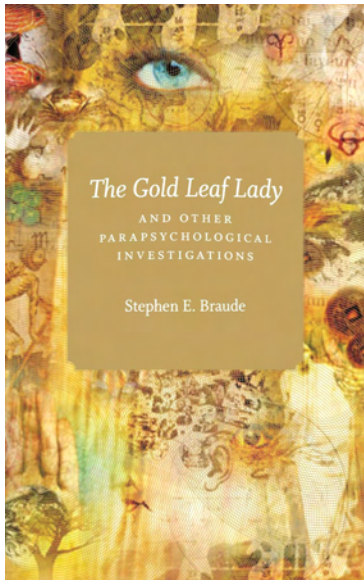


BOOK EXCERPT¹



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Chapter 8 (pp. 153–177)

Postscript: Some Thoughts on Astrology

Theoretical Background

Opponents of astrology, like some skeptics about parapsychology, routinely — though I believe disingenuously — overestimate the importance of theoretical knowledge. They often argue that if we can't scientifically explain how astrology might work and lead to detailed, accurate predictions, we're not entitled to conclude that there are genuine astrological facts to which astrologers have gained (or can gain) access. They might say, for example, "I can't accept that the arrangement at birth of celestial bodies (especially extremely distant ones) makes a difference to a person's character, or that there's a connection now between the placement of those objects and present or future events. Nothing we know scientifically about the world suggests a mechanism for these alleged connections." As far as parapsychology is concerned, some would say, "I can't accept that a table levitated (or that someone received information directly from a remote location, or influenced a random number generator by thought alone). It simply makes no sense (or is overwhelmingly improbable) in terms of our scientific knowledge."² Surprisingly,

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² For the record, I should add that it's highly questionable whether psychic phenomena are improbable relative to current scientific knowledge. That view may rest on a suspicious as-

even some parapsychologists make claims of this sort. For example, I've often been told that psychokinetic influence on random number generators is more probable than larger-scale phenomena (such as table levitations or materializations) because in the former case we have some idea how to integrate the phenomena into current scientific theory.

Now don't misunderstand me: I believe we should respect the achievements and the explanatory power of science. But to me it's astonishing that anyone would say these things. The authority of science is not absolute. In fact, science periodically undergoes radical transformations, and positions that at one time seemed absurd later attain the status of received knowledge.³ Besides (and even more to the point), it's completely obvious *that* we can know that something is the case without knowing *why* it's the case.

Science started with, and has always been driven by, the desire to explain what we've already and undeniably observed to occur. In fact, it's easy to rattle off long lists of phenomena we've ascertained to be genuine before we had — or before we at least settled on — a theory as to why or how they occurred. Think, for example, of lightning, thunder, heat, rain, earthquakes, sunrise and sunset, lunar cycles, tides, magnetism, organic growth and development, aging, tooth decay, inherited characteristics, memory, pain, and hair loss (some of these we still don't know how to explain).

Of course, our labels for (and interpretations of) some of these phenomena have changed in the process of trying to make sense of them. Over time we've usually found new ways of systematizing observed regularities and drawing links between them and other things we observe or believe about the world. We knew that objects burned in combustion, whether we explained it (say) with respect to phlogiston or oxygen. Various symptoms of disease and ill health have been recognized for millennia, whether those conditions were explained in terms of imbalance of bodily humors, demonic influence, or microorganisms. Even very unusual phenomena, such as instances of exceptional ("photographic") memory and the appearance of musical or mathematical prodigies and savants, occurred indisputably, even though we've struggled with various attempted explanations of them. But no matter how we characterized and organized these occurrences and tried to connect them with other items in experience, we knew for sure that the events we were trying to explain really happened. Clearly, we didn't need to have any explanation at hand to know that they were real.

Many critics, then, seem to have it backwards. Theoretical speculation requires, from the beginning, careful and systematic observation. Without the initial accumulation and systematization of observed facts, scientists won't even begin to know what they're theorizing about. Moreover, as the history of science demonstrates, we often think we know how to explain observed facts until better explanations come along. So obviously, our

sumption that the domain of the psychological reduces to that of the physical. For more on this, see Braude 1997.

3 This is an issue commonly associated now with Kuhn 1970. But for a more subtle treatment, see van Fraassen 2002.

currently preferred explanations never provided much (if anything) in the way of additional assurance that the phenomena were real. On the contrary, no matter what science eventually takes the phenomena to be, their reality was our starting point, the source of our puzzlement and our urge to find an explanation.

Actually, the extent of our pretheoretical or prescientific knowledge is much wider than the above examples suggest. We build the most mundane but vital aspects of our lives on countless observed facts without knowing how to explain them. Long before we have so much as a clue as to what an explanation of the facts would even look like (e.g., when we're children), we learn that fire produces heat, that by eating we can make hunger disappear, that some objects float on water while others don't, that we have certain regular urges (e.g., to urinate and sleep), that various interesting sounds emanate from certain of our orifices, that consuming specific beverages leads to certain (often pleasant) altered states, that certain behaviors (e.g., crying) elicit certain reactions in others, and that we can produce extremely pleasant sensations by various kinds of self-stimulation.

It's also well known that a person's physical or mental states can be affected (and sometimes permanently conditioned) by features of that person's environment. Astrology rests on the claim that these environmental relationships extend to our connections with celestial states of affairs. Some may doubt whether these alleged relationships are genuine, and it's perfectly legitimate to raise those doubts. But there's nothing inherently wrong with suggesting that the relationships are real. And in fact, we can have good grounds for claiming they are real without knowing why that is. We need only to spot the regularities and determine whether they're persistent and robust.

So if there's a scientifically credible and causal story to tell about alleged astrological connections, we'll obviously have some serious work ahead of us. But in the meantime, we can continue to refine and extend our observations and see whether we can generate successful predictions from the correlations we observe. In short, we can try to get a handle on the phenomena pragmatically so that we have at least a working knowledge of the domain. The analytic knowledge of it can always come later, if it ever comes at all. And it needn't come at all, especially if the regularities in question turn out to be as fundamental as natural regularities get. But in any case, without the practitioners (those with a working knowledge) to guide them, theoreticians often wouldn't even know where to look. For example, acupuncture theorists (Eastern or Western) first needed the groundwork laid for them by those who figured out how to use needles to heal. In principle at least, and as far as we know, astrologers might be in the same boat.

Personal Background

Since I took my first careful look at the parapsychological evidence in the mid-1970s, I've had to confront — and often dispel — a number of personal intellectual prejudices. Most of these I acquired in the process of cultivating the intellectual snottiness essential for membership in the academic mainstream. But even after shedding many of my unreflective biases and cheap pretensions, some remained. One of these was the belief that astrology is nonsense and a refuge for the credulous. Of course, considering the vague-

ness of so many published astrological forecasts, that bias wasn't totally without merit. But I also knew that I couldn't reject a field of inquiry simply because it appealed to naive or foolish adherents. After all, I knew it was appropriate to study ESP, PK, and the evidence suggesting life after death, even though parapsychology attracted many uncritical believers (some of whom, for no reason other than their interest in the subject, declared they were parapsychologists). I simply believed, without really looking into the matter, that astrology wasn't worth the time.

However, there was at least one chink in my armor. Although I hadn't read any ostensibly careful studies on the merits of astrology, I knew that Michel Gauquelin had found some surprising similarities in the horoscopes of athletes.⁴ And I knew that an attempt to debunk Gauquelin's results, conducted by the Committee for the Scientific Investigation of Claims of the Paranormal (CSICOP), led instead to an embarrassing replication of them, something its leaders shamefully tried to cover up.⁵ So I had some reason to think that astrology might deserve a closer look, but I admit I wasn't eager to pursue it. I knew I'd have to risk making more deep changes in my worldview and possibly confront yet another blast of scorn and ridicule from the many (even more ignorant or cowardly) members of the academy with whom I still associated.

Fortunately, my life conspired to frustrate my laziness. I married a remarkable woman who, in addition to being exceptionally well educated and intelligent, with impeccable credentials in both clinical and experimental psychology as well as psychometric research, was also an apparently gifted astrologer, capable of making reliable, detailed, and accurate predictions. I needed to understand what was going on, and I needed to probe her claim that she was doing something quite different from what the vast majority of so-called astrologers were doing.

I'm still at only the most preliminary stage of coming to grips with all this. But I think there's some value in presenting a progress report of sorts, indicating what's shaken my complacent and dismissive attitude toward astrology. So I present this portion of the book as a postscript, a collection of intriguing personal anecdotes. I don't think they help dispel the mystery of astrological proficiency, but I believe they suggest strongly that many have prematurely closed the door on astrology.

Gina's background

My wife Djurdjina (Gina) is originally from the former Republic of Yugoslavia. She taught psychology for eighteen years at the University of Novi Sad and enjoyed a legitimate, respected, and perfectly mainstream career, during which she accumulated a long list of publications (one book and nearly one hundred articles) and professional presentations

4 In particular, he found that "sports champions tend to be born when the planet Mars is either rising or culminating in the sky much more often than it does for ordinary people" ♠. For a chronology of the controversy this engendered, see ♠.

5 Kammann 1982, and Rawlins 1981. For more on the original results and the literature they spawned, see Ertel 1988, 1996, 1997; Gauquelin 1955, 1983, 1988; Kurtz 1997.

in clinical, experimental, and social psychology. During her country's devastating and protracted civil war, faculty salaries plummeted dramatically, and at one point Gina's university was paying her only about \$2 a month. Not surprisingly, then, Gina began looking for additional sources of income. It turned out that she found a lucrative market in professional sports for the astrological skill she'd been perfecting over the years.

For reasons that should be clear enough, I prefer not to mention the identities of those for whom Gina worked. It's enough to note that for six years she served as psychologist/astrologer for several European soccer teams and another soccer team in China. Drawing on her expertise and experience in psychology as well as her acquaintance with team personnel, and armed with birth dates and times for as many players, coaches, and officials as possible (including players and coaches on the opposing teams), Gina was able to make specific and accurate predictions about forthcoming games. And because (according to Gina) much of astrological forecasting — like weather forecasting — concerns tendencies and trends, not strictly deterministic causal chains, Gina could determine which potential outcomes are capable of being influenced and altered. That, in turn, allowed her to suggest corresponding strategies to coaches and thereby enhance their teams' chances of winning. Most of Gina's astrological work was for two teams, and in both cases it seems her combination of psychological and astrological guidance enabled those teams to rise to the top of their respective leagues or divisions (from previous positions of overall mediocrity).

In a moment I'll mention some details concerning this work; but I should probably also note that Gina found an additional demand for her astrological services within the Serbian mafia, primarily doing economic forecasting for their black market business (not their drug business). I can't go into specifics about this (I value my knees), but I believe it indicates something about Gina's success to note that this employment provided her with nearly ten years of protection from the ravages of the civil war. While others suffered, Gina thrived. The mafia made certain she wanted for nothing. (In fact, Gina could have had her own Ferrari, but she realized there would be no point in doing so. There was no place to park the car where it wouldn't be stolen or vandalized by her desperate neighbors, or destroyed by the bombs falling nearby.) In any case, I suspect that if the mafia hadn't found Gina's guidance helpful, they wouldn't have continued to rely on her, especially for such a long period.⁶

6 I suppose I should mention briefly how Gina hooked up with the mafia in the first place. Originally, she was contacted by a woman (we'll call her M.) whom she knew slightly from her hometown and who was connected with the mafia. M. was facing prosecution for a murder she had allegedly committed, and she thought Gina might have connections that would help her. Gina never learned the precise details of the alleged crime; M. was evasive and never gave anyone, including her own lawyers, the same story twice. Anyway, Gina reasoned that the poor victim was already dead, and so there was nothing she could do to help him. Maybe she could still help M., in various ways.

So first, Gina pulled some strings and helped M. avoid prosecution (I gather this is still appallingly easy to do in Serbia), and then she set about working on M.'s character. But the mafia was so grateful for Gina's behind-the-scenes legal assistance that they took Gina under their protective umbrella. Soon thereafter, they learned about her astrological activities, and

Granted, many willingly pay for services without any decent evidence that their service providers are actually competent. Accordingly, it proves nothing about Gina's abilities to note merely that she enjoyed continued employment as an astrologer. But the mafia members who supported Gina are neither stupid, naive, nor blindly loyal when it comes to matters of business. And considering how often they consulted Gina for her forecasts, they had ample opportunity to determine whether she was reliable. Moreover, I find it hard to believe that, especially during the desperate period of civil war, her mafia employers would have hesitated to cut Gina loose, or at least stop seeking her astrological advice, if they weren't profiting from her recommendations.

There was a price Gina paid for having her astrological forecasting so highly valued within this organization: mafia members would call her at all times of the night requesting horoscopes. Moreover, there were frequent awkward moments when they would call for Gina at her university office, wearing (apparently obligatory) dark glasses and parking their big cars in front of her building. Understandably, Gina preferred not to advertise this particular affiliation. Later, when she saw the movie *Analyze This* (about a psychologist counseling a mob boss), she was astonished at how closely certain events in the movie paralleled her own life.

Gina had become interested in astrology many years earlier, after being unimpressed with the horoscopes provided by some local practitioners. In fact, Gina had been angered by the exorbitant fees local astrologers were charging for what she considered to be worthless astrological readings. But because she's naturally inquisitive and open-minded, she couldn't help but wonder whether there was anything at all to astrology, and so she began to study it on her own. She collected and read dozens of books, but concluded they were as stupid and useless as the readings she had received earlier.

Around this time, Gina met a Swiss astrologer, Jakob Eugster, who encouraged her to ignore the received varieties of astrological theories, which he had also found to be worthless. Instead, he encouraged Gina to try an empirical approach to the subject: to calculate horoscopes and then to observe. During this period of her life, Gina was working primarily in clinical psychology, and she would routinely calculate charts of her patients, as well as of friends and acquaintances, and she also studied the published charts of many hundreds of other people. What she found was that by applying her understanding of clinical and general psychology to the reading of horoscopes, patterns simply began to pop out. Before long, Gina was noticing a variety of regularities between features of charts and such things as occupation, talents, psychopathologies, and various personality traits. Over the years, Gina continued to refine her ability to read charts, partly through contin-

Gina's reliable advice endeared her to them even more.

In the meantime, Gina counseled the alleged (and, frankly, probable) murderess, gradually weaned her from the mafia and helped her battle her alcoholism. Eventually, M. resumed her education, got a legitimate job as a schoolteacher, and as of this writing has just received her degree in engineering, with a final research project on digital photography. I attended the party celebrating the event, and I can report that the others in attendance were only university colleagues and family (not "family"). A genuine Serbian success story.

ued practice and partly through time spent with Jakob at his school in Switzerland.

Before going further with this saga, let me pause for a few introductory remarks about astrology. This is not the place for a detailed examination of astrological theory, and in any case I'm not the person to provide it. But for those readers who know even less about astrology than I do, perhaps the following will be helpful.

In calculating a horoscope, Western astrologers typically produce what's known as a *chart*. It's a graphical representation of the sun, moon, and planets, surrounded by the twelve star constellations of the Zodiac, from the standpoint of a certain location on earth at a particular time. Like many others, Gina typically uses a circular figure, or *chart wheel*, to represent a horoscope. The chart wheel is the usual tool of Western solar astrology, and underlying its use is the assumption that celestial objects and their locations in the sky can influence human life and events on earth. So charts are, as it were, maps of the heavens, usually for the moment of birth, for a person, event, or even (say) for an idea or nation.

Unlike some astrologers who take a strongly deterministic view of the influence of the planets, etc., on human behavior, Gina believes that celestial influence comes in varying degrees. She therefore tries to detect which events or behaviors are free from celestial influence, and to what extent and under what circumstances they're free. Ostensibly, that's why Gina is able to suggest courses of action that could prove useful in sports and in other enterprises.

It's clear that whatever Gina is doing when she reads a horoscope, the process is anything but mechanical. However, calculating the charts themselves is relatively straightforward, and when it's possible Gina happily relies on several computer programs to save her the labor. But reading the charts, like (I suppose) practicing medicine — or clinical psychology — is both an art and a skill, and to some extent it probably can't be taught. But even if teaching astrology is limited in its efficacy, to the extent astrological competence relies on instinct and talent, teaching may also be indispensable, at least while the underlying talent or skill is emerging. Analogously, one can accomplish only so much in teaching people without musical gifts how to play an instrument. But to someone naturally talented musically, instruction can constructively channel and develop those gifts to an exquisite degree. I suspect something like that happened with Gina in her relationship with Jakob. She had, on her own, begun to figure out how to apply her intelligence and skills to the reading of horoscopes, and I believe Jakob helped her to become a virtuoso.

Sports Forecasting

So what has Gina done with her combination of psychological and astrological expertise? Although she has plenty of anecdotes from the period before we met, I'll limit myself primarily to achievements for which I was present.

When Gina first came to the US to live with me, she was still working for a team in China. Several times each week the team's coach would phone us for Gina's suggestions about

how to play his game. Prior to these phone calls, Gina would spend several hours with the charts of players, coaches, etc., to see who would have a good day or bad day, who was likely to score or screw up *at quite precise moments in the game*, which opposing players were likely to be dangerous at certain points, when the judges were likely to make good or bad calls, etc. So Gina would advise the coach, in great detail, what the course of the game would be and how the psychologies of the team personnel and judges, on the day of the game, would match the character of that particular game. For example, Gina would tell the coach on one occasion that it's best to begin the game by emphasizing defense and on another occasion to play very aggressively within the first ten minutes. She would say, for example, that opposing player number 23 would be very dangerous at 35:30 of the game, or that the coach (or specific players) would be particularly able to deal with (or likely to be flustered by) something happening at a certain point in the game. In fact, she would tell the coach when the opposing teams (and which players) were most likely to score a goal, and then she would recommend the best strategy for preventing it (i.e., the best way to use the players given their psychology at that moment).

It was clear that Gina was on to something, and the coach obviously found her forecasts indispensable. (That had been true as well with the European teams she had advised before this.) Gina was working without a formal contract with this team; she was getting paid under the table. Moreover, it was the coach's decision alone to rely on Gina's guidance, and he made that decision independently (and I believe without the knowledge) of the team owners. So nobody was forcing him to phone Gina from China every few days to get her detailed recommendations. In fact, he was clearly upset when Gina's activities in the US interfered with her ability to produce timely reports for him. Once again, I'm not claiming that Gina's abilities are genuine just because somebody was willing to pay for them — but as with Gina's mafia employers, her soccer coach had several opportunities each week to test and confirm the reliability of Gina's forecasts. In fact, although his team had never come close to a championship prior to Gina's assistance, they were now regularly beating better-funded and ostensibly more talent-heavy teams within their Asian league.

One incident in particular stood out for me. At one point, Gina's preparatory work indicated that it would be better if the coach played the reserve goalkeeper rather than the regular goalkeeper. Now in professional soccer, that's something that's almost never done. Usually, reserve goalkeepers see action only if the regular goalkeeper is disabled. Not surprisingly, then, the coach initially refused to accept Gina's recommendation, and the team lost that game very badly. But Gina saw that the same situation would obtain for the next two games: the regular goalkeeper would not have a good day, while the reserve goalkeeper would have a tremendously lucky day. This time, Gina persuaded the coach to heed her advice, and her team won those two games by shutouts, beating much better-funded teams from Shanghai and Beijing.

Now what interested me most about this was the fact that Gina had never predicted that the reserve goalkeeper would play well. She had seen only that he would have a good

day. And in fact, while this player was in goal, *his skill was never actually tested*. Despite the fact that the Shanghai and Beijing teams were formidable opponents, on those game days they couldn't make a shot on goal. Every attempt went either high or wide, and it seemed as if the teams were squandering a golden opportunity to capitalize on their opponent's unprecedented vulnerability. Obviously, the reserve goalkeeper, a young man of relatively modest ability and very limited experience, was having an exceptionally good day.

I should mention that although Gina's position with her various teams was kept as quiet as possible (and thus never formalized beyond a verbal agreement), other teams eventually learned of her involvement. This is hardly surprising. After all, Gina had requested precise birth records for the players, coaches, etc., which goes well beyond the information usually required, and which must have made at least some people curious. And besides, movement of players between teams, as well as ordinary interaction between members of different teams, would have made it virtually impossible to keep Gina's activity a complete secret. So eventually, opposing teams began posting false birth information about their players, and Gina's team began to do this as well, just in case other teams likewise starting seeking astrological guidance. At any rate, Gina reports that her teams had ways of securing accurate birth information about opposing teams' personnel; so their attempted misinformation campaigns were ineffective.

Incidentally, Gina doesn't know whether any other astrologers were working in professional soccer, but she's confident that they probably were no better than the average newspaper astrologer and were unable to make any but the most general (if not totally vacuous) predictions. In fact, Gina suspects that with the possible exception of Jakob, no one could match her skill at astrological sports forecasting, and that eventually she was better at this than even Jakob, who simply lacked her interest and experience in that domain. And this was not an arrogant boast; it merely reflects Gina's view that her success resulted first from her ability to apply her knowledge of psychology to the reading of horoscopes, and second from her accumulated experience in working within professional sports. Besides, by Gina's estimate, in six years she provided inaccurate information only three times. So if that's correct, her self-assessment is completely reasonable.

Gina eventually severed her ties to European and Asian soccer, but she began to learn about American football and baseball. Because she's an avid sports fan (and in fact very athletic herself), she very much enjoyed the process. To date, Gina hasn't been able to find work with any major US sports franchise; she simply lacks the connections in this country that would get her in the front door. Nevertheless, she found an outlet for her skills. During the 2005 National Football League Playoffs, Gina thought she might as well take advantage of the fact that I have family living in Las Vegas by placing bets on some of the games. I watched this process closely, especially since it was my money we were betting, and frankly also because (despite my having been born in Vegas) I'm appallingly spineless when it comes to gambling.

Gina got this idea after seeing how well she could predict the course and the outcome of some games early in the playoffs. She hadn't been certain she'd succeed at this, because

she didn't understand the games as deeply as she knew soccer, and also because she was working with less information about the participants than she preferred and was accustomed to having in soccer. From the Internet Gina was able to learn what she at least assumed were the correct birth dates of the players and coaches, but she had no way of finding out the crucial times of their birth. Nevertheless, she found that she was able to make some rather accurate and precise forecasts. At the very least, she could tell which team was likely to win, how probable that victory would be, and whether the game was likely to be high scoring or low scoring. Moreover, she also had some idea when in the game the different teams would have their best opportunities to score, when the momentum was likely to shift from one team to the other, and how the players and coaches would be able to handle the challenges posed by the specific character of the game. On that latter issue, for example, Gina said she could see how the personalities of the Pittsburgh Steeler players matched that of the head coach, and how they would be psychologically better suited than their opponents for dealing with the challenges of the games. Gina didn't come up with these ideas based on information in the newspapers, on TV, or on the Web. The only time she ever consulted anything other than a horoscope was searching the Web for birth dates.

I'm sorry now that I didn't keep detailed records of what Gina did during the playoffs; I had no idea at the time I'd eventually write about her exploits. So I merely observed her as she spread dozens of chart wheels around her, and I listened to her as she showed me charts for particular games and indicated how they represented the probable course of action for those games. For example, in the first-round playoff game between the Cincinnati Bengals and the Steelers, Gina saw that the home team (Cincinnati) would suffer something quite ugly and outcome-determining early in the game. And in fact, the Bengals' quarterback sustained a possibly career-ending injury on his first pass attempt. The Steelers won the game handily, as Gina had predicted.

We started placing bets when Gina determined that the oddsmakers' underdogs were very likely to win. So we bet on the Steelers to beat the Indianapolis Colts (the heavy favorites) and the Denver Broncos to beat the New England Patriots. Let's just say we did very well. We also bet on Gina's subsequent picks of Pittsburgh over Denver, and finally (in the Super Bowl) over Seattle. Only on that last game were we betting for the team favored to win. So we did very nicely overall (in fact, our winnings supported a large chunk of a summer vacation).

As pleasant as it was to win, it was even more fascinating to see how Gina's fairly detailed predictions were confirmed during the course of the games. For example, when the Steelers played the Colts, Gina predicted that late in the fourth quarter, the officials would do something unusually momentous. It also looked to her as though Steeler defensive player Troy Polamalu would play a vital role during this time. Gina showed me the portion of both the overall game's chart wheel and Polumalu's chart wheel corresponding to that final segment of the game, and she explained to me how the positions of the planets led her to that prediction. Now although many would have predicted that Polumalu would be one of the keys to Pittsburgh's defensive game (he's a great player),

Polumalu's chart indicated to Gina that he would be especially influential at certain times rather than others, one of which was late in the fourth quarter. And in fact, with about five minutes left in the game, referee Pete Morelli reversed what looked to most observers like a clear pass interception by Polamalu. With the interception, the Steelers seemed to have a victory clearly within reach; at that point they enjoyed a 21–10 lead over the Colts. But Morelli's reversal gave the Colts a crucial opportunity to regain the lead, and they very quickly closed the gap to 21–18. The Steelers eventually won (in one of the zaniest conclusions in playoff history), and it's notable that the referee's action was not just another ordinary reversal of a call. Later, the NFL made an unprecedented announcement that Morelli had made the wrong decision when he overturned the interception.

For all the games on which we placed bets, Gina told me beforehand what the general flow of those games would be — for example, in which parts of the games the teams would have momentum, or when they would have scoring opportunities. She accurately predicted which games would be easy victories and which would be struggles. She also mentioned that specific players were likely to score in specific quarters (and sometimes at even more specific points in the games). Again, I regret not having taken careful notes of these predictions. I knew Gina was working with less data than she had for the soccer teams she advised, and I was too busy fretting about losing money. Also, I'm not sure it would have been wise to make the situation more test-like and probably more pressure-filled than it was already (thanks to my anxiety) by systematically and carefully having Gina record specific predictions ahead of time. But for what it's worth, I can report that Gina's specific predictions about game flow and players scoring were generally accurate.

Further Astonishments

This was not the only situation in which Gina tried using astrology for betting or gambling. During her tenure with the Serbian mafia, she would provide advice to the organization's professional gamblers, and apparently they found it as helpful as her advice on matters of illegitimate business. They relied on it for years and kept returning for more. Although Gina doesn't pretend to understand very well how astrology might work in these situations, apparently professional gamblers knew what to make of the information she provided.

So on one of our trips to Las Vegas, we thought we'd see whether Gina could figure out optimal times for playing slot machines. As far as Gina could tell, the time we had chosen for our trip wasn't particularly favorable financially. But she found what appeared to be a forty-minute window of opportunity beginning one day at 2:30 a.m. Admittedly, we weren't sure what to do with that information. We figured it didn't mean that we'd win on just any machine we tried. Since many slot machines are actually amusing audiovisual experiences, or at least experiences we enjoy, we thought it more likely that we'd have good fortune on machines that entertained us, or with which we felt some kind of connection at the time. We also weren't sure whether Gina's charts indicated that we'd continue to have good fortune playing machines on which we'd already won, or whether we

should move on to another machine after a significant win. We decided on the latter course.

For the purpose of comparison, we played slot machines at no less than a dozen nonoptimal times throughout our visit and adopted that same strategy. On some of those occasions, we didn't enjoy even temporary, modest success with any machine (although we found many slots whose animation we enjoyed). On other occasions, we sometimes won a little bit by advancing through one of the machine's bonus rounds, but we had no continued success on that machine or any other. We wanted to carry on with these trial rounds — purely in the interest of science, of course — but we had only limited funds for this investigation, despite playing only one- and five-cent machines.

We were naturally curious, then, to see what would happen during Gina's predicted window of opportunity. We dragged ourselves out of bed and to the casino around 2 a.m. Fortified with a little bit of coffee, we started playing the machines around 2:15, placing maximum bets on the penny or nickel slots. At around 2:30, but not before, we started doing well. We'd invest no more than several dollars in a machine and very quickly win anywhere from \$15 to just over \$65. After a "big" win (considering our lowstakes betting), we'd move on to another machine that looked inviting, and the scenario would be repeated. We'd invest a few dollars, win back twenty or thirty dollars or more, move on, and win again. The forty minutes passed very quickly, and Gina, flushed with success, decided she could keep going. But nothing she tried after 3:10 a.m. succeeded. After about fifteen minutes of losing, she eventually gave up, and we still came out nicely ahead.

I realize there are many ways to interpret our spasm of success, including appealing to player-PK; so I report this experience as no more than a suggestive episode. Nevertheless, it's certainly interesting that despite many hours of time logged with slot machines during our several days in Vegas, the only time we had any continued success and came out ahead was during the forty-minute period Gina had previously identified as our time to win.

A different sort of anecdote is also worth sharing, illustrating the precision of some of Gina's astrological inferences. Gina generally prefers not to do individual horoscopes, at least professionally. She will do them for friends and relatives, but only infrequently for clients. On one occasion a friend asked Gina to do her horoscope. This friend knew her own birth date, but because she couldn't locate her birth certificate she didn't know her time of birth. Now when Gina does a personal horoscope, she actually does a *group* horoscope. She usually wants to know the birth dates and times of significant people in the client's life, and also the dates and times of death of significant others. She also likes to have information about major events in the client's life, such as a marriage or divorce, major illness, purchasing a first house, or the start of a new job. In Gina's view, the dates of these various events should all line up in the correct horoscope. That is, in a person's chart there will be a time of birth for which those events appear at the dates and times on which they actually occurred. But then Gina can work backward from the calendar information about the events and (as it were) triangulate the correct time of birth. She did

this for my friend, who soon thereafter located her birth certificate. It turned out that Gina had nailed her birth time to the minute.

I imagine that some readers are sympathetic (or at least open) to paranormal explanations, but that they remain contemptuous or strongly suspicious of all things astrological. Moreover, some of these readers might think that what Gina is doing is really not astrology at all, and that in fact it's independent of her astrological calculations. They might propose that Gina is precognitively gifted, and that she uses horoscopes the way others might use a crystal ball or tea leaves — that is, as a kind of focusing device, a Gina-friendly means of tapping into psychically acquired information.

Gina's response to this would be that of course to some extent she's using *psychological* knowledge and skills — as she believes any good astrologer must in order to understand a person's horoscope. Even more generally, Gina maintains that one still needs a good “nose” to interpret a horoscope — that is, a sense for recognizing what's relevant and important. In her own case, she would say she developed this instinct after much practice in the empirical approach recommended by Jakob. Gina also concedes that one could, at least in principle, use psychic abilities as a substitute for astrological expertise. However, she notes that this requires a deeper level of personal engagement than letting calculations do much of the work.

So Gina would say that, as long as one is really doing astrology and not simply using horoscopes as a psychic focusing device, the calculations are critically important — arguably, the most important part of an astrological chart. In fact, Gina contends that most astrologers seldom (if ever) accurately figure a person's time of birth, and that the resulting errors can be momentous. However, it's difficult to explain what, exactly, the problem is without revealing more of Gina's distinctive approach than she'd like. I hope the following remarks will be enough to clarify, if only slightly, what Gina does differently.

All astrologers represent periods of calendar time by means of intervals along a chart wheel, and those intervals are specified by the number of degrees along the 360-degree circumference of the circle. But Gina's method of using those intervals *for the purposes of prediction and checking a person's time of birth* is radically different from that adopted by most astrologers. And the difference has to do with the way time is measured.

Most people are familiar only with *solar* time, for which a day is twentyfour hours long, and which is measured roughly with respect to the time it takes the earth to rotate once on its axis and for the sun to appear at its previous location in the local sky. However, the earth moves slightly along its orbit during the course of one rotation. So it turns out that the earth must actually rotate approximately 361 degrees before the sun is again at its previous position in the sky. Therefore, a more accurate way to measure the earth's 360-degree rotation is with respect to the position in the sky of a distant star rather than the sun. Using this measurement, we can define a sidereal day, and this day is almost four minutes shorter than a solar day.

Now in astrology, it's presumably important to be accurate about the position of heav-

only bodies at specific times. Not surprisingly, then, astrologers transform periods of calendar time into this more precise sidereal time when calculating their charts, and there are standard conversion tables and formulas for converting from ordinary solar, or calendar, time to sidereal time.

Up to a point, Gina adheres to this practice. However, for the purposes of prediction and checking birth times, she uses *astronomical* time, measured with respect to the apparent circular path the sun takes along its ecliptic. During the earth's orbit around the sun, the sun appears to us to stand in front of different stars, and eventually the sun and solar system seem to travel in a circular path around the twelve constellations of the Zodiac. That entire apparent trip is called an astronomical day, and it's roughly equivalent to one solar or sidereal *year*. Moreover, an astronomical day is represented by only one degree on a chart wheel, and when that's converted or translated into sidereal time, it has a value of about four minutes. So in Gina's preferred system of measurement when making predictions, one calendar year of a person's life is represented by only four minutes (or one degree) on the chart wheel.

Without going into more detail than Gina wants, what this means is that a four-minute mistake in specifying a person's birth time will lead to a one-year mistake in making predictions based on the horoscope. For example, suppose we predict that a person born at 2:40 a.m. on January 12, 1980, will marry this year. However, if we mistakenly take that person's birth time to be 2:44 (or 2:48), then according to Gina's approach we'd infer that the person would marry next year (or in two years). Clearly, if the mistake in birth time is larger still, predictions will be off by an even greater degree in terms of years. So if an astrologer gets the time of birth wrong, say by thirty minutes, predictions from a horoscope based on that time will be massively incorrect, especially if the predictions extend reasonably far into the future. Thus, one of the secrets of Gina's success in predictions has to do with her ability to check precisely a person's time of birth.

That's why, when Gina works on a person's horoscope, she incorporates as many vital events as possible into that person's chart. She argues that hospitals are frequently cavalier about recording precise birth times, and so she uses these other life events to help her pinpoint the actual — not simply the officially recorded — time of birth. In the case mentioned above, the two results happened to be the same, as they sometimes are. But Gina suggests that the reason many people are so dissatisfied with astrological readings is that their astrologers (a) are working only with the officially recorded birth time, and (b) don't know how to *correct* the time of birth and find the time that accurately mirrors the person's life. Similarly, if no birth time was specified from the start, presumably they also don't know how to work backward and calculate the person's actual time of birth.

Not surprisingly, Gina says that preparing horoscopes for a sports team makes different demands on calculations than producing horoscopes for a single person. That's because in sports, what usually matters is the outcome for the next game — that is, for a period in the immediate future. But when doing an individual's horoscope, Gina is typically more concerned with looking into the person's longer-term future. That's why she reverts to astronomical time in her calculations. As Gina describes it, it's as if she expands

her vision and views a person's life from a very high altitude. But in sports, she needs to be precise about events happening within smaller units of time (the duration of a game, or various periods in a game). Gina describes that process as more like viewing life from a microscope than from an airplane. And for this specific kind of work, Gina taught herself — with considerable trial and error — how to make the appropriate calculations. As far as she knows, nobody else knows how to do this.

Again, to protect her apparently preeminent position in this area, Gina prefers not to reveal details about the exact calculations she uses. Suffice to say that when Gina learns the accurate starting time of the game, she then knows how to determine the placement of the main players at various times during the game. For example, in soccer Gina can determine who has opportunities to score and at what points in the game those opportunities arise. Next she can look at the game's chart wheel and see when goals are likely to occur. Then she can see which players are likely to score at the times when goals are likely to be scored. Moreover, when those goals are for the opposing team, Gina can then assess the probability of preventing the goals from occurring, and she can suggest specific strategies for defending against them. Her recommendations will hinge on information obtained from her knowledge of the players' personalities and abilities, and some of that knowledge concerns astrologically guided information about the players' state of mind, good fortune, etc., at precise times in the game.

I should also add that this fine-grained approach, focusing on individual scores, will work more easily in some sports than in others. In particular, it works best in games where scoring is relatively infrequent (e.g., soccer and American football), rather than in a sport such as basketball, which is saturated with scoring, where individual scoring opportunities are accordingly less momentous, and where other kinds of events become more individually significant (e.g., a player's fouling out, or a team's breaking out of a period of poor shooting). Gina has only recently begun to apply her astrological knowledge to basketball, and so she's still figuring out how to interpret the information at her disposal. Nevertheless, Gina believes that with practice, she'll be able reliably to identify, say, momentum shifts and when notable periods or flurries of scoring are likely to occur.

But let's return to more personal, domestic applications of Gina's astrological skills. As you might expect, Gina has worked extensively both on her own horoscope and on mine, and she has often used those results to pinpoint the optimal time for various projects or activities (not just gambling). For example, Gina selected a day and time to get married, and also a time to buy and build a house. I can report that these matters have all gone extremely well — and in the case of our marriage, arguably contrary to what one would have predicted on the basis of my previous matrimonial adventures.

I've been particularly interested in the way we've used Gina's astrological forecasting to determine (when possible) the best times to leave home for both domestic and international travel. For example, during my recent year-long sabbatical, we had many opportunities to use this kind of advice. Gina would examine our various departure options to see what the resulting charts indicated for the period of our trip. And if the charts looked problematical, Gina would tell me what sorts of problems they predicted (e.g.,

emotional difficulties, health issues, or simply troubles with the process of traveling). On one occasion, however, Gina withheld the full information from me, because she didn't want me to be worried over what looked to her like a disastrous chart. This was a case when she felt we had no reasonable or good option for leaving home. And that trip was, indeed, extremely difficult. The weather was awful; Gina got sick; she had a very painful visit with her seriously ill sister; and I got robbed of all my money, credit cards, and photo IDs.

But in most cases, we've been able to select among various departure options, some of which Gina determined were decidedly better than others. And when Gina finds one she really likes, in every case, those trips have been a breeze. In fact, in those cases it often happens that things go smoothly to an unprecedented degree. Of course, it's difficult to quantify the accuracy of Gina's predictions in these cases, and so I submit my various anecdotes as nothing more than suggestive.

Nevertheless, consider this. On one trip during the summer we planned to drive from Maryland to New England. We were going to take a route I've driven at least thirty times before, often at the same time of year, and without exception that drive has been irritating at certain specific points along the way, especially on weekdays. Morning rush hour around the Baltimore Beltway is always a pain, with very heavy and slow traffic and often long periods of starting and stopping. The same has been true around Wilkes-Barre and Scranton, PA, usually as the result of road construction (which in that area seems never to end). And from the New York/Connecticut border through Hartford, the traffic has likewise always been extremely heavy, especially during the mid-to-late afternoon (which is when I invariably reached that point in my journey).

Now when I've made this trip in the past, I've routinely left home between 8:30 and 9:00 a.m. That's not because I'm inductively challenged. Rather, it's because I always aimed to arrive at my destination at a certain time in the late afternoon, and on the basis of my experience departures during this period have consistently led to hassle-prone driving, especially at the usual problem areas. On this occasion we were traveling on a weekday, and Gina determined that we needed to leave at 8:50 a.m. I told Gina I was surprised by her prediction, and I explained to her what my previous experiences had been. In fact, even though Gina prefers to sleep late, I urged her to leave very early in the morning, so that we could beat the rush hours in Baltimore and Connecticut. However, Gina insisted that if we left at 8:50, the drive — and in fact, the trip itself — would be smooth sailing. I seem to recall arrogantly scoffing at this forecast, although Gina kindly claims that my behavior was more amusing than annoying. Nevertheless, I'm sure I played the role of condescending, experienced traveler, assuring Gina that we could anticipate the same traffic problems I'd confronted many times before.

But Gina was right. In the thirty years I've made this trip, not once have I encountered so few delays and obstacles. In fact, Gina and I breezed through every one of the usual problem areas, and we experienced no delays at other points along the way. The heavy traffic around Baltimore moved briskly. Moreover, although we found the usual road construction at several locations in Pennsylvania, it didn't slow us down. And finally, although we

reached Connecticut around 3:30 in the afternoon, and although traffic was heavy, it moved smoothly, without the customary bumper-to-bumper annoyances. We returned home also on a weekday and again encountered no delays, either in Connecticut, Pennsylvania, or when we reached the Baltimore Beltway around rush hour.⁷

Of course, I realize that every time I've made this drive between Maryland and New England, *some* departure times were likely to be more favorable than others, even during the thirty-minute period in which I usually left home. Presumably, traffic snarls and construction delays vary in severity, even at the usual trouble spots, and even during the approximate times I've reached those areas. So, some might think that the odds were fairly good that, sooner or later, I'd hit periods of smooth traffic in otherwise difficult stretches of highway.

Still, the only time in thirty years I've experienced no difficulties whatever during the drive is the one time Gina decided when to depart. Were it not for her accuracy and success using astrology in other contexts, it would be easy to minimize its relevance in connection with this incident. But under the circumstances, I feel I have to give some weight to an astrological interpretation of the events.

I must emphasize that while this case strikes me as unusually impressive, it's not isolated. Here's another typical example. On the basis of our departure time, Gina predicted that our return to the US from a recent trip to Europe would be especially easy. And in fact, when we arrived at Washington Dulles airport, we made it through baggage claim, immigration, and customs in record time. Our bags were first off the plane, whereas usually we wait a very long time, and too often our bags don't appear until days later. Then we had no delay at immigration control or customs, despite the fact that we've invariably been slowed down in the past, either by long lines or by Gina's Yugoslavian passport. And then to top it off, our shuttle home was waiting for us — something that has never before happened at Dulles airport.⁸ In fact, it was especially surprising considering how quickly we retrieved our luggage and got through immigration. Typically, international travelers aren't ready to be picked up within the first thirty minutes after their plane lands, and shuttle drivers usually take that into account. In seven or eight previous trips back to Dulles, we've had to wait at least ninety minutes before we could get through these various procedures and board the shuttle home. This time, we were headed home in less than fifteen minutes.

As interesting and suggestive as these cases may be, I realize that I'm working with a very small sample. Fortunately, I expect our travels to continue for a while, so there should be ample opportunity to gather more data. And from now on, I'll keep more systematic records.

7 For that matter, the rest of the trip was a joy. We had fabulous weather (although it rained as soon as we left), great food, excellent company, and killer shopping.

8 The reason may be that in good traffic, Dulles is seventy-five minutes from our home and from the home base of our shuttle service, and traffic is seldom good. That day it was typically heavy.

Summing Up: Astrology

I know from my own struggles with the data of parapsychology that personal intellectual prejudices don't disappear overnight, or without an active effort to combat them. I brought some very well-entrenched biases against astrology into my relationship with Gina, and they are by no means banished, although it should be clear by now that they're considerably bruised. Gina's accuracy in astrological forecasting seems conspicuously tied to quite specific features of the chart wheels she calculates, and it's something I've now seen on many occasions.

However, despite these recurring correlations, I suspect there has to be more to the story — in particular, a psychic element, whether it's Gina's extrasensory and wide-ranging scanning for relevant information, her psychokinetic nudging of events, or her telepathic influence. Gina even contends that after she determines what the relevant astrological tendencies are, she knows how to psychically influence those tendencies either positively or negatively. And she admits that she often tries to do this, both with personal and sports horoscopes. But if she can really do these things consciously, presumably she can also do them unconsciously and thereby create the impression (to herself and others) that the horoscopes give accurate forecasts on their own. Nevertheless, Gina insists that properly calculated horoscopes provide crucial information all by themselves. She would argue that the horoscopes either simplify the process of adding her own psi to the mix or else render her own psychic influence superfluous.

Without question, Gina's worldview is psi-friendly. She has no doubts about its reality, and she regards herself and others as potentially powerful psychic agents. She also believes strongly that psi abilities can be used for good and for harm. So unlike many other intellectually sophisticated Westerners, she's not constrained by biases against the reality of psychic functioning, including the intrusive use of psi to affect everyday events. In that respect, Gina is less inhibited about having psychic powers than the great spiritualist mediums and their "superstar" successors. In fact, like people in some less industrialized cultures, she's both comfortable with those powers and also wary of the ways others might use similar powers for their own, possibly unsavory, ends. To put it in terms few Westerners like, she accepts the reality of both "white" and "black" magic.

So, am I living my own version of the TV show *Bewitched*? Or more to the point: is there anything in all this that can help us construct a picture of reality in which Gina's activities and those of Katie, Serios, Home, and others⁹ makes sense? As far as astrology is concerned, I still feel we need to be cautious. Although it's clear, to me at least, that Gina's predictions are reliable enough to conclude that she's on to something, it's not clear what that something is. Gina understands and interprets her calculations within the context of one sort of astrological theory and (perhaps most important) on the basis of a very distinctive approach to making calculations. However, she also realizes that false theories can generate true predictions. So although she's quite sympathetic to astrology as an explanatory and predictive framework, she recognizes that her success at forecast-

9 Editor's note: *The Gold Leaf Lady* is reviewed in this issue of *AntiMatters*.

ing doesn't mean that her underlying astrological assumptions are true, or even probable.

As I see it, Gina has the same kind of pragmatic command of a domain that we find among good acupuncturists, whose theoretical underpinnings are also up for grabs. Some acupuncturists are particularly good and reliable at treating various kinds of ailments, but they often disagree among themselves over the theory that best explains their success — for example, whether a traditional acupuncture theory (positing the existence and movement of chi energy) is needed at all, and if so whether one should adhere (say) to an eight-element or five-element theory. In fact, even physicists disagree (sometimes sharply) over the theoretical foundations of their discipline, despite the fact that the equations of modern physics have proven to be exceptionally useful and reliable. As the history of science (and in particular, scientific revolutions) has made clear, it's always a good idea to remain somewhat tentative and humble about one's theoretical commitments.

Of course, there's an important difference between the current status of physics and that of astrology. We accept theories in physics because physicists successfully apply those theories over and over. So, for example, the theory of relativity was strongly supported because it allowed others besides Einstein to make accurate predictions. But we don't have an analogous situation in Gina's case. Obviously, Gina's underlying astrological assumptions would be better supported if other astrologers could match her predictive success. But (at least as far as I know) that hasn't happened. Of course, in the case of relativity Einstein wasn't the only person who *tried* to apply the theory. By contrast, Gina says that apart from Jakob (who died a few years ago), only a handful of others follow her general approach, and no one else she knows uses that approach in the way she does. As I explained earlier, the many astrologers who fail to generate predictions as reliably as Gina apply a different method of calculating horoscopes. So although Gina and other astrologers might share some general beliefs about the relevance of astronomical and geographical facts to a person's history, they're not all doing the same thing.

For now at least, I think we must look at Gina as a single case study. Arguably, it's analogous to what we would have confronted had no one but Einstein tried to test the predictions of relativity. It's not analogous (as some might think) to the hypothetical situation in which others besides Einstein tried but failed. Granted, no other body of scientific theory currently coheres with astrological claims about the relevance to our lives of the positions of celestial bodies. But the fact remains that Gina's forecasts are based on astronomical and geographical data and calculations, and I find it increasingly difficult to believe that this information is only fortuitously relevant to her ability to generate reliable predictions. So if evidence of Gina's forecasting accuracy continues to mount, the question remains: what sort of theory, other than astrological, explains the relevance of that data to Gina's success?

Nevertheless, at this stage I'd recommend the appropriately cautious conclusion that we have evidence of *Gina's* success, not the success of her theory. So while there may not yet be strong support for interpreting her success along astrological lines, I'd say we have

reason enough to justify further investigation and to at least keep an open mind about Gina's theoretical point of view. In the meantime, whatever the best underlying explanation turns out to be, I'm quite comfortable seeking Gina's advice on travel and other domestic and professional matters, and I'm ready to put more money on sporting events.

Summing Up: Parapsychology

As far as the psychic side of things is concerned, we can bring both this chapter and the book to a close by returning to several issues considered briefly in previous chapters, especially in chapter 2. I noted there how the great spiritualist mediums were probably aided psychologically by the belief that they only mediated — rather than directly produced — their phenomena. I observed how the physical phenomena of mediumship dwindled considerably in scale as psychics came to entertain or accept full responsibility for the phenomena's occurrence. I also noted that people in some parts of the world consider psychic functioning to be an everyday fact of life, and they accept both the positive and the negative aspects of psi as a matter of course. So in those cultures, the fear of one's own psi is not the potent inhibitory force it seemed to be for many European and American mediums and psychics.

The heyday of spiritualism saw the clash of two distinct worldviews or explanatory frameworks for psychic functioning. That of the spiritualists (or simply spiritists) took personal consciousness after bodily death to be the primary source of seance-related phenomena. From this survivalist point of view, mediums were merely channels or facilitators, not psychic "engines" themselves. The more ontologically modest, or scientific, picture that eventually and largely displaced this view attributed the phenomena exclusively to still-living, embodied agents: the mediums or their sitters. And to many it seemed that one or the other of these pictures — but not both — had to be correct. But in fact, these two views about the source of psi aren't mutually exclusive. If we're willing to grant the reality both of postmortem survival and of ESP and PK, they can live happily side by side. In fact, apart from the spiritistic addition of discarnate agents to the inventory of things in nature, they seem to have exactly the same picture of psychic functioning. That's because the survivalist picture actually *presupposes* the exercise of psychic abilities, the same ones the anti-spiritualist or anti-survivalist picture attributes to living, embodied agents.¹⁰

This is easy to see, and to keep things simple, we'll focus initially just on ESP. Recall, first, that ESP comes in two basic flavors: telepathy and clairvoyance. Very roughly, telepathy is a direct mind-to-mind interaction, and clairvoyance is a direct nonsensory awareness of (or response to) physical events. So for example, it would be telepathy if one person's thought about Bugs Bunny caused a remote person to think about Bugs Bunny or something closely related to that thought (e.g., the Easter Bunny or Elmer Fudd). It would be clairvoyance if a burning house directly caused someone at a remote location to think about a house on fire, or simply fire.

10 Braude 2003.

Now suppose a medium says to you the following about your deceased Uncle Harry: “Uncle Harry knows you’re eager to quit your job.” And suppose that claim about you is true. In that case, how does the medium know what deceased Uncle Harry is thinking? If (as spiritists would maintain), the medium can really have such knowledge, it could only happen by telepathy — that is, by direct mind-to-mind interaction between the medium and your deceased uncle. Furthermore, if deceased Uncle Harry’s personal consciousness really continues somehow to exist in the absence of his physical body, and if you’ve never told anyone how you feel about your job or otherwise behaved in some way that betrays those feelings, the only way Uncle Harry could know about them would be by telepathy — direct mind-to-mind interaction, either with you and your thoughts, or with the medium (who gained that information telepathically from you).

Suppose, next, that the medium says to you: “Uncle Harry is glad you’re wearing the necklace he gave you,” Now how would deceased Uncle Harry know that? It’s a physical state of affairs, not one of your mental states. Nevertheless, it could be by means of telepathy, if Uncle Harry gets the information directly from the medium’s or your thoughts about the necklace. But let’s suppose the scenario is not telepathic. In that case, since deceased Uncle Harry no longer has physical sensory organs, the only way he could know what you’re wearing would be by means of clairvoyance, a nonsensory awareness of that physical state of affairs.

Obviously, a similar observation applies to PK. If deceased Uncle Harry can directly modify a medium’s body and through her levitate a seance table, that would presumably be the same kind of direct mental influence on a physical state of affairs we’d attribute to the medium if she levitated the table by thought alone. So these mediumistic scenarios seem to require precisely the psychic capacities that psi-friendly anti-survivalists ascribe only to the living.

Of course, if we allow postmortem agents into the causal network, that only exacerbates the “source of psi” problem noted in earlier chapters. It’s often difficult enough to tease out which living persons are responsible for apparent psychic effects, or how much various potential agents contribute to the final result. But if we also open the door to after-death influence, the inventory of potential culprits becomes even more unmanageable. No doubt that’s enough for some to reject the survivalist picture right from the start. But it’s clearly unacceptable to rule that picture out just because it’s messier than we’d like. There’s no reason to think Nature decorates her house according to our aesthetic preferences.

But no matter what position we ultimately take on the issue of postmortem survival, I believe we’re left with the reality of at least some of the phenomena reported throughout the history of parapsychology. In fact, at our current and still rudimentary level of understanding, it doesn’t matter which explanatory framework we’re currently drawn to. It doesn’t matter, for example, whether Katie’s foil, Home’s accordion phenomena, or Ted Serios’s photos were produced wholly by those individuals, or in concert psychically with others, or whether these people mediated actions of agents outside our familiar physical reality; or something else altogether. We’re left, in any case, with events

for which our current and standard stock of scientific explanatory options seems conspicuously inadequate. Although I realize many see that as cause for suspicion and alarm, to me it's exciting. It's another humbling reminder how much we still don't understand about the world.¹¹

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11 I'm quite aware that this chapter, probably more than my others, has the potential to rub readers the wrong way. So I'm very grateful to several friends for their helpful comments on earlier versions. Whatever flaws remain I blame entirely on them. I'd particularly like to thank James Spottiswoode, Jerry Barnes, Bruce Aune, Dan Pearlman, and Rob Rifkin.