

***Special Issue Celebrating the 75th Anniversary  
of the Journal of Parapsychology***

**Where Will Parapsychology Be in the Next 25 Years?**

**Predictions and Prescriptions by 32 Leading Parapsychologists**

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## Introduction

The first issue of the *Journal of Parapsychology* (*JP*) appeared in 1937. The *Journal* was meant at first to serve as a publication vehicle for the pioneering card-guessing studies of J. B. Rhine and his staff, as well as replications by researchers at other universities. With a few exceptions, such as the research of Charles Stuart, the methodology was restricted to forced-choice testing. Most of the papers were experimental in nature, the most notable exception being the spontaneous case investigations of J. B. Rhine's wife Louisa. The accelerating geographical expansion of parapsychology following World War II was reflected in an increasingly higher proportion of published studies from outside the Duke lab, and many of these were from Europe. After Rhine's death and shortly after K. Ramakrishna Rao joined the editorial staff, one finds a greater tolerance for a wide range of methodologies, including free-response procedures such as remote viewing and the ganzfeld. These trends continue to the present day.

Although this is the first special anniversary issue of the *JP*, there have been commemorations of temporal milestones in past issues. The first was a 10-year commemorative, in which parts of the first two 1938 issues were devoted to a Symposium entitled "A Program for the Next Ten Years of Research in Parapsychology" (Journal, 1938). The speakers were a mix of staff from the Duke Parapsychology Laboratory and outsiders. Some notable speakers among the latter were Jule Eisenbud, Gardner Murphy, Gertrude Schmeidler, S. G. Soal, and Rene Warcollier. The 25th anniversary was commemorated by a review article by J. B. Rhine (1961). Unlike the earlier commemorative, this article was devoted to a history of the *JP* itself, discussing various editorial and administrative decisions made along the way, for example, with regard to the content and features of the *Journal*. The 50-year commemorative consisted of four articles. In the first, J. B. Rhine (1987) built on his discussion of the *JP* in his 25th anniversary editorial. In separate sections he reviewed the past 50 years and made projections for the next 50 years. The second article was the publication of a talk by Duke history professor Seymour Mauskopf (1987), who reviewed the origins of the Duke Parapsychology Laboratory and the *Journal*, noting that the *Journal* was born out of Rhine's pessimism about getting his research into mainstream psychology journals. In the third article, Richard Broughton (1987) reviewed the *JP*'s publication policy. In the fourth article, I summarized debates about the validity of specific psi research projects that had appeared in the *JP* during the previous 50 years (Palmer, 1987).

The idea for the special issue commemorating the 75th anniversary originated with the current Director of the Rhine Research Center, John Kruth. It reverts back to the 10th anniversary concept in that the question centered around the field of parapsychology rather than the *JP* per se. Specifically, the question John posed was "Where will parapsychology be in the next 25 years?" This, of course, will bring us to the century mark. Note that unlike the 10th-anniversary question, which asked respondents to ask what *should* happen, this question asks contributors to look inside their crystal balls and predict what *will* happen.

To implement John's idea, I emailed letters to 46 prominent parapsychologists asking them to write an essay addressing the target question, with the option to add a co-author if they wished. I eventually received essays from 29 of these, one of whom became a co-author (63%). Contributors were given free latitude to interpret the question any way they wished and to focus on any aspect of the field's future they chose (e.g., research, integration with academia). The essays were to be between 250 and 1,000 words (although I allowed them to go as high as 1,200); most are at the upper end. I also asked each contributor to send me a photograph and biographical statement of up to 150 words. I did some minor editing of the submissions, mostly to bring them into conformity with *JP* style.

The 28 essays are quite diverse, not only with respect to how the question was interpreted, but also the viewpoints expressed on the chosen interpretation of the question. The contributors also represent the field of parapsychology well geographically. Among first authors, there are 15 based in the United States (including myself), 8 in Europe, 3 in Latin America, and 2 in Australia. The contributors also differ on what for lack of a better term I will call the “liberal-conservative” dimension.

I hope you enjoy reading these projections and prescriptions about the future of the field of parapsychology. I will come back at the end to summarize the essays, point out common themes and disagreements, and offer my own perspective.

### References

- Broughton, R. S. (1987). Publication policy and the Journal of Parapsychology. *Journal of Parapsychology*, 51, 21–32.
- Journal of Parapsychology (1938). Symposium: A program for the next ten years of research in parapsychology. *Journal of Parapsychology*, 12, 1–75, 83–125.
- Mauskopf, S. H. (1987). The origin of the Journal of Parapsychology. *Journal of Parapsychology*, 51, 9–19.
- Palmer, J. (1987). Controversy and the JP. *Journal of Parapsychology*, 51, 33–48.
- Rhine, J. B. (1961). A quarter century of the Journal of Parapsychology: A brief review. *Journal of Parapsychology*, 25, 237–246.
- Rhine, J. B. (1987). Editorial. *Journal of Parapsychology*, 51, 1–8.

John Palmer, Ph.D.

Editor, *Journal of Parapsychology*



## Eberhard Bauer

Eberhard Bauer studied history and philosophy at the University of Tübingen and graduated in psychology from the University of Freiburg. A former assistant to Prof. Hans Bender, he has been associated with the Institut für Grenzgebiete der Psychologie und Psychohygiene (IGPP) [Institute for Border Areas of Psychology and Mental Hygiene] since 1970. He is currently head of its Counseling and Information and “Historical Studies on Parapsychology, Archives & Library” departments, a member of the Institute’s Council and Managing Board, and co-editor of *Zeitschrift für Parapsychologie und Grenzgebiete der Psychologie* and the IGPP book series *Grenzüberschreitungen*. For many years he has taught courses and seminars in parapsychology and “border areas” of psychology at Freiburg University. Bauer is one of the founding members of the German *Wissenschaftliche Gesellschaft zur Förderung der Parapsychologie* (German Society for the Advancement of Parapsychology) and a member of the Society for Psychical Research, the Parapsychological Association, and the Society for Scientific Exploration.

### PARAPSYCHOLOGY—QUO VADIS?

I have not the slightest doubt that the research into paranormal (“anomalous” or “extraordinary”) phenomena will also be alive and well at the end of the next 25 years when—hopefully—the *JP* will celebrate its 100<sup>th</sup> year. The question, however, of with which “gestalt” or metamorphosis this endeavour will present itself to the scientific community and to the public in general is quite a matter of speculation. For me, after working more than 40 years at the IGPP in Freiburg, Germany, I’m rather confident that there are several features (or plausible scenarios) that will characterize our field also in the year 2037. These features / scenarios are:

1. People are always experiencing “strange” things spontaneously happening in their daily lives and they are looking for answers. Because parapsychology or psi research is the only scientific field which is looking *systematically* at such often dramatic occurrences, this will guarantee its survival at least as a research question and as a challenge for counsellors with different clinical backgrounds.
2. In the public domain, the controversy around paranormal phenomena will also be with us in 2037. I don’t think that parapsychology *per se* (or under this name) will be “fully established” as a scientific discipline or as an accepted academic field. On the contrary, the so-called psi controversy will remain a touchstone for hidden and anthropological assumptions in our scientific worldview and research methodology. Sociologically speaking, the “skeptical” societies and organizations all over the world, still flourishing

also in 2037, will continue to stabilize this controversy according the dichotomy of “believers” and “disbelievers” in the public discourse.

3. There will be a continuous growth of historical and cultural scholarship dealing mainly with the origins of spiritism, occultism, psychical research, and parapsychology in different countries. This will include in-depth studies of biographies of psychical researchers, societies, and other organizations including their boundary conditions. But the majority of those historical studies will avoid epistemological questions regarding the ontological status of such phenomena. These studies are nevertheless valuable because they are keeping psi phenomena alive at least in a sociocultural context. The same holds for investigations into the history of “occult” or paranormal photography including its aesthetic qualities.
4. For me, one of the most challenging questions, also in 2037, will be, what constitutes “progress” in an “unorthodox” field like parapsychology? Even if there might be a broad consensus among active research workers—mostly readers of the *JP*—that parapsychology represents “an interdisciplinary area of research,” there will be an ongoing debate about whether criteria for assessing scientific advancement should be modelled after the example of cultural, social, or behavioural science (e.g., psychology) or after the example of natural science (e.g., biology or physics). In the first case, one might employ a somewhat more lax criterion because we would not expect the same rate of growth of substantive and conceptual knowledge as in biology or physics, but rather, we might tend to rate advance in terms of the adoption of certain fashionable methods or in terms of the adoption of new styles of discourse. It is my feeling that this will happen in parapsychology also in the next 25 years.
5. There exists, as a comparative or content analysis of PA Presidential Addresses, mostly published in the *JP* over the last 50 years, would reveal, a broad spectrum of opinions on the advancement issue. When we are looking for evidence of future “advances,” “progress” or “success” in orthodox sciences, most of us would see them in (a) empirically validated theoretical insights into the nature (or limitations) of the phenomena in question, (b) practical and/or technological applications of such phenomena in everyday life, and (c) positive evaluation of the research enterprise by the academic and scientific communities. The realization of any one or all of these criteria would result, no doubt, in heightened prestige and greater recognition for the field and its investigators. Judged by such criteria of scientific advancement, will parapsychology offer a more promising picture in 2037 compared with today? I have my doubts: Even among “professional parapsychologists,” there may be still no strong consensus about such basic issues as (a) the domain or scope of the discipline, (b) the structure and strength of paranormal effects that theories are obliged to explain, and (c) the existence of solid, repeatable findings as a basis for drawing conclusions about process. Not surprisingly, then, claims about or expectations of a breakthrough in the psi-research domain until 2037 will be met with some scepticism on my part.
6. It would, though, be unfair to say that we could not expect some promising signs of scientific development within parapsychology. Surely, there will be further progress in the technological sophistication and in the statistical refinement in experimental parapsychology. And one can expect also some consolidation in the academic recognition



of “anomalous psychology,” especially in UK, where more than 10 universities are offering now courses in parapsychology within psychology departments—a remarkable sociological fact that I would like to call the “Bob Morris legacy of an interdisciplinary, integrative parapsychology.” Another promising sign is the development of what might be called “clinical parapsychology,” which means special counselling and information services for people feeling distressed or impaired by paranormal or anomalous experiences. For me, however, one of the most challenging questions—and a crucial feature for the future development of parapsychological research—is a new theoretical understanding of so-called psi phenomena. We really should give up the old signal model underlying the Rhinean paradigm, which implies that mind is a real force called “psychokinesis” or that “ESP” is something like an information transfer. In such a sense, “classical” parapsychology is really “dead.” It’s my hope that by 2037 the small international psi community has come to a full appreciation of the experimental and theoretical consequences of the correlational model whose foundations were laid down already back in the historical 1974 Geneva Conference “Quantum Physics and Parapsychology.” Personally, I’m convinced that treating psi phenomena as entanglement correlations in a generalized quantum theory will shed a new light on time-honoured problems of experimental parapsychology like the “elusiveness” of psi, decline effects, or the replication problem. In Germany there are promising signs that parapsychology enjoys growing integration with the “consciousness sciences” also in connection with its academic institutions like the “Institute for Transcultural Health Sciences” at Europa University Viadrina in Frankfurt/Oder or an endowed Chair for the Consciousness Sciences at the Department of Psychosomatic Medicine of the University of Regensburg. In part, this is due to the development of theoretical models stressing “entanglement” and “macroscopic nonlocality” and connected with the names of Roemer, von Lucadou, and Walach that, even though published in English, seem to have fallen on especially fruitful soil in their German home country.



## Julie Beischel

Julie Beischel, Ph.D., co-founder and Director of Research at the Windbridge Institute for Applied Research in Human Potential, received her doctorate in Pharmacology and Toxicology from the University of Arizona in 2003 where she later served as the William James Post-doctoral Fellow in Mediumship and Survival Research. Her primary interests include empirical investigations of the information reported by mediums (individuals who experience regular communication with the deceased); studies of their unique experiences and physiological, psychological, and neurophysiological characteristics; and research regarding the socially beneficial applications of mediumship readings. Dr. Beischel is a professional member of the Parapsychological Association and the Society for Scientific Exploration and serves on the scientific advisory boards of the Rhine Research Center and the Forever Family Foundation. She is Director of both the Spirits and Spirit

Communication and the Survival and Life After Death research departments at the World Institute for Scientific Exploration.

### **A QUARTER CENTURY OF APPLIED RESEARCH**

I sincerely hope that 25 years from now we are not still banging our heads into the same philosophical, methodological, and political walls that have plagued parapsychologists throughout our relatively brief history. Specifically, I hope for a future not fraught with debates regarding the source of psi problem or with attempts to determine a mechanism for psi. I wish for a parapsychology focused primarily on the practical applications of psi.

The source of psi problem seems insurmountable. In experiments examining animal psi, precognition, psychokinesis, and telepathy, it cannot be determined if the source of the psi effect is based (perhaps even unconsciously) with the experimenters or with the participants or non-human animals. Additionally, the effects may be happening in the present, the past, and/or the future. Given the non-local, non-temporal nature of psi, it remains difficult to truly disentangle the experimenter from the experiment even if the same studies are conducted by different experimenters or by disinterested researchers. It seems that no experimental protocol will be able to discern between these possibilities.

In my current research with mediums—individuals who experience regular communication with the deceased—a different type of source of psi problem exists. When a medium reports accurate, specific, and verifiable information about a deceased person and all normal sources of information transfer (e.g., fraud, cueing, cold-reading, etc.) as well as precognition have been eliminated, two main psi-based explanations remain: (a) the medium is using clairvoyance, precognition, and/or telepathy with the living to obtain the accurate information she reports (termed somatic psi) or (b) the medium is telepathically communicating with the survived consciousness of the deceased person (termed survival psi). No amount of scoring data and no type of mediumship content can definitively distinguish between these two explanations.

Similarly, determining the mechanism behind psi also appears to be a Sisyphean endeavor. Our inability to answer the question, “Whose psi is it?” makes asking, “How does psi work?” two steps ahead. In addition, many phenomena (e.g., yawning and dreaming), pharmaceuticals (e.g., general anesthetics as well as Botox, lithium, pramipexole, procarbazine, ethambutol, halofantrine, levetiracetam, clofazimine and pentamidine) and diseases (e.g., multiple sclerosis, lupus, rheumatoid arthritis, Parkinson's disease, eczema, psoriasis, glaucoma, and fibromyalgia) exist and we continue to enjoy, ignore, medicate with, suffer from, and move forward with research regarding them despite their unknown mechanisms. Similarly, psi will continue to exist sans mechanism.

With the source of psi and mechanism roadblocks preventing further progress on most if not all of the philosophical and experimental paths in parapsychology, it seems logical to focus on examining the practical applications of psi. Explanations regarding where it comes from and how it works are irrelevant to the people who could be helped, comforted, or healed using psi. Our limited time, resources, and energy might be best spent in the next 25 years studying topics such as the effects and limits of our natural healing abilities, the psychological and practical aftereffects of near-death and similarly transformative experiences, the development and application of intuition, and the potential therapeutic benefits of mediumship readings in the treatment of grief.

I look forward to a future where the integration and application of psi abilities enhances our lives on a daily basis.



## Daryl J. Bem

Daryl J. Bem, professor emeritus of psychology at Cornell University, obtained his BA degree in physics from Reed College and his PhD degree in social psychology from the University of Michigan. Prior to Cornell, he taught at Carnegie-Mellon, Stanford, and Harvard Universities. He has published on several topics in psychology, including group decision making, self-perception, personality theory, sexual orientation, and psi. He is coauthor of an introductory textbook in psychology and the author of *Beliefs, Attitudes, and Human Affairs* (1970). He currently serves on the Parapsychological Association's Board of Directors and was awarded its Charles Honorton Integrative Contributions Award in 2010. In 2011, he published "Feeling the Future: Experimental Evidence for Anomalous Retroactive Influences on Cognition and Affect" in the *Journal of Personality and Social Psychology*.

### FEELING THE FUTURE OF PSI

As a relative newcomer to psi research, I retain a childlike fascination with psi phenomena and an optimism about our future understanding of them. I am also optimistic about their increasing acceptance within mainstream science. As a specialized discipline, however, the price we might have to pay for such progress is a loss of ownership of the phenomena themselves.

With regard to the increasing acceptance of psi phenomena within mainstream science, there may be a parallel to the acceptance of subliminal perception over the past 50 years. I can still remember the debates over the existence subliminal influence in the 1950s when clinically-oriented psychologists were attempting to persuade skeptical experimentalists that they had demonstrated phenomena like perceptual defense in the laboratory. For example, they claimed to have demonstrated that "repressors" showed longer recognition times to subliminally presented threatening visual materials than to non-threatening materials, whereas "sensitizers" showed shorter recognition times. The researchers were met with a storm of methodological criticisms (e.g., some of the early studies failed to control for the effects of word familiarity on recognition thresholds). But there was also a denial-in-principle among many experimental psychologists. (Wild claims for subversive subliminal influence in Vance Packard's *The Hidden Persuaders* didn't help.) Today, however, the existence of subliminal influences is widely accepted and routinely employed as a tool in priming and other psychological experiments.

This shift only partially reflects improved methodology; more important, it reflects a shift in the collective implicit model of the mind. In the behaviorist past, the mind was seen as little more than a switchboard: stimuli-in, responses-out. This led skeptics to ask facetiously "so who is this homunculus in the head who looks out, concludes that the material is threatening, and then prevents the person from seeing it?" Our contemporary implicit model of the mind is more like a computer: We are aware that what we see on the screen are only the final "conscious" products of a much greater amount of processing going on invisibly underneath. It would never occur to us today to make wisecracks about a homunculus.

I believe that contemporary psychology, particularly cognitive-social psychology, has now been “softened up” to the point where replicable psi phenomena can get a fairer hearing and that this is expanding to neurobiology and physics as well, aided and abetted by new discoveries and thinking within those disciplines. Recently there have been two collaborative conferences of physicists and psi researchers sponsored by the AAAS, and the proceedings have been published by the American Institute of Physics (Sheehan, 2006, 2011).

I am, however, less optimistic about the future state of parapsychology as a separate discipline. In the United States the lack of institutional support by academic institutions and government funding agencies is likely to continue, with the consequence that we are unlikely to encourage younger people to enter the field of psi research. Conditions in the United Kingdom and some European countries seem to be more promising, but it seems likely to me that psi investigations will be conducted by researchers whose primary identification is with their mainstream fields, not as psi researchers per se. It is in that sense that I believe that we may win scientific success while losing ownership of the phenomena. That is not necessarily a bad outcome.

I can also envision growing support and progress for psi research coming from institutions that have a practical applied interest in the phenomena, such as medical institutions. The growing acceptance of complementary medicine and non-materialistic healing practices is illustrative. Indeed, this might be the most likely path through which psi research wins respectability and scientific support.

The defense establishment is another institution that continues to show a practical interest in psi. A few of us in the field have recently been approached by a task force of the U.S. Navy, whose mission is to explore what warfare will look like in the next 25 years. We may yet see another Stargate-like project (McMoneagle, 2002).

But none of this tempers my optimism as much as concerns about the nature of psi itself and the challenge of two possible intrinsic properties of psi that will continue to impede our progress and prevent us from producing replicable psi effects.

The first of these is the decline effect, in which psi effects diminish across time within experiments, across experiments within a single laboratory, and in replication attempts across laboratories. These were identified and discussed in psi research over 50 years ago by J. B. Rhine and have now become a renewed concern for scientists in several other disciplines as well (e.g., Lehrer, 2010; Schooler, 2011).

The second is the existence of experimenter effects in psi research. Many psychologists appear to have forgotten the more than 345 experiments by Rosenthal demonstrating experimenter effects in psychology generally (Rosenthal & Rubin, 1978); and, despite repeated warnings to attend to them by “elder statesmen” in our field like John Palmer and Charles Tart, we have not yet developed a systematic approach to incorporating them into our psi research.

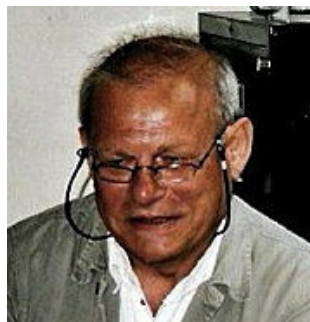
I must admit that my nightly prayer as a mainstream social psychologist is that both these effects will be found to rest upon mundane “psychological” factors that we can eliminate, isolate, or incorporate into our designs in ways already familiar to us. But I am increasingly persuaded that one or both of them may well be intrinsic anomalous properties of psi.

## References

- Lehrer, J. (2010, December, 13). The truth wears off. *The New Yorker*, 52–57.
- McMoneagle, J. (2002). *The Stargate chronicles: Memoirs of a psychic spy*. Charlottesville, VA: Hampton Roads.

- Rosenthal, R., & Rubin, D. B. (1978). Interpersonal expectancy effects: The first 345 studies. *Behavioral and Brain Sciences*, 3, 377–415.
- Schooler, J. (2011). Unpublished results hide the decline effect. *Nature*, 470, 437.
- Sheehan, D. P. (Ed.) (2006). *Frontiers of time: Retrocausation—experiment and theory*. AIP Conference Proceedings (Vol. 863), San Diego, CA & Melville, N Y: American Institute of Physics.
- Sheehan, D. P. (Ed.) (2011). *Quantum retrocausation: Theory and experiment*. AIP Conference Proceedings (Vol. 1408), San Diego, CA & Melville, NY: American Institute of Physics.

## Dick Bierman & James Spottiswoode



Dick Bierman studied experimental physics at the University of Amsterdam. For his Ph.D. he studied the behavior of metal surface- and gaseous targets under ion bombardment. After his Ph.D. he headed the Instrumentation department of the faculty of Psychology. In that period he was also teaching the course “Computer-Art” and started a local university television show. Under his supervision a large scale project of 60 hours of courseware was implemented to teach statistics. As a consequence, he became involved in artificial intelligence research on intelligent tutoring systems. He concluded that in the teaching process, lots of nonverbal and often nonconscious processes are crucial. His interest therefore shifted towards consciousness studies in general and the relation between conscious and nonconscious processes in particular, eventually resulting in research on intuitive decisions and on the relation between consciousness and quantum measurement. He was visiting researcher at the Interval think tank in Palo Alto, USA and the StarLab in Brussels, Belgium.

James Spottiswoode took a first in mathematics and did Ph.D. work in general relativity. He became involved in parapsychology in 1982 and since then has done experimental and theoretical work on anomalous cognition, presentiment and other protocols. He discovered the local sidereal time effect in a meta-analysis of free response with data. His main focus has been to search for physical correlates to anomalous cognition in hopes that such phenomenological laws will lead to incorporating these effects into physics.

### THE FINAL BREAKTHROUGH

According to leading parapsychologists, like Dean Radin, it is only a matter of time that within the field of parapsychology a replicable experiment will be developed. Ganzfeld

experiments and presentiment experiments are mentioned as potential candidates. We agree that this is a possible scenario. In order to accomplish this, factors that are considered to be irrelevant in conventional science, like the hopes and expectations of experimenters, have to be specified and it could be that only specific experimenters can find the anomalous correlations that are the focus of psi studies. The question arises if traditional science will accept as objective reality, anomalous correlations that can only be observed by scientists that have specific hopes and expectations. If these scientists are capable of using these correlations in some way, for instance to make money in a casino, this discussion will soon fade and psi will be accepted as a part of objective reality.

We consider another scenario as more probable. In this scenario some scientists might observe rather consistently anomalous correlation but they do not succeed in using these. This is predicted theoretically from German theories like the weak quantum theory. In those theories the anomalous correlations are metaphorically seen as nonlocal correlations in the quantum sense. It is generally argued in physics that these nonlocal correlations cannot be used for transmission of classical signals. Any way to try to use the nonlocal correlations in this way will ruin them.

We will argue that this property of non-useability is more generally an aspect for all unified theories of psi. Let us be more precise. Incidental use of anomalous correlations is not forbidden. What we are discussing is the consistent and robust use of the anomalous correlations. The fact that some experimenters report stable effect sizes with known subjects is inconsistent with the fact that the same experimenters keep on asking for more grants. It can easily be shown by Monte Carlo simulations that this level of effect size even if it fluctuates strongly would result in unlimited earnings in an associative remote viewing paradigm.

All the unified theories have some form of “retrocausality” as an element. That is to be expected because these theories have to be able to account for precognition also. But ever since the observational theories it has become clear that apparent real-time correlations in telepathy and clairvoyance experiments can also be interpreted as precognition of feedback, thereby making the retrocausal character crucial.

This can be considered as the definite end of the sensory metaphor that has plagued psi research from the beginning of the experimental work. This sensory metaphor framework requires processing of a near unlimited amount of information coming from anywhere and anytime in order to select the information that would be relevant for the organism. Feedback-focused models limit this amount of information to information that will be present in one’s own brain.

We realize that in communication outside of our field the use of the sensory metaphor is seductive. Nonetheless, it is to be expected that the sophistication in the field of parapsychology will increase to a level to really getting rid of this sensory metaphor even when communicating with outsiders.

In any retrocausal framework a discussion of possible time-loop paradoxes is required. Luckily for the field of parapsychology this discussion has been going on already for a long time in the field of time-travel, and the grandfather paradox is now popular culture. It is generally assumed that nature would not “allow” for paradoxes to happen as has been expressed in Novikov’s consistency argument. We think that this might be interpreted in probabilistic terms. If the creation of a time loop on the basis of anomalous correlations is more probable, the anomalous correlations will become less strong. Note that it is the potential of creating the paradox that reduces the anomalous correlations, just like the potential to use nonlocal correlations for classical signal transfer removes these correlations. Or the potential to find out the position of a particle ruins the wave aspect of the particle.

This argument basically results in the conclusion that the anomalous correlations cannot be used except if the situation is such that no paradox can be created. It also explains why cumulation of data does not result in a better “signal”-to-noise ratio. Increasing the signal to noise would more and more enable the creation of a paradox. The cumulation could be obtained through replication or by increasing sample size in an experiment. Although the existence of decline effects and of sample size effects are not decided yet, many scholars in psi research have mentioned the elusive character of psi.

In 25 years from now it is to be expected that the choice between the two scenarios sketched above will be made. If the decision is in favor of the consistency argument, then the focus of psi research could become the construction of dependent variables that cannot be used in principle. If that doesn’t succeed, only theoretical developments in physics that would point to the reality of retrocausal or time-symmetric phenomena might result in acceptance of the field of parapsychology.



## Stephen E. Braude

Stephen E. Braude, Ph.D. is Emeritus Professor and former Chairman of Philosophy at the University of Maryland Baltimore County, past President of the Parapsychological Association, and also Editor-in-Chief of the *Journal of Scientific Exploration*. Prof. Braude is the recipient of numerous grants, fellowships, and awards, including Research Fellowships from the National Endowment for the Humanities and the BIAL Foundation, and the Distinguished Achievement Award from the International Society for the Study of Dissociation. He has published nearly 100 philosophical essays in philosophical and scientific journals, and he has written five books: *ESP and Psychokinesis: A Philosophical Examination*; *The Limits of Influence: Psychokinesis and the Philosophy of Science*; *First Person Plural: Multiple Personality and the Philosophy of Mind*; *Immortal Remains: The Evidence for Life After Death*; and most recently, *The Gold Leaf Lady and Other Parapsychological Investigations*, which describes Prof. Braude’s own encounters with the paranormal.

### PARAPSYCHOLOGY'S FUTURE: A CURMUDGEONLY PERSPECTIVE

I don’t believe I’m a pessimistic person, but I find it difficult to be optimistic about the next 25 years of psi research. That’s because when I consider the field’s successes and failures since the late 19<sup>th</sup> century, certain patterns stand out starkly for me.

First, skepticism about the reality of psi has always been intense, especially in scholarly circles, and it has quite often been vicious, recalcitrant, and dishonest. Granted, over the years, some open-minded scientists and others have dispassionately (or otherwise) reviewed the evidence and found themselves persuaded either about the reality of psi or at least the value of doing additional research. But these people clearly comprise a very small minority, and psi



researchers have clung desperately to their most prominent members in order to tout their endorsements or support. To take just one example: how often are we reminded that Brian Josephson—who does no psi research but who actively and effectively defends it—is a Nobel-winning physicist supporting the field of parapsychology? Don't misunderstand me; I too welcome Brian's vigorous support and his many efforts to combat shoddy skepticism. But personally, I'm embarrassed by parapsychologists' frequent and dialectically shabby appeals to his authority and prestige.

The fact is, the resistance to the entire field of psi research has not significantly diminished in more than a century, and the tactics employed to discredit the field or its major figures have remained the same as well. Critics have all along feigned certitude about the worthlessness of the data while betraying their ignorance of what the data actually are. Detractors (or deniers) still employ fallacious argumentative strategies (e.g., ad hominem or straw-man arguments) they would be quick to detect and denounce if they had been the targets of those arguments instead. And not surprisingly, the tone of these criticisms often reveals an intensity of emotion inappropriate to what should be an open-minded empirical inquiry. Indeed, it looks conspicuously like a fear response.

Second, it's clear that parapsychology's gradual adoption of more relentlessly and sophisticated quantitative methods has made almost no difference to the course of skeptical opposition. On the contrary, it's simply opened a new and fruitful—and largely technical—playing field for glib or dishonest criticism. So instead of concentrating on allegations of mediumistic fraud or sloppy reporting, critics now focus (for example) on allegedly questionable statistics, the proper criteria for conducting meta-analyses, or other methodological flaws (real or imagined). In that respect, J. B. Rhine's so-called "revolution" of moving from mediumistic case studies to quantitative lab experiments has been a complete failure. Overall, neither the public at large nor the subset of academic detractors has been more convinced by quantitative research than they were before that by anecdotal reports and mediumistic case studies.

Of course, all sides in the psi debate (believers, doubters, and deniers) are guided by some combination of intuition (or "passion") and reason. Nevertheless, spontaneous case studies have always been, and continue to be, more impactful—and in important ways more clear-cut—than a study whose conclusions rely on controversial and very abstract reasoning, either about statistical presuppositions, quantum weirdness, or the nature of causality. Significantly, not even all psi researchers consider themselves convinced about the reality of psi, and I believe it's true that most of the doubters (or fence-sitters) assume that conviction can only come from applying probability theory to lab experiments.

Now if only there was a growing or robust trend in current psi research to focus more on field work or exceptional subjects, and to try to get a handle on psi's role in life, there might be reason to think we're finally starting to get somewhere. We might then have a better idea of what it is, exactly, we're trying to study experimentally—not to mention whether (or to what extent) experimental methods are even appropriate to the phenomena. But that's not happening, and overall, the dialogue between critics and defenders of psi research hasn't budged significantly in many decades. It continues to center largely on alleged methodological or statistical shortcomings in inherently unpersuasive quantitative experiments, or flaws in meta-analyses—at least when critics aren't merely echoing the old skeptical mantra about the supposedly intuitively obvious impossibility of the phenomena.

I know some will disagree with my bleak assessment and point to apparent inroads here and there within the scientific community. Of course, there have been scattered successes. Some formerly intransigent skeptics have adopted more moderate positions; some who had previously opposed all things paranormal now display apparently greater open-mindedness; and occasionally



a paper on psi research appears in a respectable mainstream journal (usually accompanied and followed by a chorus of outrage). But that's always been the case, and I'm still awaiting evidence suggesting that the optimists have identified a lasting trend and aren't simply ignorant of the field's history or otherwise empirically myopic, or (equally likely) inductively challenged. In the meantime, funding remains scarce and modest, educational opportunities and stable research positions are few and far between, and the academy remains a generally hostile environment. I'm not saying this will *never* change. After all, I do believe in the inexorable (though not smooth or steady) advance of human knowledge, and I'm actually confident that humankind will eventually progress to a point at which the reality of psi is widely recognized and incorporated generally into one or more accepted conceptual frameworks. But this will be a huge and deep change, and people generally don't relinquish old habits and entrenched beliefs without a real struggle. So (as a native and current resident of Las Vegas) I wouldn't bet on major progress or success in psi research happening any time soon.



## Etzel Cardeña

Etzel Cardeña, Ph.D., holds the Thorsen chair, with a remit in parapsychology and hypnosis, at one of the foremost universities in the world, Lund University in Sweden. He is Past President of the Parapsychological Association and current editor of its bulletin *Mindfield*. He is especially keen in researching the relationship between hypnotizability, dissociation, ongoing states of consciousness, and performance in controlled psi experiments. He is a fellow of and has received more than a dozen awards from three different scientific organizations as well as from the University of Texas. His more than 250 publications include these books with chapters on psi: *Varieties of Anomalous Experience* (2nd edition about to be published) and the two volumes of *Altering Consciousness*. He is also the Artistic Director of the International Theatre of Malmö and has published and lectured on the relationship between psi and the arts.

### PSI IS HERE TO STAY

In the Introduction to *The Philosophy of History*, Hegel famously stated that “what experience and history teach is this—that peoples and governments have never learned anything from history” and I do not claim to have a precognitive talent. It seems to me, nonetheless, that there have been recurrent cycles in the attention to and regard of psi phenomena and that they can inform ideas about our potential future. From the halcyon days of the almost acceptance of psi achieved by Rhine and his co-workers, we descended to the lows of psi laboratories closing and funds drying up in the US some years ago. The current situation is mixed. Under the umbrella of anomalous psychology, a number of Bob Morris's intellectual children and grandchildren in the UK have secured stable positions and carry out research on psi, and there have been a number of books by scientists and laypeople waxing positive about psi research. I hold an endowed chair that has already allowed me to supervise doctoral students who are likely to pursue research on

psi, and, despite the odds against it, our research continues to be published in top journals in psychology and other fields.

As for the future, here is what I do not foresee: that a materialist perspective of consciousness and reality will come tumbling down and suddenly a new “paradigm” will emerge in which parapsychology will have a dominant voice. I have been hearing such prognostications now for decades, without seeing much more than the usual, somewhat repetitive debates, which can be traced back to the early Greeks. There is also the constituent problem of what parapsychology actually is. In my view, it does not demarcate a broad set of questions, themes, and shared disciplinary principles like psychology, biology, or physics do. Rather, it is a much more limited transdisciplinary topic about some fascinating experiences and events. From this more limited perspective, it is of interest to a small group of masochistically inclined researchers. Even if we achieve great breakthroughs in the next 25 years, I do not see this changing.

It would be far more profitable to continue research on psi from within already established disciplines and integrate findings within a larger corpus of knowledge. This may help us substitute the term “parapsychology,” which attracts such opprobrium, with other terms such as “anomalous psychology.” We require continued work on unifying theories such as the recent proposal by Carpenter (2012) to discuss psi within non-conscious psychological processes, as well as diversifying attempts to research the complexity of psi within the laboratory and in “real life” (cf. Feynman, 1988). Considering the very limited number of people doing research on psi (for instance there are far more, and much better funded, researchers doing work on a single EEG response, the P300), there are some strategies that might help psi have a rosier outlook in 25 years: Have researchers first gain expertise in related mainstream areas and apply them to questions about psi, secure good academic positions and supervise students who will get jobs and continue to work on psi (and other areas), and have a programmatic plan of research so that after many years of effort there is a chance of advancing the area (in the long run, the shotgun research approach does not seem to work in psi as it usually has not worked in other areas).

There are two problems that are of particular importance in the face of the very low signal-to-noise ratio found in psi experiments (not unexpected since psi in life tends to occur, or at least become conscious, in the context of very emotional and important events). The first is to develop procedures that are likely to show an effect when a design has sufficient power, the kind of thing that Daryl Bem (2011) has done but needs to be carried further by other researchers as well. The other area, which is close to my heart, has to do with identifying which people and under what consciousness states and other conditions are likely to perform well in a psi test. That wild set of phenomena known as hypnosis started to yield reliable information only after hypnotizability scales were developed and people who responded to them were identified. Something similar could happen to psi (Cardena, 2010).

The field also needs to become more technological and media-savvy to win the sociocultural war against the current, and ever-present, inquisitors who would like to dictate what can and cannot be researched. I have heard more than once that it would be good to find common ground with our irrational critics (and I do exempt informed and reasonable criticism that can also help us understand psi better), but our community needs to learn how to respond in a vigorous and coordinated fashion to irrational and destructive critics. Because of their dogmatism, it is a lost cause to attempt to persuade them, so our communications should be directed to the much larger group of scientists and public at large, who may fairly evaluate the evidence for our data and the double standards and anti-scientific practice of many of our detractors. There is one further development that could greatly advance the field. Since we have so few resources as a whole, it would be advantageous to have many more coordinated attempts at policy, communication, and research.

Despite the great challenges facing us, there is no doubt that no matter what pseudo-skeptics may pontificate, people will continue reporting putative psi experiences, some of which deeply affect their lives. This fact, if nothing else, makes me think that psi will not end up in the dustbin of history in 25 years.

### References

- Bem, D. J. (2011). Feeling the future: Experimental evidence for anomalous retroactive influences on cognition and affect. *Journal of Personality and Social Psychology*, 100, 407–425.
- Cardeña, E. (2010). Presidential address: A look at the potential future of parapsychology with help from a regression to the hypnotic past. *Journal of Parapsychology*, 74, 15–30.
- Carpenter, J. (2012). *First sight: ESP and parapsychology in everyday life*. Lanham, MD: Rowman & Littlefield.
- Dyson, F. (1988). *Infinite in all directions*. New York: Harper.
- Marcusson-Clavertz, D., & Cardeña, E., (2011). Hypnotizability, alterations in consciousness, and other variables as predictors of performance in a ganzfeld psi task. *Journal of Parapsychology*, 75, 235–259.



## James Carpenter

James Carpenter is a Clinical Associate Professor with the Department of Psychiatry of the University of North Carolina and conducts a private practice of psychotherapy. He has been involved in parapsychological research since 1959, when he came to Duke University as an undergraduate to study with Dr. J. B. Rhine at the Duke Parapsychology Laboratory. In addition to numerous research contributions, he recently published a book on a new theory of psi called *First Sight*. He received a Ph.D. in clinical psychology from Ohio State University, and is a Diplomate of the American Board of Professional Psychology, and a Fellow of the American Academy of Clinical Psychology. He has served on the boards of directors of the Rhine Research Center (President two terms), the Parapsychology Association (PA), and the American Academy of Clinical Psychology. He was awarded the Charles Honorton Integrative Contributions Award by the PA.

### FORESIGHT, FIRST SIGHT

John Palmer has given us an intriguing test: Predict the state of parapsychology 25 years hence. It's humbling that, in spite of our research, we cannot directly look there and report back the facts. My guesses are guided by my own point of view, which I call *First Sight*.

## Where Will Research Be Going?

We will continue to be engaged in the three directions of research that have primarily occupied us for the last 25 years: questions involving the physics of consciousness, the psychology of psi, and the expression of psi in biological process. I expect that studies in all three areas will be more guided by theory than in the past.

Parapsychologist/physicists will apply new developments in quantum theory to psi processes (mainly PK) and will find new explanatory power. This will be exciting and contentious, reputations will be risked and lost, bold new syntheses will be proposed and tested. Non-physicists will find it all fascinating and confusing. In short, things will be a lot as they are now, with a better accumulation of good ideas and a growing core of substantive findings.

Parapsychologist/psychologists will be working in several different directions, depending upon their favorite tools and areas. They will be more united than they are today by a conception of psi that holds that both ESP and PK are ongoing, unconscious processes that are expressed in implicit ways. Psi will be understood as continuously at work behind the scenes, as in presentiment responses and cognitive biasing effects, and a growing body of studies will be demonstrating this. Neuroscientist/parapsychologists will be shedding new light on brain processes that are involved in implicit psi responses, just as they study other pre-experiential cognitive processes. Cognitive/social/personality/parapsychologists will develop more elaborate and precise hypotheses about how psi information is expressed implicitly in perceptions, judgments, emotional responses, interpersonal interactions. They will look for psi at work in many places, and virtually always find it, and craft better and better ways to understand it. There will be false starts, quarrels and setbacks, but for the most part there will be genuine and steady progress.

Parapsychologists who are biologists and physicians will be conducting more studies on the direct expression of intention in different biological systems, *in vivo* and *in vitro*. Hypotheses will be more theory-based and discriminating, predicting negative and positive effects depending upon specified variables. A clearer case will be made for the relation of health and healing to psi processes under certain conditions. This work will still be plagued by savage skepticism on one hand, and romantic quasi-medicine on the other, but the solid core of fact in the center will be easier to see.

Parapsychologists who are interested in the survival of the mind after death will still be finding this question difficult to settle with scientific fact. Perhaps there will be substantive advances here too, but I cannot imagine them.

## Relations with Other Fields of Science

Parapsychologists will still be a minority group within science, defined by their commitment to the idea that consciousness involves an extended reality beyond normal sensory exchange. Most scientists will still not take this idea very seriously, and those that do will still share a subgroup identity because of it.

At the same time, there will be a smaller proportion of work that will look purely parapsychological. Much more will be interdisciplinary. Work on the relation of the mind to physical systems will be more sophisticated in terms of the constructs of contemporary physics. Work on the neuropsychological substrate of psi processes will be embedded in the tools and ideas of neuropsychology. Work relating psi to personality variables, cognitive processes, social

interaction, and abnormal psychology will be more consciously contextual in those mainstream fields. The hypothesis of psi will continue its intrusion into other fields of science, welcome and unwelcome.

This intrusion will result in a greater proportion of psi-related papers being presented in the conferences and publications of mainstream fields. Since we will have more understanding of how psi works in the context of other processes (physical, neurological, cognitive, affective, social) research reports will reflect that interdisciplinary context. At times this will still lead to an accompanying chorus of skeptical criticism, but this criticism will be more sophisticated and respectful than it has been, more open to psi as an interesting possibility. Most scientists will still be happy doing without psi, but more of them will be paying attention to the possible importance of it.

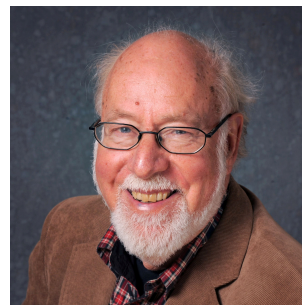
### **Institutional Parapsychology**

The Parapsychology Association will still exist. I expect it will be larger, with an influx of younger scientists. The major publications in the field will still be active, primarily in electronic form. They will be supplemented by other journals with specialized interests in physics and consciousness, psi and healing, and psi and implicit psychological processes. Less technical and lightly refereed publications will continue to come and go in which psi will be associated with the psychology of happiness, with mind-altering drugs, with religious/mystical experience, with mediumship/channeling, and with alternative medical practices, new and old. I expect that most of the currently active research centers in parapsychology will survive, but their activities will become increasingly educational. More of the serious research of the field will be going on in at least a handful of universities, and less in the explicitly parapsychological centers. The latter will become more skilled at popularizing research, and when they carry out research of their own it will be almost entirely in partnership with mainstream laboratories. Such partnership will be required by any private funding institutions that will be active then, like today's Bial Foundation.

I expect that there will be an increase in psi research in the private sector, and in groups that have political agendas, governments and otherwise. This will be "proprietary psi," and most of this work will not be available to the scientific community. As it dawns on more people that psi is real, and its working comes to be better understood, many will wish to apply it to the solution of practical problems, such as predicting economic trends, influencing elections, gaining power over others, healing illness, and countless other potential applications.

### **Parapsychology in a Post-parapsychological World**

In the face of all these developments, parapsychology as a discipline that has always defined itself as being on the edge of things will fade into a new context in which psi phenomena will be studied by anyone who wishes to apply them. Scientists with a large part of their professional identities in parapsychology will become "old guard," somewhat reactionary, decrying shifts in direction and conceptualization that they see as unwise or dangerous. They will have a paradigm to defend, and they will feel threatened and envious in the face of the appropriation of psi by the larger mass of humanity, to whom it has always belonged. Still, they will be experts in this burgeoning arena and will be a little further along than most in thinking about the implications of application. They will struggle to find a platform from which to offer some wisdom and perspective to a world that tries to cope with the conscious application of psi.



## Jan Dalkvist

Jan Dalkvist is a retired assistant professor in psychology. He received his Ph.D. from the Department of Psychology at Stockholm University in 1973. Until 1993 his research focused on psychological scaling, including psychophysics, and emotion psychology. Then his research interests turned to parapsychology, starting with an experiment on group telepathy. This experiment then extended into a long-term project that is still ongoing. Alongside this project, he has pursued other parapsychological lines of research as well, including validity tests of ganzfeld results and exploration of a hitherto unknown statistical bias (the “mean bias”), which is particularly relevant to certain types of experiments on precognition (so-called presentiment experiments). He recently started a new project aimed at testing an electromagnetic explanation of telepathy using ganzfeld data. A large part of his research has been performed in co-operation with Joakim Westerlund at the Department of Psychology, Stockholm University.

### THE 2037 NOBEL PRIZE IN MEDICINE AND PHYSIOLOGY

It was a special day for Mary Stevens, a young brain researcher from Stanford University—and for parapsychology. It was the 10th of December, 2037, and on this day Mary was to receive the Nobel Prize in medicine and physiology from the Queen of Sweden for “pioneering experiments on signal amplifying in anomalous inter-personal communication,” that is, for her research on telepathy.

But what were the events leading up to this? During the 2020s, attitudes towards parapsychology in the scientific community changed dramatically: from having been regarded as a pseudoscience, parapsychology became a prestigious subject, comparable to physics, biochemistry and other hard sciences. Many even regarded it as the most interesting research subject of all. This did not apply to the whole of parapsychology, however, only to part of it, especially telepathy and healing. The primary cause of this drastically altered view of parapsychology was that a new type of telepathy experiment, demonstrating almost perfect replicability, had been successfully tested at a large number of universities world-wide. The Holy Grail of parapsychology—the replicable experiment, which parapsychologists, despite all their setbacks, had continued searching for about 150 years—had finally been found. What had been demonstrated convincingly was that transmission of telepathic information from a sender to a receiver could be improved considerably by artificially amplifying some very special brain waves. The effect had been shown to be electromagnetic in nature, with elements of quantum mechanical processes at the micro-level. The mechanism had been shown to be highly distance dependent, which came as a shock to many parapsychologists, who had previously assumed that telepathy was a distance-independent phenomenon.

The discovery triggered a cascade of events. Everybody was not equally satisfied. Within the parapsychological community, interest in such phenomena as ghosts, reincarnation and near-death experiences was decreasing rather rapidly (although interest in these more

spiritual matters remained at the same high level among ordinary people). Researchers interested in these phenomena felt more and more set aside. Their dissatisfaction was, in fact, so great that they recommended establishment of a world organization for spiritualistic parapsychology that would serve as an alternative and counterbalance to the scientific, and, in their view, overly materialistic parapsychology that was gaining ground. But such an organization was never founded, mainly due to the small number of potential members.

There was also a growing worry in society at large. After their initial shock and delight, people began worrying about all the possible practical consequences of the new discovery. Many people—particularly those with paranoid tendencies—worried about no longer being able to keep their thoughts to themselves, or about their thoughts being involuntarily influenced by other people, particularly by malicious persons in authority, politicians, researchers, and religious pundits. The suspicions of some people were supported when a brain wave amplifier was found on the ceiling of one of New York City's biggest department stores, which resulted in laws being introduced to regulate the use of such devices. (In contrast, many people previously diagnosed with schizophrenia experienced great relief and a sense of retribution, because now hearing voices was considered normal.) Some people went so far as to claim that all brainwave amplifiers should be prohibited, both those for private use—which had been enormously popular, particularly the small ones that could easily be hidden—and those for research purposes. But there were also others who welcomed increased openness among people and anticipated increased human solidarity—as well as proponents of future increased solidarity with animals, in particular dogs (several research groups were busy trying to construct a special brain wave amplifier for dogs and cats).

Given the existence of telepathy, serious concerns spread among researchers in psychology and other areas in which experiments with humans were performed. What they were afraid of was that it would no longer be possible to conduct well-controlled experiments with people. For instance, using control groups in experiments with humans would no longer be feasible, because participants in the experimental group would be able to communicate telepathically with those in the control group, even in the absence of a brainwave amplifier. There were also concerns about various telepathy-mediated experimenter effects, both in old and in new experiments. And perhaps subliminal perception, at the centre of a vast research area existing already in the 1990s, was not what it was thought to be, but instead pure telepathy, meaning that a major research field might have to be revised. These worries, however, were counterbalanced by new opportunities to do interesting research on telepathy and similar phenomena, such as healing—areas that were now opening up thanks in part to the almost unlimited funding available for this kind of research.

Happiest about the new situation were researchers in particular areas, above all physicists, brain researchers and biologists, who looked forward to tackling an unlimited number of interesting research problems, which would keep them and their successors occupied for the foreseeable future. Naturally, researchers in parapsychology were generally pleased as well, even though they got to see their research area shrink substantially. Given that telepathy had proven to be an electromagnetic phenomenon after all, parapsychologists began questioning the existence of several previously commonly recognized parapsychological phenomena that could hardly be electromagnetic in nature. Instead of considering all parapsychological phenomena as different manifestations of a single underlying mechanism as they had previously done, parapsychologists now began focusing on possible basic differences between what were now only alleged parapsychological phenomena, without assuming all of them were real.

Some previous critics of parapsychology were now ashamed of their simplistic, across-the-board attacks on parapsychology and apologized, while others remained silent. A very small



group of critics claimed stubbornly that it was all a gigantic deception, cleverly staged by certain board members of the Parapsychological Association. Many critics consoled themselves with the thought that there was still a lot of pseudoscience being done out there that they could find fault with.

But now to the present. It is time for Mary Stevens to rise from her chair. She approaches the Queen on somewhat shaky legs, receives her medal from Her Majesty's hand, curtsies deeply and returns to her chair with a smile on her lips. A new scientific era has begun.



## Harvey J. Irwin

Harvey J. Irwin completed his Ph.D. at the University of New England, Australia and was a member of that institution's School of Psychology for over 30 years, teaching a variety of courses from parapsychology to psychopathology and serving as head of the school for some years. He has undertaken extensive research on the psychology of paranormal beliefs and parapsychological experiences. His publications include over a hundred papers in academic journals and five books, including the highly praised and widely used text *An Introduction to Parapsychology*. Since his recent formal retirement from academia he has remained active in research and remains an Honorary Research Fellow at his former university. In 2002 the Parapsychological Association accorded Dr. Irwin its Outstanding Research Contribution Award in recognition of his empirical and theoretical work in parapsychology over 25 years.

### **THE PURSUIT OF THE PARANORMAL OR THE STUDY OF ANOMALOUS EXPERIENCES? PARAPSYCHOLOGY'S NEXT 25 YEARS**

At the outset I must say I feel most honored to be invited to join such distinguished international colleagues in offering my thoughts on where parapsychology will be in 25 years' time.

The survival of the *Journal of Parapsychology* for 75 years is a truly remarkable achievement. I doubt that J. B. and Louisa Rhine would have had such a lofty aspiration in mind when the *Journal* was originally conceived. I dearly hope the *Journal* will go on to celebrate its centenary, but it seems to me there are some major challenges ahead in this regard.

Not that the *Journal* will want for papers to publish. In terms of empirical progress in parapsychology over the next 25 years one does not need to call on the fortune teller's crystal ball to foresee a burgeoning of increasingly sophisticated data on the psychological correlates of parapsychological experiences and the incremental success of neurobiological reductionists in undermining parapsychological hypotheses about these experiences. In terms of psi experiments more specifically, in the short term there will be continued interest in the development of novel psi-conducive procedures. In time, however, I suspect there will be a relatively dramatic move away from studies predicated on anomalous deviations from chance expectation; even in psychology as more generally conceived, the edifice of "null hypothesis testing" is beginning to



show structural weaknesses (see, e.g., Rodgers, 2010), and new statistical approaches will evolve to redress these problems. It remains to be seen whether these methods will throw new light on the psi hypothesis or will assign more than a hundred years' worth of experimental psi data to the recycle bin for the results of misguided empirical effort. I do not have an emotional investment in either of these contingencies; ultimately the truth will out, and the truth is usually enlightening. Methodological developments nevertheless will have a profound impact on the kinds of questions parapsychological researchers will be asking.

Among the general public, interest in the paranormal and in the fruits of parapsychological research should persist over the next quarter of a century, although undoubtedly such interest will gradually be further eroded by a relentlessly materialistic scientific mainstream and by the fading relevance of spirituality in modern society. The continuation of public support for the field nevertheless is not a trivial issue, as every scientific discipline needs to be mindful of its broader cultural significance.

Before turning to the more academic facet of the issue, let me backtrack briefly. In the heady days of the 1970s, with alternative states of consciousness and parapsychological experiences as lively populist concerns, it struck me that parapsychologists were asking some vitally significant questions about the nature of human capabilities, and I began a fascinating intellectual journey that has engaged me for over three decades. Throughout this period, however, I frequently felt compelled to stress that identifying myself as a parapsychologist did not commit me to a paranormal worldview but rather, to a dispassionate scientific search for the truth about unusual human experiences. With recent developments in our field I now appreciate that much of this unprofitable anguish could so easily have been avoided; and therein lies the major issue presently confronting the future of parapsychology as an academic discipline.

Although the concept of anomalistic psychology has been current since the early 1980s the last few years have seen a surge of academic interest in this field. Anomalistic psychology addresses the nature of anomalies of human experience without a tacit commitment to the existence of paranormal processes such as psi; in this context parapsychological hypotheses may still be tested but typically by pitting them against specific nonparanormal alternatives. This approach to the study of anomalous experience is attracting increasing attention, particularly in the United Kingdom where it is even offered as an elective subject in secondary schools. Part of the appeal of anomalistic psychology for academics is its explicit advocacy of a dispassionate analysis of anomalous experience, a stance that circumvents the source of much of the stigma currently attaching to parapsychology at many levels of academia. The shift in context from the pursuit of "the paranormal" to the study of anomalous experiences has advantages also when researchers apply for competitive grants to support their work; in the past many research grant committees appear to have presumed purely parapsychological investigations were either futile or methodologically suspect and thereby unworthy of serious consideration.

In the short term anomalistic psychology therefore threatens to take over much of the business of academic parapsychology, and in 25 years' time it should not be surprising to find that parapsychology was overtly professed in academia by a mere handful of socially alienated mystics who were irreconcilably estranged from the ethos of mainstream science. In light of the spectacular achievements of the Rhinean revolution the latter scenario may seem an utterly deplorable capitulation, even for 25 years hence. But a transmutation to anomalistic psychology offers the opportunity for parapsychologists to return to the fold of mainstream science and for their research to be given due credence. In its emphasis upon appropriate cognizance of alternative nonparanormal hypotheses, anomalistic psychology also holds the promise that research into parapsychological topics can be more incisive and even more productive than it has been in the last 75 years.

Parapsychologists and their organizational representatives therefore should devise constructive strategies to promote and facilitate a tactical merger with the anomalistic psychology movement. These developments constitute so much more than “old wine in a new bottle” in that they necessitate a pivotal change of orientation for the discipline, a change that needs to be thoroughly contemplated and then ardently embraced. And to raise an even more disconcerting possibility, in order to maintain its utility the *Journal* itself may have to move beyond its historical roots by undergoing a culturally responsive change of title, perhaps in the first instance to the *Journal of Anomalistic Psychology and Parapsychology*.

### Reference

Rodgers, J. L. (2010). The epistemology of mathematical and statistical modelling: A quiet methodological revolution. *American Psychologist*, 65, 1–12.



## Edward F. & Emily W. Kelly

Edward F. Kelly is currently Research Professor in the Division of Perceptual Studies at the University of Virginia. He received his Ph.D. in psycholinguistics and cognitive science from Harvard in 1971, and spent the next 15-plus years working mainly in parapsychology, initially at J. B. Rhine’s Institute for Parapsychology, then for ten years through the Department of Electrical Engineering at Duke, and finally through a private research institute in Chapel Hill. Between 1988 and 2002 he worked with a large neuroscience group at UNC-Chapel Hill, mainly carrying out EEG and fMRI studies of human somatosensory cortical adaptation to natural tactile stimuli. He returned full-time to psychical research in 2002, serving first as lead author of *Irreducible Mind* (Rowman & Littlefield, 2007), and has now returned to his central long-term research interest—application of modern functional neuroimaging methods to intensive psychophysiological studies of psi and altered states of consciousness in exceptional subjects (<http://cedarcreekinst.org>).

Emily Williams Kelly, Ph.D., is Research Assistant Professor at the Division of Perceptual Studies at the University of Virginia, where she has worked since 1978. She received a Ph.D. in psychology from the University of Edinburgh, where her dissertation focused on the development of scientific psychology in the late 19th century, with an emphasis on F. W. H. Myers and his contributions to psychology. At the University of Virginia, she has conducted research on cases of the reincarnation type, near-death experiences, mediumship, and spontaneous experiences suggestive of survival after death such as apparitions and deathbed visions. She is co-author of *Irreducible Mind: Toward a Psychology for the 21st Century*, and editor of *Science, Survival, and the Self: Selected Writings of Ian Stevenson, M.D.*

## PARAPSYCHOLOGY IN CONTEXT: THE BIG PICTURE

William James believed over a century ago that scientific work already carried out under the auspices of the Societies for Psychical Research—including his own observations with the trance medium Leonora Piper, his famous “one white crow” —had established beyond reasonable doubt the existence of telepathy and other forms of paranormal knowledge that could not be explained in conventional materialist terms. He also declared openly that the visionary psychodynamic theory of the subliminal self advanced by F. W. H. Myers to accommodate these and a wide variety of related empirical phenomena made the all-too-tidy classical theories of mind offered by his contemporary mainstream colleagues look “a little ridiculous” by comparison. James felt confident that henceforth it would not be intellectually responsible or even possible to ignore either the phenomena themselves or the theoretical efforts of Myers and others to make room for them in our overall picture of Nature, but in this he was clearly mistaken. What happened?

In a nutshell, we have taken a hundred-year detour. Myers and James themselves were scarcely in their graves when their fledgling “filter” or “transmission” theory of mind/brain relations was essentially pushed aside—*not* disproven—by the aggressive rise of behaviorism and psychoanalysis. Although psychoanalysis has subsequently faded (here in the US, at least), behaviorism maintained its original hegemony within academic psychology well into the 1960s, and it has perpetuated itself since then by evolving into more sophisticated forms, in particular the “computational theory of the mind” (CTM) in its main variants—classical cognitivism, connectionism, and most recently dynamic systems theory—which have now become deeply allied with developments in neuroscience under the broad umbrella of “cognitive neuroscience.”

The essential feature common to all forms of cognitive neuroscience is an unquestioned (and for many, unquestionable) axiom that everything in the human mind and consciousness *must* be generated by, or supervenient upon, or in some mysterious fashion identical with, neurophysiological processes occurring in brains. Ordinary perceptual experiences are presumed to arise through the central processing of identifiable physical stimuli impinging upon our various sensory surfaces, and no other forms of contact with the environment—in particular with any portions of the environment that are remote in space and/or time—are believed possible.

Paranormal phenomena (or “psi” phenomena, as we prefer to call them) clearly pose a direct threat to this presently-dominant worldview, and that single fact largely explains the implacable and vocal hostility of its more scientific public defenders. Many of these self-appointed vigilantes for the scientific *status quo* clearly seek to isolate and quarantine parapsychology as though it represented the only serious threat to a physicalist program that otherwise is advancing triumphantly all across the board, and parapsychologists have made it easier for such critics, historically, by isolating the subject themselves—that unfortunate morpheme “para” itself exemplifying the problem.

But as we argued explicitly and in detail in *Irreducible Mind*, psi cannot in fact be isolated and quarantined in this way, because many other empirical phenomena, equally well-attested, point in the same general direction. This had already been recognized over a century ago by Myers, James, and their allies, and we believe it is again becoming more widely appreciated now. Deep cracks have appeared in the physicalist redoubt: Quantum theory has undermined the classical-physics foundation of virtually everything currently going on in psychology, neuroscience, and philosophy of mind, and physicalism in its metaphysical guise is reportedly now in decline as a formal philosophical position. The eminent consciousness researcher Max Velmans likens mainstream physicalism to the Wile E. Coyote character from the old Roadrunner cartoons, who has run off a cliff at top speed and now finds himself suspended in space with legs

churning, staring downward in growing alarm as he begins to appreciate in full the gravity of his situation. Many signs indicate that we have reached a major inflection point in intellectual history, and that the currently dominant physicalism is doomed.

We have come full cycle since Myers and James, to the corresponding point at a higher turn of an evolutionary spiral. This hundred-year detour was painful but also historically necessary, because the mainstream physicalist approach to psychology that arose in the late 19th century, self-consciously seeking to emulate the astonishing triumphs of classical physics, had to exhaust its resources and expose its own intrinsic limitations before anything else could realistically hope to take its place. That first century has also undeniably produced many genuinely positive developments including the contemporary explosion of knowledge in neuroscience and neuropsychology and associated technical contributions such as the rapidly evolving methods for functional neuroimaging and indeed the whole diversified apparatus of modern statistics-based experimental science.

So where will parapsychology be in the next 25 years? We believe that the deliberate narrowing of our field that took place in the 1930s, from “psychical research” as broadly conceived by our founders to its somewhat desiccated modern descendant “experimental parapsychology,” was both unnecessary and ultimately counterproductive. Not that there is anything wrong with good experimental work—we need all of that we can get, to be sure. But we also need field and observational studies, quasi-experimental and case studies of mediums, hypnotic virtuosos, advanced meditators, voluntary OBEers, NDEs occurring under extreme physiological conditions, veridical apparitions, deathbed visions, cases of the reincarnation type and all the rest. Our still-struggling discipline will become more successful in the future, we believe, to the extent we embrace the larger trends now emerging from mainstream science and philosophy, as sketched above, and are able to reframe our ongoing investigations of psi within that larger context. Most fundamentally, that means recognizing the broad issue of the relationship of consciousness and matter as central to our scientific enterprise. We’d like to think that in 25 years our field will still exist as a subdiscipline within what George Miller affectionately called the “intellectual zoo” of psychology, and that the *JP* will still be there in some form to provide a publication outlet for new research and theory, but we also hope that our field will have broadened its horizons and moved closer to its rightful place near the center of the enlarged scientific psychology that will have begun to take shape by then.



## J. E. Kennedy

Jim Kennedy began his professional career at the Institute for Parapsychology, where he worked for 6 years. His research included initial experiments on psychophysiological measures of precognitive anticipation. He also wrote review and concept papers on experimenter effects and on the processing of psi information (<http://jeksite.org/psi.htm>.) After obtaining a masters degree in public health (M.S.P.H.), he shifted his primary professional activities to environmental work and later to medical research. He worked in various academic, government, nonprofit, and industry organizations. His interest in

parapsychology continued throughout these diverse professional activities. His later parapsychological writings have focused on two topics: Why are psi effects apparently capricious, and how do psi experiences affect people? His perspectives on experimental methodology have been strongly influenced by professional experiences in pharmaceutical research. His perspectives on psi have been strongly influenced by many personal paranormal experiences prior to working in parapsychology.

### **THE EASILY TESTED IDEAS HAVE BEEN TRIED, NOW ENGAGE THE PHENOMENA**

My strong impression is that the field of parapsychology peaked in the 1970s and 1980s and has been declining since then. Financial support for traditional parapsychological experiments has declined and the majority of research labs in the US have closed. I see little indication that a new generation of young people is bringing enthusiasm, energy, and ideas into the field. This is dramatically different from the 1960s, 1970s, and 1980s.

I expect experimental parapsychology to remain barely alive for the next 25 years. The past 25 years have focused on meta-analyses. The main lesson from that past 25 years is that post hoc meta-analyses have not and cannot provide convincing evidence for psi. The meta-analyses inevitably get bogged down in debates and controversy about the many decisions that affect the outcome of the analyses. Such controversy is intrinsic to post hoc analyses, and particularly to meta-analyses. These problems with meta-analyses are not unique to parapsychology. My experience working in medical research over the past two decades is that medical researchers increasingly do not consider meta-analyses as a means for resolving controversial issues.

However, the meta-analyses results also show that the problems for experimental parapsychology go far beyond the controversies from post hoc analyses. The great majority of meta-analyses in parapsychology with 30 or more experiments with good methodology and a variety of experimenters find that about 20 to 33% of the experiments obtained statistically significant results. In addition, for many meta-analyses, particularly for RNG experiments, the  $z$  scores have not increased with sample size as expected by the assumptions for statistical analyses.

The meta-analyses of RNG studies indicate that something is deeply wrong (or anomalous) with parapsychological experiments. The standard research methodology of doing larger studies to provide more convincing results apparently does not work. The higher replication rates of 80% or more that are expected for convincing experiments have not been produced in parapsychology.

Experimental results with these properties are controversial and unconvincing. The majority of objective scientists will find the most likely explanation to be methodological problems. Over the next 25 years these properties cannot be ignored as they have been in the past. These properties are evidence that experimenters do not understand and control the phenomena.

One hypothesis that very nicely explains  $z$  scores being unrelated to sample sizes is goal-oriented psi experimenter effects (Kennedy, 1995). With this model, the entire experiment is viewed as one complex random event with a probability of a hit of .05. The logic of this model is almost compelling given the usual assumption that PK is guided by motivation. The experimenter's motivation to obtain a successful experimental outcome is typically the strongest motivation in a psi experiment.

However, goal-oriented psi experimenter effects would also mean that process-oriented research is not meaningful. Experimenters can directly produce whatever outcome they want. The RNG data indicate that something as challenging as goal-oriented psi experimenter effects must be confronted. A paradigm shift may be needed.

I expect that most scientists will not find ideas such as goal-oriented psi to be plausible, particularly with the poor replication rates. Unless an unforeseen development occurs such as a reliable application of psi, interest in experimental parapsychology will almost certainly remain on the edge of extinction for the next 25 years. It also appears to me that recent developments in quantum physics are rapidly moving away from the earlier ideas about consciousness and observation (Kennedy, 2011). Given current trends, I do not expect a parapsychological breakthrough to occur in quantum physics.

At the same time, spontaneous cases continue to occur and can be extremely convincing to those who have had such experiences (myself included). I hope and expect that research on spontaneous cases will increase over the next 25 years. Research on how the experiences affect peoples' lives is particularly meaningful and needed.

Future research on spontaneous cases will hopefully be less biased by dubious assumptions from experimental research. One notable example is that spontaneous cases often have significant transformative spiritual effects (Kennedy, 2004, 2005; White, 1997). However, these effects have received little attention in parapsychological writings. This may be due to the dominant assumption in experimental parapsychology that the spiritual aspects of psi are not relevant on the march to obtain control, proof, and practical application. However, this assumption is a major disconnect between experiments and spontaneous cases, and suppresses one of the most prominent aspects of psi experiences. In fact, the transformative spiritual aspects of psi may offer insights suggesting that the much anticipated practical application of psi may not be achievable (Kennedy, 2004).

Another assumption from experimental parapsychology that has been artificially imposed on spontaneous cases is that psi occurs frequently without notice. However, the transformative aspects of psi experiences are based on experiences that are noticed. This is another significant disconnect between the assumptions for experiments and the findings of spontaneous cases. Research on spontaneous cases may make substantial progress if the unsupported assumptions and biases from experimental parapsychology are removed from the interpretations of the experiences.

At this point, I am not optimistic about experimental research but see much potential in understanding all aspects of spontaneous cases. I think it is likely that this trend will increasingly manifest over the next 25 years.

## References

- Kennedy, J. E. (1995). Methods for Investigating Goal-Oriented Psi. *Journal of Parapsychology*, 59, 47–62.
- Kennedy, J. E. (2004). What is the purpose of psi? *Journal of the American Society for Psychical Research*, 98, 1–27. Retrieved from <http://jeksite.org/psi/jaspr04.pdf>
- Kennedy, J. E. (2005). Personality and motivations to believe, misbelieve, and disbelieve in paranormal phenomena. *Journal of Parapsychology*, 69, 263–292.
- Kennedy, J. E. (2011). Information in Life, Consciousness, Quantum Physics, and Paranormal Phenomena. *Journal of Parapsychology*, 75, 15–43.
- White, R. A. (1997). (Ed.). *Exceptional human experience: Special issue. Background papers II. The EHE Network, 1995–1998: Progress and possibilities*. New Bern, NC: Exceptional Human Experience Network.



## David Luke

David Luke, Ph.D., is Senior Lecturer in Psychology at the University of Greenwich where he teaches an undergraduate course on the Psychology of Exceptional Human Experience, focusing on his two main research interests of psychedelics and the paranormal. In 2011 he received an Early Career Research Excellence Award from the University of Greenwich. David is also a guest lecturer at the University of Northampton for the M.Sc. program in Transpersonal Psychology and Consciousness Studies, and is past president of the Parapsychological Association. Since 2008 he has directed the Ecology, Cosmos and Consciousness lecture series at the October Gallery in London and is one of the core organizers of the biennial Breaking Convention: A Multidisciplinary Conference on Psychedelic Consciousness. He sits on the council of the Society for Psychical Research and, along with Nicola Holt, Christine Simmonds-Moore and Chris French, he is author of the book *Anomalistic Psychology* (Palgrave Macmillan, 2012).

### **PARAPSYCHOLOGY 2037: ADVANCING UNDER THE AEGIS OF ALIGNED APPROACHES?**

So much has happened in science and technology in the last 25 years that it would be difficult to predict what may come in the next 25. Were I actually able to do so it would then require an even greater feat of visionary insight to anticipate how that might affect the field of parapsychology. Neuroscience, quantum physics, molecular biology, and even technological and telecom developments are all likely to extend beyond their current reach and our imaginings, changing our reality with them, but I will leave the speculation about theoretical advances in our and related fields to the real philosophers and futurists in our coterie. Instead, I will briefly examine what we know about the current state of the field in terms of its academic location and move forward from there.

Taking an ethnocentric position, the situation in the UK, at least, certainly looks ripe. There are now more universities addressing parapsychology and/or anomalistic psychology than there ever were, something like 16, and that figure has been rising at an exponential rate since the Koestler chair was first established at Edinburgh in 1985, although that growth may now be slowing down. There are now more active Ph.D.s with lectureships and active Ph.D. students dotted around the UK than there ever were, and every year there is something like 1,000 undergraduate students being taught about the research of psi phenomena and about 6,000 preuniversity students as well. Despite the usual scoffing from certain quarters, the subject also seems to be growing in respectability within British academia. To give an example, the Higher Education Academy recently formed a special interest group for the Teaching of Anomalistic Psychology and Parapsychology, to address the growth discussed.

So academically speaking, in terms of both research and teaching, the field of parapsychology, and indeed its dark reflection, anomalistic psychology, are both on the rise in the UK. It is a curious observation too that both of these approaches should flourish simultaneously,



and that perhaps, in a Jungian sense, both are the shadow of the other and neither can be ignored nor dispelled, but must instead be accepted. Indeed, the blooming of either might be taken as a measure of the health of both, or so it seems. One thing I am sure of though is that after 130 years of psychical research, and 75 years of this *Journal*, the field of parapsychology is here to stay. Furthermore, current projections would suggest that it is gaining ground and that it will be an even greater enterprise in another 25 years time.

For example, another recent development that may be used to take the pulse of the subject is the seemingly growing number of positive large-scale reviews appearing in highly respectable mainstream journals, such as *Psychological Bulletin*, the *Journal of Personality and Social Psychology*, and *Frontiers in Perception Science*. Will parapsychology finally become part of mainstream psychology? Certainly there exist many respected psychologists conducting parapsychological research within the academy, but the overlap is far from total, and long will it likely remain that way. For one thing, the name parapsychology, although largely correct, is somewhat of a misnomer and the subject has always involved more than psychology, though this would certainly seem to be its parent discipline—or at least this is the discipline that has given it the most parental succor. But it is also apparent that parapsychology has much to offer other proximal fields, such as physics and neuroscience, and that as these grow, so too will parapsychology.

From my own perspective, the recent renaissance in scientific psychedelic research is both accommodating of parapsychology and *in need* of it in helping to understand the extraordinary phenomena and experiences encountered with the use of these substances. The study of altered states of consciousness more generally too—an area of growing importance in the booming field of consciousness studies—will also benefit reciprocally from parapsychology. Going back to the UK academic scene, I was recently delighted to be invited to validate an entire psychology degree programme at Leeds Metropolitan University which has fused together courses on parapsychology, transpersonal psychology, consciousness studies and even psychonautics (the study of altered states of consciousness), among others. Hopefully, in the future more new cutting edge trans-subdisciplinary degrees and other programmes will emerge that allow students to explore parapsychology under the aegis of aligned fields rather than as an oddball outsider on the fringes of the old psychological monoliths. Whatever theoretical advances occur, which I am at a loss to predict, the prospective security of the field certainly lies within the educational envelope we post now to ourselves in the future.



## Edwin C. May

Ed was trained in low-energy, experimental nuclear physics and earned a Ph.D. in 1968 from the University of Pittsburgh. Except for a post-doc at the University of California at Davis, he has devoted his career to the serious study of extra sensory perception or ESP. In 1976 he joined the on-going, CIA-funded, program at SRI International, and in 1985 became the contractor director of what has become known as the STARGATE program: the US Intelligence community's use of ESP during the Cold War. The research continues



now at the Laboratories for Fundamental Research. Ed and his colleagues have published over 50 papers in peer-reviewed journal on the evidence for, applications of, and potential mechanisms for ESP.

### WHERE WE STAND AND WHERE WE ARE GOING

We celebrate the 75th anniversary of the *Journal of Parapsychology*. I wonder what the written equivalent is for a HI-FIVE! The *JP* has survived through good and not so good times. Remember the late 1970s and 80s where U.S.-based parapsychology was, in a sense, thriving? I came to parapsychology relatively late in the game (my first Parapsychological Association meeting was in 1975) and frankly most ignorant of the depth of discovery in the field even at that time. Psi research was a leader in what now is more commonplace; that is, interdisciplinary research. This approach has its pluses and minuses, but at the end of the day it is critical we continue to adopt that approach for it is in that domain where our future understanding will emerge.

It seems to me however, we have serious challenges to move forward. We are victims of our own success. I do not think we, as a field, need to conduct any further evidential studies in the realm of ESP. Except for teaching purposes, let's agree not to conduct more ganzfeld, remote viewing or card guessing studies. The statistics are in. Of course, process studies using these modalities are clearly welcome. But the bigger issue, then, is to understand mechanisms from physics, psychological, and neuroscience perspective, we must conduct studies that are far more complex that have hitherto have not been seen in psi research. Most all of us are not trained in these advanced techniques in these disciplines nor in the complex and sophisticated mathematics that is necessary to understand the data from the experiments. One solution is to entice smart young people from these disciplines to assist the field—hopefully dominate the field—as we move forward.

Regardless, the *Journal of Parapsychology* will be at the forefront as the go-to place to publish the new results.



## Alexander Moreira-Almeida

Alexander Moreira-Almeida, M.D., Ph.D. obtained a medical degree at Federal University of Juiz de Fora (UFJF) and was trained in psychiatry and cognitive-behavioral therapy at University of São Paulo, Brazil, where he also obtained his Ph.D. in Health Sciences. Formerly a postdoctoral fellow in religion and health at Duke University, he is now Vice-Dean of Graduate studies at UFJF, Professor of Psychiatry at UFJF's School of Medicine and Founder and Director of the Research Center in Spirituality and Health, Brazil ([www.ufjf.br/nupes-eng](http://www.ufjf.br/nupes-eng)). Currently he is member of the Board of Directors of the Parapsychological Association. His main research interest involves empirical studies of anomalous/spiritual experiences, their associations with mental health and implications for

mind-brain relationship. He also studies the methodology, history and epistemology of scientific explorations of anomalous/spiritual phenomena.

### **REFLECTIONS ON THE FUTURE OF SCIENTIFIC INVESTIGATIONS OF PSI PHENOMENA**

It is hard to predict future developments in any area of human action, but I will try to summarize some of my expectations for the next quarter of century in the study of psi phenomena. These prognostications are based on my current perceptions of the field and its trends and includes some of my hopes.

I believe that new generations of researchers will be less influenced, and less biased, by past sterile controversies inside the field of parapsychology, and between this field and mainstream science. This may lead to more integrative approaches, capable of overcoming, at least in part, the barrier between laboratory and natural observations, and between ESP and survival research.

Also, it is hoped that the abandonment of positivist and naïve inductivist views in mainstream science will make it easier to discuss psi experiences. It has also helped parapsychology to overcome the desire of emulating an ideal physics, which has actually never existed. This illusory ideal included overvaluation of measurements and laboratory experiments, even in intrinsically qualitative issues, as well as the quest for the unreachable scientific goal of finding the perfect evidence or developing a crucial experiment. This epistemological stance also favored an “anti-theoretical” approach, in the belief that mere collection of more and more refined experimental data would lead to complete scientific knowledge. This is a major factor which has been impairing theoretical development. In contrast, I believe that research should be conducted within the framework of what philosophers of science have called “scientific research programmes” (Lakatos 1970) or “paradigms” (Kuhn 1970), which include methodological principles and metaphysical and theoretical assumptions. In their inception, or even at any stage of their development, such programmes or paradigms never solve all problems in their field. It is only effective research that may show whether or not their basic theoretical assumptions have a grip on reality. Among other things, researchers should lean to find a point of equilibrium between conservatism and boldness, especially in the study of new phenomena (Lakatos, 1970; Chibeni & Moreira-Almeida, 2007). In what concerns especially psi phenomena, there is a wealth of empirical data already available, inviting the invention and test of paradigm candidates.

Recent developments in history and philosophy of science have provided a more open view of science, making science as a whole more receptive to non-reductionist perspectives. History of science is now generally conducted by professional historians, and not only by scientists wishing to tell a story that culminates in the current theories of their specific disciplines, a kind of sanitized history that stresses only the wished aspects in order to format new scientists in the desired ethos. This old view usually holds that serious and productive science can only exist if it assumes some form or other of materialist scientism, the metaphysical assumption that science and scientists must adopt a materialist perspective of the universe (Haught, 2005). Recent historical studies have shown that this was not the case of the most productive scientists before the 19th century (Numbers, 2009). It has also been reframed historical narratives which tended to view psychical research and any non-materialistic approach as intellectually and scientifically naïve, resulting from a crisis of faith (Alvarado, 2012; Lamont, 2004).

The establishment of spirituality and religion as an acceptable research field in the academy may also have a large impact in the acceptance of studies on psi. One example is the impressive development, with literally thousands of empirical studies, in the area of spirituality-and-health research, making this a mainstream topic in medicine (Koenig et al, 2012).

Finally, another current development that may have impact in the future of the field is the recent economic and scientific flourishing in many countries not belonging to the Europe-North America axis. This widening of the range of participants in the scientific game is expected to enhance international collaboration, to foster creativity, and to generate new insights, hypotheses and research strategies. Diversity and creativity, allied with intellectual rigor and impartiality, are, I believe, essential ingredients in the scientific exploration of psi phenomena.

All the aforementioned factors may also result in a much larger number of scientists being properly trained in an academic environment free of positivist and anti-spiritual, anti-psi biases. It is expected that more people will be able to develop academic careers having the study of psi phenomena as their major and not merely a marginal, research interest. As psi phenomena become more integrated in the broader scientific exploration of human nature and its experiences, the majority and the most influential studies on psi will, perhaps, no longer be labeled as “parapsychology” but will be conducted and published within mainstream academic disciplines.

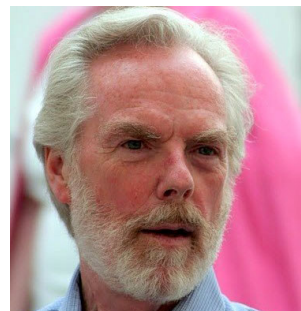
In sum, the next quarter century seems to be promising in terms of advancing the exploration of psi phenomena, generating and disseminating a new and better understanding of human nature.

### References

- Alvarado, C. S. (2012). Psychic phenomena and the mind-body problem: Historical notes on a neglected conceptual tradition. In A. Moreira-Almeida & F. S. Santos (Eds.), *Exploring frontiers of the mind-brain relationship* (pp. 35-51). New York: Springer.
- Chibeni, S. S., & Moreira-Almeida, A. (2007). Remarks on the scientific exploration of “anomalous” psychiatric phenomena. *Revista de Psiquiatria Clínica*, 34 (suppl.1), 8–15.
- Haight, J. F. (2005). Science and scientism: The importance of a distinction. *Zygon: Journal of Religion and Science*, 40, 363–368.
- Koenig, H. G., King, D. E., & Carson, V. B. (2012) *Handbook of religion and health* (2nd ed.). New York: Oxford University Press.
- Kuhn, T. S. (1970). *The structure of scientific revolutions* (2nd ed.). Chicago: University of Chicago Press.
- Lakatos, I. (1970). Falsification and the methodology of scientific research programmes. In I. Lakatos & A. Musgrave (Eds.), *Criticism and the growth of knowledge* (pp. 91–195). Cambridge, UK: Cambridge University Press.
- Lamont, P. (2004). Spiritualism and a mid-Victorian crisis of evidence. *Historical Journal*, 47, 897–920.
- Numbers, R. L. (2009). *Galileo goes to jail and other myths about science and religion*. Cambridge, MA: Harvard University Press.

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## Roger Nelson

Roger Nelson is the founder of the Global Consciousness Project (GCP), a long-running international collaboration of 100 researchers studying interactions of consciousness and the environment. He is an experimental psychologist with a Ph.D. from New York University. His background also includes physics and engineering. Nelson was Research Coordinator for the Princeton Engineering Anomalies Research (PEAR) laboratory at Princeton University from 1980 to 2002. He has directed the GCP since its inception in 1997. His recent work integrates consciousness research and parapsychology, and it looks to quantum physics with a focus on information fields and entanglement to help explain anomalous effects of consciousness documented in rigorous experiments. Dr. Nelson is a past president of the Parapsychological Association (PA), a member of the PA Board for several terms, and the recipient of the PA's Significant Contribution Award.

### **COHERENT CONSCIOUSNESS: PROBING THE EDGES OF WHAT WE KNOW**

In 2012 we have half a dozen paradigms presenting strong evidence for psi operating in the world. They all show departures from expectation on the order of 6 sigma—a typical standard for “real” phenomena. Ironically, while this should draw serious attention and curious participation in parapsychology, the field remains the domain of a few hardy souls unafraid of going it alone. But creativity, which is needed to face the challenge of integrating those 6-sigma findings into predictive models, thrives best when we work together. We will make progress when there are teams prodding these experiments, attempting to wrestle instructive parameters from the mysteries that shroud the data. Working together, we see more aspects of any problem, and thus also the likely solutions. This will be the challenge and opportunity of the next quarter century.

I'll speak of one of these paradigms in which I have been most involved, an experimental program that touches on the power of group consciousness to change the world. The first version was called “FieldREG.” It took RNG-based mind-machine interaction experiments out of the laboratory and into the field. The lab studies had focused on intention, but in the field we looked for an effect of group consciousness, defined as a shared state of mind driven by special situations or events. For example, a captivating stage performance, or participation in a powerful ritual tends to produce a common emotional response across the group. People report feeling “together” when they give up (unconsciously) some of their individuality in order to create a group consciousness. The experimental proposition is that this shared state of consciousness may have effects similar to intention in the lab studies. Just as intention somehow yields changes in the behavior of RNG devices, coherent group consciousness produces data deviations even without an intention. Indeed, there is no recognition of the group consciousness while it is operational, for it depends on deeper layers of mind than we normally perceive. The implication is that we are subtly interconnected but unaware of this, even though it has consequences that are very important for understanding our nature.

These group consciousness experiments opened a broader range of considerations. What if the group were widely distributed and very large, perhaps millions of people all sharing a focus? What if instead of using one RNG, we were to collect data from many of them, and what if they too were distributed, perhaps separated by global distances? Questions like these were at some intuitive level pushing me toward what became the Global Consciousness Project (GCP). There were other sources as well, some deep in my personal history and philosophy. In particular, when I encountered the priest and paleontologist, Teilhard de Chardin, I was deeply affected. Teilhard wrote about the phenomenon of man with such poetic grace that his ideas captured my attention and stayed with me through decades of change and development. His central notion was that while we tend to think of humanity as the pinnacle of evolution, there is another stage that will come. Through what Teilhard called “complexification” and “planetization” we humans would gradually be forced together in ever denser conditions that inevitably, he thought, must yield an organic integration. In short, we humans would become a functioning “noosphere,” a layer of intelligence for the earth. We would take on the role of neurons in a global brain. Though uniquely expressed, this is not a new concept; the wise ones of all cultures have long said “We are one.”

But Teilhard's idea was evolutionary and physical, and not simply a philosophical description. It was a proposition that could be treated scientifically. I decided to ask whether there might be any evidence of a noosphere, a global version of the group consciousness we had already seen with the tools developed to study mind-machine interactions. Together with colleagues and volunteers, I created the GCP to look for such evidence. We built an instrument with RNGs placed around the world, sending continuous streams of random data for archiving in Princeton. We created a formal protocol for defining special moments that we expected would bring large numbers of people to a shared state of consciousness and emotion. We predicted changes in the random data during great tragedies and grand celebrations and began building a large database. The general hypothesis is that we would find structure in our otherwise random data, correlated with events of great importance to humans.

The GCP is 14 years old in 2012 and has compiled more than 400 independent replications rigorously testing the general hypothesis. The composite database shows a deviation from expectation greater than 6 sigma, with odds against chance of 100 billion to one, and the simplest interpretation is that we humans become a faint suggestion of Teilhard's noosphere, brought together in response to emergencies and ritual celebrations. What is more important in considering the next quarter century of parapsychology, there are aspects of the data that can go directly into parametric models, producing insights into what eventual explanations must be like. Hint—field-like models handle the data best. We can generate prescriptions for new research on consciousness at the edges of what we know.

Is there really an interconnection that links us even though we are unaware of it—except when we fall in love, or when we “know” that our long-lost friend will be on the phone when we answer its ring? The poets and sages have told us so for all our history, but mainstream science says no, that's impossible. Now it seems that good science is opening the question again. The next decades will exploit an opportunity presented by these strong, 6-sigma databases. They hold information and implications that beg to be understood, and they will be joined by new, equally potent paradigms. We need more bright minds to look at these data, and to work on the theoretical demands they make on our present picture of the world.



## Vernon M. Neppe

Vernon Neppe, M.D., Ph.D., FRS(Saf), DFAPA, MMed, DABPN, DPsm, FFPsych: internationally pioneering neuropsychiatrist, behavioral neurologist, psychopharmacologist, psychiatrist, and consciousness researcher; Royal Society Fellow, Director, Pacific Neuropsychiatric Institute ([www.pni.org](http://www.pni.org)); Executive Director and Distinguished Professor, Exceptional Creative Achievement Organization ([www.5eca.com](http://www.5eca.com)), authored 10+ books/ plays and 450+ publications ([www.brainvoyage.com](http://www.brainvoyage.com)), (Adjunct Full) Professor, Dept. Neurology and Psychiatry, SLU, has numerous scientific honors. Parapsychologically: President, SASPR; Editor, PJSA; recipient Marius Valkhoff Medal “for exceptional contributions to psychical research” and was Bial funded. He currently advises on five editorial/ organizational boards, directs “SCERS”, and presented/s invited plenary addresses to the PA, SSE, ASCS and international conferences on consciousness. He has pioneered subjective paranormal experience (SPE) links with neuroscience, parapsychological phenomenology, déjà vu, computerized survival research. With Edward Close, Ph.D., physicist and mathematician, he developed “TDVP” (Triadic Dimensional-Distinction Vortical Paradigm), a broad spectrum scientific model with mathematical proofs, linked with philosophy, mysticism, and spirituality (see [www.brainvoyage.com](http://www.brainvoyage.com)).

### MEMOIRS OF AN ELDER STATESMAN: LOOKING BACK FROM 2037

The past quarter century has seen remarkable theoretical advances in “dimensional biopsychophysics” (DP). We (Vernon Neppe and Edward Close) publicly introduced DP in 2011, demonstrating scientifically and mathematically that three space dimensions with one time moment (3S-1t) portrayed only incomplete reality.

Instead, we proposed an all-embracing multidisciplinary model called the “triadic dimensional-distinction, vortical paradigm” (TDVP) based on three finite dimensions each of space, time, and a broader consciousness (STC) plus the transfinite, broader “10th plus” dimensions. We integrated the biological, psychological, physical, and consciousness sciences. We recognized that our brains were both critical, active end-points and bidirectional physical receptacles for meaningful information and influences outside the higher discrete transfinite and the interfacing continuous infinite STC. The consciousness sciences became a subgroup of dimensional biopsychophysics involving, inter alia, parapsychology. The awareness of dimensions, infinity and “consciousness” evoked new ideas, ranging from entanglement and psi, to ordropy (multidimensional infinite tendencies to order) and eternal existence (“life”). Suddenly, the ridiculed, unacceptable, “parapsychology” term became acceptable: Its range broadened. Nobelists even proudly became Distinguished Fellows of the Society of Dimensional Biopsychophysics.

TDVP had definitively demonstrated the redundant, indefensible separation epitomized by body-mind dualism: Instead, the human brain became a component of the broader infinite/finite

unity of TDVP's STC endpoint philosophy ("unified monism"). Broader acceptance took many long years—amazing because despite most leading parapsychologists being informed, few exhibited further interest. Many, without studying TDVP, ignored the enormous implications of the model. Paradoxically, they ignored the very paradigm needed to explain ostensible anomalies—it needed funerals to advance this new fundamental reality and multidisciplinary metaparadigm.

Fortunately, outside scientists, like Israeli Adrian Klein, recognized how TDVP explained the tiny 3S-1t components in discrete finite reality and their interface with the transfinite and continuous infinite. Dr. Close applied unique mathematicologic skills, including the calculus of distinctions, dimensional extrapolation and Fermat's Last Theorem, further "proving" key scientific empirical data. Remarkably, the public recognized the advances in the Neppe-Close *The Answer* series, only then allowing our scientific books *Reality Begins with Consciousness*, *Space, Time and Consciousness*, and *Beyond Einstein*, to be fully appreciated by scientists: The key ideas were not falsified yet were feasible in the 3S-1t jigsaw puzzles, and they fit multidimensionally and infinitely.

TDVP's recognition paralleled the momentum of psi research: By the 2020s, ten different psi research areas demonstrated billion to one probabilities: psi finally became accepted and applying TDVP as the metaparadigm for the sciences, dimensional biopsychophysics graduated as the fashionable multidisciplinary science. Those early brilliant pioneers, like Dean Radin, Daryl Bem, Roger Nelson, and mentors like Stanley Krippner, made it all possible, despite only hundreds of parapsychologists world-wide and profoundly limited funding.

Also, other powerful yet overwhelming data contributed: meaningful non-random, evolution demonstrated by discrete events over billions of years; multidimensional time and the infinite subreality modifying "big bang" theories; the pertinence of both physical contractions and expansions; the collective provision by helical existence, finite gradations, and eternal time of ends, beginnings, and simultaneity for all events; webs of entanglements; zillions of "vortical indivisions"—a meta-level above field theories; life-tracks; survival after bodily death; always existing life; and the presence of limited free choice plus precognition: All became clearer, as the principles were explained by the prevailing modified TDVP-like models. Two-hundred-plus TDVP hypotheses were explored and many jigsaw pieces demonstrated in 3S-1t.

The gradual, stringent DP methodologies became standard for other sciences. Mainstream scientists recognized true replication as realistically impossible—exact STC data, with state-trait varied with each trial: This standard had seldom mattered in the physical sciences but remained critical in medicine, consciousness studies, and psychology. The preceding, rigidly careful 20th century parapsychological methodologies had laid such a groundwork. Liberal stringencies and faulty double-blind techniques were replaced by clinical techniques and recognition of that limited jigsaw puzzle.

Two especially deep recollections stand out to me: Our initial amazement at recognizing the same end-point spins of subatomic particles top-down from nine dimensions as bottoms-up from inside a 3-D vortex; and the "Aha moment," recognizing how TDVP necessarily demonstrates that life must always exist.

The modified TDVP logically and intuitively (we can finally use that word scientifically!) produced a close link of science with spirituality: only "that that knows all the infinite can be all-embracing," good and evil, purpose, directions of meaning, greater awareness, and an eternity of unified self-transcendent growth. Yet, particularly humbling, we recognize our contributions were, generally, not "ours" but links with a higher-level, more broadly guided consciousness.



Conversely, DP exposed an ominous problem: use of scientific advances for evil purposes. Multiple dimensions of STC were abused—eight problematic years from 2019 to 2027—but eventually overcome!

The development of a theoretical broad-ranging “metaparadigm” that fundamentally worked with its mid-course corrective tweaks became our major song.

However, DP was necessarily preceded by my (Neppe’s) detailed phenomenological approaches to subjective experiences, first demonstrated through the brain’s integrative temporal lobe and executive frontal lobe, demonstrable subtyping of different déjà vu nosologies, olfactory hallucinations, and out-of-body experiences, and then expanded to broader neuroscience, medicine, and pharmacology, plus dimensional biopsychophysics.

The same basic principle of matching like with like, not with unlike, proved enormously relevant over this past quarter century because empirical analyses and meta-analyses became focused far beyond the early “experimenter effects” and subject choices, accounting for multitudes of special qualities relating to every component of STC, with the state and trait subjective cognitions, affects, and volitions of every participant being recorded, even their thoughts producing potential actualization. It led to wrinkling the paper statistically, but detailed phenomenological recognition in spontaneous and research empiricism became cogent.

Neurological and psychological events still remain the obvious endpoint expressions of “consciousness” in sentient beings. However, the recognition of the importance of transfinite dimensions and infinity has allowed understanding that both the “higher consciousness” outside the brain and the relevance of “qualit (previously quantum) consciousness” provide insights into meaning in even the tiniest particles. This greater awareness of the consequent philosophical “unified monism” has permitted appreciation of the broader STC “metadimensional discrete sub-reality” plus the “infinite continuity subreality”. This application has revealed the greater purpose of living—well beyond humankind’s materialistic limitations of partial 3S-1t experiences.

So, these are the conceptual fabrics I love to look back upon.



## Adrian Parker

Adrian Parker gained the first psychology doctorate at Edinburgh University with a thesis on parapsychology. After qualifying in clinical psychology at the Tavistock Clinic, he became Perrott-Warrick Student in psychical research, Trinity College, Cambridge. Author of the book *States of Mind*, he coined the terms “psi-inhibitory” and “psi-conductive” experimenter and innovated with Honorton and Braud the psi-ganzfeld. He worked in child psychiatry and studied medicine before accepting a position at Gothenburg University, where a major award from the Swedish state bank enabled development of the “Real Time Digital Ganzfeld” for capturing high quality psi events. He was Editor of the *European Journal of Parapsychology* 2000–2004 and helped activate the long-forgotten Thorsen fund for professorship in parapsychology. Although ranked first for the position, he became professor at Gothenburg University, where his interests in



psi and altered states were approved. He is currently carrying out research into lucid dream states and exceptional experiences amongst twins.

**“THE NEARER YOUR DESTINATION, THE MORE YOU ARE  
SLIP SLIDIN’ AWAY” (PAUL SIMON, 1977)**

Martin Johnson (who held the only ever publicly financed professorship in parapsychology) reported on an inquiry he carried out about 30 years ago amongst 15 leading parapsychologists concerning their view then of the future of parapsychology. Seen from today’s perspective, the results (Johnson, 1980) caution me against making optimistic predictions for this field. The majority of respondents had predicted that a breakthrough, in terms of achieving a repeatable experiment, would come before the year 2000 and the first practical application would come before 2010. Martin Johnson would later, in the year 1998, revise his own prediction, which was for a breakthrough to occur between 2000 to 2020. The reasons he gave for this revision were not classic ones relating to cognitive dissonance when predictions are about to fail, but they concerned the ensuing changes in economics and globalisation which were already then, at the turn of the century, disfavouring the kind of research which might lead to true discoveries in science. This is also my viewpoint: The intransigent complexity of the phenomena and the demand for major funding to make progress mean that no true resolution of the issues can be achieved on the shoestring of finances now supporting the field. Today the situation has become a dire one in many tangible respects. In 1980, Johnson listed 25 institutes in North America and Europe, many of them linked to universities, carrying out research in parapsychology. Only two of these now survive (the former Koestler chair and former the Division of Parapsychology at the University of Virginia) and these are now in diminished forms. True, the efforts of John Beloff and Robert Morris at Edinburgh, followed by those of Deborah Delanoy at Northampton, have led to their former doctoral students being established at a dozen or so universities in the UK. However, as one of my mentors, Donald West, recently remarked to me, there is a danger of merely repeating the fate of the Rhine era but on a larger scale. Graduates have to earn their livelihood and few of them in Rhine’s time were able to continue their interest. Symptomatically, the former UK graduates (notable exceptions being Professor Chris Roe and Dr. David Luke) rarely attend PA or SPR conferences or contribute to the literature. This comes at a time when many of the erudite writers and innovative researchers are now no longer with us, creating a noticeable paucity of new talent in the field.

Linked to this is another development that does not bode well for the future of any field of science: its dependency on charismatic leaders, which in this case are Rhine, Bender, and Morris, and some would add Tenhaeff. The attempts to secure parapsychology at universities have not survived the demise of these individuals. Lund University is currently the only Western university with a chair which, at least according to the terms of the donation of 30 million crowns (about 4.3 million dollars), should be a professorship in “parapsychology with teaching to be given in the area of altered states of awareness” but even this is gradually being redefined as “anomalous psychology.” Despite this concession or some might say capitulation, at the time of writing, the incumbent faces a firing squad composed of nine Lund professors, as well as one of the former external assessors for the position, for the “uncritical spread of pseudoscience.” This does not look good. The entrepreneur Dag Landvik (whose company developed the Tempur mattress) stated publicly when the Lund chair was being set up he would support university parapsychology with a further 100 million crowns (15 million dollars; Landvik, 2003). The offer appears to have been dropped when it became clear Lund was only interested in money and not parapsychology. Today the field no longer has the credibility that would attract major donors.

I do not foresee any signs of an improvement in the situation but rather a continued steady

decline in the next 25 years. Although I was the first of the modern UK doctoral graduates in psychology with a thesis on parapsychology, even then I ensured that I could earn a living as a medical psychologist. I would not advise trying to live this stressful “double life” in today’s hectic world. Financing doctorates has now become an exorbitant enterprise, where even Bob Morris’s so-called “double track” approach is now an implausible and unattractive proposition for universities. We are now involved in fascinating projects with synchronicities amongst identical twins and with lucid dreaming, but major financing is a necessity to survive and flourish in today’s universities. In Sweden we try to maintain our profile by linking parapsychology to what we see as its true destination: “Consciousness Studies.” Our U.K. colleagues have instead chosen to grab onto “Anomalistic Psychology” but they may well be left slip sliding away in its tracks.

But I do not want to end on a pessimistic note. Ironically, one of the predictions of Martin Johnson and his colleagues may have been proven correct. Recent reviews of research using the ganzfeld (Storm, Tressoldi, & Di Risio, 2010; Williams, 2011) seem to indicate that a repeatable experiment has been achieved, at least according the conventional standards in social psychology. A persistent misunderstanding on this issue occurs with critics because the implicit demand from them seems to be for repeatability *at the biological level*. This is where Rhine was actually right in saying a more fundamental understanding is needed for this kind of repeatability to be reached. However, there appear to be limiting factors in nature as to the effect size and level of replication that can be achieved in parapsychology. Whatever the case, it seems clear progress will probably come from quantum physics rather than psychology. If the contemporary claims for non-local effects occurring in the brain (Brooks, 2011; Buchanen, 2011; Robson, 2010) are substantiated, then there is not a great conceptual leap for it to occur between two brains.

If this is so, it will revolutionise psychology and neuroscience. Indeed, as Robert Lanza (2009) his book *Biocentrism* argues, in the course of the next 25 years, biology or psychobiology may replace physics as the primary science. In this case, Martin’s revised prediction for a breakthrough to occur by 2020 at the earliest is one with which the optimist in me would agree.

### References

- Brooks, M. (2011, October 1). The weirdness inside us. *New Scientist*, pp. 34–37.
- Buchanen, M. (2011, September 13). Quantum minds. *New Scientist*, pp. 34–37.
- Johnson, M. (1980). *Parapsykologi* [Parapsychology]. Uddevalla, Sweden: Zindermans.
- Landvik, D. (2003, April 7). Planning a large donation. [Interview]. *Dagens industri*. p. 7.
- Lanza, R. (2009). *Biocentrism*. Dallas, TX: BenBalla Books.
- Robson, D. (2010, January 12). Brain entanglement could explain memories. *New Scientist*, pp. 27–43.
- Storm, L., Tressoldi, P., & Di Risio, L. (2010). Meta-analysis of free-response studies, 1992–2008: Assessing the noise reduction model in parapsychology. *Psychological Bulletin*, 136, 471–485.
- Tarclari, S. (2011). Quantum physics in living matter: From quantum biology to quantum neurobiology. *NeuroQuantology*, 9, 692–701.
- Williams, B. (2011). Revisiting the ganzfeld ESP debate: A basic review and assessment. *Journal of Scientific Exploration*, 25, 639–662.



## Alejandro Parra

Psychologist Alejandro Parra received his Ph.D. in psychology from the Universidad de Ciencias Empresariales y Sociales. He serves as a psychotherapist in general clinical psychological practice in the Clinical Area of the Institute of Paranormal Psychology. He is also conducting an accredited free course: Paranormal Psychology at the Universidad Abierta Interamericana in Buenos Aires. He is current President of the Parapsychology Association (2011–2013). Parra has authored seven books, among of them, *Fenómenos paranormales* (2003), *Psicología de las experiencias paranormales* (2006), and *¿Qué es la sensibilidad psíquica?* (2010). In addition, Parra has published 200 articles in peer-reviewed journals in English, Italian, Spanish, and German.

### POSSIBLE FUTURE FOR PARAPSYCHOLOGY

Currently, most of our research is devoted to establishing evidence for the existence, in as "pure" a form as possible, of the processes of telepathy, clairvoyance, precognition, and psychokinesis. An emphasized aim of our work is to understand better the processes through which these abilities operate, and exploring the life impacts of experiences and the meanings and interpretations that people attribute to their experiences, whether or not their experiences have demonstrated veridical aspects. The addition of this aim also could allow us to address potential practical applications and implications of our work far better than we are presently doing.

We can expand the content of psi research by including important processes that we have neglected and by identifying gaps in our current understanding of psi functioning. We can extend our investigations beyond the usual processes of telepathy, clairvoyance, precognition, and psychokinesis. This would involve inviting other exceptional, nonordinary and transcendent experiences into our investigatory ambit.

Might psi effectively operate in areas that are not so readily accessible by our regular senses? Perhaps an important function of psi is to provide knowledge of qualities of the world that are not immediately evident to the senses. In future studies, we could enlarge our conceptualization of psi's major function. Why would nature have developed a psi process that merely duplicates already excellent sensory functioning? This accessing of latent or implicit tendencies or potentials that are not yet available to the senses calls to mind a definition of *intuition*.

Can our conscious awareness itself be a measuring instrument for which no other detectors presently exist? Psi might account for at least some interesting "misses" that have occurred in our experiments, instances in which several participants might psychically perceive subtle qualities of target events with respect to their sensory referents. In the future, we could develop creative research designs and approaches that might allow us to learn about other realms in which psi might be more active, more accurate, and more at home.

One method is to conduct very thoughtful and probing phenomenological studies of persons' subjective experiences upon confronting a given ESP target; by identifying a greater range of experiences, including bodily, and by noting possible commonalities of such experiences across percipients. However, a special form of concentrated, transformed, or dynamized imagination can know and act veridically and nonlocally. For example, there are great examples between direct intentional influences and what has been called imagination, through which it becomes possible to directly perceive subtle or spiritual realities and to endow products of one's imagination and intention with a form of external reality. It should be possible, in the future, to integrate our studied phenomena more fully with other processes.

I suggest a future investigatory stance of science plus rather than science only. Perhaps, rather than continuing to be framed as "parapsychology," our field might be broadened and reframed as "paranormal psychology"? We can learn much from these diverse areas. It also can foster more meaningful dialog with those in other disciplines and with the public at large, whose experiences are often more accessible and more meaningful to their lives than what is studied by science. Psi researchers often behave as though the only useful approach for learning about psi is to mimic the methods of natural science. We can learn even more by augmenting this strategy with additions from the human sciences: from psychological investigations to the findings and thoughts of various esoteric, spiritual, and wisdom traditions.

The elusive nature of psi has been much discussed. Some have suggested that a fear of psi might account for at least part of this elusiveness. In the future, two research approaches might help reduce fear of psi. One of these would be projects specially designed to explore the limits of psi, and how psi might be attenuated or blocked. If persons could become more confident in their ability to reduce unwanted instances of psi, this could free them from fears of being overwhelmed by psi.

There already have been a handful of preliminary studies of psi influences upon weather and weather-related processes, and these have yielded provocative results. Psychokinesis investigators, for example, have limited their target events almost exclusively to bouncing dice and deliberately constructed REGs. Psi researchers also might explore more extensively and more boldly the range of events and systems that might be psychically influenced. Such investigations could continue and could be extended to some of the other labile natural systems just mentioned.

These potential outsider contributions, of course, should be carefully evaluated through thoughtful consideration and critical thinking, but not subjected to blanket rejection or neglect, on the basis of their sources. This dynamic may contribute, in part, to the disdain that psychology often shows toward parapsychology and other novel areas of study. Establishment parapsychology sometimes displays this same pattern in its attitude toward novel findings within its own areas of interest and toward workers who are viewed as not having the requisite credentials and not belonging to the professional parapsychological in-group.

For such preparation, we can find useful advice in our accumulated psi studies, findings, and theories, and also in various spiritual, wisdom, and esoteric traditions in which psi and psi-like processes are recognized and are honored for the important roles they may play for well-being, growth, and development in our lives. We also can devote greater attention to more thoroughly preparing ourselves in ways that might allow psi experiences to visit us more often. I hope future psi researchers can be more open to novel principles and discoveries in many areas.



## Dean Radin

Dean Radin earned an M.S. in electrical engineering and a Ph.D. in psychology from the University of Illinois, Champaign-Urbana. Prior to joining the research staff at the Institute of Noetic Sciences as Senior Scientist in 2001, he conducted psi research at Princeton University, Edinburgh University, and SRI International. He was elected President of the Parapsychological Association (PA) four times, has served on the PA's Board of Directors numerous times, and was awarded the PA's Outstanding Contribution Award in 1997. His books *The Conscious Universe* (HarperCollins, 1997) and *Entangled Minds* (Simon & Schuster, 2006) discussed the use of meta-analysis in parapsychology and physics-oriented theories of psi, respectively. His third book, *Supernormal* (forthcoming, 2013, Random House) discusses psi research from the perspective of yoga. He is author of a dozen book chapters and over 200 articles, with publications in journals ranging from *Foundations of Physics* to *Psychological Bulletin*.

### PSI-MEDIATED OPTIMISM AND THE FUTURE OF PARAPSYCHOLOGY

By the centennial anniversary of the founding of the *Journal of Parapsychology*, parapsychology as a scholarly discipline will have succeeded if parapsychology *qua* parapsychology no longer exists.

Why? Because any discipline whose definition places it outside accepted domains of knowledge guarantees that it has a limited half-life. The discipline will eventually become mainstream and the para prefix dropped, or it will fade away and become a relic. Based on the empirical evidence amassed in this field since the late 1800s, and the fact that both the form and the scale of evidence are progressively improving, I believe that absorption of parapsychology into the scientific mainstream is inevitable. But it won't be called para anymore.

The speed of this integration will probably depend more on progress in physics than any other discipline. As quantum effects are discovered to be operating within complex biological systems, the plausibility of psi will progressively improve. At some point a plausibility tipping point will occur and psi will no longer be regarded as anomalous. Assimilation is then guaranteed.

Nonlocality, as that term is used in today's physics, does not provide an adequate explanation for psi. Orthodox quantum theory does not allow for information transfer or superluminal signaling, which seem to be necessary to explain psi. But the *idea* of nonlocality, or of entanglement, radically alters our understanding of the physical world in a way that is increasingly compatible with the type of reality that is necessary to accommodate psi. That is, if—as classical physics proposed—the world is constructed with strict absolutes of three dimensions of space and one of time, and if objects in that world can only interact through direct contact or exchange of forces, then in that world psi is flatly impossible. But psi does exist, and so that worldview is inadequate.

Psi requires a “deeper” sense of reality, in which apparently separate objects are not as isolated as they may seem to the naked eye. Quantum theory provides a big step in that direction. But as noted, today’s quantum reality is not quite sufficient, and so we can predict that an even deeper understanding of reality must arise, a post-quantum theory. That worldview will begin to link subjectivity and objectivity. Presentiments of such a reality may already be anticipated by the growing attractiveness of panpsychism within philosophy.

Will all this occur in the next 25 years? In the era of William James, the answer was clearly no (with perfect hindsight), because physics had not yet advanced to the point where it could imagine reality as nonlocal. By J. B. Rhine’s day, physics had significantly advanced but nonlocality was not regarded as plausible by most physicists, and in any case, no one knew how to test the idea. By the time the U.S. government’s StarGate program and the Princeton PEAR Lab were underway, nonlocality had become a more respectable topic of study, and it was being put to the test. Today, near the beginning of the second decade of the 21st century, nonlocality is so well established that it is one of the hottest topics in physics, and it is rapidly transitioning from basic science into technology.

Proposing that developments in physics will propel parapsychology from the fringe to the mainstream may seem like an unjustified leap of faith. Given the ambivalent assessments about parapsychology by William James and other prominent scientists who spent their professional lives studying the baffling nature of psi, it may seem overly optimistic. But my optimism is fueled by two sources. First, given the accelerating pace of scientific discovery, and the many techniques and instruments available today that were not available to previous generations, what might have taken a few centuries in James’s time may now take a few years.

Second, I am an incorrigible optimist not only by predilection, but also by choice when I stop and think about our potential future. Strict reductionism asserts that causation flows exclusively “upward,” from physics to psyche. But both upward and downward causation are now commonly accepted in, for example, meditation research, mind-body medicine, and psychotherapy. Psi goes farther by indicating that downward causation also reaches beyond the body, transcending both space and time. This blurring between subjective and objective suggests that if we maintain a pessimistic view of where parapsychology will be in 25 years, then that future will be more likely to occur than if we maintain an optimistic view. So I choose the latter.



## Chris A. Roe

Chris Roe is Professor of Psychology at the University of Northampton in the UK. He is Director of the Centre for the Study of Anomalous Psychological Processes and is Course Leader for Northampton’s M.Sc. in Transpersonal Psychology and Consciousness Studies. Chris was awarded his Ph.D. by the University of Edinburgh for research on the ways in which psychic effects might be simulated using conventional psychology. His research at Northampton has continued his interest in the psychology of anomalous experience and has concerned topics ranging from spirituality and wellbeing, psychic deception, correlates of paranormal belief and experience, and experimental tests of claimed

phenomena of extrasensory perception and psychokinesis. He is Editor of the *Journal of the Society for Psychical Research*, is a Board Member of the Parapsychological Association, Council Member of the Society for Psychical Research, and a Committee member for the British Psychological Society's Transpersonal Psychology Section.

## PARAPSYCHOLOGY IN THE NEXT 25 YEARS—STILL A BUTTERFLY SCIENCE?<sup>1</sup>

It would be reassuring to believe that over the next 25 years some significant advance would occur that would enable the discipline of parapsychology and its phenomena to be accepted into the mainstream. This could involve the identification of some experimental protocol that is replicable on demand, resistant to the usual vicissitudes that affect the outcomes of experimental studies; or the introduction by parapsychology's Einstein of some way of accommodating parapsychological phenomena within generally accepted theories of nature. Of course, the former is a naïve hope given what we know of the nature of effects in the social sciences and the consequences of sampling error on underpowered studies, and the latter seems to rely optimistically on “spooky” properties of quantum physics that share a superficial resemblance to psi phenomena.

So what can we reasonably expect to lie in our future given the lessons of the last 25 years? If we experience more of the same, then there will be a steady accumulation of evidence suggestive of psi effects using a range of new approaches and methods, with ever more stringent controls against potential normal explanations. But while statistically significant, the effects will remain tantalisingly small and will derive from studies that are predominantly proof-oriented rather than process-oriented, so that mainstream colleagues will feel justified in dismissing them as minor anomalies with little epistemological value. Where work attempts to elucidate preferred conditions or limiting factors, designs will continue to be insufficiently multivariate so that effects appear to be inconsistent or even capricious where in fact they depend on lawful interactions between a (perhaps large) number of measurable factors.

Parapsychology is fortunate to have among its company some highly creative innovators and enthusiastic followers, which has given rise to some ingenious approaches to the study of psi. But in such a small community (at the time of writing the Parapsychological Association lists just 123 professional members) this has led to practices that have negative consequences unless they are addressed. In particular, parapsychology is often criticised by skeptics such as James Alcock and Richard Wiseman for “abandoning” initially successful approaches, leaving commentators with the suspicion that some fundamental flaw has been discovered or that later replications have been unsuccessful but remain unpublished. Although I believe the interpretation to be wrong, I think that these commentators have a point in questioning this fickleness. Elsewhere (Roe, 2009, pp. 546-7) I have complained that

...this gives parapsychology the appearance of a “butterfly science” that flits en masse from protocol to protocol as they fall in and out of “fashion” much as a butterfly flits from flower to flower. At best this is frustrating in diverting resources away from a potentially fruitful avenue of research; at worst it looks suspicious to the outsider, who expects to see continuing and systematic work using a particular method for so long as it is productive, particularly where great claims were initially made for it.

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<sup>1</sup> A version of this commentary with full references is available from the author on request

I went on to argue that as a community we need to better coordinate our efforts to produce a more systematic programme of research, one that goes beyond proof of principle and early adopter independent replications. To do this, we need to attract more “technicians” who are able and willing to follow up on proof-of-principle studies and first-wave replications to conduct the kinds of modest replication extensions that Thomas Kuhn would have called “normal science.”

In practice this is extremely difficult to do where funds are so constrained that it is virtually impossible to eke out a career as a “pure” researcher, but an alternative approach could offer a solution. Robert Morris described how his strategy as Koestler Professor of Parapsychology was primarily to invest in human resources, taking the long view in “developing a quality program that could generate excellent scholars who would then go on to take academic posts at other universities, seeding the intellectual landscape of Britain and Europe with parapsychological experts in a way that had not yet proven possible in the US” (Carpenter, 2005, p. 425). Despite Professor Morris’s untimely death, it should still be the priority for senior figures in the field to develop the next generation of academics with the intention of their being embedded in the university structure so they can have the kind of security and longevity needed for them to practise normal science.

As to the focus of that coordinated effort, much recent work has concentrated on measuring unconscious responses to target stimuli or involve implicit psi tasks masked by conventional cognitive tasks. These approaches are certainly worthwhile, but I am not convinced that they have much to say about the kinds of spontaneous experience that prompted the foundation of the Society for Psychical Research or which preoccupy the general public today—if parapsychologists are to be employed in the university sector and paid from the public purse then it can reasonably be argued that their research must reflect that public’s concerns. Many spontaneous psychic experiences involve altered states of consciousness (ASCs) in one form or another, and I would argue that this should again become a primary focus for parapsychology. Ganzfeld and dream ESP research seem to have fallen out of favour but continue to produce significant results. Indeed, it could be argued that these studies have been much more successful than we have any right to expect, given a general presumption that “one-size-fits-all” when it comes to ASC induction (Rex Stanford refers to this as the “delusion of operational omnipotence”), which is exacerbated by the tendency for researchers not to monitor whether participants have actually experienced an altered state at all. It is therefore surprising that the number of studies utilising ASCs has dwindled in recent times when they seem to provide the most reliable method of capturing psi effects.

In conclusion, assuming we have not achieved the degree of mainstream acceptance I described in the first paragraph of this piece, then I hope to see parapsychology in the next 25 years being practised by a larger community of professional academics, based in university departments, working together in a more programmatic fashion to conduct stringent process-oriented multivariate tests of psi that are founded on the kinds of phenomena reported by the general public and so exploit the psi-conducive nature of ASCs.

## References

- Carpenter, J. (2005). Obituary: Robert Morris. *Journal of Parapsychology*, 69, 423–431.
- Roe, C.A. (2009). Personal reflections on Utrecht II. In C.A. Roe, L. Coly, & W. Kramer (Eds.) *Utrecht II: Charting the future of parapsychology* (pp. 533–548). New York: Parapsychology Foundation.





## Gary E. Schwartz

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### **FROM PARAPSYCHOLOGY TO POSTMATERIALIST PSYCHOLOGY: THE EMERGING INTEGRATIVE SCIENCE OF CONSCIOUSNESS, SPIRIT, AND SOUL**

For those who have examined the parapsychological literature with responsibility and integrity, there is no longer a question of whether parapsychological phenomena exist and can be studied in the laboratory. Research goals are shifting from demonstrating phenomena *per se* to understanding their basic mechanisms and exploring practical applications. Theories integrating parapsychology with contemporary physics, cognitive science, and neuroscience are emerging, and they are stimulating exciting new research as well as increasing acceptance in mainstream science (e.g., Carpenter, 2012).

Contemporary parapsychological research ranges from mind/matter interactions (e.g., Radin et al, 2012) to multi-blinded mediumship experiments (e.g., Beischel & Schwartz, 2007). However, save for a few senior consciousness researchers (e.g. Beauregard 2012; Schwartz, 2011a; Tart, 2009), there continues to be reluctance to extend parapsychology from mind and consciousness to spirit and soul.

When the author was a graduate student at Harvard University in the late 1960s, words like consciousness, thoughts, feelings, and mind were generally considered to be taboo. This was the era of the emerging shift from behaviorism to cognitive psychology. The “C” words (“cognition” and “consciousness”) were perceived as being controversial (if not illusory) and often denigrated if not dismissed.

However, by the late 1990s, the *zeitgeist* had radically changed. Cognitive psychology, cognitive neuroscience, and cognitive-behavioral therapy were well established in universities worldwide. Moreover, a growing set of universities, such as the University of Arizona, were

creating Centers for Consciousness Studies; and the topic of consciousness was on the road to becoming mainstream.

Meanwhile, during the same time period (1960s–1990s) “S” words like “spirit” and “soul” were generally considered to be taboo. Even in 2012 (the year this essay was written), despite increasing research in parapsychology as well as the psychology of religion and spirituality, words like spirit and soul are generally frowned upon (and words such as “angels” and “guides” typically evoke even stronger dismissive reactions).

*If (a) materialism is an incomplete description of nature and the universe, and if (b) “nonmaterial” concepts like energy (including fields) and information are necessary for a more complete and accurate portrayal of nature and the universe, then (c) it is useful to consider how the spiritual terms spirit and soul may be related to the scientific concepts of energy and information* (Schwartz 2011a, 2012).

In physics, energy refers to the capacity to do work and overcome resistance. Energy reflects power, force, vibration, vitality. Interestingly, the term spirit is often associated with life, vitality, passion, strength, conviction.

Note that by definition, the existence of energy is *inferred* from its effects on matter (for example, the force of gravity is *inferred* from the observation that objects fall to the earth, or that planets are observed to revolve around stars); the existence of spirit is also *inferred* by its effects (for example, research mediums inferring that specific spirits are producing replicable effects on their thoughts and feelings). Taken together, the terms spirit and energy both share an implicit (i.e., inferred) sense of the capacity to act upon and have effects on things.

Information refers to patterns, forms, non-random sequences, structures, and complexity. Interestingly, the word soul is often associated with person, identity, the essence that describes something about the person, and memory.

Stimulated by the apparent parallels between (a) spirit with energy, and (b) soul with information, Schwartz wrote a theoretical and spiritual poem which expresses these parallels (reprinted in Schwartz, 2011a). Although drawing an energetic versus information distinction between spirit and soul is useful theoretically, scientists and laymen alike typically use the words spirit and soul synonymously.

The history of science reminds us that sometimes terms lose their conceptual and political usefulness and are replaced with more meaningful terms. A classic example is the shift from animal magnetism to hypnosis. Following Tart (2009), I see significant value in the emerging shift of paranormal science to postmaterialist science, and I see wisdom in proposing that parapsychology transform itself into postmaterialist psychology. One advantage of postmaterialist psychology is that it makes it easier to build bridges between contemporary mind and consciousness science and emerging spirit and soul science.

Contemporary research on mediumship, for example, illustrates how basic phenomena in parapsychology (e.g., the big five effects; Tart, 2009) are involved not only in the mechanisms of mediumship but are likely the core mechanisms by which postphysical beings/minds (traditionally called spirits and souls) interact with matter and minds in the physical world. The new parapsychology—as expressed in postmaterialist psychology—provides a smooth transition to an emerging new science of spirit and soul.

Moreover, *our understanding of the three core research methods in neuroscience (correlation, stimulation, and ablation studies), though consistent with the hypothesis that consciousness is an emergent property of brain activity (i.e. a creation of matter), is also completely consistent with the hypothesis that consciousness is an external combination of information and energy (e.g., organized patterns of holographic quantum fields), and that the brain functions as an antenna/receiver/transmitter of this information and energy (e.g., see*

Beauregard, 2012; Schwartz 2011a, 2012). Positive findings from (a) mediumship, (b) near death experience research, and (c) controlled spirit communication technology experiments (e.g., Schwartz, 2011b), each point to the latter (i.e., postmaterialism) as being the most parsimonious explanation of the totality of the evidence. What we historically have called parapsychology may become “paranatural” and be viewed as fundamental to life and the cosmos.

The question is, “will future parapsychology be visionary and courageous enough to address this great opportunity over the next 25 years?” My prediction is yes. The scientific evidence is strongly pointing in this direction, the public and media are clearly moving in this direction, and the future of humanity and the sustainability of the planet may hinge on our vigorously pursuing this direction.

### References

- Beauregard, M. (2012). *Brain Wars: The scientific battle over the existence of the mind and the proof that will change the way we live our lives*. New York: HarperOne.
- Beischel, J., & Schwartz, G. E. (2007). Anomalous information reception by research mediums demonstrated using a novel triple blind design. *EXPLORE: The Journal of Science & Healing*, 3, 23–27.
- Carpenter, J. (2012). *First sight: ESP and parapsychology in everyday life*. Lanham, MD: Rowman & Littlefield.
- Radin, D. I., Michel, L., Galdamez, K., Wendland, P., Rickenbach, R., & Delorme, A. (2012). Consciousness and the double-slit interference pattern: Six experiments. *Physics Essays*, 25, 157–171.
- Schwartz, G. E. (2011a). *The sacred promise: How science is discovering spirit’s collaboration with us in our daily lives*. Hillsboro, OR: Beyond Words/Atria/Simon & Schuster.
- Schwartz, G. E. (2011b). Photonic measurement of apparent presence of spirit using a computer automated system. *EXPLORE: The Journal of Science & Healing*, 7, 100–109.
- Schwartz, G. E. (2012). Consciousness, spirituality, and postmaterialist science: An empirical and experiential approach. In L. J. Miller (Ed). *The Oxford handbook of psychology and spirituality* (pp. 584–597). Oxford, UK: Oxford University Press.
- Tart, C. T. (2009). *The end of materialism: How evidence of the paranormal is bringing science and spirit together*. Oakland, CA: New Harbinger.



## Stephan A. Schwartz

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## NONLOCALITY AND PARAPSYCHOLOGY IN 2038

No scientific discipline exists without context, and understanding context is critical to understanding where research into the nonlocal aspect of consciousness will be 25 years hence. The world of 2038, according to the best data we have, is going to be very different.

Climate change will compel us to see that we are part of earth's network of life, not a special exception. Science and technology will increasingly be focused on this because recognizing that all life is interconnected and interdependent will become essential to our survival in the climate of 2038.

DNA and genetic research will also be powerful drivers affecting consciousness research. Discipline subspecialties within the neuroscience, quantum mechanics, and biological communities, will explore how consciousness and matter interact. Much that was once considered parapsychology will be subsumed into mainstream science. The process is already underway in human research in placebo, healing, mindfulness, meditation, and insight studies. Quantum biology, itself an example of the process, already presents a view consonant with parapsychology's concept of nonlocal consciousness.

Two papers from the European Organization for Nuclear Research (CERN), one of the world's largest and most respected centers for scientific research, have just been published. Each is roughly 30 pages in length. Nineteen of those pages are the single-spaced list of approximately 6,000 names—the researchers who support the findings of the CERN experiments. The papers conclude there is a 1-in-300-million chance that the Higgs Boson does not exist, thereby validating the theory on why elementary particles have mass. It is by this collective assessment that the elusive God particle has been recognized as real.

Today there are six stabilized parapsychological protocols used in laboratories around the world. Each of these six has independently produced 6 sigma results. Six sigma is 1 in 1,009,976,678 or the 99.9999990699 percentile]

Vernon Neppe spells it out clearly in *Reality Begins with Consciousness*.

Those that have been analyzed in detail are:

1. RV: Remote viewing
2. REG: Random event generator
3. Ganzfeld
4. GCP: Global consciousness project
5. Presentiment
6. Retrocognition/ precognition

Two more have also achieved this level, although these results are subject to differing interpretations:

1. Staring
2. Precognition

Since these protocols have the same fundamental methodology and collectively seek to study nonlocal consciousness, I believe they cannot be considered independent. The figure taken as a single effort is  $10^{54}$  against chance. A galactic number.

In addition to these laboratory protocols, recent well-conducted studies reveal that 4.2% of the American public has reported a near-death experience.

The population in the U.S. is a bit more than 311 million. So 4.2% is 13 million people in the reported NDE population. That is equivalent to all the Jewish people, all the Mormons, and Muslims as well, and most of the Buddhists.

This disparity between the acceptance of the Higgs Boson discovery and the acceptance of nonlocal aspect of consciousness reveals how culturally mediated acceptance is. How consistent with Thomas Kuhn's model of scientific change it is. Denying the existence of an aspect of consciousness not limited by space or time in the ways that are generally understood is today an act of willful ignorance. For a scientist particularly, it is a violation of the most basic tenet of science: to doubt and inquire but, ultimately, to be led by facts. The accumulating evidence from many disciplines will overcome denier objections and assure nonlocal consciousness remains a focus of scientific attention, even if it is by Planck's dictum that "science advances one funeral at a time."

While that is happening over the next 25 years, the world will also be undergoing the most profound geopolitical transformation since the nation states of Europe emerged at the end of the 19th century. All of parapsychological research over the past 50 years lived in the context of a bipolar world. The U.S. government began funding in parapsychology because of that bipolar reality. By 2038, however, the last vestiges of that bipolar world will be gone, replaced by a multi-polar, multicultural, world. Caucasian mid-Atlantic values will no longer be dominant, including in science. Eastern societies, newly affluent, will pursue interests consistent with their cultures. Because of Asian cultural perspectives, there will be greater funding. Tibetan cooperation in meditation has pointed the way for several decades. In 2038 much of the funding for consciousness research will be Asian.

A third trend affecting consciousness research will be the creation of Homo Superiorus. By 2038, DNA and genetic research will have inevitably focused on and learned how to alter the genes that affect diseases such as MS, CP, and Hypertension. It is also inevitable that, at least for those who can afford it, by 2038 it will be possible to manipulate intelligence as well as physiology. Affluent parents will choose their child's intelligence, intuitive capacity, physical prowess, and beauty. This linkage between the ability to open to nonlocal consciousness and creativity and innovation will have been established, creating opportunity for new lines of well-funded research.

These trends, already underway, will gather momentum as years go by. An increasing number of papers, and the way the literatures have developed, vouchsafe this. Most papers cite research within their own discipline, with much less reference to work in other disciplines. That means in 2013 multiple disciplines independently are developing a new paradigm, exactly as Kuhn predicts. By 2038 the nonlocality of consciousness will be integrated into science as a whole.

By 2038, parapsychology as an independent discipline will either have disappeared or reinvented itself. Which path it takes will be decided by the parapsychologists working in 2013.

For the optimistic 2038 to eventuate, I believe parapsychology must make three choices within the next decade. First, it must commit itself to its data and step across the proof-of-principle threshold that has circumscribed the field for the past 50 years. Second, it must acknowledge a truth the data reveal: A small subset of researchers have obtained most of the successful results. When combined with what is known about the role of the experimenter in placebo research, it is clear that the researcher is as much a player in the outcome of an experiment as the participant, and that they are linked by an intention contract. One cannot replicate a nonlocal consciousness experiment like putting a mix of chemicals in a test tube. The failure of denier researchers seeking to disprove the existence of nonlocal consciousness is exactly what one should expect. Third, parapsychology must abandon the archaic and isolating ESP jargon of the late 19th and early 20th centuries, replacing it with terms consonant with the rest of science.

If parapsychology can make these changes by 2038 parapsychologists will be working as a respected part of multidisciplinary teams, bringing to these teams their skills of innovative protocol design, as well as their deep understanding of analytical techniques. If they cannot make these changes the field will disappear, even as nonlocal research prospers.



## Christine Simmonds-Moore

Christine Simmonds-Moore currently works as an Assistant Professor of Psychology at the University of West Georgia. She has a Ph.D. in psychology from the University of Northampton. She taught psychology at Liverpool Hope University, after which time she moved to the USA and worked as a researcher at the Rhine Research Center (RRC). She served for 2 years on the Board of the Parapsychology Association (PA) and is currently on the board of the RRC. Christine was the recipient of two awards related to parapsychology—the Gertrude Schmeidler award from the PA and the D. Scott Rogo Award for Parapsychological Literature (from the Parapsychology Foundation). Her research interests include paranormal belief and disbelief, clinical approaches to exceptional experiences, individual differences (in particular positive schizotypy), sleep and other altered states, synesthesia and their relationships to exceptional experiences.

### WHAT IS EXCEPTIONAL PSYCHOLOGY?

Is parapsychology dead? In this paper, I will make a case for a new direction for the study of subjective paranormal experiences. Specifically, I will propose that the future of parapsychology does *not* lie in finding the ultimate research paradigm or explanatory theory which will demonstrate to the mainstream (once and for all) that psi occurs. In fact, the nature of the field may well render this acceptance impossible. This is due, in part, to a focus on objective methods of science in the face of the inherent subjectivity of the phenomena being studied. In

addition, a core finding in parapsychology is that belief plays a role in whether psi phenomena will be found. This is the case for research participants as noted in the sheep-goat effect (e.g., Lawrence, 1993; Lovitts, 1981) but also for those running or ultimately overseeing experiments as the experimenter effect (e.g., Schlitz, Wiseman, Watt, & Radin, 2006). Interestingly, recent research supports the role of consciousness in collapsing the quantum wave function (Radin et al., 2012). The role of belief in psi is perhaps one of parapsychology's most consistent and fascinating findings. Perhaps it is a defining characteristic. Because of this, there may be a *perpetual impasse* as those who believe or who are "open" will find above chance results whilst those who disbelieve will not. It is unlikely that findings in parapsychology will translate to the mainstream, because there is no neatly defined "black and white" solution in terms of "whether psi exists." If there is a shift in definition, scope, and expansion of subject matter, parapsychology will evolve into a new discipline and reintegrate into mainstream psychology. *Exceptional Psychology* will include the systematic study of a number of phenomenologically-related exceptional experiences, their correlates and applications. Exceptional psychology will seek to understand exceptional experiences as the result of interactions between the mind, subjective meaning, the body, and the social and physical environment. To date, interactionist perspectives provide the most promising directions for understanding traditional parapsychological phenomena (e.g., Radin & Rebman, 1996; Roll, 2003; Von Lucadou, 2011) and are particularly valuable when they can parsimoniously explain mainstream and psi phenomena.

Exceptional psychology will integrate qualitative and transpersonal methodologies into the discipline (not to replace traditional objective methods, but rather to *complement* them) and engage in more systematic research exploring the role of belief in experiment outcomes (e.g., Schlitz et al., 2006) and the role meaning seeking plays in exceptional experiences (after Jung, e.g., Jaffé, 1989).

Exceptional psychology will connect the dots between modern parapsychology and its close cousins in mainstream psychology. In line with anomalistic psychology, the varieties of exceptional experiences will be approached with a truly "skeptical" approach and from a variety of explanatory perspectives. In line with humanistic psychology and transpersonal psychology, subjective experience, meaningfulness and the value of phenomenological approaches will be incorporated. An example is Williams, Dutton and Burgess's (2012) recent application of intercorporeality and intersubjectivity in the understanding of anomalous healing events. The role of the body in consciousness will also be valued and explored using methods from neuroscience in tandem with other methods. In line with Positive Psychology, there should be further elucidation of relationships between mind and body, and body and mind (e.g., polyvagal theory; psychoneuroimmunology, placebo effects) for mental and physical health and wellbeing. For example, it is not clear why there are "placebo responders" and "non-responders." The exceptional psychologist might ask whether the person who is the placebo responder is the same person who is more likely to exert hypnotic influence (intentionality) on their own body, be more influenced by the body, be more influenced by weak environmental factors (e.g., geomagnetism), be more likely to report ESP phenomena, and so forth. This person might be a person with thinner psychological boundaries (e.g., Simmonds-Moore, 2011). In line with clinical psychology and personality psychology, there should be exploration of the overlaps between clinical syndromes and psychopathology and subjective paranormal experiences and more elaboration of differences between healthy and less healthy experiences. In line with cognitive psychology, there should be more exploration of the way in which cognition works and whether we can understand more about cognition by including psi (e.g., Bem, 2011; Carpenter, 2005). Including psi in mainstream investigations will achieve greater understanding of the mind, and implicitly normalize the phenomena traditionally associated with parapsychology.

Belz and Fach (2012)'s model of exceptional experiences (as anomalies in the reality model) is an extremely valuable addition to psychology, as it allows for ontological neutrality in understanding these experiences. It assumes a phenomenological perspective and organizes the key players from parapsychology into its four quadrants. However, it is also possible to place a variety of *related* phenomena into the same quadrants, which may enhance our understanding of exceptional experiences. For example, mediumship experiences might be better understood alongside experiences of possession and religious experiences (e.g., glossolalia) and other examples of dissociation-related human potential (e.g. creativity; cf. the case of Patience Worth). It will also be valuable to explore how xenoglossy relates to savantism and experiences of genius.

The future is wide open for Exceptional Psychology, with a plethora of questions yet to be answered.

### References

- Belz, M. & Fach, W. (2012). Theoretical reflections on counseling and therapy for individuals reporting ExE. in W. H. Kramer, E. Bauer & G. H. Hovelman (Eds ), *Perspectives of clinical parapsychology* (pp 168–189). Bunnick, The Netherlands: Stichting Het Johan Borman Fonds.
- Bem, D. J. (2011). Feeling the future: Experimental evidence for anomalous retroactive influences on cognition and affect. *Journal of Personality and Social Psychology*, 100, 407–425.
- Carpenter, J. C. (2004). First Sight: Part one, A model of psi and the mind. *Journal of Parapsychology*, 68, 217–254.
- Jaffe, A. (1989). *The life and work of C.G. Jung*. Am Klosterplatz, Switzerland: Daimon Verlag.
- Lawrence, A. R. (1993). Gathering in the sheep and goats... A meta-analysis of forced-choice sheep-goat ESP studies, 1947–1993. *Proceedings of Presented Papers: The Parapsychological Association 36th Annual Convention*, 75–86.
- Lovitts, B. E. (1981) The sheep-goat effect turned upside down. *Journal of Parapsychology*, 45, 293–309.
- Mossbridge, J., Tressoldi, P., & Utts J. (2012) Predictive physiological anticipation preceding seemingly unpredictable stimuli: a meta-analysis. *Frontiers of Psychology*, 3, 390. doi: 10.3389/fpsyg.2012.00390
- Radin, D. I., & Rebman, J. M. (1996). Are phantasms fact or fantasy? A preliminary investigation of apparitions evoked in the laboratory. *Journal of the Society for Psychical Research*, 61, 65–87.
- Roll, W. (2003). Poltergeists, electromagnetism and consciousness. *Journal of Scientific Exploration*, 17, 75–86.
- Radin, D. I., Michel, L., Galdamez, K., Wendland, P. Rickenbach, R., Delorme, A. (2012). Consciousness and the double-slit interference pattern: Six experiments. *Physics Essays*, 25, 157–171.
- Schlitz, M., Wiseman, R., Watt, C., & Radin, D. (2006). Of two minds: Skeptic-proponent collaboration within parapsychology. *British Journal of Psychology*, 97, 313–322.
- Von Lucadou, W. (2011). Complex environmental reactions, as a new concept to describe spontaneous “paranormal” experiences. *Axiomathes*, 21, 263–285.
- Williams, C., Dutton, D., & Burgess, C. (2012). Excerpts of incorporeality: A phenomenological exploration of energy healing. In C. Simmonds-Moore (Ed.), *Exceptional experience and health: Essays on mind, body and human potential* (pp 81–93). Jefferson, NC: McFarland.



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### IMAGERY CULTIVATION VS. NOISE REDUCTION: PSI FROM OPPOSING PERSPECTIVES

The ganzfeld technique has been with us since the 1970s (Braud et al., 1975; Honorton & Harper, 1974), and it is arguably the most prevalent and successful free-response technique in current use in parapsychology (e.g., see Storm et al., 2010). However, some scholars (e.g., Alvarado, 1998; Braud, 2005; Hyman, 2010; Scimeca et al., 2001) have posited arguments that cast doubt on whether the ganzfeld does, in fact, induce an ASC, and whether it is psi-conducive. These problems are encompassed by the broader issue of whether the *passive* noise reduction method is the best means of facilitating the psi function. It may be the case that *active* cognitive processes are themselves a means of eliciting psi. Unless these issues are addressed in the near future the status of parapsychology is undermined by inconsistency. Based on our findings thus far (Rock et al., in press; Storm & Rock, 2009), we predict that parapsychology in the future will see two complementary experimental paradigms sitting side by side, each to be used in equal measure by psi researchers: ganzfeld and our so-called imagery cultivation (IC) model.

Going back nearly two decades, Bem and Honorton (1994, p. 5) asserted that “psi has often been associated with meditation, hypnosis, dreaming, and other naturally occurring or deliberately induced altered states of consciousness [ASCs].” As the ganzfeld technique has its roots in these processes, it is implied that the ganzfeld induces a psi-conducive ASC. It is, however, debatable whether there can be objective evidence (e.g., EEG measures) or subjective evidence (e.g., percipients’ self-reports) that, if percipients are in a ganzfeld ASC, it is *the* ASC that is psi-conducive, or some other partial- or sub-condition that is psi-conducive (e.g., relaxation acting alone, or the homogeneous field acting alone). Also, Alvarado (1998) has brought attention to related issues such as “lack of control groups, a variety of design and individual differences problems . . . and an alternative (more general) explanation using expectancy effects of different types” (p. 45). Even a co-founder of the ganzfeld technique, William Braud, stated that “various sampling, demand characteristics, or experimenter effects” may actually be facilitating psi in the ganzfeld condition (Braud, 2005, p. 48). In addition to these criticisms, the ganzfeld protocol does not include instructions to *actively* “target” the target during that ASC.

We suggest that the emphasis on noise reduction, and the relative success of the ganzfeld, have created paradigmatic blocks that have blinkered many parapsychologists to the unresolved problems associated with the ganzfeld, to the degree that they have not entertained alternative, even antithetical, methodologies that encourage fantasy, imagination, and other *active* cognitive processes. In our IC model, we maintain that (a) active mental processes access psi signals, and (b) the unconscious domain of the human psyche is a wellspring of psi images. We propose that a *shamanic-like-journeying* state may elicit psi to an equal or greater extent than has been found for the ganzfeld. This shamanic-like-journeying state needs explanation.

Shamans are known to voluntarily enter ASCs during which time “they experience themselves, or their spirit(s), travelling to other realms at will and interacting with other entities in order to serve their community” (Walsh, 1989, p. 5). Shamanic journeying typically involves the shaman accessing “information that is not ordinarily attainable by members of the social group” (Krippner, 2002, p. 962). Walsh (1995) states that shamanic ASCs constitute active states involving mental imagery cultivation whereby the percipient is able to “enter and leave the ASC at will and . . . partly determine the type of imagery and experiences” (pp. 35–36). These claims are empirically supported: 93.3% of shamanic journeying experiences involve some form of visual phenomena (see Houran, Lange, & Crist-Houran, 1997).

In the laboratory, the shamanic-like journeying protocol involves a composite activity of cultivating, through verbal instructions, specific visual and kinaesthetic mental images while listening to monotonous drumming. In two tests of the IC model (Rock et al., in press; Storm & Rock, 2009), the combined direct hit rate was 31% in the shamanic-like condition (both control conditions scored at chance). This IC effect is comparable to the mean hit rate reported in a recent ganzfeld meta-analysis by Tressoldi, Storm, and Radin (2010).

In conclusion, we have suggested that parapsychology must advance beyond the limits of the *passive* ganzfeld methodology and its unresolved problems. We envision a future for parapsychology where not one paradigm (i.e., ganzfeld) dominates, but (optimistically) at least two complementary paradigms will be generally accepted, with the inclusion of our imagery cultivation model that incorporates the *active* cognitive processes of the shamanic-like journeying technique.

### References

- Alvarado, C. S. (1998). ESP and altered states of consciousness: An overview of conceptual and research trends. *Journal of Parapsychology*, 62, 27–63.
- Bem, D. J., & Honorton, C. (1994). Does psi exist? Replicable evidence for an anomalous process of information transfer. *Psychological Bulletin*, 115, 4–18.
- Braud, W. (2005). The farther reaches of psi research: Future choices and possibilities. In L. Storm & M. A. Thalbourne (Eds.), *Parapsychology in the 21st century: Essays on the future of psychical research* (pp. 38–62). Jefferson, NC: McFarland.
- Braud, W. G., Wood, R., & Braud, L. W. (1975). Free-response GESP performance during an experimental hypnagogic state induced by visual and acoustic ganzfeld techniques: A replication and extension. *Journal of the American Society for Psychical Research*, 69, 105–113.
- Honorton, C., & Harper, S. (1974). Psi-mediated imagery and ideation in an experimental procedure for regulating perceptual input. *Journal of the American Society for Psychical Research*, 68, 156–168.
- Houran, J., Lange, R., & Crist-Houran, M. (1997). An assessment of contextual mediation in trance states of shamanic journeys. *Perceptual and Motor Skills*, 85, 59–65.
- Hyman, R. (2010). Meta-analysis that conceals more than it reveals: Comment on Storm et al. (2010). *Psychological Bulletin*, 136, 486–490. doi: 10.1037/a0019676.
- Krippner, S. (2002). Conflicting perspectives on shamans and shamanism: Points and counterpoints. *American Psychologist*, 57, 962–977.
- Rock, A. J., Storm, L., Harris, K., & Friedman, H. (in press). Shamanic-like journeying and psi-signal detection: I. In search of the psi-conducive components of a novel experimental protocol. *Journal of Parapsychology*.
- Scimeca, G., Boca, S., & Iannuzzo, G. (2001). Ganzfeld experiment and meta-analysis in parapsychology: Extrasensory perception or experimental mistake? A methodological criticism. *Psychometrics Testing Methodology*, 8, 13–31.
- Storm, L. & Rock, A. J. (2009). Shamanic-like journeying and psi: I. Imagery cultivation, personality, and the picture-identification task. *Australian Journal of Parapsychology*, 9, 165–192.
- Storm, L., Tressoldi, P. E., & Di Risio, L. (2010). Meta-analyses of free-response studies 1992–2008: Assessing the noise reduction model in parapsychology. *Psychological Bulletin*, 136, 491–494. doi:10.1037/a0019840.

- Tressoldi, P. E., Storm L., & Radin, D. (2010). Extrasensory perception and quantum models of cognition. *Neuroquantology: An Interdisciplinary Journal of Neuroscience and Quantum Physics*, 8, 81–87.
- Walsh, R. (1989). What is a shaman? Definition, origin and distribution. *Journal of Transpersonal Psychology*, 21, 1–11.
- Walsh, R. (1995). Phenomenological mapping: A method for describing and comparing states of consciousness. *Journal of Transpersonal Psychology*, 27, 25–56.



## Charles T. Tart

Charles T. Tart, Ph.D., is a Professor at Sofia University and Professor Emeritus of Psychology at UC Davis. He is internationally known for research with altered states, transpersonal psychology, and parapsychology. He has served on the Parapsychological Association Board and as President and received the Outstanding Career and Charles Honorton Integrative Contributions Awards. His 13 books include two classics, *Altered States of Consciousness* and *Transpersonal Psychologies*. Two books, *Waking Up* and *Living the Mindful Life* synthesized Buddhist, Sufi and Gurdjieffian mindfulness training ideas with modern psychology. His 1997 *Body Mind Spirit: Exploring the Parapsychology of Spirituality* explored the scientific foundations of transpersonal psychology to show it is possible to be both a scientist and a spiritual seeker, as has his most recent book *The End of Materialism: How Evidence of the Paranormal is Bringing Science and Spirit Together*, published in 2009. Full information is available at [www.paradigm-sys.com/cttart/](http://www.paradigm-sys.com/cttart/).

### **PARAPSYCHOLOGY: CONTINUING ODD AND REJECTED ANOMALY OR ENGAGING WITH HUMAN SPIRITUALITY?**

Not being gifted with precognitive abilities, I'll make the best predictions I can from my current knowledge of parapsychology and related fields.

Two kinds of major discoveries would have major effects that are largely unpredictable. One of these would be a clear-cut, theoretical need in physics or some other high-prestige mainstream science for psi phenomena, such that psi would have to be investigated, rather than ignored *a priori*. The other would be a breakthrough in the practical use of psi, whether that breakthrough is a discovery and refinement of psychological processes for enhancing psi and/or the creation of physical devices for enhancing psi. If such a breakthrough happens it will revolutionize many areas of life, but the only specific prediction I will make with great certainty is that a great deal of research money will become available from casino operators to develop ways of inhibiting the functioning of psi in casinos!

A third, highly probable prediction, unfortunately, is that parapsychology, as a field, will be in the same situation it is today: There will continue to be good, solid scientific evidence for the existence of various kinds of psi, and this evidence will continually be irrationally ignored by

mainstream science and irrationally attacked by biased and ill-informed people calling themselves “skeptics” and claiming to be defending the purity of science, but who are actually functioning as if a materialism with no place for psi were some kind of fundamentalist religion which needed to be defended from heresy.

The thing which interests me most as capable of changing the status of parapsychology for the better depends on whether we remember that the concept of psi did not develop as a result of small, statistical anomalies in laboratory studies, but from the widespread human experience of various kinds of psi, often at levels of manifestation much stronger than we usually see in the laboratory. These ordinary life psi manifestations usually arouse strong emotional and intellectual reactions, which may result in psychological adjustment problems as people try to deal with experiences which aren’t supposed to happen, or which they try to force into old religious frameworks, belief systems which take psi manifestations as either confirmations of particular religious doctrines if they don’t seem to contradict particular doctrines, or as the work of some kind of supernatural evil force. I will certainly predict the continuing evolution of branches of psychotherapy which deal with helping people integrate real-life psi manifestations (and related phenomena) with their everyday lives: That’s a real human need, and counselors and clinicians are gradually realizing they can’t simply ignore it or dismiss it *a priori* if they want to fully help people.

As I have argued elsewhere (Tart 2002, 2004), I don’t expect much progress in our field if we try to remain a “pure” laboratory science, studying low-level “anomalies” which have little to do with real human life. With my engineering background I love that kind of techy stuff myself, and it might progress our field if we were a large, well-financed discipline that could afford “pure science” and extensive research, but we aren’t. To progress, we need to integrate our efforts and widen our perspectives with the relatively new field of transpersonal psychology.

Transpersonal psychology recognizes that religion and spirituality contain a lot of nonsense and psychopathology, as all areas of human life do, but also that spiritual and religious desires and experiences are a vital part of human existence, and need to be understood and developed in a sensible and much broader way for full human maturation. My most recent book, *The End of Materialism: How Evidence of the Paranormal is Bringing Science and Spirit Together* (Tart, 2009), while often somewhat miscategorized as a survey of contemporary parapsychological research, is really a discussion of the way some fundamental parapsychological findings show that human beings have the kinds of abilities that we would expect “spiritual” beings to have. Thus, there are important *realities* mixed in with otherwise fantastic spiritual phenomena and beliefs, and it is a reasonable life philosophy to be *both* scientific *and* spiritual in understanding and living life, instead of dismissing the spiritual because we think that somehow science has proven it is all nonsense.

This will not be an easy integration, for a variety of reasons discussed in the above referenced journal articles, but I think it is too likely that if we don’t expand parapsychology to deal with the meaning of psi and spiritual events, as transpersonal psychology is beginning to do, we will remain marginal. By marginal I mean too esoteric for support from the general public with our odd statistical anomalies in laboratory studies and similarly unsupported from mainstream science because we dare to look at “spiritual” sorts of phenomena which are not supposed to happen in the scientific view of the world.

## References

Tart, C. (2002). Parapsychology & transpersonal psychology: “Anomalies” to be explained away or spirit to manifest? *Journal of Parapsychology*, 66, 31–47.

Tart, C. (2004). On the scientific foundations of transpersonal psychology: Contributions from parapsychology. *Journal of Transpersonal Psychology*, 36, 66–90.

Tart, C. (2009). *The end of materialism: How evidence of the paranormal is bringing science and spirit together*. Oakland, CA: New Harbinger.



## Patrizio Emmanuele Tressoldi

Patrizio Emmanuele Tressoldi, Ph.D., is affiliated as full time researcher at the Dipartimento di Psicologia Generale of Padova University, Italy. His main research interests are the phenomenology and physiology of intuition of random events, nonlocal mind functions, augmented cognition, quantum physics, and cognitive psychology. For complete references, see <http://www.psy.unipd.it/~tressoldi>. Parapsychology-related honors: Program Chair of the 56th Annual Convention, 2013.

### 2037—XVII INTERNATIONAL CONFERENCE ON NONLOCAL MENTAL APPLICATIONS

[Excerpts from the Presidential Address]

“Dear colleagues, I’m very honored to welcome all of you to the new edition of this conference.

Seventeen years have passed since the first conference in 2020, and nobody expected this conference to become one of the most important scientific events devoted to the study of how human mind potential may be used to improve health, quality of life, relationships with all living things, and to revolutionize the use of the electronic devices.

However, if nowadays the conception of the individual human mind as a point of an infinite network connecting instantaneously and continuously all biological and physical things is accepted as scientific evidence, we must remember that this was possible thanks to theoretical and empirical efforts of some pioneers who started this line of investigation almost 100 years ago.

Probably, the majority of young scientists attending this conference ignore the names of those people who published their scientific findings mainly in the *Journal of Parapsychology*. In those times it was almost impossible to publish in mainstream scientific journals due to the strong resistance to revise the dominant paradigm that the human mind and its biological substratum, the brain, had only local functions.

The *Journal of Parapsychology* ended its publication in 2020 when the editors realized that the majority of scientists preferred to publish in mainstream journals, since the paradigm shift about the conception of the human mind had broken the wall of prejudice and the taboo against this new conception of the human mind.

This year the *Journal of Parapsychology* would have celebrated its 100th year of existence. This is why I invite all of you to send retroactively a strong feeling of appreciation for what this journal has represented for all of us.



In this conference, I hope you can find particular interest in these topics:

1. Applications of mental emotions on human health at distance.
2. Applications of mass mental emotions for conflict prevention and communities' quality of life.
3. New development of devices to enhance mental information communication at a distance.
4. New development of devices to anticipate future random events and for remote vision.
5. New development of mass mental emotion forecasting.
6. Applications of mental connection at a distance in education and learning.
7. Applications of mental emotion and intentions to agriculture and animal rearing.

I hope you enjoy all the paper presentations, symposia, and invited talks about our main and emerging lines of investigation.



## Caroline Watt

Caroline Watt (Ph.D., University of Edinburgh) is a founding member of the Koestler Parapsychology Unit at the University of Edinburgh, where she is currently employed as Senior Lecturer. Dr. Watt also currently holds the Perrott-Warrick Senior Researcher position, which supports her program of research investigating psychological and parapsychological aspects of precognitive dream experiences. Dr. Watt has also published papers on individual differences in paranormal belief and experience, and on experimenter effects in parapsychology. She is past-president of the Parapsychological Association, a member of the scientific board of the Bial Foundation, and co-author of the leading textbook *An Introduction to Parapsychology*, now in its 5th edition.

### INTEGRATION OR INDEPENDENCE?

I joined Koestler Professor Robert Morris at the KPU in 1986, just over 25 years ago. So I guess I am standing roughly at the half-way point in the frame of reference for this essay. If it is not too ironic, can I ask: How do we predict the future? Is the past a guide to the future? Do trends continue in a linear fashion, or is the story of parapsychology cyclical?

I haven't been around long enough to observe any cycles, though I believe our elder statespersons, such as Professor Donald West, have reported a periodicity in the way that parapsychology waxes and wanes. One thing is for sure: we have fallen a long way from the early "heroic age" (Beloff, 1993) of psychical research when eminent figures in psychology, such as William James and Charles Richet, were actively involved. I can't see a return to these days, perhaps because psychology has since strived to establish itself as a scientific discipline in its own right. In this process of "demarcation," psychology distances itself from its seemingly less respectable forebears (Benjamin & Baker, 2003). The struggle for funding in the massive field of

psychology, and to maintain an identity in the face of trendy newcomers such as brain imaging mean, I think, that psychology and parapsychology will never again be so intimately related as they were in their youth.

What are the predominant trends I have observed over the last 25 years? The main movement, I believe, is that there has been a shift in the center of gravity from the US towards Europe. When I began in parapsychology, the PA conferences only visited Europe every four years. Nowadays the convention tends to alternate between the European and the North American continents. This reflects an increasing prominence and activity in parapsychology in Europe. Why should this be the case? It may partly reflect the influence of the Bial Foundation providing steady funding for parapsychology over the past two decades, though this funding is not restricted to European parapsychologists. Another important factor, I feel, is that European parapsychologists have tended to situate themselves within universities, whereas “across the pond” it seems that parapsychology tends to occur more often in privately-funded centers. Indeed, J. B. Rhine himself withdrew parapsychology from Duke University in order to set up the Foundation for Research on the Nature of Man.

There are advantages and disadvantages associated with situating parapsychology apart from the framework of higher education institutions. On the plus side, independent researchers have money, time, and freedom to pursue their interests (so long as the funder is happy). But the down side for the independent researcher is that if a private funder changes his or her mind, the carpet can be pulled out from under their feet. Sadly, this has happened a few times to U.S. parapsychologists. What about the picture for the university parapsychologist? The upside is that there is a great deal of institutional support for one's activities, both teaching and research, that help to support the discipline. This support also helps to foster a new generation, because part of the job is to supervise Ph.D. students and to bring in grants to employ research assistants. Also, there is a relative degree of permanence in universities that may help researchers to feel more secure and plan for longer-term research.

The downside for the university parapsychologist is that there are many conflicting demands on their time—for nonparapsychology teaching and administration—that mean that one has to fight for time dedicated to parapsychology research. But I think the fight is worthwhile, because the history of Bob Morris's work at the Koestler Unit shows how one can “seed” parapsychology into new institutions, by training up new researchers who then plant new parapsychology teaching and research in other universities.

And what does this “University parapsychology” trend suggest about the future of parapsychology? Well I think it is a positive move, because it represents the embedding of parapsychology into a mature academic context. Gradually, this helps to open “mainstream” minds about parapsychology, much as Dr. John Beloff's two decades of parapsychology activities at the University of Edinburgh opened the doors for Bob Morris to be welcomed here back in 1984. This is a move that I expect will continue so that we will see parapsychology represented at many higher education institutions around the world. This I think is a positive swing for parapsychology, one that will gradually embed it in a wider academic context and to establish it as a respectable area of scientific endeavor.

Furthermore, university researchers are under pressure to publish their work, and this is good news for parapsychology. There is no point in just telling a small band of like-minded parapsychologists about our work. We need to reach a wider audience, and being a university researcher encourages and supports this activity.

Young people have a hunger to learn about parapsychology. I don't expect this appetite to reduce, so I think the future of parapsychology is in feeding these hungry minds and spreading the word about parapsychology. This is already happening, particularly in Europe where



parapsychology is taught in several universities. I hope that we will see this appetite support growing activity and interest in parapsychology 25 years from now.

### References

- Beloff, J. (1993). *Parapsychology: A concise history*. London: Athlone Press.
- Benjamin, L. T., & Baker, D. B. (2003). *From séance to science: A history of the profession of psychology in America*. Belmont, CA: Thomson/Wadsworth.

## Wellington Zangari & Fatima Regina Machado



Wellington Zangari is a psychologist (Universidade Paulista) and has a M.Sc. in Sciences of Religion (PUCSP—Pontifical Catholic University of São Paulo), a Ph.D. and a Post-doctorate in Social Psychology (USP—University of São Paulo) with a 1-month period as research scholar at the Division of Personality Studies (today Division for Perceptual Studies), University of Virginia, and has attended the Summer Study Program at the Foundation for Research on the Nature of Man (today, Rhine Research Center). He is a professor of the Institute for Psychology at USP, where he teaches undergraduate and graduate classes of anomalistic psychology and is the advisor of Master's and Doctorate students. He is a co-founder and coordinator of Inter Psi—Laboratory of Anomalistic Psychology and Psychosocial Processes at USP and he is also the vice-coordinator of the Laboratory for Social Psychology of Religion at the same university. He studies mainly psychosocial aspects of paranormal experiences related to religious experiences.

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## **THE PARADOXICAL DISAPPEARANCE OF PARAPSYCHOLOGY IN BRAZIL**

In this short essay we would like to do an exercise in predicting the future of our area specifically in the Brazilian context. Our forecast could shock or surprise some colleagues: “Parapsychology, in Brazil, will disappear in the next 25 years!” This bet is not unfounded, and in fact, the first manifestations of this phenomenon can already be noticed in the country. Let us make our forecast clear.

What is meant by “parapsychology” in Brazil, in general, has little to do with the scientific tradition practiced by members of the Parapsychological Association. Nowadays in Brazil, “parapsychology” is a term used almost exclusively by religious or alternative therapists whose goals deviate from scientific purposes. Historically, the idea that there is an association between parapsychology and pseudoscience was spread and is the most common representation of parapsychology in the country. In the academic context, for example, the use of the term “parapsychology” is frowned upon and the parapsychological research area itself is taken as a disloyal competitor of psychology. In fact, many of those who call themselves parapsychologists in Brazil perform clinical work in mental health without any formal university education to do that. Such ideas and practices are so entrenched that it is practically impossible to eliminate this almost centennial tradition of misinterpretation and misuse of “parapsychology” in the country.

Thus, the solution found by many of those who are interested in the scientific study of psi was to move away from everything that is commonly associated with parapsychology in Brazil. And some researchers realized that, to study paranormal claims and correlated subjects, they should assume a frankly skeptical attitude. For this reason, the term “anomalous psychology” was recently introduced and has been propulgated in Brazil, especially in the academy, to denote an area of study of paranormal claims from a skeptical perspective. However, researchers in anomalous psychology are not closed to the study of the psi hypothesis, although they emphasize the psychological processes underlying paranormal claims. There have been a growing number of empirical studies on psi in the country, since there is no better way to check the limits of conventional assumptions than to prevent—theoretically and methodologically—their occurrence. This almost negative form of studying the psi hypothesis has gotten some acceptance at some Brazilian universities. Thus, at least in Brazil, the field of anomalous psychology has represented not only the opening for the academic study of psychological experiences, beliefs, and/or paranormal claims, but also the normalization of the scientific study of the psi hypothesis. This does not mean that this achievement is widely accepted. There are scientists as well as traditional parapsychologists who have some reservations about this “new research field” in Brazil.

Traditional Brazilian parapsychologists think that researchers should—at all costs—continue using the word “parapsychology” in their papers and activities, despite the academy being closed to the field, exactly because of the use and representations related to the term. We consider this perspective commendable, honorable, but frankly suicidal. A research area is more than its name, and it is more important to have the opportunity of doing psi research at the university than to keep it out for philosophically and epistemologically unwarranted reasons—like the insistence on using the term “parapsychology” in the scenario we have described above. As a successful example of this new perspective, we mention the University of São Paulo (USP), the most important Brazilian university, which keeps an active laboratory with a research group on anomalous psychology composed of 14 members who conduct scientific research in the area (the Inter Psi–Laboratory for Anomalous Psychology and Psychosocial Processes). Besides that, USP also offers undergraduate and graduate classes on anomalous psychology.

Returning to our forecast, we anticipate that over the next 25 years, several other universities will also open research centers in anomalistic psychology, as occurred at the University of São Paulo and at a few other university centers in Brazil. It is possible to predict this, since a number of researchers in anomalistic psychology are doing their Master's and doctorate research at USP and have the firm intention to extend this field of study to other universities where they work or where they intend to take positions in the future.

So, we think that, more than the disappearance of a field of study, the process of the “death of parapsychology” in Brazil now and in the next 25 years paradoxically represents the regeneration and revival of psi research in the Brazilian academic context, with new perspectives and favorable conditions for the accomplishment of research on paranormal claims and ostensible phenomena.



## John Palmer

John Palmer received his Ph.D. in psychology from the University of Texas in 1969. With the exception of a three-year period from 2004 to 2007, he has been on the staff of the Rhine Research Center (formerly Foundation of Research on the Nature of Man) since 1984, serving as Director of Research from 2000 to 2004 and from 2009 to the present. He was Director of Education from 1988 to 2004, in which capacity he was in charge of the 8-week Summer Study Program. He has been Editor of the *Journal of Parapsychology* since 1994. He was President of the Parapsychological Association in 1979 and 1992, and he has received three PA awards for his service to the field. He has published numerous research articles in professional journals and is co-author of the book *Foundations of Parapsychology*. His research has focused primarily on psychological factors associated with ESP performance in the laboratory.

### A SUMMARY AND MY OWN PERSPECTIVE

Predicting the future of parapsychology is a challenging task, and several of the contributors expressed some understandable reticence in taking the plunge. This also may explain why many of the contributions are at least as prescriptive as predictive, a fact which informed the subtitle of the overall collection. In some cases, the predictions seem based on whether the contributors felt their advice would be followed. I have no problem with the prescriptions whatsoever, as they are quite valuable in their own right. Some authors also provide some history, which serves as background for their projections.

How optimistic are the contributors about the future of our field? Of the 20 first authors I felt (relatively) comfortable rating on this dimension based on my overall impression of their essays, I count 14 optimists (Bem, Cardeña, Carpenter, Dalkvist, Kelly, Luke, Moreira-Almeda, Nelson, Neppe, Radin, G. Schwartz, Tressoldi, Watt, Zangari/Machado), 2 pessimists (Braude, Tart), and 4 who are mixed—optimistic in some respects and pessimistic in others (Bauer, Beischel, Kennedy, Parker). So the optimists clearly carry the day, which surprises me.

### Summarizing the Contributions

In summarizing the contributions, I am not going to repeat the content of each one in condensed form. Instead, I will focus on themes that are expressed by more than one contributor. Such summaries run a high risk of oversimplification, so I encourage readers to consult the original essays as their main sources.

Many of the comments are focused on the future of psi research per se. Many of these concern issues of methodology. Several contributors (Braude, Cardeña, the Kellys, Kennedy, Roe, Simmonds-Moore, Tart) advocate a greater emphasis on spontaneous cases. As for experiments, Bauer and Irwin expect to see unspecified methodological advances in our future. May, Roe, and S. Schwartz want to see more process-oriented research. Roe adds that such

research should be multivariate and May suggests that it should be more complex and sophisticated. Carpenter expects our research to be increasingly theory-driven and to be focused on implicit psi. Moreira-Almeda argues that research should be more theory-based, following the guidelines of the philosopher of science Lakatos for research programs. Roe likewise argues for more systematic research programs rather than one-shot studies. Two contributors want to see a focus on participants who are selected (i.e., gifted; Braude) or psi-conducive (Cardeña). Cardeña also wants to see more psi-conducive experimental procedures, and three other contributors (Luke, Roe, Storm/Rock) refer specifically to inductions of altered states of consciousness; Storm/Rock specifically suggest that passive-imagery techniques such as the ganzfeld should and will be supplemented by active-imagery techniques. Parra would like to see more novel target systems in our experiments, especially targets not potentially available to the senses. Several contributors (Bauer, Carpenter, May, Simmonds-Moore) advocate and/or expect more interdisciplinary psi research, and Nelson would like to see more collaborative research. Parra and Simmonds-Moore advocate the greater use of phenomenological methods, and in a similar vein both she and Neppe argue for the use of clinical techniques.

On the negative side of the ledger, quite a few contributors (Beischel, Bem, Bierman, Dalkvist, Kennedy, S. Schwartz) point out the interpretational problems created by experimenter effects. Kennedy challenges the legitimacy of meta-analysis (which has played a large role in making the case for the reality of psi in recent decades) and Irwin predicts a demise in null-hypothesis testing in science generally.

Parker notes approvingly that we have already achieved (statistical) repeatability of psi effects, and Dalkvist sees a perfectly repeatable experiment in our future. On the other hand, Bierman/Spottiswoode and Parker propose theory-based limits to what Bierman/Spottiswoode call the useability of psi. Nelson and S. Schwartz note the high levels of statistical significance we can boast for the collective results from several of our standard methodological paradigms. On a more somber note, Cardeña and Tart point out the need to increase the strength of psi effects.

As for theoretical explanations of psi, several authors (Bauer, Carpenter, Parker, Radin, S. Schwartz) see quantum mechanics (QM) as holding promise for the ultimate explanation of psi, although in its current form it is inadequate. Roe is skeptical about the impact of QM, as is Kennedy, who notes that physicists are moving away from consciousness-based interpretations of QM. At the other extreme, Dalkvist predicts that we will find psi to be electromagnetic and distance-dependent. Nelson maintains that field-like models, such as that underlying his Global Consciousness Project, handle psi data best. On the other hand, Bauer, Beischel, and Parker express skepticism about future advances in theory. Beischel cites the difficulty of the task and Parker refers specifically to the complexity of psi.

Several contributors comment on metatheoretical or metaphysical issues raised by psi, which is seen by many parapsychologists and skeptics as inconsistent with materialism. The contributors who explicitly address materialism differ on its future prospects. The Kellys, Moreira-Almeda, and G. Schwartz foresee a decline in adherence to materialism. Tressoldi forecasts a paradigm shift, which appears to be consistent with this notion. On the other hand, Cardeña and Irwin suggest that materialism is here to stay. In a more positive vein, several commentators (Moreira-Almeda, Neppe, Parra, G. Schwartz, Tart) underscore the spiritual and transpersonal implications of psi for our research and methodology. G. Schwartz sees spirit and soul linked to energy and information in a new non-materialistic paradigm, and Neppe outlines his own such paradigm.

Beischel, Braude, Kennedy, and Parra suggest that greater emphasis should be placed on the spiritual or transformative impact of psi on people's lives. Beischel suggests a greater focus

on application generally. Bem, Carpenter, and Tressoldi see this happening in the future, whereas Kennedy does not. Tart forecasts a continued role for clinicians, who are needed to deal with psi experiences that are not necessarily positive. Dalkvist and Neppe discuss the possible misuse of psi for evil purposes, and Neppe is optimistic that the problem will be overcome.

Dalkvist and Neppe are the most forthright in predicting that psi will achieve broad acceptance, and Bem forecasts an increased openness to its reality. Moreira-Almeda sees the psi controversy dying down, which also appears to be a vote for its future acceptance. Bauer, Braude, Carpenter, and Tart, on the other hand, are pessimistic about the future acceptance of psi, predicting that debates with skeptics, which Cardeña suggest we avoid, will continue unabated.

Many of the comments address the future of parapsychology as a field of science. My strongest single impression of the contributions taken as a whole is the large number of authors who predict that parapsychology will, or at least should, become more integrated either with psychology specifically (Bauer, Cardeña, Irwin, the Kellys, Parker, Simmonds-Moore, Zangari/Machado) or mainstream science generally (May, Moreira-Almeda, Radin, S. Schwartz). Bauer implies that one of the two types of integration will occur but is not sure which one. Bem and Carpenter go so far as to explicitly predict that parapsychology will not survive as a separate discipline, and Dalkvist sees the domain of parapsychology shrinking. On the other hand, Braude, Tart, and Watt are skeptical about integration with the mainstream. Several contributors (Carpenter, Dalkvist, Luke, Tart) note that parapsychology might make useful contributions to mainstream scientific fields. One form that integration with psychology might take, and in Britain and Brazil has already taken, is through the submergence of parapsychology in the broader field of anomalistic psychology. Several of the contributors (Bauer, Cardeña, Irwin, Watt, Zangari/Machado) refer to anomalistic psychology explicitly. Two contributors in particular see anomalistic psychology as a positive development, Irwin for theoretical reasons and Zangari/Machado for political reasons in the Brazilian context. Parker, on the other hand, dislikes the whole idea of anomalistic psychology.

Integration of parapsychology with other fields would also help entrench parapsychology in the universities, and Watt sees this as way to open people's minds about psi as well as train the next generation of researchers. Luke and Roe express optimism that this integration will continue on its positive course in Britain, as do Zangari/Machado for Brazil. Parker, who is based in Sweden, sees a broad-based decline, noting that many of the U.K. parapsychologists in academic positions don't seem to be contributing much to parapsychology. Cardeña, also based in Sweden, sees a mixed picture for jobs, and Braude, based in the US, is skeptical about jobs and university inroads. The five contributors who mention funding for the field (Bem, Braude, Kennedy, Parker, Roe) all see it as a continued challenge in the future, although Roe sees reason for some optimism in the UK.

Finally, Bauer and Cardeña suggest that the fact that many people have psi experiences that they seek to understand will keep psi research alive in some context, and S. Schwartz sees trends in the broader culture that will have the same effect.

## **My Perspective**

I debated a long time whether I should present my own thoughts as a separate essay (between Neppe and Parker) that I would prepare before reading the others or take advantage of my prerogative as editor and present them after reading the other essays and being potentially influenced by them. I decided on the latter course. I had outlined in my mind what I expected to say early on, and what I am going to say below is pretty much what I thought I would say then.

Although I would like to see parapsychology become more integrated with mainstream sciences, as I think that would be beneficial to all parties, this eventuality requires that mainstream scientists welcome us in. I don't see that happening. Part of the reason for my pessimism is that I don't see mainstream scientists abandoning their strong adherence to materialism, which is the metaphysical underpinning of science as conceived by most scientists. I have often heard the comment that if we just wait for the old generation of scientist to be replaced by a new generation, psi will gain acceptance. My cynicism about this observation was recently reinforced when I discovered that one of my former (and brightest) students in the Rhine Research Center's Summer Study Program entered a graduate psychology program at a prestigious American university and soon became a rabid skeptic. My best efforts to inoculate our SSP students against invalid skeptical arguments about psi obviously were not successful in this case. This is not too surprising, as we all know about recency effects, and his skeptical professor was the one who got to him last. The main point here is that, at least in the US and I suspect also in Europe, skepticism toward psi is passed down from generation to generation in scientific academia. All the advantages are with the senior persuaders, including the fact that one could seriously damage one's academic career, especially in the US, by being too strong a proponent of parapsychology or the psi hypothesis. If an integration between parapsychology and mainstream science is to take place, I agree with several of the contributors that the best and most likely context is "anomalous psychology," and this has already taken place to some extent in the UK and Brazil. However, I predict a possibly fatal backlash if British researchers start getting strong psi effects, particularly if they are well publicized.

In short, I predict that for the most part we as parapsychologists will continue to be on our own in attempting to advance psi research. What should our priorities be? I have noticed a recent trend toward more spontaneous case research, as advocated by several of the contributors, and I expect this trend to continue. In the university context spontaneous case research is certainly safer than experimental research, as one can often avoid having to assert that the experiences one is studying are necessarily paranormal, and this could be part of the appeal. However, I would regret it if spontaneous case research became the priority in our field. Traditionally, the albeit often not-explicitly-stated goal of psi research has been to provide strong enough evidence for the psi hypothesis to simply overwhelm the opposition, and I think this should continue to be our primary goal. Clearly, studying spontaneous case research is not going to get us there, because almost by definition we can't employ the controls necessary to be as persuasive as we need to be. I think the key to providing such evidence is to increase the reliability of psi in controlled contexts, although to accomplish this we may need to simultaneously increase the strength of the effects. Although a logical argument can be made that the strong statistical repeatability we have demonstrated for some psi effects should be enough to win the day, the mainstream isn't buying it, and they are the ones we have to persuade. One possibility, which I have advocated before (Palmer, 2009), is very extensive psi training. Another possibility is some kind of biochemical intervention, although this could raise some thorny ethical and health issues. One idea to consider is to see if we could detect a psi gene or gene complex that people with known psi ability share in common and others don't have. (Genetic research in general is also advocated by S. Schwartz in his essay.) Such a discovery would add credibility to the psi hypothesis in its own right, but more importantly it might guide us to the systems in the brain (or even other parts of the body) where we should focus our interventions.

This leads me to my final point, which is that our ability to achieve the "breakthrough" I discussed in the preceding paragraph will depend heavily on advances in other fields, particularly the neurosciences. We can take advantage of these advances even if parapsychology is never integrated with the mainstream, although in most cases we would need collaboration with

individual mainstream researchers. I think the crux of the challenge in strengthening psi effects is not in the transmission (which I use in the broadest possible sense) of information from the source to the receiver, but in getting the information to overcome the psychological/biological blocks to its expression. However, the “transmission” process could hold the key to acceptance of psi if some version of or takeoff from quantum mechanics or some other widely accepted theory in physics can be shown to explain psi. In the meantime, I agree with Radin that the simple presence of a nonlocality principle in nature certainly makes psi seem more plausible than it would be otherwise.

So where does this leave me on the optimism-pessimism continuum? I’ve already expressed pessimism about parapsychology integrating with mainstream science. I’m a bit more optimistic about physicists coming up with a theory they collectively endorse that they agree could explain or at least allow for psi, although I am one of the least qualified people in this discussion to make such a projection. Finally, I don’t see much interest in the kinds of intervention research that I think is necessary to strengthen psi effects enough to overwhelm the opposition. However, I want to end on an optimistic note, as I can say that sometimes I am able to convince myself that at some point during the next 25 years enough younger parapsychologists will “see it my way” and begin to conduct this kind of intervention research in earnest. This will not be an easy task, and once it starts, my crystal ball tells me that it will take at least 10 to 20 years for us to achieve the breakthrough.

### Reference

Palmer, J. (2009). Editorial: Winning over the scientific mainstream. *Journal of Parapsychology*, 73, 3–8.