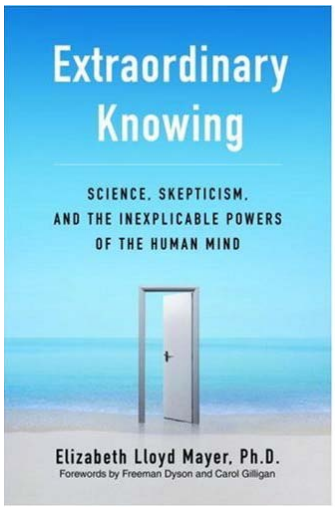
BOOK REVIEW




Elizabeth Lloyd Mayer

*Extraordinary Knowing: Science, Skepticism, and the Inexplicable Powers of the Human Mind*

Bantam Dell, 320 pages

Hardcover February 2007
ISBN-10: 0553803352
ISBN-13: 978-0553803358

Paperback February 2008
ISBN-10: 0553382233
ISBN-13: 978-0553382235

## Dumping Science under the Lamppost

*Ulrich Mohrhoff*

Consider this: The author's eleven-year-old daughter, Meg, who had fallen in love with the harp at age six, had begun performing. She was playing an extremely valuable instrument built and carved by a master harp maker. After a Christmas concert, her harp was stolen from the theater where she was playing. For two months they went through every conceivable channel trying to locate it: the police, instrument dealers across the country, the American Harp Society newsletters, even a CBS TV news story. Nothing worked.

Finally a friend suggested that they call a dowser. A "really good" dowser, she explained, can locate not just water but lost objects as well. They were desperate. Meg, spoiled by several years of playing an extraordinary instrument, found the rented commercial harps simply unplayable. Surmounting their embarrassment, they called the then president of the American Society of Dowsers, Harold McCoy. When he learned that a valuable harp had been stolen in Oakland, California, he interrupted: "Give me a second, I'll tell you if it's still in Oakland."

After a pause: "Well, it's still there. Send me a street map of Oakland and I'll locate that harp for you."

Two days later, he called back. "Well, I got that harp located," he said. "It's in the second house on the right on D–Street, just off L–Avenue."

She got in her car, drove into Oakland, located the house, called the police, and told them she'd gotten a tip that the harp might be at that house. Not good enough for a search warrant, they said. They were going to close the case — there was no way this unique, portable, and highly marketable item hadn't already been sold.

She decided to post flyers in a two-block area around the house, offering a reward for the harp's return. Three days later, her phone rang. A man's voice told her he'd seen a flyer outside his house describing a stolen harp. He said it was exactly the harp his next-door neighbor had recently obtained and showed him. He wouldn't give her his name or number, but offered to get the harp returned to her. Two weeks later, after a series of circuitous telephone calls, he told her to meet a teenage boy at 10:00 PM, in the rear parking lot of an all-night Safeway. She arrived to find a young man loitering in the lot. He looked at her, and said, "The harp?" She nodded. Within minutes, the harp was in the back of her station wagon and she drove off. Twenty-five minutes later, as she turned into her driveway, she thought: "*This changes everything.*"

In particular, the incident changed how she worked as a clinician and psychoanalyst. It changed the nature of the research she pursued. She realized that her notions of space, time, reality, and the human mind were totally inadequate. She also discovered that

> the world of anomalous mind-matter interactions is filled with shoddy research, flaky research, and research based on questions that are neither particularly interesting nor rooted in a solid grasp of science, scientific method, or scientific thinking. Yet as I delved more deeply, what most impressed me was the significant bank of well-conducted, scientifically impeccable research that imposes enormous questions on anyone interested in making sense of the world from a Western scientific point of view. I began to wonder, why had so much of this excellent research been overlooked, its conclusions dismissed?

As word of her new interest spread, her medical and psychoanalytic colleagues began to inundate her with accounts of their own anomalous experiences, personal as well as clinical.

> I was particularly fascinated by how eagerly my colleagues shared even the most weirdly personal stories with me. Their eagerness puzzled me, until I realized how badly people wanted to reintegrate corners of experience they'd walled off from their public lives for fear of being disbelieved.... But I also wanted to understand more about why our culture is so fearful about anomalous experiences. Could this be why so much well-conducted research in the United States hasn't been given more attention? What is the nature of that discomfort and the conflicts that underlie it? What does our collective and individual fear of these unknowns cost us? How might we start to relieve that discomfort while working to resolve the conflicts?

Lloyd Mayer values "the rational world and all it enables, while facing the awareness that it's a world with no room for experiences like the harp's return. We need to address what it may take to acknowledge and appreciate both worlds, and manage to live in both at the same time." She deservedly considers herself "a skeptical, highly trained scientific professional." After fourteen years of studying such phenomena with her skepticism firmly in place, she has come to "believe that these vast arrays of experiences deserve our serious attention."

Take the case of a neurosurgeon of world-class reputation. He's been suffering from intractable headaches. Despite exhaustive medical workups, no physiological cause for them can be found. In desperation, he calls on Lloyd Mayer for a psychological consultation — a last resort, in his view. His reputation rests not just on the brilliance of his technique but even more on his astonishing track record. He undertakes one dangerously life-threatening surgery after another, yet he tells her, humbly and with quiet gratitude, "I never seem to lose a patient." He has a loving marriage and wonderful children. He can't think of anything troubling him, no obvious subconscious source for the crippling headaches that are destroying his life.

> I probe a little, looking for some hint of possible conflict, anxiety, or pain. He, on the other hand, keeps going back to his work, lighting up as he talks about it.
>
> And then it occurs to me that he hasn't mentioned doing any teaching, even though he's on the staff of a big university hospital. So I ask: Does he teach residents? He looks away, suddenly silent. Finally, he speaks:
>
> "No, I don't teach at all anymore."
>
> "But you did? What happened?"
>
> "I had to stop."
>
> "You had to?"
>
> "Yes … I couldn't keep it up. But I miss it. I loved teaching. As much as surgery itself, I loved it. But I had to stop…."
>
> He falls silent again. Gently I probe further. Why did he have to stop? And then slowly, reluctantly, the surgeon tells me what he's never told anyone. He can't teach anymore because he doesn't believe he can teach what he's really doing. He tells me why his patients don't die on him. As soon as he learns that someone needs surgery, he gets himself to the patient's bedside. He sits at the patient's head, sometimes for thirty seconds, sometimes for hours at a stretch. He waits for something he couldn't possibly admit to surgery residents, much less teach. He waits for a distinctive white light to appear around his patient's head. Until it appears, he knows it's not safe to operate. Once it appears, he knows he can go ahead and the patient will survive.

How could he possibly reveal that? What would the residents think? A horrible dilemma! And when did the headaches begin? You can sort of guess.

We pay a heavy price for denying what we know to be real.

> Freud himself grappled with this issue. He had an early fascination with the idea that thoughts from one person's mind could somehow be transferred to the mind of another, and had engaged in an extensive correspondence with Hungarian psychiatrist Sandor Ferenczi on the subject. Throughout that correspondence, Freud asserted that "thought transference" — his term for telepathy or ESP — was a thoroughly real and important aspect of how humans communicate. But he also insisted it was too politically dangerous even to discuss in public, much less credit. He repeatedly warned Ferenczi to keep the issue quiet to preserve their reputations as men of science.

In 1973, Robert J. Stoller, a psychoanalyst, psychoanalytic theorist, and professor of psychiatry at UCLA Medical School, wrote a paper titled "Telepathic Dreams?" He'd shown it to Ralph Greenson, his mentor and an icon in the history of American

psychoanalysis. Greenson had read it, sprinkled it with his own handwritten notes, and then given Stoller his advice: if Stoller valued his professional future, he would put the paper away in a drawer and forget about it. At the same time, Greenson told Stoller that he'd found the paper utterly convincing, was shaken by reading it, and that his own thinking about the human mind had been permanently affected by it.

In 1997, together with Carol Gilligan, a member of the faculty at Harvard and an internationally renowned psychologist and author, Elizabeth Lloyd Mayer started a discussion group to consider these matters at the biannual meeting of the American Psychoanalytic Association. To avoid voyeurs, they made attendance contingent on submitting a written account of an apparently anomalous experience, personal or clinical. They accepted the first sixty people who signed up and sent letters to the other applicants saying the group was filled to capacity. Three days after the letters went out, the scientific program director for the APA left the author a message: "Lisby — *do* something! Our office is overwhelmed with calls from people saying they *have* to get into this group. Call me!" The APA discussion group teemed with impeccably credentialed professionals eager to tell stories they normally didn't feel safe enough to divulge. Some of them are recounted in this extraordinary book.

A couple of comments from members of the group:

> I can't believe I'm finally talking about this. Why don't we talk like this in training … or in study groups … or somewhere!? I feel so invigorated by being open about these things, finally.
>
> There are colleagues in this room I've known for thirty years and it never occurred to me they'd be sympathetic to hearing about these experiences. This is a first for me, talking this freely.
>
> I'm Indian. In Asian culture, all this is perfectly normal, nothing anomalous about it. In medical school I found out how not-normal the things I'm describing seem to Westerners.

Lloyd Mayer hits a raw nerve when she writes:

> There's something startling about the idea that examining what's most personal, subjective, and private constitutes the way into any scientific exploration. But that may be exactly why we've made so little progress investigating the extraordinary. I was struck with this again and again as I moved deeper into the existing science on phenomena such as remote perception or telepathy. In their efforts to study anomalous phenomena, researchers have largely resorted to studying things like whether a person in one room can, with odds significantly beyond chance, accurately guess whether someone in another room is holding a red or black card. They've been looking for the objective, something characterized by simple yes/no, right/wrong answers. Those are hardly the data we can designate as most personal, subjective, or private. In that sense, the vast banks of accumulated data about, say, card reading, *may be essentially irrelevant to the actual experiences that most interest us.* They may miss the point.
>
> To study those objective, digitizable data simply because we know how is like looking for our keys under a lamppost because that's where the light is instead of trying to find them where we actually lost them. If our real data — the data in those hundreds of stories I've been collecting — are distinguished by how *personal and personally meaningful*

> *they feel to the people reporting them, that personal quality becomes a critical feature of the data.* If we're designing studies that omit that personal element because we're at a loss to study it, we're dumping science firmly under a lamppost, and we'll never locate any keys.
>
> And if that personal quality does prove critical, no wonder most people, even those passionately committed to understanding apparently anomalous knowing, find all the card-reading studies (and their ilk) dreary in the extreme. If we're going to study the real data, we'll have to apply some version of scientific method to the data where they really live and as they really are. We'll need to take on the daunting, even unnerving task of systematically investigating singular, subjective, profoundly personal experience. . . .
>
> The nursing assistant lies. The sports doctor limits his practice. The young physician dissembles. The neurosurgeon stops teaching. The famous psychiatrist hides his paper in a drawer to his subsequent and permanent regret. They've all betrayed their own quintessential empiricism — knowing based in their own deeply personal, privately valued sense-experience.
>
> At the moment, the stories these people tell, like my story of Harold and the harp, *are* our empirical data. Yes, they're preliminary, chaotic, and difficult to bring under systematic review. But right now they're what we have to work with. The challenge ahead entails figuring out how we can possibly begin making scientific sense out of them.
>
> (Original emphases)

Here is Lloyd Mayer's assessment of *Skeptical Inquirer: The Magazine for Science and Reason,* put out by the Committee for the Scientific Investigation of Claims of the Paranormal (CSICOP):

> Reading the *Skeptical Inquirer* was like reading a fundamentalist religious tract. I found the journal dismayingly snide, regularly punctuated by sarcasm, self-congratulation, and nastiness, all parading as reverence for true science.

All that has changed since this was written is a name: because cops aren't as popular as the television series *CSI: Crime Scene Investigation*, CSICOP has dropped the COP and now calls itself the Committee for Skeptical Inquiry (CSI). This committee is far from being the only one engaged in "tossing out meteorites" — a reference to the stubborn denial by the French Academy of Science during the eighteenth century of evidence for the fall of meteorites, which seemed massively obvious to everybody else. Such was the awe in which Parisian scientists were held by their foreign associates that curators of public museums in Germany, Denmark, Switzerland, Italy, and Austria, anxious not to be considered as backward compared with their famous colleagues in Paris … threw away whatever they possessed of these precious meteorites.

Take the National Research Council (NRC) of the National Academy of Sciences.

In 1984, as part of its mandate to train and maintain a highly skilled fighting force, the Army undertook to evaluate a broad range of current techniques and claims for enhancing performance. It commissioned a report by NRC, which was published in 1988 under the title *Enhancing Human Performance*. In the press conference that announced the publication of the report it was stated that "the Committee finds no

scientific justification from research conducted over a period of 130 years for the existence of parapsychological phenomena." Not surprisingly, several of the most highly regarded researchers in the field issued a formal and carefully argued reply protesting this flatly negative assessment.

The NRC had sought out Harvard psychologist Robert Rosenthal to review the experimental evidence for a number of the performance-enhancing techniques. Rosenthal was renowned as a crack experimental psychologist, brilliant in evaluating research strategies as well as spotting methodological flaws or sloppy thinking. He also had very special expertise in evaluating research in performance enhancement — precisely the thing the Army wanted to study. He accepted the commission and brought his associate Monica Harris on board with him. Lloyd Mayer describes Rosenthal as an eminent academic accustomed to being taken seriously. He and Harris gave careful consideration to the research the NRC had commissioned them to evaluate. They duly submitted their report, in which they declared that it would be "implausible" to suggest that the positive findings obtained in the studies they evaluated resulted from chance. The evidence for "parapsychology" was good and deserved further investigation.

What happened next was reported in a 1994 article in *Psychological Bulletin*, a journal of the American Psychological Association that applies rigorous standards to anything that appears on its pages. The article was coauthored by Daryl Bem and Charles Honorton, the man who originally developed the ganzfeld experiments that Harris and Rosenthal had praised in their report as the only study that regularly met "the basic requirements of sound experimental design." Bem and Honorton wrote:

> In a troubling development, the chair of the NRC Committee phoned Rosenthal and asked him to delete the parapsychology section of the paper (R. Rosenthal, personal communication, September 15, 1992). Although Rosenthal refused to do so, that section of the Harris–Rosenthal paper is nowhere cited in the NRC report.

"That's a remarkable and worrisome absence," Lloyd Mayer observes:

> When that kind of absence characterizes how the National Academy of Sciences handles a serious report from a serious researcher, there's something seriously wrong with the way science is approaching anomalous mental capacities. Science has stopped acting like science. Instead it's acting a lot more like religion — or politics. In fact, at the same time the NRC was declaring publicly that there was "no scientific justification" for "parapsychological phenomena," the government was continuing to fund secret research into remote viewing.

There is more. Edwin May took over the Star Gate project after Harold (Hal) Puthoff had left to become director of the Institute for Advanced Studies at Austin. He subsequently initiated a review of all the research conducted between 1973 and 1988: 154 experiments comprising over 26,000 separate trials. The final report concluded that the odds that the positive data resulted from chance were less than one in a billion. At odds like that, remote viewing emphatically appeared to exist.

In 1989, Statistician Jessica Utts of the University of California co-authored a refutation of the NRC report in the *Journal of the American Society for Psychical Research*. May was

puzzled that Utts had not included any critique of the NRC report in her contribution to an evaluation of an ostensibly objective investigation by the American Institutes for Research (AIR), which forcefully discredited the government-sponsored remote-viewing research. Her response to his query shocked him: "The answer is that I was explicitly asked by AIR staff NOT to mention the NRC report in my review!"

Utts's own background report had come to an unequivocal conclusion:

> It is clear to this author that anomalous cognition is possible and has been demonstrated. This conclusion is not based on belief, but rather on commonly accepted scientific criteria. The phenomenon has been replicated in a number of forms across laboratories and cultures.
>
> I believe that it would be wasteful of valuable resources to continue to look for proof. No one who has examined all of the data across laboratories, taken as a collective whole, has been able to suggest methodological or statistical problems to explain the ever-increasing and consistent results to date.

In October 2001, *The New York Times* ran the headline "A Study Links Prayer and Pregnancy." The concluding paragraph of the study in question, published in the *Journal of Reproductive Medicine*, began with this sentence: "Our data suggest a benefit of IP (intercessory prayer) on IVF-ET (in vitro fertilization-embryo transfer)." Lloyd Mayer asked a research endocrinologist to consult with her about conceivable pathways that might help explicate physiological aspects of the study's results. He knew Rogerio Lobo, one of the study's authors, and thought highly of him.

> First we talked about the research itself — design, methods, and analysis of the data. He couldn't find fault with any of it. Then I asked, did he think he'd be taking the results as seriously as if the active agent were a drug instead of prayer? He was quick with his reply: "Not on your life!" I liked his honesty. I'd contacted him because I knew he had a strong interest in mind-body medicine and in how various mental techniques — visualization, guided imagery, meditation, or relaxation exercises — might enhance hormonal readiness for embryo transfer.... My friend was ready to say that the way the mind affects the body is critical in mediating hormonal processes. On the other hand, he was dead set against accepting the Cha-Wirth-Lobo results because now we weren't talking about the same mind and the same body; we were talking about the effects of one person's mind on another person's body and from very far away. That's another matter. He told me so in no uncertain terms:
>
> "Are you kidding? You want me to take those findings and consider what they do not just to my research but to all the research that makes for good medicine? I told you, not on your life! Not without lots more good evidence, anyway. I'm open-minded but it would take more than that study — and I don't care how good it is — for me to entertain results like those.
>
> "There's no mechanism! Science can't explain results like these and data can't be considered in a vacuum. Until somebody comes up with a plausible way to understand what this study claims, we can't do anything with the data.... We've got no way to think about it....
>
> "But I've enjoyed our conversation. Besides, it will make my wife and daughter very happy. They're spiritual types. My wife's a midwife. She's got stories that are up there with your harp story. Some are about prayer, wild stories about births going wrong and

> people praying and the impossible happens, things work out fine. But that doesn't mean God belongs in science. You can't put prayer inside science. The JRM article tries to do that. That's wrong. It's a category error. . . ."
>
> What interests me about that statement is how readily a religious context for exerting distant mental intention becomes conflated with the distant mental intention itself. That's what puts us smack in the middle of a category error. But we only end up there if we identify distant mental intention as the property of religion — the property of God and of territory science can't hope to study, much less authenticate. *If we want to study the effects of distant mental intention, in the form of prayer or anything else, we'll need to separate those effects from any religious or specifically theistic context in which the intention is exercised. . . .*

The study by Cha, Wirth, and Lobo was based in science and the methods of science. It wasn't based in religion and the methods of religion. It used scientific methods to examine an apparent effect that results from employing the methods of religion. It examined an ability people schooled in religious traditions have worked to train and develop. Such people may be particularly adept at showing us whether distant mental intention is capable of having some anomalous effect. God or no God, that makes those people worth studying. More specifically, it makes it worth studying what happens when they pray.

> It happened that the people recruited to exert intention in the Cha-Wirth study were Christians. For them, God was a reality and they called their intention prayer. But the actual effect reported by that study doesn't speak to the role of God, or of prayer, or of practicing distant mental intention in a specifically Christian mode. If we start claiming scientific studies like Cha-Wirth as evidence of God's actions, we plunge headlong into just the category error my endocrinologist friend was worried about.
>
> Several recent studies of prayer's effects in medicine have been purposely designed to incorporate forms of distant mental intention as practiced by people from a variety of spiritual traditions, some of which don't hold to belief in God at all. The results so far shouldn't surprise the ecumenically minded. Effectiveness doesn't appear in any way related to which God is prayed to, whether a God is prayed to, or to which form of prayer is employed. Some studies even include people who declare themselves to be atheist or agnostic but whose form of prayer simply entails directing compassionate intention toward others. These people seem to do just as well in studies of distant mental intention as people whose form of mental intention is addressed to an image of God.

In 1961, Montague Ullman founded a sleep laboratory at the Maimonides Medical Center in New York City, devoted to the experimental study of dreams and telepathy. He established the most thorough and extensive research on telepathic dreams ever conducted. The question he set out to investigate was: could someone acting as a "sender" telepathically communicate something to a sleeping "receiver" that would influence the content of the sleeper's dream? The methodology was reviewed in great detail by Irvin Child, professor of experimental psychology at Yale University. Dr. Child published a report in the *American Psychologist*, the main publication of the American Psychological Association, verifying that the methodology was sound. No less a personage than Gardner Murphy, the former president of the American Psychological Association, lauded its importance and helped collect funds for further research. In the

introduction to Ullman's book, cowritten with Stanley Krippner and Alan Vaughan (*Dream Telepathy: Experiments in Nocturnal Extrasensory Perception*, 1973; Charlottesville, VA, Hampton Roads Pub. Co., 2003 ) Murphy stated:

> It is difficult to imagine today a study more important.... Dream telepathy, dealing with the individual's efforts to make contact with distant reality and with the social nature of man's unconscious powers, is likely to be among the sparks which will be made into a science within the next century.

Lloyd Mayer then traces the route from Maimonides to the ganzfeld studies initiated by Charles Honorton, William Braud, and Adrian Parker.

> By 1982, ten different experimenters from labs all over the world had published the results of forty-two separate ganzfeld telepathy experiments. Of those, twenty-eight listed the actual hit rates; fourteen others simply described the results as positive or negative. Honorton decided it was time to conduct an overall assessment of the results. He wrote a landmark paper reviewing every study, which he presented before the Parapsychological Association, and concluded that they provided reliable evidence for telepathy. His composite analysis of the twenty-eight studies that reported hit rates showed that twenty-three had success rates greater than chance would predict, on average 35 percent. That's no small margin of success. In a gambling casino, it would lead to getting very rich, very fast. The odds of its being due to chance computed to a staggering 10 billion to 1.

The by now familiar knee-jerk reactions from the usual quarters followed.

> As I'd learned from my investigation into the National Research Council and American Institutes of Research reports, criticism of the ganzfeld studies had been at the heart of a twenty-year drama that erupted in the halls of academy, Senate Hearing Rooms, the National Academy of Sciences, and page after page of scholarly debate. Its intensity was fueled by the acknowledged excellence of the studies and the resulting strength of reactions they provoked, both from those who found the results credible and those who didn't.

See the review of Chris Carter: *Parapsychology and the Skeptics*, in *AntiMatters* 2 (4), 2008 .

Some of the most impressive experiments in parapsychology test the capacity that carnival fortune-tellers have rendered most dismissible: presentiment, or the ability to predict the future. Work in this field began in 1978, when Zoltán Vassy, a Hungarian physicist and later visiting scientist at the Psychophysical Research Laboratories in Princeton, published an article with tantalizing implications for anomalous cognition. He set up a classical conditioning experiment to test whether subjects could register a feeling of what happens *before* an event stimulating the feeling had in fact been initiated.

Vassy used electroshock as an experimental stimulus to measure galvanic skin response. Here is how Dean Radin  describes his own landmark study to the author of *Extraordinary Knowing*:

> The design is simple. An investigator attaches electrodes to a participant's left hand to continuously measure the electrical resistance of the skin, which in turn reflects the activity of the sweat glands. The participant then sits in front of a computer monitor

> displaying a blank screen, and he or she is instructed to press a button at will. After the button press, the computer waits five seconds. It then selects a photo at random from a large pool of photos (some calm and some emotional), displays it for three seconds, and then the screen goes blank again for ten seconds. After a short "cool-down" period, the computer instructs the participant to press the button again at will. A typical session may last thirty minutes, during which time some forty trials may be repeated, each involving a new, randomly selected photo.
>
> What I've observed in these experiments, conducted with a total of 131 participants so far, is that on average people sweat slightly more (that is, their autonomic nervous system becomes activated) before they see emotional photos than before they see calm photos. The observed overall difference in autonomic arousal is associated with a probability of $p = 0.00003$, so there is good reason to believe that this result is not due to chance. My colleagues and I have considered numerous conventional explanations for this effect, including sensory cues, inferences, nonrandom target selection, and physiological anticipatory effects, but none have been found to be adequate. It appears that our nervous systems can indeed perceive about five seconds into the future.

The Princeton Engineering Anomalies Research Laboratory is next on the author's tour. The PEAR Lab's experimental work fell into two main categories: (i) investigation of mind-machine interactions and (ii) remote perception. In the first category, human operators attempt to influence by anomalous means the output of various simple machines, each of which involves some measurable random physical process. By 1996, the accumulated results were as follows:

> …some fifty million experimental trials have been performed to this date, containing more than three billion bits of binary information.… Anomalous correlations of the machine outputs with pre-stated operator intentions are clearly evident … [and] statistically replicable. Over the total data base, the composite anomaly is unlikely by chance to about one part in a billion.… From this huge array of empirical indications, it seems unavoidable to conclude that operator consciousness is capable of inserting information, in its most rudimentary "objective" form, namely, binary bits, into these random physical systems, by some anomalous means.

(Having completed its experimental agenda of studying the interaction of human consciousness with sensitive physical devices, systems, and processes, the PEAR Lab, which flourished for nearly three decades under the aegis of Princeton University's School of Engineering and Applied Science, has now incorporated its operations into the broader venue of the International Consciousness Research Laboratories in New Jersey.)

In the epilogue to her extraordinary book *Extraordinary Knowing*, Lloyd Mayer writes:

> It's been fifteen years since my daughter's harp came back. I've opened the door to questions about reality that shake the foundations of the world as I've known it. The real cost of the journey has been to give up one variety of certainty. This means the loss of a familiar world that plays by the rules, in which cause leads reliably to effects we can specify, rationality triumphs in predictable ways, and we have some sense that we can gain control over our experience. Worse, the world opening up to me is too often inhabited by ideas I deeply mistrust and people who swallow every New Age fad, people whose credulity horrifies me.

> I recalled my phone call to Harold the morning after we got that harp back. He wasn't home and I'd left a message: "Harold, we got it back! Call me!"
>
> He'd phoned back that evening. "Well, Lisby, I bet you're excited. I'm not — I said you'd get it back. But I am curious about one thing. What kind of condition was it in?"
>
> I told him: superb condition. Astonishingly good condition. Not a scratch on it — it was barely out of tune. That harp had been out of its case for over two months. Usually, just moving it across a room was enough to require thorough retuning.
>
> "Good," said Harold. "I been workin' on that."
>
> I'd felt a jolt of dissociation. "You *what*?"
>
> "I been workin' on that. The guy who stole it — he's a crook but he's a coward. He got so scared havin' that harp, he was tempted to junk it every day. So I just went in every morning and said, 'You keep that harp safe; that harp's a precious instrument.' " Harold paused, then casually added, "You know, thought forms can be very effective."
>
> Thought forms can be very effective? Offhand, as though it were perfectly ordinary, Harold was telling me he'd kept that harp in good condition through thought forms.
>
> With Harold making remarks like that, no wonder doubts about extraordinary knowing proliferate.

No wonder, indeed, but considering what he'd accomplished, a dismissive remark like that seems out of place. During her first meeting with clairvoyant counselor Ellen Tadd ↱, who according to Lloyd Mayer "stands out as both exceptional in her ability to know things inexplicably and convincing in her capacity to talk about what she knew in a sane, grounded way," Tadd ran up against an equally unfounded incredulity.

> At the beginning of our first session, I gave her only my name, no more, and told her I just wanted her to tell me what she saw. Again, I felt every skeptical muscle in my body working.
>
> Ellen started by looking at my right hand, which she said activated her clairvoyance, and began to describe my past lives. My wariness meter leaped into action. *Past lives?*
>
> I said nothing, but Ellen must have sensed my resistance. "By the way," she told me, "don't worry if you don't believe in past lives. Just treat them as a metaphor. I personally find past lives a useful way to read people's histories and see how those histories influence their current lives, but it doesn't matter if you don't."
>
> I calmed down. At least Ellen was a savvy clinician; she knew how to manage resistance. *Metaphor*. I could handle that.

If Ellen's "past lives" are metaphors, then why not Harold's "thought forms"?

The way I see it, *everything* is metaphor. Explanations are couched in a story. They work to the extent that the story is viable, and a story is viable to the extent that it remains internally consistent as it is forced to accommodate an ever-widening range of experience. When a story breaks apart under the stress of conflicting experiences — conflicting *within* the story's own framework — we have what is called an "epistemic crisis."

When Judith Butler, a noted feminist scholar and professor of rhetoric at the University of California, heard the story of Harold and the harp, her response was immediate: "You have just caused an epistemic crisis."

Epistemic crises abound. "A colleague who's a high-energy physicist sent me an article from the *Proceedings of the Institute of Electrical and Electronics Engineers*, one of the foremost journals in engineering and electronics," Lloyd Mayer recounts.

> As it happened, the article was by Puthoff and Targ and offered an overview of past and recent research into remote perception. What really caught my attention, however, was an introductory note from the journal's editor in chief. He explained why, over objection from his reviewers, he'd decided to publish the article. To make his case, he quoted one reviewer who had assessed the article as methodologically impeccable and could find no substantive basis for rejection. However, that reviewer recommended rejecting it for publication with the following declaration: "This is the kind of thing that I would not believe in even if it existed."
>
> The reviewer's statement was yet another dramatic illustration of the way apparent anomalies challenge our Western scientific worldview. Here was a presumably distinguished scientist — a reviewer for a major scientific journal — who declared that he was dismissing evidence he'd just assessed as solid and good.

As Charles Whitehead observed,

> [a] study of "elite scientists" revealed that evidence has no effect on belief or disbelief in paranormal phenomena. No matter how thorough your controls or how many zeros you have in front of your p value, disbelievers still demand "better proof." So Thomas Kuhn . . . didn't go far enough. Scientists do not simply fail to treat anomalies as counter-instances; they deny their very existence. Anomalies tend to get swept under the carpet until there are so many of them that the furniture starts to fall over. (*Journal of Consciousness Studies* 11, December 2004, pp. 68–88)

No wonder discussion of anomalous experiences frequently has the ring of religious debate. As Lloyd Mayer observes, "[i]f people on both sides stay lodged in states of mind from which they can't see what the other insists is perfectly visible, why should either side hear the other's truth as reflecting anything but a matter of faith? Why should either find the other's truth remotely plausible?"

While evidence has no effect on belief or disbelief, something else has, as Lloyd Mayer reports. In a survey of more than 1,100 college professors in the United States, 55 percent of natural scientists, 66 percent of social scientists (psychologists excluded) and 77 percent of academics in the arts, humanities, and education, reported believing that ESP is either an established fact or a likely possibility. By contrast, the comparable figure for psychologists was only 34 percent. On top of that, the same percentage of psychologists — 34 percent — declared ESP to be a frank impossibility, a view expressed by only 2 percent of all other respondents. On the other hand, knowing all they know about the tricks of their trade, between 72 percent and 84 percent of magicians believe ESP to be a genuine phenomenon. Given that only 34 percent of psychologists believe in ESP, the contrast is striking. Magicians are far more certain than people in any other profession that psychic phenomena really do exist.

Here is Hal Puthoff's final summing up:

> The evidence is in — solidly in. But our ability to rely on remote viewing as an intelligence tool isn't ready for prime-time TV and that's a very real problem. We don't know enough. The results produced by remote viewing have been truly impressive but they're inconsistent, unpredictable, and we know very little about who's good at it or why. That makes the findings easy to tear apart. I don't doubt we'll get beyond that, and when we do, inadequacies of evaluations like the CIA/AIR report will speak for themselves. In the meantime, we're dealing with the same thing your patient Grace was confronting. This is scary stuff. The fear is worst among people I'd call middle-management types, people who rely on the status quo for their security. This work upends the status quo. Though there were certainly smart minds appointed to the AIR Commission, the people calling the shots from the government side were, frankly, middle management. The irony is that at the upper echelons, in government but in other venues as well, I find there's solid acceptance of remote viewing and real excitement about its potential. We just need to keep working. We need to work at allaying people's fears, but also at clarifying the underlying processes and mechanisms — the how.

And there's the rub. As Lloyd Mayer's endocrinologist friend exclaimed:

> There's no mechanism! Science can't explain results like these and data can't be considered in a vacuum. Until somebody comes up with a plausible way to understand what this study claims, we can't do anything with the data.… We've got no way to think about it.

This, then, appears to be our dilemma: shall we look for our keys where we lost them but can't see them, or shall look for them under the lamppost of science, where we'll never find them?