on each other by direct contact alone.¹¹

"The fundamental tenet of Descartes' mechanical philosophy of nature," Westfall adds, was "that one body can act on another only by direct contact."¹² Brian Easlea has in fact argued, in what is perhaps the best book on the origin of the "scientific revolution," that the desire to rule out the possibility of attrac-

* George Price, "Science and the Supernatural," *Philosophy and Parapsychology*, ed. Jan Ludwig (Buffalo: Prometheus Books, 1978), 172–77, at 173. (Price's article was originally published in *Science* 122 [1955], 359–67.) Incidentally, although the Mackenzies quote this statement, they do not make causality at a distance central to their own characterization of the paranormal.

tion at a distance was not simply one of many, but the *central*, motivation behind the mechanical philosophers' denial of all hidden qualities within matter.¹³

The obvious objection to this portrayal is that many considered Isaac Newton the mechanical philosopher par excellence, and yet Newton, with his doctrine of universal gravitation, seems clearly to have been an advocate of action at a distance. Indeed, quite different from Descartes' *kinetic* mechanical philosophy, which mandated causation by contact exclusively, was Newton's *dynamic* mechanical philosophy, which portrayed the ultimate agent in nature as "a force acting between particles rather than a moving particle itself."¹⁴ It was thereby open in principle to the idea of action at a distance. Newton's language of "attractions," in fact, created the suspicion that he affirmed action at a distance. Christiaan Huygens said about Newton: "I don't care that he's not a Cartesian as long as he doesn't serve us up conjectures such as attractions."¹⁵

The fact that the new worldview banned action at a distance is illustrated, however, not only by the comment of the Cartesian Huygens but also by Newton's own response to the controversy. It was with regard to gravitation that Newton made his famous positivistic reply that he did not "feign hypotheses" about the actual cause but only provided mathematical formulae.¹⁶ In a well-known letter to Richard Bentley, Newton went even further, saying:

Tis unconceivable that inanimate brute matter should (without the mediation of something else which is not material) operate upon and affect other matter without mutual contact. . . . That gravity should be innate and essential to matter so that one body may act upon another at a distance through a vacuum without the mediation of any thing else by and through which their action or force may be conveyed from one to another is to me so great an absurdity that I believe no man who has in philosophical matters any competent faculty of thinking can ever fall into it.¹⁷

In these disclaimers, Newton may well, of course, have been hiding his true views. The point, however, is that Newton *as public philosopher* supported the rejection of causal influence at a distance. Furthermore, although the mechanistic worldview is nowadays often called "the Newtonian worldview," Robert Schofield in his study *Mechanism and Materialism* documents the extent to which Newton's ideas were assimilated as much as possible in the eighteenth and nineteenth centuries to the Cartesian form of mechanism.¹⁸ (One manifestation of this development today may be the desire to find explanations of gravitation, such as "curvature of space" and "gravitons," that do not involve attraction at a distance.) According to Richard Westfall, this development had already been anticipated by Newton himself: "In his final years, a growing philosophic caution led Newton to retreat somewhat toward more conventional mechanistic views."¹⁹ In sum, the case of Newton does not significantly weaken

the twofold claim that the mechanical philosophy with which science became associated in the latter half of the seventeenth century excluded action at a distance, and that this exclusion was one of the main reasons for its adoption.

Another objection might be that this discussion of physical theory is irrelevant to current attitudes toward the “paranormal,” because the paranormal, as it is usually understood and as I have characterized it, involves the causal influence at a distance exerted or received by *minds*, whereas the “mechanical philosophy” dealt exclusively with physical nature from which all mental characteristics were excluded. There is truth in this objection: The dualism between mind and nature, which was adopted by Descartes, Newton, and all the other early leaders of the movement (except Hobbes), did indeed leave open the possibility that the human mind, said to be outside of nature, might be able to act and perceive at a distance; and a few thinkers (such as Joseph Glanvill, one of the founders of the Royal Society) adopted this position.²⁰

The dominant position among these dualists, however, as articulated by the “rationalist” Descartes as well as the “empiricist” Locke, was that the mind could perceive and act on the world only through its brain: The sensationist theory of perception said that the mind can perceive only by means of its physical sensory system; the corresponding theory of action said that the mind can act only through its motor-muscular system. Both perception and action, accordingly, occurred only through chains of contiguous causes. There could be no extrasensory knowledge of the world and no psychokinetic action on it.

In the dominant thinking of the time, the connection between the desire to exclude action at a distance in physics, on the one hand, and the desire to rule out all paranormal influence on and by human minds, on the other, was evidently something like this: Given the dualism between (spiritual) mind and (physical) nature, excluding action at a distance from nature did not, strictly speaking, rule out the possibility that human minds might either receive or exert causal influence at a distance. Nevertheless, a philosophy of nature in which all causal influence was by contact created a context in which the idea of causal influence at a distance to or from minds seemed unfitting. In this context, the stipulation (by a Descartes or a Locke) that the mind does not receive or exert any influence at a distance would not seem arbitrary (even though it was). It was for this reason, I suggest, that the issue of action at a distance in physics was so controversial, even though the primary target of the partisans of action-by-contact physics was the belief that the human mind could have “occult” powers.

In any case, a development unforeseen by these partisans overcame the arbitrariness of their argument from nature to mind: Their dualism collapsed into a fully materialistic position. This development occurred in the latter half of the eighteenth century in France and in the latter half of the nineteenth century in the English-speaking world (thanks to a large extent to Darwin). With this development, the “mind” was fully within nature, being purely a function

of the brain (as the notorious Hobbes had suggested). It was therefore subject to the same prohibition against action at a distance as the rest of nature.

To speak of this late modern worldview, however, is to get ahead of the story. I have yet to explain why the exclusion of action at a distance was so important to thinkers in the second half of the seventeenth century. We should not suppose, as earlier historians of the history of science and philosophy had naively suggested, that this exclusion resulted solely from a disinterested search for truth. Rather, as historians have been documenting in recent decades, strong theological and social factors were involved.

One of the factors making action at a distance such a controversial issue involved the interpretation of "miracles." The authority of the church was to a great extent based on the assumption that God had endorsed Christianity as the One True Religion by the miracles that occurred in New Testament times (and, for Catholics, in the continuing history of the church, especially in and through the lives of the saints). This interpretation was challenged, however, by advocates of Hermetic and other "magical" philosophies, which allowed influence at a distance, including that to and from minds (perhaps through "sympathy"), as a purely natural occurrence. The "miraculous" healings performed by Jesus, accordingly, required no supernatural intervention and, in fact, were no different from healings performed in other traditions. This view threatened not only the authority of the church but also the stability of the whole social order, insofar as this stability was based on the close relation between church and state.²¹ It was in this context that Father Marin Mersenne, Descartes' predecessor, worked to establish the mechanical philosophy in French scientific circles. As shown by Robert Lenoble in his study on "Mersenne or the Origin of Mechanism," the fact that the mechanical philosophy entailed that causal influence at a distance could *not* occur naturally was one of Mersenne's chief motivations for advocating it. The extraordinary events in the New Testament and the ongoing history of the church, accordingly, had to be regarded as genuine miracles, involving supernatural intervention.²² (Those extraordinary events that occur in non-Christian contexts could conveniently be ascribed to the "preternatural" power of Satan, which could simulate true miracles.)

The issue of action at a distance, especially that form that we now call psychokinesis, was also important because of the "witch craze" of the sixteenth and seventeenth centuries, considered by some historians to have been the major social problem of the era. Estimations of the number of people, usually women, killed in this early modern holocaust run from a few hundred thousand to several million.²³ In any case, the accusations of witchcraft presupposed that the human mind (with Satan's help, to be sure) could cause direct harm to people and their possessions. One of the positive effects of the mechanistic philosophy was that, by discrediting the idea of causal influence at a distance, it undermined the thought-world in which the witch craze had flourished.²⁴

Yet another reason for denying the possibility of action at a distance as a natural capacity involved the proper interpretation of gravitation. After receiving the letter from Newton with the above-quoted denial that gravity is “innate and essential to matter,” Richard Bentley argued in his Boyle lectures that gravitation provides “a new and invincible argument for the being of God.” Newton himself argued that, because the apparent force between things cannot be due to matter, it points to the existence of “immaterial agency,” by which he meant, ultimately, God.²⁵

Still other theological-social considerations lay behind the adoption of the mechanical philosophy in the late seventeenth and early eighteenth centuries. For example, the idea that the physical world is composed of things that are totally inert, devoid of any capacity for self-motion, was used to support the immortality of the soul and the existence of God.²⁶ The relevance of the mechanistic view of nature to the question of immortality will be discussed in Chapter 3. With regard to the existence of God, the idea that the physical universe, which is obviously in motion, is comprised of things that are inherently inert was used to argue for the necessity of a First Mover outside the universe. As Robert Boyle put it: “Since motion does not essentially belong to matter, . . . the motions of all bodies . . . were impressed upon them.”²⁷ The considerations mentioned in this paragraph did not directly involve the issue of action at a distance, but, by reinforcing the commitment to the mechanical viewpoint in general, they reinforced the judgment that causal influence between noncontiguous things is not possible.

That is, the contention was that this influence is not *naturally* possible. The idea that the kinds of events in question actually happen was not rejected by most of these thinkers. It was, in fact, important to them that they *did* happen. They were concerned only to stress that they happened because of supernatural agency. The desire to support this supernaturalistic view of God was, in fact, evidently (along with the desire to defend the immortality of the soul) the primary motivation behind the adoption of the mechanical philosophy in the first version of the modern worldview. In any case, this early modern worldview ruled out what we now call paranormal influence, because it is part of the very meaning of “paranormal” that the causal power is a natural, if somewhat extraordinary, power inherent in the finite processes themselves, not a supernatural power lodged in an external deity.

In the *late* modern worldview, by contrast, the kinds of events in question simply cannot happen. Insofar as the dualism of the early modern worldview, by placing the human mind somewhat outside of (mechanical) nature, provided at least a window of opportunity for paranormal events, this window was closed by the transmutation of dualism into the materialism of the late modern worldview, in which the mind is merely a function of, perhaps even identical with, the brain. A central feature of this materialism is its complete ontological reductionism. All “wholes” are assumed to be reducible, at least in

principle, to their tiniest parts. Not only, accordingly, is the mind reducible to the brain, meaning that it has no power above and beyond that of its billions of brain cells, but the brain cells are in turn reducible to their organelles, which are reducible to their macromolecules, and so on down. The resulting dogma is that everything that happens in the world is in principle explainable in terms of one or more of the four forces recognized by physics: gravitation, electromagnetism, and the weak and the strong forces in the nucleus of the atom. The compositions of a Mozart, the teaching of a Buddha, the devotion of a Mother Teresa—all of these are said finally to be explainable, in principle, through the interactions of these elementary forces. From such a perspective, the idea that the human mind has power of its own beyond that of the brain, power with which it can directly perceive and directly act on things beyond the body, can scarcely be entertained.

Equally important, the supernaturalistic theism of early modernism transmuted into the naturalistic atheism of late modernism. Accordingly, the mechanical philosophy's implication that events not understandable in terms of action by contact cannot happen *naturally* came to mean that they cannot happen *at all*.

Philosophical reflection on the paranormal is so difficult in our culture because these two versions of the modern worldview are still dominant. The worldview of conservative-to-fundamentalist Christians is, for the most part, a continuation of the early modern worldview. Although in our culture at large, this dualistic supernaturalism is at least as influential as the late modern worldview, in the academy it is primarily the latter that serves to rule out the paranormal as a topic for critical reflection. For this reason, in speaking in this book of "the modern worldview" without a qualifier, I mean primarily the second version of it—the *late* modern worldview—unless I indicate otherwise. I will conclude this section with a couple of illustrations of how effectively this worldview, functioning as a paradigm, is doing its job.

Jane Duran belongs to the tiny minority of philosophers who have published anything whatsoever about the paranormal. However, her acceptance of the modern worldview evidently forestalls any open-minded examination of the evidence. Duran approaches the subject in terms of C. D. Broad's "basic limiting principles," which paranormal events appear to violate.²⁸ Most crucial for Duran is the principle that "any event that is said to cause another event (the second event being referred to as an 'effect') must be related to the effect through some causal chain." This principle appears to be violated, she says, by telepathy, clairvoyance, and psychokinesis. Broad himself believed the evidence for these phenomena, at least the first two, to be strong enough that this principle should be revised.²⁹ Duran's view, however, is that

the absence of a specifiable and recognizably causal chain seems to constitute a difficult, if not insurmountable, objection to our giving a coher-

ent account of what it means to make such a claim. As long, at least, as our ordinary notions of causality remain intact, there seem to be strong philosophical reasons for concluding that telepathy [and] clairvoyance . . . are not possible.³⁰

She provides as clear an example as one could wish of the belief that action at a distance is probably impossible. Indeed, she seems to think the very idea to be *incoherent*.

Another philosopher who is remarkable for even mentioning the paranormal is Keith Campbell. His dismissal, however, is even more preemptory. While reflecting on the fact that if the occurrence of paranormal events were verified, the philosophical implications would be enormous, he uses the standard Humean argument against all reported evidence for paranormal relations:

The problem of fraud is that we know men can, and do, cheat and dissemble, but we do not know that they have paranormal capacities. On the contrary, the great weight of our fully attested knowledge of man's origin and constitution makes paranormal capacities extremely unlikely. So . . . the explanation by fraud is the more rational one.³¹

Such an a priori rejection may not seem unreasonable in the abstract, given the widespread impression that the only people who have given testimony to the genuineness of paranormal events are "kooks" or at least third-rate minds. As we saw in the first section, however, those who have testified to their belief in the reality of paranormal occurrences include some of the most respected people of our culture, even many Nobel-prize winning scientists. Is it really "more rational" to believe that all of these people, plus many more otherwise trustworthy souls, have been guilty of either engaging in, or being repeatedly taken in by, deception, than to assume that paranormal relations really occur?

Another reason for an a priori rejection of the positive results of parapsychology is contained in William James's acknowledgment that it is "a field in which the sources of deception are extremely numerous."³² As James also said in this connection, however, it takes only one white crow to prove that not all crows are black.³³ In other words, we need only one case of alleged paranormal influence in which fraud, error, and other "normal" explanations are ruled out to cast doubt on the principle that there is no causal influence at a distance. (James spoke in this context specifically of the sensationist principle that nothing appears in the mind from the outside world that is not derived from the physical senses.)

Campbell's a priori dismissal of the belief in paranormal causal relations on the grounds that such a belief is not "rational," incidentally, is especially interesting in the light of his willingness to countenance other beliefs

about causal relations that are by his own admission not rational. That is, he had at one time rejected psychophysical dualism because of the impossibility of understanding how spirit and matter could interact. Now, however, having decided that materialism is inadequate to our obviously nonmaterial experiences, he affirms epiphenomenalism. This view holds that the brain, as a byproduct of its functioning, produces a spiritual mind, but that this mind cannot act back on the brain. Campbell affirms this view even though it faces, he admits, the same "equally embarrassing" questions as did dualism.³⁴ What is worse, he further admits, it includes an arbitrariness that dualism did not, because it affirms "the action of the material on the spiritual" while denying "the action of spirit on matter."³⁵ Campbell's response to these difficulties is that

one who holds to the theory must just grit his teeth and assert that a fundamental, anomalous, causal connection relates some bodily processes to some nonmaterial processes. He must insist that this is a brute fact we must learn to live with, however inconvenient it might be for our tidy world-schemes.³⁶

Campbell is *not*, however, willing to "just grit his teeth" and admit that paranormal causal processes occur. It appears that what is wrong with causal influence at a distance is not simply that it is anomalous, and not simply that to affirm it would be irrational, but that it is *taboo*. It is such a strong taboo that it leads him to imply that many otherwise honorable and circumspect fellow human beings, such as William James, have been involved in fraud.

The extreme example of the power of the modern paradigm with respect to the paranormal is provided by the aforementioned Committee for the Scientific Investigation of Claims of the Paranormal (CSICOP). Its publications, including its journal, *The Skeptical Inquirer*, refer to those who accept the paranormal as "believers" while referring to its own members as "skeptics." Skepticism in the true sense of the term, however, refers to an attitude of doubt toward all ideas, *especially* those dominant in one's own society. The prominent members of CSICOP, however, show little skepticism about the late modern worldview: With regard to it, they are true believers.

3. THE INTERACTION OF WORLDVIEW, EVIDENCE, AND WISHLFUL THINKING

I have thus far suggested that truly philosophical reflection about the paranormal is difficult in our culture because the occurrence of paranormal events is ruled out by the modern worldview, especially, in the academy, in its late modern guise. Some people, nevertheless, *are* able to reflect open-mindedly about the reality and possible implications of ostensibly paranormal happenings,

even though they too have been educated in this same culture. To be adequate, an analysis obviously must be more complex than that suggested so far.

There are, I suggest, three factors involved in the formation of opinions about controversial matters such as the paranormal. Besides the two factors already discussed—one's worldview, which guides one's view of what is possible and impossible, and one's awareness of empirical data, which guides one's view of what is actual—there is also wishful thinking: Our ideas about what is possible and what is actual are also influenced by what we *hope* to be true. Freud used this dynamic to explain (away) belief in an omnipotent God. The influence of wishful thinking is, however, much more pervasive, being evident, for example, even in the formation of Freud's own worldview. The pervasiveness of wishful thinking becomes all the more evident when we realize that it can be negative as well as positive, as our thoughts about philosophical possibility, and our interpretations of empirical data, are sometimes guided by what we hope *not* to be true. This side of the dynamic can be called "fearful thinking."³⁷ The complete dynamic should, accordingly, be called wishful-and-fearful thinking. To avoid this cumbersome locution, however, I will usually employ one term or the other, using "wishful" as the generic term and "fearful" when that side of the dynamic is especially in view.

Whereas all three of these factors play a role in everyone's thought processes, the weight played by each factor varies from person to person. We can think, however, in terms of three basic types of people: paradigmatic thinkers, data-led thinkers, and wishful thinkers.

Paradigmatic thinkers, or rationalists, are ones for whom the primary consideration is what they consider, on the basis of their general paradigm or worldview, possible and impossible. Their interpretation of, even their interest in, empirical data is largely determined by their prior judgment of what is possible. If their worldview or paradigm says that some alleged phenomenon, such as telepathy, is impossible, no amount of empirical data will change their minds. William James commented: "I believe there is no source of deception in the investigation of nature which can compare with a fixed belief that certain kinds of phenomenon are *impossible*."³⁸ This is, of course, the dynamic I discussed in the prior section. An example, notorious in parapsychological circles, is provided by Hermann von Helmholtz, one of the great scientists of the nineteenth century. He reportedly said to Sir William F. Barrett—another great scientist (a Fellow of the Royal Society), but one who was open to paranormal events—in a conversation about telepathy:

I cannot believe it. Neither the testimony of all the Fellows of the Royal Society, nor even the evidence of my own senses would lead me to believe in the transmission of thought from one person to another independently of the recognized channels of sensation. It is clearly impossible.³⁹

More in line with the ideal of the scientific or philosophic mind is the fact that the *wishes* of paradigmatic thinkers also take a backseat to their view of possibility. This may mean that they believe things in spite of wishing the truth were otherwise. For example, paradigmatic materialists may be unhappy about the conclusion that there will be no life after death for them and their loved ones, but they will persist in their unsatisfying view of life to the end. Another way, however, for one's wishes to play only a minor role is for them to be brought into line with one's philosophical beliefs: A necessity is turned into a virtue. For example, after deciding that there is no God, one may decide that atheism, besides being true, also has more beneficial consequences than theism. One may decide, perhaps, that belief in God serves as a social opiate, or that it keeps people in an infantile relationship to the universe.

Data-led thinkers, or empiricists, by contrast, wear their paradigms lightly, being ready to change them as soon as the data suggest their inadequacy. For such thinkers, what is possible is settled by what is actual, not vice versa; and, as with the paradigmatic thinker, wishful thinking plays little role in the determination of belief. This account agrees, of course, with the traditional picture of "the scientist." And some thinkers do approximate it. For example, Alfred North Whitehead said of William James: "His intellectual life was one protest against the dismissal of experience in the interest of system."⁴⁰ James advocated an empirical, data-led approach not only in general, furthermore, but also with regard to the paranormal in particular, as shown by his white-crow comment, cited earlier, and his statement that "whether supernormal powers of cognition in certain persons may occur is a matter to be decided by evidence."⁴¹ We should not, however, exaggerate: James could be "empirical" about extrasensory perception in part due to the fact that, having a father who was sympathetic to the teachings of Emanuel Swedenborg, he had grown up with a worldview that allowed for it.*

A classic formulation of the different approaches taken by paradigmatic and data-led thinkers is provided by William Crookes, in a statement in which he contrasts his own approach with that of fellow physicist and chemist Michael Faraday:

* James's compatriot in both pragmatic philosophy and psychical research, F. S. C. Schiller, provides another example of how one's ability to be open-minded about parapsychological evidence may be due at least as much to philosophical worldview as to temperament. Schiller's attack on James's Harvard colleague Hugo Münsterberg seems, at first glance, to provide a classic example of a futile encounter between a data-led and a paradigmatic mind. Calling Münsterberg "a victim of the Germanic spirit," which he considered "a national infirmity," Schiller said of him: "He cannot be happy until he has convinced himself that [the facts] are *a priori* possible. Before he can be got to admit a fact as a fact, he must be provided with a proof that it is possible." By contrast, Schiller continued, "the British spirit . . . ferret[s] out the facts first of all and postpone[s] to subsequent leisure the task of devising an explanation for them" ("Psychology and Psychical Research," Raymond Van Over, ed., *Psychology and Extrasensory Perception* [New York: New American Library, 1972], 55–79, at 67). Schiller, portraying himself and psychical researchers generally as embodying the second spirit, said: "It is obvious which of these is the more scientific attitude" (66).

Faraday says, "Before we proceed to consider any question involving physical principles, we should set out with clear ideas of the naturally possible and impossible." But this appears like reasoning in a circle: we are to investigate nothing till we know it to be *possible*, whilst we cannot say what is *impossible*, outside pure mathematics, till we know everything. In the present case I prefer to enter upon the enquiry with no pre-conceived notions whatever as to what can or cannot be.⁴²

On the basis of this relative distinction between paradigmatic and data-led minds, we can provide a fuller answer as to why philosophical reflection about the data of parapsychology is so difficult. By philosophical reflection I mean both open-minded examination of the evidence and theoretical reflection about what modifications in the modern worldview this evidence, if found persuasive, would require. Now, on the one hand, those who are prone to engage in this type of theoretical thinking are likely to be paradigmatic thinkers; and, having been educated in the modern world, their worldview is likely to make them far from open-minded about the evidence for the paranormal. On the other hand, data-led minds, who are more likely to be open to the evidence, are, even if they find the evidence persuasive, unlikely to engage in theoretical thinking about the worldview implications of this evidence. That there has been little philosophical reflection on it in the modern world is, accordingly, not surprising.

The difficulties become even more manifest once we bring in the third type of mind, the wishful-and-fearful thinker. For this type, "the wish (or the fear) is the father of the thought." This dynamic can apply to the question of possibility: Such thinkers may construct, or adopt, a philosophical worldview guided primarily by their hopes and fears. For example, they may adopt a philosophical position primarily because it shows life after death to be possible, or—if they intensely fear the prospect of life after death or think the belief in it harmful—impossible. This dynamic can also apply to their attitude toward

In partial defense of Münsterberg, one should point out that Einstein, another representative of the "Germanic spirit," is generally thought to have done tolerably good scientific work, even though he notoriously belittled empirical facts in comparison with issues of pure theory. So, even if Schiller was finally right, that theory must bow to fact, the question about the attitude necessary for "good science" is not as clear-cut as he assumed. In any case, the point at hand is that it is futile for data-led minds to berate paradigmatic minds for taking so seriously their ideas about what is and is not possible. A closer reading of Schiller's essay reveals, furthermore, that what at first glance appeared to be a clash between two entirely different types of minds was not so clearly so. Schiller, while presenting himself as the relatively pure empiricist, showed that he was able to accept the facts of psychical research as facts because he had a philosophical position that allowed him to do so. Like Münsterberg, he believed that all events could be fully explained in terms of mechanical causes. He just happened also to believe—which I (like James) do not—that mechanical explanation is compatible with "explanation by higher [meaning teleological] categories" (64, cf. 60). The real difference between Schiller and Münsterberg was perhaps only that Schiller had a worldview that allowed the facts of psychical research to be possible while Münsterberg did not.

available empirical evidence and thus to their view of what actually occurs—or at least to what they are willing publicly to admit. Likewise, many who have a strong will to believe in life after death are extremely credulous with respect to purported evidence for it, not only accepting the evidence uncritically but also ignoring other possible interpretations of the events in question.

The reasons why many people, especially outside the academy, want to believe in the paranormal are fairly obvious. Negatively, for those who dislike the so-called materialistic worldview, the paranormal provides the best evidence that this worldview is false. Positively, the paranormal provides, especially for people estranged from institutional religion, support for the wish that the universe be meaningful, including support for the wish that there be life after death.

By contrast, conservative-to-fundamentalist Christians tend to find purported evidence for the paranormal frightening. Many of the reasons operative in the seventeenth century are still relevant today. For example, the category of the paranormal provides a naturalistic alternative to the category of the miraculous, thereby undermining the supernatural attestation to Christianity as the One True Religion. For many Christians, this more than cancels out any positive value psychical research has in providing evidence for life after death. In fact, many evangelical Christians are *hostile* to this purported evidence, insofar as it suggests that life after death is a natural capacity rather than a supernatural gift of God. Positive near-death experiences, especially if had by non-Christians, are often regarded as the devil's deceit.

Thinkers who see the world in terms of the late modern paradigm, who are our primary concern here, also have reasons for fearing evidence for the paranormal. For some, the victory of "enlightenment" over superstition in our civilization is very precarious, and acceptance of any form of paranormal influence could open the floodgates to "the black mud-tide of occultism" (as Freud reportedly once put it, prior to his own acceptance of telepathy).⁴³ An example of another common fear is provided in a remark relayed by William James. In answer to his own question, "Why do so few 'scientists' even look at the evidence for telepathy, so-called?," James reported that a leading biologist had once told him:

Even if such a thing were true, scientists ought to band together to keep it suppressed and concealed. It would undo the uniformity of Nature and all sorts of other things without which scientists cannot carry on their pursuits.⁴⁴

This fear, of course, reflects the common belief that the possibility of science as such is uniquely related to the worldview with which it has been associated in recent times.

There may be a closely related fear connected with cultural prestige and power. Given the materialistic, reductionistic worldview, with its assumption

that all causal forces are lodged in atoms and subatomic particles, natural scientists, especially physicists, have the greatest social status in the academy, while those in the humanities have the least, and theologians and philosophers of religion least of all—except for parapsychologists, who are generally considered “beyond the pale.” Evidence for the paranormal, which includes evidence not only for nonphysical forms of causation (at least given the usual understanding of “physical”) but also for downward causation from mind to matter, is arguably seen as a threat by some intellectuals with a vested interest in the status quo.*

More generally, the paranormal is emotionally threatening to those who are strongly attached to the modern worldview simply because the paranormal suggests the need for more or less radical revision. Most human beings find challenges to their beliefs threatening. This is especially the case with worldview beliefs, because one’s very sense of identity is involved. It has been suggested that religious beliefs should be called *convictions* to bring out the intensity, and oft-times tenacity, with which they are held.⁴⁵ But this same dynamic occurs as well with worldview beliefs that we do not readily characterize as religious and may in fact call *antireligious*, such as atheistic materialism: The discussion of “paradigms” in recent decades has brought out the similarity between religious worldviews and worldviews in general in this respect. This dynamic occurs especially in those whose professional identity is closely bound up with their worldview, such as philosophers, theologians, and the ideological leaders of the scientific community.

Besides these paradigm-related reasons for finding the paranormal threatening, there are also more personal, psychological reasons. Many people find it threatening to think that others might be able to “read their minds.” Even more threatening, of course, is the idea of psychokinesis, as it reopens the specter of “black magic” or “witchcraft,” which the modern worldview was adopted in part to exclude. If, in particular, there can be large-scale psychokinesis, then—I have heard this fear expressed more than once—airplanes could be brought down simply by the power of thought. Many people intensely want the world to be free from this kind of danger, and this wishing affects their beliefs about the way the world actually is. Psychoanalyst Jule Eisenbud, whom Stephen Braude calls parapsychology’s “premier theoretician,” has suggested that much of Western religious, philosophical, and scientific thought has been motivated, in part, by the desire to rule out the possibility that human thoughts can have direct effects.⁴⁶

This third variable, wishful thinking, complicates enormously the possibilities for philosophical reflection about parapsychology. Many philosophers

* Colin A. Russell has suggested that “Scientific Naturalism—the view that nature’s activity can be interpreted without recourse to God, spirits, etc.,” was advanced by some to help the scientific community achieve cultural hegemony (*Science and Social Change 1700–1900* [London: Macmillan, 1983], 256, 258).

who appear, even to themselves, to be rationalists, may actually be wishful thinkers. The attempt to change their minds about the paranormal by means of rational argument will, accordingly, be frustrating, because the primary reasons for the positions they are maintaining will not be addressed. Likewise, many apparent empiricists may be closet wishful thinkers, so that no amount of evidence, however impressive to the presenter, will make a difference.

The situation, furthermore, is even more complicated than I have suggested thus far. We do not simply have three basic kinds of thinkers, plus the confusion as to which kind a particular person really is. In some individuals, two of the three factors share dominance. For example, paradigmatic and empirical concerns may predominate, with little deflection from wishes. The "rational empiricist" is nowadays widely considered the ideal in scientific and philosophical circles. Probably at least equally present in those populations, however, are individuals with the other combinations: There are "wishful empiricists," who base their opinions primarily on their wishes and the relevant data, with little consideration for questions of philosophical possibility, and there are "wishful rationalists," whose worldview is primarily a product of their wishes and their views as to what is possible, being little affected by attention to empirical evidence. The fields of philosophy and theology seem to attract wishful rationalists to a disproportionate extent, which, if true, would help explain why thinkers in these fields have been especially closed to the paranormal (even though one might suspect, apart from these considerations, that they would be the most open). But wishful rationalists are probably well represented in the scientific community as well.

A particularly poignant instance is provided by John G. Taylor, a mathematical physicist at the University of London. His encounter with Uri Geller on a BBC television show led him to explore the phenomenon of metal bending. Besides becoming convinced that Geller's feats were authentic cases of psychokinesis, Taylor also came into contact with several boys and girls, some as young as ten years old, who evidently could bend things by thought almost as effectively as Geller. On the basis of his adventures, Taylor wrote a book called *Superminds*,⁴⁷ complete with dozens of pictures, in which he assured his readers that the phenomenon was genuine, that there was no possibility that he was duped. For one thing, he argued, whatever one's suspicions might be about Geller, who had been a stage magician, it is impossible to believe that these young boys and girls could have mastered the extremely complicated tricks it would take to create those effects by fraud under controlled circumstances. Taylor also assured his readers that it would be possible to explain this phenomenon on the basis of the principles of physics. Fully accepting the reductionism of the late modern worldview, Taylor explained that there are only four possible forces that could account for PK: gravitation, the weak force, the strong force, and electromagnetism. Then, having ruled out the first three forces, he explained that so-called psychoki-

nesis must be explainable in terms of electromagnetism. Taylor then set out to do this, in preparation for his next book.

Taylor soon learned, however, that this issue had been discussed for several decades by parapsychologists, most of whom had long since come to the conclusion that something other than the four forces of physics had to be operating. In particular, some Russian parapsychologists, given their Marxian materialistic orthodoxy, had devised experiments explicitly designed to show ESP and PK to be electromagnetic phenomena. Their experiments suggested otherwise. The presence of barriers that cut the subjects off from most of the electromagnetic spectrum either had no effect or else actually improved the psi performance. On the basis of these and other considerations, Taylor came to the conclusion that PK simply could not be reconciled with modern physics. Maintaining his position that to accept things physics could not explain would be to accept irrational, supernatural beliefs, he entitled his next book *Science and the Supernatural*. In it he declared that all reports of ESP and PK must be due to hallucination, trickery, credulity, the fear of death, and the like. "Such an explanation," he said, "is the only one which seems to fit in with a scientific view of the world."⁴⁸ He did not, however, explain how those ten-year-old boys and girls had duped him. (Further, he did not, as far as I know, turn back the royalties he had earned from his first book.)

This account could make Taylor appear to be a pure example of the paradigmatic mind. The role played by wishful-and-fearful thinking, however, is made clear by Taylor himself. Having said that he could not see how fraud could have been involved in Geller's demonstration of key-bending right in front of him and the television cameras, Taylor then added:

But this made my faith in science even more at risk, for I just could not see how there could be even a glimmer of a scientific explanation for these phenomena. The scientific framework with which I had viewed the world up till then was crumbling about my ears.⁴⁹

Although Taylor at one place says that he began his investigations with an open mind,⁵⁰ he elsewhere admitted that open-mindedness is not easy "if the facts that are staring you in the face will totally destroy your understanding of the world."⁵¹

The fact that wishful-and-fearful thinking plays an important role in seemingly paradigmatic thinkers in no way, however, reduces the importance of the paradigm, or worldview, out of which they work. As Taylor's example shows, his wishful-and-fearful thinking was oriented primarily around the late modern worldview, with which he had equated scientific rationality itself and in relation to which his own sense of professional identity had been shaped.

In sum, philosophical reflection on the evidence for paranormal influence is so difficult not only because the modern worldview rules it out as impossible

but also because intellectuals, like other people, are influenced in their judgments by what they wish to be the case, and there are powerful reasons, both professional and personal, leading modern individuals to want the paranormal to be a null category. On the other side, positive wishes about the paranormal often make critical reflection about it, as distinct from credulous acceptance, difficult. The primary problem within the academy, however, has been excessive credulity not toward the paranormal, but toward the modern.

Near the beginning of the twentieth century, William James paraphrased with approval the moral philosopher Henry Sidgwick's complaint, with regard to claims about the paranormal, that

the divided state of public opinion on all these matters was a scandal to science, absolute disdain on *a priori* grounds characterizing what may be called professional opinion, whilst completely uncritical and indiscriminate credulity was too often found amongst those who pretended to have a first-hand acquaintance with the facts.⁵²

Today, approximately a century later, the situation is little changed. The reflections in this section are meant to cast light on the reason that a movement toward consensus on this issue has been so difficult. The main problem, to repeat, has been the pervasiveness in intellectual circles of a worldview that makes examination of the evidence, let alone *open-minded* examination, very difficult. Because of the resulting "absolute disdain on *a priori* grounds," the leaders of the scientific, philosophical, and theological communities have been in no position to do anything to mitigate the "indiscriminate credulity" that often abounds in other circles. If a new worldview is now emerging, however, we may do better in the coming century.

4. THE NEED FOR A POSTMODERN WORLDVIEW

The evidence for the genuineness of interactions that are now called paranormal points to the need for a postmodern philosophy. On the one hand, we have overwhelming evidence that influence at a distance to and from minds does occur. We have testimony from every period of history and from every culture,* including the testimony of various religious saints whose integrity is other-

* Although James Frazer considered all this testimony to be superstitious, his *Golden Bough* remains the most extensive survey of the beliefs in paranormal phenomena from various cultures. For one who provided a survey of such beliefs on the assumption that, "however erroneous, however darkened by fraud and fancy," they nevertheless "repose on a basis of real observation of actual phenomena," see Andrew Lang, *The Making of Religion*, 2nd ed. (London: Longmans Green, 1900); quotation from page 45. More recently, see the important book *Wondrous Events: Foundations of Religious Belief* by James McClenon (Philadelphia: University of Pennsylvania Press, 1994).