

ESSAY REVIEW

The State of the Art of a Tough Place in Science and Psychology, Parapsychology

Parapsychology: A Handbook for the 21st Century edited by Etzel Cardeña, John Palmer, and David Marcusson-Clavertz. McFarland, 2015. 424 pp. \$65 (paperback). ISBN 978-0786479160.

Handbook of Parapsychology edited by Benjamin B. Wolman. Van Nostrand Reinhold Company, 1977. 967 pp. \$25 (paperback). ISBN 978-0442295769.

Is it fortunate, fortuitous, or foreboding that this book emerges from the shadows of the publishing world even as the embers of the Daryl Bem “feeling the future” controversy are still aglow? Whatever the case may be, and whatever your view of the data at the center of it, many thanks are due Daryl Bem for opening up the tough and much-needed conversation about the nature of science, methodology, statistics, replication, meta-analysis, and, yes, prejudice, via his now well-known *Journal of Personality and Social Psychology* article (Bem 2011). Moreover, I am reminded of P. T. Barnum’s wily wisdom, “I don’t care what you say about me, just spell my name right!” During the writing of this review I had a chance encounter with a young man in his third year of Ph.D. studies in psychology at a large state university. When I mentioned my own special interest in parapsychology, he asked, “What’s that?” But as soon as I started to tell him “. . . telepathy, clairvoyance, . . .,” he blurted out, “Oh, the Bem stuff!” Thank you, Daryl Bem! And I for one am looking forward to the rounds still to come (Bem, Tressoldi, Rabeyron, & Duggan 2015).

Thanks also to editors Cardeña, Palmer, and Marcusson-Clavertz for their service in putting together this arguably controversial volume, *Parapsychology: A Handbook for the 21st Century*. For those who are brave and confident enough to go to the tough places in science and psychology, with an open mind, this book is just your ticket. All of the issues raised by the Bem-o-versy are here, and much, much, more.

This book needs no introduction to scholars whose interests wander along the frontiers of science where controversy and opportunity dance.

It's a sequel of sorts, a re-examination of the current state of the art in the realm of parapsychology. The original, Benjamin Wolman's *Handbook of Parapsychology* published in 1977 (Wolman 1977), with associate editors Laura Dale, Gertrude Schmeidler, and Montague Ullman, will hereafter be referred to as "HB77." The 34 essays in HB77 detailed the findings and ruminations of 30 very smart, respected scholars who represented their respective disciplinary perspectives, heavily weighted toward psychology. Wolman's book was a watershed moment in the history of parapsychology (hereafter called "ppsy"), and became a classic read as a comprehensive introduction to the field. This update, hereafter referred to as "HB21st," is edited skillfully by Etzel Cardeña, John Palmer, and David Marcusson-Clavertz, and is an instant classic in this enigmatic and diverse area of study, a "must-buy" addition to one's personal, university, and institutional libraries, and a great gift for a few selected colleagues. They won't be disappointed.

So, what is the current "state of the art" in this enigmatic area of study? How have things changed since HB77? What's gone "viral," and what's succumbed to the virus of time? To get the reader started, the editors provide an exceptionally comprehensive and readable overview of this book and its content, appropriately titled "Preface: Reintroducing Parapsychology." Kudos for opening with the famous Mark Twain quote, "*The report of my death was an exaggeration.*" The editors point out its poignant relevance to the health of parapsychology impishly, but proudly, with tongue in cheek, but there's more to it. Samuel Longhorne Clemens (Mark Twain) was 37 years old when the British Society for Psychical Research (SPR) was founded in 1882 for scientific study of the big questions surrounding life and death. He—like all of us—was no stranger to the need for such study. For example, a few years later (1896) the first of Clemens' three daughters died prematurely, in her early twenties, reportedly plunging him into depression, and drawing the Clemens family into séances, of which Twain wrote equivocally. He would eventually become a member of the SPR (Dunne 2014). This excellent opening reminds me of the big, life/death questions upon which parapsychology was founded, and the noble goal of addressing them via science rather than by religious doctrine, a fact easily buried by the din of debates on p-values, effect sizes, and the possible functions of human psi.

The Preface begins with some basics—"what is parapsychology?"—using an information processing framework. Then the editors jump head-first into the tricky topic of terminology, seemingly endorsing the suggestion of Ed May and colleagues to use AC (anomalous cognition) for ESP, AP (anomalous perturbation) for micro-PK, and then adding their

own proposed term of AF (anomalous force) for macro-PK. But the reader soon discovers that individual contributors to this volume tend to use their own idiosyncratic terminology anyway. This is the first indicator (in this book) of a major feature of parapsychology that will show itself over and over in this volume: its *diversity*! The editors correctly state that although parapsychology is often portrayed as an independent, separate discipline, “. . . it is more precise to think of it as a transdisciplinary topic . . . relevant to a number of disciplines.” Its research business extends beyond the so-called “psi hypothesis.”

The Preface points out differences between HB21st and HB77. The chapters do match up somewhat, but it’s definitely not a one-to-one correspondence. This can best be seen in a specific topic such as psi-mediated experimenter effects, or experimenter psi (aka “Epsi”). In HB77, Rhea White introduced a new topic in a chapter entitled The Influence of Experimenter Motivation, Attitudes, and Methods of Handling Subjects in Psi Test Results (HB77:273). In it, she planted a flag, stating “. . . there could hardly be a more significant area of investigation than the role of the experimenter.” White focused upon experimenter’s attitude, motivation, and methods, but specifically excluded “psi-mediated experimenter effects” (p. 273), due to lack of space. HB21st editors point out in the Preface that parapsychologists in 1977 were uncomfortable with this topic, for what it implied about laboratory psi results. Stanford’s psi-mediated instrumental response model had yet to take hold, and the *implicit* versus *explicit* psi distinction (a feature of HB21st) was not commonly employed. To pick up on White’s HB77 chapter, HB21st has a split chapter (Chapter 22, Experimenter Effects in Parapsychological Research), in which two authors (John Palmer, Brian Millar) contribute back-to-back essays that first extend and update White’s HB77 piece and then proceed into the more fully bloomed topic of experimenter psi, or Epsi, to pave the way for Millar to wax eloquent on theories, logical issues, and prospective ways to assess or at least “fingerprint” the Epsi, and conclude that Epsi is the “*crucial* determinant” of results in ppsych research (p. 299).

Interestingly, Chapter 1 (An Overview of Modern Developments in Parapsychology), by Zingrone, Alvarado, and Hovelmann, makes no mention of post-HB77 research relevant to psi-mediated experimenter effects, and cites only one study of experimenter effects. They make no reference to the remarkable Schlitz/Wiseman series (which directly compared two experimenters with opposite outcome histories). However, Stefan Schmidt’s Chapter 18 (Experimental Research on Distant Intention Phenomena, p. 248) includes a detailed summary of it, and Sheldrake’s Chapter 27 (Psi in everyday Life: Nonhuman and Human, pp. 359–360)

provides another, this time in the context of responding to skeptical claims regarding the “sense of being stared at.” Thus, HB21st shows that Epsi is a relatively new topic which has taken root, spawned a number of published research studies, and been discussed and debated; and has now been added to the “lore” of ppsych, the growing, throbbing body of facts in search of more elaborate explanation. Clearly, parapsychologists no longer avoid Epsi, but have embraced it. And just as clearly we can see the diversity of the field even in this sound bite.

One tangent off this issue is worth a quick mention here. Cardeña and Marcusson-Clavertz briefly cite the Schlitz/Wiseman series in their Chapter 9, States, Traits, Cognitive Variables, and Psi, in a short section containing a strong suggestion that strikes my personal narrative and schemata as just right. They write, “. . . one of the most neglected areas in the study of consciousness is the interactive, interpersonal process involved in the co-creation of conscious experience” (p. 111). They bemoan the fact that we are very far from having developed a systems approach to psychology or parapsychology, and complete this thought with an insightful suggestion, “. . . the concordance between researcher and participant conscious experience requires investigation . . . rather than assuming that psi phenomena reside only in either the participant or the experimenter” (p. 111).

Some Disappointments

I’d like to register a few of my disappointments with this book right away. HB21st comes in a large-format paperback so commonly seen on college bookstore shelves these days. It’s attractive and appears solid enough, but over the months I’ve spent reviewing it, it lays side-by-side with the hardbound HB77 (1986 McFarland edition). After a few months, the brand new (\$65 list price) HB21st is nicked and scratched and dog-eared—though still very readable—while HB77 still looks as if it came off the press yesterday. On the other hand, HB21st has an alternate format, an e-book version, which Amazon sells for less than \$25. Call me ol’ fashioned, but I’m still partial to the stanchions of my library being hardbound.

There are more typos than I’d expect in a book of this sort. The Index is rather poor. A few paragraphs above, I outlined a thread on Epsi (experimenter psi) that runs through HB21st, which would have been so much easier for me to trace using a more complete index. For example, “psi meditated” only appears for “psi mediated instrumental response (PMIR),” and “experimenter effects” only branches to three subtopics (behavior, checker effects, expectancy). Unlike HB77, this book has no glossary, arguably a vestigial organ in the smart-phone era.

Although the topics squirreled into the 31 chapters of this volume are comprehensive and clearly and thoughtfully justified in the Preface, I had trouble with Chapter 26 on Electronic Voice Phenomena by Mark Leary and Tom Butler. I admit to a personal bias on the issue of EVP. It is in part due to a visiting researcher at the Psychical Research Foundation (PRF) at Duke University, where I worked with Bill Roll during the 1970s. This researcher (from University of Adelaide, Australia) was a professor of electrical engineering with a keen interest in EVP, and after 6 months of intensive study he was forced to conclude that its inherent unpredictability makes it unsuitable for scientific study. Forty-odd years later, I can agree wholeheartedly. There's a mis-attributional flaw common to EVP, haunted house investigations, astrology, synchronicities, and other circumstances which I've come to call *post-diction*. It results from combining a priori theories with post-hoc observations. It works like this: Some big event occurs, e.g., a boy gets into a fight at a local bar and gets arrested and put in the slammer. An astrology enthusiast who knows the boy then checks his chart and says, "Oh, of course! Mars went retrograde right at that time!" So what's the probability of *that* happening? I say, "100 percent." Another example: A particular house is reported to be haunted, so a ghostbusting team makes an investigation and records unexplained voice-like sounds and unusual streaks in the photos they take. What's the probability of that happening? Again, 100 percent, because it *did* happen, making it a post-hoc observation. Similarly, a person listens to a recording of type 1 (transform) or type 2 (live-voice) EVP (p. 341) and hears a voice-like sound, with post-hoc probability of 100 percent, so where is the science? Leary and Butler have done a nice job explicating the state-of-the-art of EVP, I believe, including a nice discussion of pareidolia (perception of random or vague stimuli as meaningful), and trying to link it to parapsychology (PK maybe?). It's not at all clear that there's any phenomena at all to investigate, as the authors themselves recognize, "The question is whether all purported EVP are due to pareidolia, and the answer is that we simply do not know" (p. 344). The same is true of astrology, which has no chapter here, and for ghostbusting forays into haunting phenomena.

This does, of course, bring up the issue of what is the difference between the popular ghostbuster type of activity that is commonly seen on TV, and the scientific investigation of haunted houses as done in psychical research, such as Michaelen Maher describes in Chapter 25, Ghosts and Poltergeists? First, RSPK (aka poltergeists) clearly have psi phenomena associated with them—documentable physical, acoustic, energetic events that defy normal explanation. Haunting phenomena are complicit with RSPK, sometimes including both subjective (EVP-like) and objective events, and both RSPK

and hauntings have been found to display such patterns as “phenomenal shyness,” repetitive sounds, electrical malfunctions, and person and place focusing. Thus, haunting investigations which include RSPK-like patterns, or include objectively observable events, or are investigated using quantitative methodology (see p. 331) go beyond the usual ghostbuster’s post-hoc observations. (See also some of my further thoughts on this topic in Solfvin 2016.)

Diversity

What Bem calls “feeling the future” or “anomalous retroactive influence,” Radin/Pierce call “presentiment,” and Julia Moss calls “anomalous anticipatory phenomena” (Moss 2013). Stephen Braude finds the use of “anomalous mental phenomena” to be an “absurd” synonym for what has traditionally been called “psi” (p. 259). Several other authors mention or discuss terminology issues in ppsych. Diversity, diversity, diversity!

I applaud the editors of this tome for their attention to diversity in ppsych since 1977, and in the opening Chapter 1, An overview of Modern Developments in Parapsychology, I applaud authors Zingrone, Alvarado, and Hovelmann for endeavoring to “. . . venture beyond the Anglo–American focus of the original *Handbook*.” After a tour-de-force summary of ppsych research and institutional trends since 1977, spanning topics, approaches, disciplines, and social trends, they conclude that ppsych is “. . . more varied, more interdisciplinary, and more international,” than earlier (p. 23). However, it’s not enough for my money. If ppsych is to survive and grow as many of us would like it to, it would be wise to embrace diversity far more than is evident here. Let’s consider the lack of Asian perspectives, especially Indian. I searched the main Index for “yoga” or “Sutras,” or “Patanjali,” or even “K. R. Rao,” all of which appear in this tome, but none made it into the Index (although “*Siddhis*” is there). This is despite the fact that some parapsychologists have been deeply influenced in profound ways by yogic material, especially Patanjali’s Yoga-Sutras, as Serena Roney-Dougal points out in Chapter 10, Ariadne’s Thread: Meditation and Psi. In Chapter 5, Emily Kelly and Jim Tucker point out that “. . . the association of psi, or siddhis, and mystical experiences, particularly as expounded in the yoga-sutras of Patanjali, led psi researchers to adopt conditions conducive to the latter in ganzfeld research.” (Obviously, they are referring to Chuck Honorton.) William Braud, to whom this book is dedicated, wrote articulately about the usefulness of viewing parapsychology through the eyes of Patanjali Yoga-Sutras. Braud (2010) pointed out that “. . . the possible effects of asana [postures] and pranayama [breathwork] have not been directly assessed in formal psi research,” suggesting that this

may be fruitful. But Braud also points out that parapsychologists who are simply looking for techniques that will help yield more psi in their labs are missing an important point. There are several ethical questions that need to be addressed first. A serious student begins exploring yoga not to acquire “powers” (siddhis) but to understand oneself and reality, with yoga-sutras as a guide. The powers that a parapsychologist is interested in are said—by yoga-sutras—to be detrimental to the serious individual’s primary aim. What is the ethical obligation of the parapsychologist who encourages the devotee in this direction?

Further, Braud suggests that some psi research “. . . might be likened to stealing jewels from temples” (Braud 2010:255), which raises more ethical issues. In the 1970s, David Rogers reported that a patient was admitted to the state mental health center (where Rogers was employed) in a paranoid panic due to fears that others could read his thoughts. The patient had just visited the Institute for Parapsychology (in Durham, NC), where he was told he got a positive score on a telepathy test suggestive of telepathy. Leaving the building, he panicked to think that strangers could read his mind, and hours later was brought to the state mental health center where Rogers was on staff. This opens an ethical question which parapsychologists have yet to fully pursue.

On the same page as above, Braud points out another dimension of this issue related to the increased interest in experimenter effects—psychological and/or psi-mediated—that this volume documents. According to the yoga-sutras, “. . . by engaging in yogic practices themselves, investigators might more thoroughly acquire the preparation and adequacy that might allow them to plan and conduct their psi research projects more creatively and interpret their findings more accurately and effectively.” Braud himself is an outstanding example of a researcher who clearly demonstrated his “. . . preparation and adequacy . . .” in his laboratory.

Thus, the yoga-sutras reflect an entirely different way of conceptualizing the problem of producing psi, on demand, in a laboratory setting. The psi researcher who goes to the yoga-sutras seeking a quick fix to increase psi scoring in his/her lab, is like a man who brings his puppy to a dog school expecting to pick him up later, fully trained. It may be hard, at first, for the man to accept that *he and the puppy* need training, and that this process may require some fundamental changes in both.

My concerns about diversity are driven by the fear that ppsych may succumb to those natural monistic tendencies that, if unguarded, move corporate endeavors toward one single, correct way of doing/thinking/seeing things. So even as we rail against the monistic monolith of *materialist science*, for which ppsych is the rebel group, we must also be wary of monism

within ppsych. A good read to remind one of the importance of diversity in science is provided by Hasok Chang (Chang 2012), Hans Rausing Professor of History and Philosophy of Science at the University of Cambridge, UK, who has become an articulate advocate for scientific pluralism. He points out, for example, through the words of American philosopher Hilary Putnam, “Classical thinkers saw diversity of opinions as a sign of decay and heresy; only since the Enlightenment have we been able to see it as a positive” (quoted in Chang 2012). Chang proposes “complimentary science,” employing history and philosophy to ask questions that specialist science cannot, such as why science accepts certain untested assumptions that bring a bit of dogmatism and narrowness of focus that may be injurious to scientific progress. In his books, Chang documents specific instances in which scientific progress was hindered by this monistic tendency. Diversity, Chang assures us, is healthy for scientific discovery, while the side effects of monism can sometimes work to stifle its growth.

Basic Concepts

Even though Chapter 1 missed the mark on Epsi, this “overview of developments in parapsychology” since HB77 provides an excellent kickstart to readers of HB21st. Zingrone, Alvarado, and Hovelmann rush through a ton of material, rarely stopping to take breath, but it’s all there. They touch upon ppsych’s topics and approaches, connections with other disciplines, conceptual frameworks, methods, criticism, and even give a brief tour of institutions, funding, journals, and educational issues. I was happy they took a breath long enough to say a few words about Lucadou’s intriguing model of pragmatic information (MPI), a bold attempt at uniting “meaning” with quantum entanglement to help explain spontaneous psychokinesis, and one of several “pointers to the future” that will be found in this book.

I’m also delighted to see Chapter 2, Ed Kelly’s Parapsychology in Context: The Big Picture, for which HB77 has no precedent, used here as part of the introductory, ground-laying section of HB21st. It is a brief summation of his monumental *opus magnus*, *Irreducible Mind* (Kelly, Kelly, Crabtree, Gauld, Grosso, & Greyson 2007). Kelly gently but convincingly tills the field within the reader’s mind for the healthy planting of the subsequent chapters. He explains ten types of “rogue” phenomena, which a purely *materialist* science (or ontological physicalism) is unable to explain. Many of these have been dug up by earlier parapsychologists, Dr. Rhine’s ESP or psi phenomena among them. Kelly points out that some mainstream scientists misperceive these phenomena as threats to scientific rationality and progress. Ppsych holds exactly the opposite—these *phenomena* are not

threats to science but the failure to include them is. This may explain why ppsych is caste off prejudicially to the gutters by some scientists even while being cheered and supported by others.

The “basic concepts section” of HB21st completes with Douglas Stokes Chapter 3, The Case Against Psi, and I’m so glad that it’s not one of those blatantly “missionary” attempts to convert rather than inform the reader. (Such blabbering occurs, sometimes, on both sides of the podium in the so-called “skeptic–parapsychologist” debates.) Rather, Stokes recounts his personal journey, including four decades of involvement with parapsychology, which moved him from agnosticism (regarding existence of psi) to full-fledged atheism, or “to the psi equivalent of radical Unitarianism.” I am stumped and a bit confused by his choice of words, but as I read his chapter it all becomes clear. This really is an every-parapsychologist story, citing the very real frustrations, such as the methodological flaws, possibility and temptations of fraud, data selection issues, and the gnarly repeatability problem. This is a familiar scenario, and Stokes writes, after years of clear and patient rational consideration, “The pattern of experimental results is exactly what would be expected if there is no psi.” And he concludes that “the only rational conclusion is that psi does not exist.”

I can relate to this because I went through it, too, like everyone else in ppsych I suppose. I have several personal friends who left active involvement with ppsych for similar reasons. At some point I realized that there’s no need to make a final decision on this global yes–no question which for Stokes and others became inflated like the milk in a bottle left on the doorstep on an icy night. Something’s got to give, they say. But like William Braud, I’ve tasted enough Eastern philosophy to accept the power of “not-knowing,” of nondualist thinking, of *embracing mystery*. At some level, Stokes, too, remains equivocal. He tacks on another sentence after his “rational” conclusion, “However, at times I wonder if I am really rational.” And his final paragraph is overwhelmingly positive, and reveals the “keys” (e.g., spontaneous cases) that could in the future nudge him in another direction. This is *skepticism* at its BEST! This is the *pluralism* that is so much needed in science!

Research Methods

Methodology is covered much more completely and readably in HB21st than it was in HB77. Chapter 7, Statistical Guidelines for Empirical Studies, by Tressoldi and Utts is particularly impressive, a go-to resource that meets the researcher more than halfway. Perhaps we should call this retroactive, anticipatory, presentiment of researchers’ future needs, written in plain language, covering all of the future issues/questions researchers will have.

It covers the latest standards that came out of the APA uproar at the turn of the century (APA Board of Scientific Affairs 1999), explaining the limits and alternatives to null hypothesis significance tests (NHST), plus sections to explicate and advocate knowledgeable use of Bayesian methods, effect size, power analysis, handling “outliers,” as well as methodological and statistical recommendations. There is a strong recommendation for pre-registration of hypotheses, a recommendation which stipulates this tome like dandelions across a meadow. Tressholdi and Utts touch all the important bases in this chapter, and it is a great improvement over its technically accurate but narrowly focused Kelly and Burdick predecessor chapter in HB77. Utts’ successful textbook authorship career shows to advantage here, with comprehensive, readable, practical, soup-to-nuts coverage from basic to relatively advanced topics. I can’t say enough about this excellent chapter!

John Palmer’s Chapter 4, *Experimental Methods in Anomalous Cognition and Anomalous Perturbation Research*, provides a good argument for the use of this book, in whole or in part, as an introductory textbook for a college course in parapsychology. This chapter, if read carefully, provides the student with sufficient background to actually select, plan, and carry out a first experiment. That said, readers who’ve already mastered basic research skills in parapsychology may want to skip or just scan this chapter. Readers with research experience in other disciplines may also want to scan the early sections, but will be wise to attend closely to the latter half to fully grok the unique issues that ppsych presents to the researcher.

In Chapter 6, Graham Watkins provides a relatively short essay on *Macro-Psychokinesis: Methodological Concerns*, and suggests interesting results in the past and some pitfalls to avoid in the future. Although it provides good hammock-reading, with Watkins’ homey style, it’s the weakest in the methodology group. There are no great insights here but some practical suggestions and generally positive encouragement for the prospective researcher. While Watkins does point out some difficulties with studying special subjects such as Swami Rama, or controlling observation of movements of a so-called “psi wheel” (p. 80), this chapter presents a relatively uncritical view of some things, such as William Bengston’s healing studies.

The big surprise here is Chapter 5, *Research Methods with Spontaneous Cases*, by Emily Kelly and Jim Tucker. This is a delightful and stimulating read. Kelly and Tucker begin by taking Louisa Rhine to task (author of the HB77 chapter on spontaneous cases) for devaluing her own spontaneous cases work as “peripheral” to the more important experimental research of her husband (J. B. Rhine) and others, and placing too much emphasis

on the value of “proof.” They throw down a manifesto of sorts, and argue convincingly for elevating the scientific status and use of spontaneous case collections. Spontaneous cases provide an ethology of psi phenomena, re-invigorate our interest in volition and brain–mind relations and consciousness, and help prevent us from wallowing in the ditch of the study of “anomalies” when the real target—they assert—is the incompleteness and inadequacy of the physicalist model that dominates science. They point out forcefully that a considerable portion of “great” science emerged from uncontrolled naturalistic observation, such as Darwinian evolution and Mendelian genetics. I guarantee that the reader will leave this chapter with a far different view of spontaneous case research than what they had when they entered it. They may also leave, as I did, with a distinct feeling that more great things are yet to come out of spontaneous case research in ppsych.

Transdisciplinary Psi

Proceeding now into the specific content areas of this book, the diversity of ppsych becomes ever more obvious, in content, terminology, and tone. Rex Stanford is one of three contributors who is represented in both HB77 and HB21st. The other two are Ed Kelly and John Palmer. Stanford contributed the two longest chapters in HB77, on experimental psychokinesis and, his most memorable, *Conceptual Frameworks of Contemporary Psi Research*, in which he articulated his recently developed psi-mediated instrumental response (PMIR) model of psi functioning. In HB21st, Stanford’s Chapter 8, *Psychological Concepts of Psi Function*, is in two pieces. The first six pages are devoted to PMIR, specifically an explanation of seven assumptions of the revised PMIR model which further delineate its implications. The remainder of the chapter, about 9 pages, is devoted to a rather detailed explanation—not a critique but an explication—of Jim Carpenter’s *First Sight Model and Theory (FSMT)*. This chapter will be of particular interest to the psychologically minded reader. Both PMIR and FSMT are attempts to bridge or even integrate these two estranged sister sciences. Stanford ends the chapter on that conciliatory note, leaving the reader with a vision of “. . . psi and psychological research as potentially being mutually enhancing” (p. 108).

Chapter 9, *States, Traits, Cognitive Variables, and Psi*, by editors Cardeña and Marcusson-Clavertz, has no direct reflection in HB77 but pieces together some thoughts on psychological factors and their possible relation with psi performance in a laboratory. This chapter is brief but informative, clarifying definitions, mapping the territory, and pointing out pitfalls in studying such things as psi-related personality traits and states,

altered states of consciousness (ASC) (e.g., hypnosis, trance, dissociation), cognitive style, and belief. Drug and Psi Phenomena are dealt with in David Luke's Chapter 12. It's difficult to catch a central thread of this potpourri chapter, but it is stippled throughout with interesting insights.

The psychology and psi section completes with Serena Roney-Dougal's Chapter 10, *Ariadne's Thread: Meditation and Psi*. The rapid rise in meditation awareness in the USA and elsewhere, and the concomitant increase in meditation research, make this an especially attractive topic. Roney-Dougal has some excellent suggestions to encourage researchers to add to the admittedly ". . . very patchy . . ." state of the art in this area. She's done part of the work already in supplying useful listings of previous studies.

Other Areas/ Disciplines

Two other disciplinary areas in addition to psychology are specifically represented, Part 4—Biology and Psi; and Part 5—Physics and Psi. In Part 4, psychologists Richard Broughton and David Luke pick up where Bob Morris and Charles Tart, respectively, left off in HB77. Broughton's conclusion says it all for his chapter (11, Psi and Biology), and you can almost hear him sigh as you read ". . . a further three and a half decades of admittedly sporadic research in neurobiology and psi have not advanced the field any further than the cautious position of the earlier chapter by Morris." Broughton bemoans the meager yield of the newer neuroscience approach, the neurobiology of psi, which the older physiology of psi has matured into. He's guardedly optimistic about focusing upon the evolutionary context of psi and the adaptive needs it serves, and provides a rather nice overview of the evolutionary framework (pp. 144–145). Luke, on the other hand, concludes his chapter (12, Drugs and Psi Phenomena) much more optimistically, and has a number of tangible suggestions for researchers. I learned two new words in Luke's essay: *parapsychopharmacology*, whose meaning should be obvious, and *apophenia*, which is a perceptual error, "increased tendency to find patterns in apparently random data" (p. 153), and which is not easily distinguishable from *pareidolia*, which Leary and Butler mention regarding EVP (Chapter 26), as attaching meaning to "a random or vague stimulus." And I struggled mightily to *pronounce* many other words as Luke dives bravely and competently into the complexities of neurochemistry. This slightly shortened version of his earlier review (Luke 2012), is excellent, exciting, and humbling all at once, in a good way.

Part 5, Physics and Psi, is a bit of a misnomer since the second of the two chapters (14, Physical Correlates of Psi by Adrian Ryan) is devoted

to the new topic of geomagnetic correlations with psi receptivity spawned by James Spottiswoode's observations. Interestingly, Ryan argues that the relationship between local sidereal time (LST) and effect size in receptive psi scoring is due to seasonal variation, but finds extensive evidence that psi and geomagnetic activity are related. Ryan is therefore “. . . extremely optimistic . . .” about the future of parapsychology, specifically that favorable conditions will be found that yield “. . . medium to large effect sizes . . .”

In the other chapter in this section (13, Quantum Theory and Parapsychology), author Brian Millar agrees with Ryan, at least in that the task of ppsych is “. . . the pragmatic one of learning how psi can be produced with sufficient strength and reliability.” In his conclusion he states it again, “. . . the biggest experimental difficulty in parapsychology is to find a stable source of psi,” as if there were simply no other way of looking at it—and for him, I assume, there's not. And for Millar, the essence of the problem is Epsi, “. . . who does it—participant or experimenter?” In this we confront diversity (again), in that Cardeña and Marcusson-Clavertz in Chapter 9, as well as (Emily) Kelly and Tucker in Chapter 5, suggest that the “. . . who's doing it?” question may not be the right one to ask at this point. Millar appears to view ppsych in a kind of endless death cycle, and he's quick to lay blame directly on “. . . using the unaided assumptions and methods of psychology. Rather, this approach seems to have mired parapsychology in an endless cycle.” Millar offers a solution, “. . . NLTs (OT in particular) offer conceptual and experimental tools to solve this problem.” In so doing, Millar provides a fascinating tour of quantum mechanics, non-local theories (NLT), and observational theories (OT) as they might be applied to ppsych research, as well as some interesting suggestions for manipulating feedback, a central feature of NLT. Millar's suggestion of a positive definition for psi is laudable, but its implementation is not at all clear. More interesting and potentially testable, is his suggestion that “reduced within-group variance is a fingerprint for experimenter psi.”

Part 6 gathers together the “meat and potatoes” of ppsych, an organizational improvement over HB77. This section consists of eight chapters (15 through 22) and covers “. . . the evidence for psi phenomena across various research paradigms.” It includes chapters on explicit AC, implicit AC, AP (micro-PK), AF (macro-PK), and Experimenter Effects in Parapsychology Research (mentioned above, by Palmer and Millar), rounded out by specific chapters on presentiment (Psi and Psychophysiology by Dean Radin and Alan Pierce), and direct mental interaction in living systems (DMILS, Experimental Research on Distant Intention Phenomena by Stefan Schmidt), and on the Global Consciousness Project (Implicit Physical Psi by Roger Nelson). In this section, the diversity of ppsych bleeds

through like shadows on an X-ray, not only in topic but also in approach, method, and interpretation of results.

Of the 13 authors for these 8 chapters, 5 are relatively “new blood.” Chapter 15 is an especially impressive introduction of relatively new contributors to ppsych. Physics students Batista and Derakshani teamed up with psychometrician Tressoldi to raise hope for the future of this field. They take a close look at the still-raging ganzfeld meta analysis controversy and take a solid whack at contributing their own analysis to it.

I’ll remember this chapter (15) as the one with the longest title, *Explicit Anomalous Cognition: A Review of the Best Evidence in Ganzfeld, Forced Choice, Remote Viewing and Dream Studies*. It’s quite data-intensive, and I suspect may lose some readers as a result. On the other hand, it is written so clearly that it may also have the opposite effect and succeed in gently drawing the data-detail-avoiders into the conversation. In either case it makes me wonder whether this is a foretelling of the future of parapsychology. Will there be room in the future for a J. B. Rhine, who struggled a bit with the psychometric aspects of the research? Or will our great ppsych leaders of the future be drawn from a population whose scientific ruminations tend to run more along sophisticated mathematical/statistical tracks than philosophical ones? And how will this, in turn, affect the direction of parapsychology?

If we take the B-D-T chapter as a taste of the future, it is comforting. They strongly support the preregistration of studies in a trial registry, such as Open Science Network, and KPU registry. They see results in ppsych to date which “merit further process-oriented and proof-oriented research” (p. 211). They also see the need to tighten down methods, and they point to specific suggestions mined from ganzfeld, forced choice, remote viewing, and dream studies that are aimed at boosting replication rates and effect sizes. The eye(s) through which they see ppsych are not jaded but grounded in a near Buddhist-like clarity. They see it as it is, its promise and difficulties, and suggest that further research by open-minded scientists, no matter the outcome, “. . . would constitute significant progress from the current situation” (p. 211).

In Chapter 16, *Implicit Anomalous Cognition*, John Palmer attempts to clarify the simple-sounding definition of implicit AC provided in the Preface. This page may leave some readers gasping, especially novices to ppsych, but it does point out how definitionally challenged this field is. Palmer notes that the implicit AC concept falls out of Stanford’s PMIR model (mentioned above), that psi kicks in to subserve needs without conscious effort, cognition, awareness, or prior knowledge of the need or of psi. Palmer publically ruminates for more than a page concerning selection criteria for implicit AC studies, reminding me of my mother’s

colorful expression in times of crisis, “the more you stir shit, the more it smells.” Palmer settles on the criterion that participants are *not* instructed to respond as if to a psi task. Bem’s study and replications fit this, and Palmer provides an overview of these, including a meta analysis (Tressoldi, Rabeyron, Duggan, & Bem 2014) of 82 studies showing strong overall positive results, apparently a subset of the 90 study analysis by the same authors (Bem, Tressoldi, Rabeyron, & Duggan 2015) with similar results. Palmer is, however, more optimistic about the PMIR studies, which also fit his criterion.

Chapter 17, “Psi and Psychophysiology” by Dean Radin and Alan Pierce is a natural extension of implicit AC, including “presentiment” studies, physiological response to a random future stimulus, a near-twin complement to Bem’s precognitive emotional responses. They also cover brain correlation studies (between subject) and brain state studies (within subject). They conclude that the positive overall results of psi and psychophysiology research are promising but few solid conclusions can be drawn at this stage due to heterogeneity. The data do provide general support for the importance of alpha rhythms and right hemispheric involvement, and viewing psi as an innate, unconscious process.

Jumping next to AP (micro-PK) and AF (macro-PK), the authors express positive visions for future research. In Chapter 20, Micro-Psychokinesis, Mario Varvoglis and Peter Bancel give a very readable and complete, historical survey of this specialized area, beginning with thoughtful ruminations on the arbitrariness of the distinctions between macro-, micro-, and bio-PK, pointing out that this chapter, micro-PK, is based upon superficial taxonomy, questionable methods to observe it (probabilistic anomalies), and that it may also logically be interpreted as precognition (AC) instead of PK (AP). In any case, Varvoglis and Bancel examine studies that involve a probabilistic target system for which a participant explicitly intends or favors some predetermined outcome, under the watchful eye of an experimenter who orchestrates and records it all. They discuss Helmut Schmidt’s machines and innovations, the PEAR research, especially the failure of the consortium replication, and describe two meta analyses that ground this area of research. They suggest some directions for future research, but admit that we are “very far from being able to claim to understand micro-PK.”

In Chapter 19, Macro-Psychokinesis, philosopher Stephen Braude agrees with Varvoglis and Bancel that the micro/macro PK distinction is “shaky.” He’s also in substantial agreement with Emily Kelly and JimTucker regarding the largely unrecognized, potential positive impact of spontaneous cases for the future of ppsych. His summary of the body of

evidence for “dramatic, observable PK—no matter how we choose to label it,” is philosophical, on the nature of eyewitness evidence when examining some older cases of physical mediumship, and then he cites some stunning new cases, of which he’s written at length elsewhere (e.g., Braude 2007). I wish that he, like Richard Broughton, would’ve provided a detailed account of at least one such case.

Of the remaining four chapters in Part 6, I especially enjoyed Stefan Schmidt’s Chapter 18 (Experimental Research on Distant Intention Phenomena). Although HB77 had no such chapter, the so-called EDA–DMILS paradigm began—coincidentally—with a paper William Braud presented at the 1977 PA conference. Schmidt covers this topic extremely well, I believe, from its history, detailed description, discussion of meta analyses, summary, and outlook. The reader will also find here, as previously mentioned, a sober account of the Schlitz/Wiseman series. Schmidt is another young researcher who, like Tressoldi, Batista, and Derakshana, seems committed to a ppsych that is built upon a solid objective scientific foundation.

The Rhine school–dominated portrayal of state-of-the-art ppsych in HB77 wants to distance itself from its psychical research roots; HB21st may be seen as re-embracing those roots. The survival research section of HB77 had only 2 contributions, the magnificent but rather narrowly focused essay (on “super-psi” issue) by Alan Gauld on Discarnate Survival, and Ian Stevenson’s summary of his (and others’) reincarnation studies. What might have been a third chapter in the survival section, *Poltergeists*, by William Roll, was transplanted to the section on Parapsychology and Physical Systems, which seems especially sensible since Roll’s perspective was decidedly on the human causation side of things, as evidenced by his use of RSPK (recurrent spontaneous psychokinesis) to refer to these phenomena. Roll once wrote, “If poltergeist phenomena say anything, I suspect that this is not about spirits, demons, or ghosts but about human personality” (Roll 1972:12).

HB21st has four chapters in its survival research section, and arguably Stephen Braude’s macro-psychokinesis chapter (19) might be considered a tacit fifth. Moreover, Ed Kelly’s Chapter 2, Emily Kelly and Jim Tucker’s Chapter 5, and even Belz and Fach’s Chapter 28, reach back in time to revivify and update valuable threads left for us by the early psychical researchers.

Beischel and Zingrone open this surprisingly compelling section with a stunning and inspiring chapter (23) on mental mediumship, which radiates with utter positivity about this line of research, even while fully acknowledging its limitations and past disappointments. Amid the clamor

of “is it or isn’t it” background noise, like a rattle in the drivetrain that won’t go away, they drive on not really in spite of it, but perhaps because of it. They focus on issues such as the clinical socio–psychological value of mediumship (e.g., bereavement), the golden opportunity for sound and creative methodology advances, and potential usefulness of mediumistic research in other areas of science, such as neuropsychology, medicine, forensics, and consciousness studies. They tread a narrow line here, between cultural norms and materialistic science, to find an utterly attractive positive path toward sober progress in this serious field of science. Any reader with a crusty, black-and-white image of mediumistic research, is likely to find the cure here.

Michaeleen Maher’s Chapter 25, *Ghosts and Poltergeists: An Eternal Enigma*, does an excellent job of updating Bill Roll’s HB77 *Poltergeists* chapter. She goes well beyond it, broadens it with thought-provoking discussion of possible similarities and differences between hauntings and poltergeist studies as well as an impressively comprehensive overview of various theoretical perspectives, however speculative. In this, Maher is a model citizen in Hasok Chang’s pluralistic science society via her respectful and nonjudgmental coverage of various theoretical speculations regarding these “spooky” phenomena.

Chapter 24, might best be titled “spontaneous cases of the reincarnation type—or CORT,” because other angles, such as clinical, social, or psychological are not discussed here. Or, it might be called “Paeon to the monumental life work of Ian Stevenson” since it adds little to Stevenson’s HB77 chapter. It’s still good reading, like a song you’ve heard a hundred times that still grabs your attention. It’s a must-read for any reader who’s unfamiliar with Stevenson’s work. The survival research section concludes with the previously mentioned EVP chapter (26) by Leary and Butler. But in light of Hasok Chang’s call to pluralistic science, I’m inclined to change my earlier opinion and applaud editors Cardeña/Marcusson-Clavertz/Palmer for including this chapter!

Interestingly, HB77 had no section on “practical applications,” but did have a section on “parapsychology and healing” with three chapters by psychiatrists Jan Ehrenwald (2) and Montague Ullman (1), which might be considered harbingers of the later development of so-called “clinical parapsychology,” the much needed applied, clinical side of ppsych which is a natural extension of ppsych. HB21st authors Martina Belz and Wolfgang Fach are at the forefront of this movement and contribute a chapter (28), *Exceptional Experiences (ExE) in Clinical Psychology*, which, together with the 2012 publication of *Perspectives of Clinical Parapsychology*, and supplemented by the recent APA book *Varieties of Anomalous Experience*

(Cardeña, Lynn, & Krippner 2010, 2014) could serve as a foundation for this nascent field. Belz/Fach adapt Rhea White's "exceptional human experiences" (EHE) notion to define exceptional experience (ExE) as: *incompatible with one's explanation of reality, or worldview, in terms of quality, process, origin*. They provide examples, brief history, and an impressively comprehensive vision of the coming together of clinical psychology and parapsychological research in the service of mental health. The *Institute for Frontier Areas of Psychology and Mental Health* (IGPP, Freiburg, Germany) has long fostered research and counseling services specific to ExE, and Belz/Fach draw upon an IGPP counseling database dating back to 1996 in this chapter. The authors discuss the role of ExE in the classification of mental disorders, help-seeking issues, types of complaints, and ways in which ordinary psychological functioning are affected by them. They also discuss intervention and treatment issues specific to ExE. This is an outstanding chapter, perhaps at times a bit rough reading for nonclinicians but well worth the effort. Clinical parapsychology is a no-brainer supplement and complement to ppsych which has been too long delayed. This chapter may go a long way to changing that.

Rupert Sheldrake's Chapter 27, *Psi in Everyday Life*, includes spontaneous case collections, reports of premonitions in humans and nonhuman premonitions, studies of "feeling of being stared at," related phenomena, and much about skeptical criticisms and rebuttals. It's a good read, a short summary of Sheldrake's main interests, especially for those unfamiliar with his extensive publications. The applied psi section completes with Smith and Moddel's Chapter 29, *Applied Psi*, which focuses upon "explicit applications to desired outcomes," such as forensics, police and military "snooping," archeology, dowsing and divination, and investing.

Gerd Hovelmann's Chapter 30 could have been part of the applied psi section, *On the Usefulness of Parapsychology for Science at Large*. Hovelmann lists a number of important contributions ppsych has made to psychology and science generally. I would have preferred an expansion of his mere mention of Daryl Bem's *feeling the future* publication, into a full paragraph or two of praise for Bem. As I understand it, University of Virginia psychologist Brian Nosek's Open Science Collaboration and his orchestration of attempted replications of a hundred experiments previously published in three psychology journals—of which nearly two-thirds failed!—came about thanks to Bem (Open Science Collaboration 2015). I'm not sure Nosek ever delivered the thank you. Thank you, Daryl Bem!

The final chapter of this book, by senior editor Etzel Cardeña, *On Negative Capability and Parapsychology: Personal Reflections*, is brilliant. Best for me not to say more, for fear of inadvertently removing a bit of its

polish. Read it! And discover what some already know, that in Professor Cardeña, ppsych has found a youthful, energetic, productive, and articulate emergent leader behind whom to rally.

My Summary

When British psychologist Hans J. Eysenck published a book review of HB77, (Eysenck 1982) he pointed out that ppsych is one of those topics “. . . on which everyone seems to have made up his mind, usually before looking at the evidence.” Eysenck wrote that HB77 is “an excellent attempt to review the present state of the art and is to be recommended to anyone interested in this topic, even though it is unlikely to change people’s preexisting views.” He candidly shared his own view

. . . that there is stronger evidence for the existence of ESP than for many well-attested psychological phenomena treated in the textbooks, and reading the various chapters in this book has strengthened this belief.

Much the same can be said about HB21st. Moreover, 30-something years later, ppsych is alive and well! It is more diverse now than in 1977. There are new names making impressive contributions, while at the same time an increased respectfulness for past contributions. The subtle maturing of Stanford’s PMIR model into the “lore” of ppsych, plays out in a general awareness of psi as an innate, unconscious, and perhaps adaptive process. It also supports an increasingly realistic hope of re-connection with psychology.

In his final chapter, senior editor Cardeña refers to Gertrude Stein’s famous quip about Oakland, California, “there is no there there,” rejecting its applicability to psi, which I would strongly second. However, Stein’s words may be quite applicable to the HB21st picture of parapsychology as a field of research, in a structural way, a *Feng Shui* way. That is, the ppsych of HB77 had a distinct solar-system-like structure with a great sun at the center surrounded by various-sized satellites, at various distances. But the ppsych of HB21st has no such structure, “there is no there there.” There’s no single dominant theory, method, research group—no style of music to which all must march.

Instead, HB21st reveals a ppsych whose strength is its diversity. The hierarchical predictability of the sun-centered solar system gives way to an army of smaller points of light. And this, according to philosopher of science Hasok Chang, advocate for scientific pluralism, is a good sign for the future of this field of science (Chang 2012). HB21st tells the story of new tools, such as meta-analysis, a re-visioning of spontaneous cases, the

global consciousness project, data augmentation theory (DAT), DMILS, presentiment, and expanded measures of environmental influences (e.g., geomagnetic, electromagnetic, *alla* Spottiswoode, and Persinger), and innovative ways to examine mediumship and Epsi. There are further forays into quantum, NLT (non-local theories), and entanglement models, and renewed focus on the limitations of physicalist science and scientific monism, and on how psi contributes to science at large, and how psi may infiltrate known psychological, biological, and social processes, such as Bem's "feeling the future" adventures or Stephan Schmidt's "helping" in psychological tasks. Amid this garden of new delicacies, one finds, perhaps surprisingly, a trend toward re-attention to ppsych's illustrious past with some of its seminal nuggets of wisdom. One of many connecting threads between HB77 and HB21st, Stanford's PMIR, stands out, now augmented by Carpenter's First Sight model, in reifying the study of psi as innate, unconscious, and adaptive in nature. In all of its diversity, HB21st offers readers a grand vision of ppsych that is contagiously positive.

Not everyone, perhaps, will see it.

Everything has beauty, but not everyone sees it. (Confucius)

And what about the "stuff" of ppsych? As senior editor Cardena asserts, there's little question that there's *something* there, but what? Keeping an open mind means, paradoxically, abiding knowingly in uncertainty and embracing *mystery*. Nobel Prize winner Andre Gide wrote, profoundly, "Believe those who are seeking the truth. Doubt those who find it." But can a field of science continue on without definitive, proven-beyond-the-shadow-of-a-doubt "stuff" which it studies, and which hasn't a satisfying, positive definition? I don't know. But there are interesting, suggestive precedents for this in neighboring sciences, which Cardena points out in Chapter 31. My favorite is *placebo* and its associated *placebo effects*, a transdisciplinary topic around which many scientists have gathered (Finniss, Kaptchuk, Miller, & Benedetti 2010). A few years ago, Harvard Medical School launched the first multidisciplinary institute dedicated entirely to placebo study (Program in Placebo Studies and the Therapeutic Encounter, PiPS) (Feinberg 2013). The parallels are impressive: Psi and placebo have both resisted attempts at universal, positive definition (both tethered to "no normal explanation") (Howick 2016); and there's no widely accepted measure of individual differences for either (Frischholtz 2015).

Be clear—psi is not placebo, or vice versa! However, it's a relatively wealthy neighbor whose better funded adventures are important for ppsych to keep track of. For example, significant progress is being made by paying

attention to the social and psychological context from which placebo effects are born, such as *meaning* and the *therapeutic relationship* (Frisaldi, Piedimone, & Benedetti 2015, Moerman & Jonas 2002).

What has emerged from the recent insights into . . . placebo . . . is that the psychosocial context around the patient and the therapy, which represents the ritual of the therapeutic act . . . may change the biochemistry and the neuronal circuitry of the patient's brain. (Frisaldi, Piedimone, & Benedetti 2015)

A close reading of HB21st shows trends in less-well-funded ppsych that align with this, such as a call for systems thinking, and one of reducing emphasis on gold-standard proof or “who’s doing it?” in favor of closer examination of the experimenter–participant relationship. Placebo research is throwing money at a deeper understanding of the relationship between clinician and patient, to find ways to enhance the placebo—not as a separate treatment, but to catalyze the active part of any treatment. The exciting part of this tiny snippet, to me, is that it offers an additional (not a replacement) vision of psi to complement the information processing model with which we are familiar, specifically a vision of psi as a *process*. Perhaps there’s some traction for ppsych in studying psi as either a “force” with a unitary (finite) source, the origins of which (“who’s doing it?”) were the primary focus of the ppsych of HB77, or alternatively (complementarily) as a complex synergetic *process* whose hidden source resides in a network of unknown dimension.

Reading between the lines, HB21st seethes with the subtle energy of subdued action. The overall picture I got from HB21st is a strange mixture of fascination, eagerness, knowing and not-knowing, with a palpable trace of frustration at its core. The ppsych of HB21st, unlike its rather staid, controlled, predictable predecessor, is more like a furnace of not-yet-focused energies, preparing to heat up the world. All the fuel is there, waiting to be channeled. In the final analysis, the ultimate question is how much are YOU, the reader, willing to contribute to this field?

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References Cited

- APA Board of Scientific Affairs (1999). Leland Wilkinson and the Task Force on Statistical Inference. *Statistical Methods in Psychology Journals*. *American Psychologist*, 54(8):594–604.
- Bem, D. (2011). Feeling the future: Experimental evidence for anomalous retroactive influences on cognition and affect. *Journal of Personality and Social Psychology*, 100:407–425.
- Bem, D., Tressoldi, P., Rabeyron, T., & Duggan, M. (2015). Feeling the future: A meta-analysis of 90 experiments on the anomalous anticipation of random future events. <http://www.ncbi.nlm.nih.gov/pubmed/?term=bem%2C+daryl>. Version 2. F1000Res. 2015

- Oct 30 [revised 2016 Jan 29];4:1188. doi:10.12688/f1000research.7177.2. eCollection 2015
- Braud, W. G. (2010). Patanjali *Yoga-Sutras* and parapsychological research: Exploring matches and mismatches. In *Yoga and Parapsychology: Empirical Research and Theoretical Studies* edited by K. R. Rao, Delhi: India: Motilal Banarsidass, pp. 241–260.
- Braude, S. E. (2007). *The Gold Leaf Lady and Other Parapsychological Investigations*. Chicago, IL: University of Chicago Press.
- Cardeña, E., Lynn, S. J., & Krippner, S. (Editors) (2014). *Varieties of Anomalous Experience: Examining the Scientific Evidence* (second edition). Washington, D.C.: American Psychological Association. Also 2010.
- Chang, H. (2012). *Is Water H₂O? Evidence, Realism, and Pluralism*. Dordrecht: Springer.
- Confucius. <http://www.brainyquote.com/quotes/quotes/c/confucius104254.html>
- Dunne, S. (2014). Twain exhibit examines Spiritualism of the times. *Hartford Courant*. Oct. 2. <http://www.courant.com/entertainment/museums-galleries/hc-twain-spiritualism-1005-20141002-story.html>
- Eysenck, H. J. (1982). Review of *Handbook of Parapsychology*. *Behavioural Psychotherapy*, 10(3):301–302.
- Feinberg, C. (2013). The placebo phenomenon: An ingenious researcher finds the real ingredients of “fake” medicines. *Harvard Magazine* (Jan.–Feb.). <http://harvardmagazine.com/2013/01/the-placebo-phenomenon>
- Finniss, D. G., Kaptchuk, T. J., Miller, F., & Benedetti, F. (2010). Placebo effects: Biological, clinical, and ethical advances. *Lancet*, 375(9715):686–695.
- Frisaldi, E., Piedimonte, A., & Benedetti, F. (2015). Placebo and nocebo effects: A complex interplay between psychological factors and neurochemical networks. *American Journal of Clinical Hypnosis*, 57(3):267–284.
- Frischholz, E. J. (2015). Hypnosis, hypnotizability, and placebo. *American Journal of Clinical Hypnosis*, 57(2):165–174.
- Howick, J. (2016). The relativity of ‘placebos’: Defending a modern version of Grunbaum’s definition. *Synthese*, 1–34. doi:10.1007/s11229-015-1001-0
- Kelly, E. F., Kelly, E. W., Crabtree, A., Gauld, A., Grosso, M., & Greyson, B. (2007). *Irreducible Mind: Toward a Psychology for the 21st Century*. Plymouth, UK: Rowman & Littlefield.
- Kramer, W. H., Bauer, E., & Hovelmann, G. H. (Editors) (2012). *Perspectives of Clinical Parapsychology*. Bunnik, Netherlands: Stichting Het Johan Borgman Fonds.
- Luke, D. P. (2012). Psychoactive substances and paranormal phenomena: A comprehensive review. *International Journal of Transpersonal Studies*, 31:97–156.
- Moerman, D. E., & Jonas, W. B. (2002). Deconstructing the placebo effect and finding the meaning response. *Annals of Internal Medicine*, 136(6):471–476.
- Moss, J. (2013). Can humans subconsciously predict the future? *Mindfield*, 5(3):32–33.
- Open Science Collaboration (2015). Estimating the reproducibility of psychological science. *Science*, 349(6251), aac4716. doi:10.1126/science.aac4716 (28 August 2015)
- Roll, William G. (1972). *The Poltergeist*. Garden City, NY: Nelson Doubleday.
- Solfvin, J. (2016). Letter to the Editor. *Journal of Parapsychology*, 80(1):129–132.
- Wolman, B. B. (Editor) (1977). *Handbook of Parapsychology*. Van Nostrand Reinhold [1986, Jefferson, NC: McFarland]