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ABSTRACTS FROM THE 50TH  
PARAPSYCHOLOGICAL ASSOCIATION ANNUAL  
CONVENTION, HALIFAX, CANADA,  
AUGUST 2–5, 2007

“AN INSANITY FACTORY”:  
PSYCHIATRY VERSUS SPIRITISM IN BRAZIL (1900-1950)

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**ABSTRACT:** Allan Kardec intended to perform a scientific investigation on supposed manifestation of spirits in the middle of the 19th century. After comparing and analyzing mediumistic communications obtained through mediums from different countries, Kardec, in 1857, organized the information into a single theory called “Spiritism,” defined as “a science which deals with the nature, origin and destiny of Spirits, as well as their relationship with the corporeal world.” The history of Spiritism and psychiatry share several common elements and intersections, but historians have not adequately explored this subject. In Brazil, particularly, there was an intense, but little-studied conflict between psychiatrists and Spiritists around “Spiritist madness.” Spiritism supports an interactionist dualist model of the mind-body relationship as well as the survival of consciousness after death, reincarnation, and mediumship. Spiritism also proposes a model of spiritual etiology for mental disorders, without rejecting their biological, psychological, and social causes. In addition to recommending conventional medical and psychological therapeutics, Spiritism advocates séances for “disobsession,” “passes,” prayers, and efforts to live according to ethical principles. The present study aimed to investigate the construction of the representation of mediumship as madness, the “Spiritist madness,” and to understand how Spiritist mediumistic experiences came to be classified by psychiatrists as causes and/or manifestation of mental disorders. This study focused on Southeast Brazil between 1900 and 1950, the place and the time where this conflict was most severe in that country. Since the beginning of Spiritualism and Spiritism, around the middle of the 19th century, mediumistic practices were regarded by physicians as a major cause of insanity in Europe and the United States. Such ideas strongly influenced Brazilian psychiatrists. The first Brazilian medical publications talking about the “dangers of Spiritism” appeared at the end of the 19th century. Nina Rodrigues and Franco da Rocha, two leaders of Academic Medicine in Brazil at that time, published in the same year (1896) works stating that Spiritism was an increasing cause of madness. These works were followed by dozens more in the first half of the 20th century. Eminent physicians (Pacheco e Silva, Xavier de Oliveira, Afrânio Peixoto, Leonídio Ribeiro, and Henrique Roxo) were involved in this dispute and they usually endorsed the view of Spiritism as a major danger for mental health. Physicians published academic theses, papers, and

books about “Spiritist madness” and the need to oppose it through governmental control over Spiritist groups, forbidding Spiritist publications, fighting against the allegedly charlatan practices of mediums, and hospitalizing mediums, who were regarded as insane. Following European psychiatrists, Brazilian physicians also stated that Spiritism was causing an epidemic of madness, being the third leading cause of insanity. In Brazil during the first half of the 20th century, both psychiatry and Spiritism were seeking legitimation, and both contested the same spaces in the scientific, social, and institutional fields. This conflict was expressed through constant quarrels between psychiatrists and Spiritists; both claimed to themselves the authority to pronounce about mind and its disorders and treatments. Spiritists and psychiatrists also hold different theories and practices. On one hand, psychiatrists were progressively taking antireligious stances and increasing the promotion of materialistic monism as an explanation to the mind-brain relationship; Spiritism, on the other hand, attempted to bring back an interactionist dualism and spiritual issues to the mental health field. This dispute over representations of mind, madness, and mediumship played a role in the constitution of psychiatry and Spiritism as we now understand it in contemporary Brazil.

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## IS LONG-DISTANCE PSYCHOKINESIS POSSIBLE IN OUTER SPACE?

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**ABSTRACT:** There are common features between the effects produced in numerous experiments on long-distance psychokinesis and the phenomena produced by the famous Russian psychic Mrs. N. Kulagina:

1. Screening of the instrument from electromagnetic and other type of radiation did not affect the result produced by the psychic, and in some cases made it even more distinct.
2. Both effects are not caused by a heat flow.
3. Both effects are not connected with a flow of any particles.
4. The psychics showed an ability to selectively influence the instruments: the reference instruments located in close proximity to the instrument being influenced did not respond to the psychic's efforts.
5. In some cases an aftereffect took place: after stopping the very first effort of psychics the signal did not return to the initial level for a long time; the subsequent psychic's efforts resulted in a signal change; however, when the psychic stopped the effort, the signal returned to a level close to that established after the first effort.

It is shown that the results of different experiments on both long-range psychokinesis and Mrs. Kulagina's influencing targets can be explained on the basis of a model of superfluid physical vacuum if one assumes that the psychic's effort is "transmitted" to the target by means of spin processes in the vacuum. Spin processes can propagate through the superfluid physical vacuum provided the vacuum is in a perturbed state. The excitation of the vacuum is performed by quantum entities such as elementary particles or photons. If the concentration of the quantum entities in the vacuum is insufficient, the psychic's effort will not be transmitted through the vacuum. This can account for the fact that Mrs. Kulagina was able only to mentally move the target placed in a vessel while the air pressure in the vessel exceeded ca.  $10^{-3}$  mm Hg. Provided that the long-distance psychokinesis and the phenomena produced by the Russian psychic Mrs. Kulagina have the same physical nature and the model of the superfluid physical vacuum describes these phenomena, it is reasonable to suppose the following: If the concentration of quantum objects, such as photons or elementary particles, is sufficiently small in outer space (the pressure is  $< 10^{-3}$  mm Hg) long-distance psychokinesis may not be feasible in outer space. That is, a psychic on board a spaceship will not be able to influence the devices, instruments, or other targets on board a different spaceship or on the earth. It is noteworthy that the displacement of the targets under Kulagina's influence occurred in a peculiar jogging way, so one may suggest that their weights were reduced to nil and a momentary levitation took place. The nature of levitation is unknown, but this phenomenon is consistent with the properties of the superfluid physical vacuum because, according to the model, it is the medium where creation and annihilation of elementary particles take place and certain processes develop which are connected with creation and annihilation of mass.

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## THE NEUROPHENOMENOLOGY OF HYPNOSIS

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**ABSTRACT:** Highly hypnotizable individuals commonly report a variety of anomalous experiences following a hypnotic induction, and there is some evidence to indicate that hypnosis may be psi-conductive. This study adopted a neurophenomenological approach and analyzed brain process and consciousness in tandem during hypnosis with a stratified sample ( $N = 40$ ) of high, medium, and low hypnotizable participants. In Session 1, cortical activity was measured using qEEG during an eyes-closed, sitting-quietly period and while voluntarily lifting an arm prior to and following a hypnotic induction. In Session 2, participants' spontaneous mentation was obtained in reference to a baseline period and to multiple prompts following a hypnotic induction, which consisted of the single suggestion for participants to go into their "deepest" state ("neutral hypnosis"). In addition,

participants completed the Phenomenology of Consciousness Inventory (PCI) in reference to baseline and hypnosis periods. Verbal (numerical) reports of hypnotic depth were obtained in reference to different periods in both sessions. Results showed main effects of hypnotizability level (low, medium, and high), condition (baseline and hypnosis), and an interaction between the two variables. Although the groups did not exhibit differential hypnotic depth reports at baseline, hypnotic depth was found to increase in medium and high hypnotizables during hypnosis. With regard to the PCI, hypnotizability was related to having an altered experience, alterations in state, body image, and various other dimensions. Participants' deepest hypnotic state, relative to baseline, was associated with altered experience, alterations in body image, time sense, perception, and various other dimensions. Interactions between hypnotizability and condition were found for altered experience, body image, perception, meaning, love, sadness, imagery, and state of awareness. Overall, reported alterations in consciousness were more common among medium and especially high hypnotizables than lows, especially after hypnosis induction. Spontaneous verbal reports were content-analyzed by two judges, who derived phenomenological categories. While the experience of low hypnotizables was characterized by "normal" mentation, that of medium hypnotizables was centered more on vestibular and other bodily sensations, and that of high hypnotizables was characterized by positive affect and mystical-like phenomena. Spectral and source localization EEG analyses corroborated various patterns of differential brain functioning across levels of hypnotizability and during different conditions. Among the most salient findings were a positive correlation between a global measure of brain functioning complexity (omega complexity) and hypnotizability, and a positive correlation between omega complexity and two types of experiences: positive affect/mystical-like phenomena, and imagery. The induction of hypnosis had different effects on low and high hypnotizables: whereas frontal cortical activity increased from baseline to hypnosis in the former, it decreased in the latter. Thus, the results show clear correspondences between phenomenological reports and electrocortical activity, and show the usefulness of a neurophenomenological perspective.

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ARE ARTISTIC POPULATIONS "PSI-CONDUCTIVE"?  
TESTING THE RELATIONSHIP BETWEEN CREATIVITY AND PSI  
WITH AN EXPERIENCE-SAMPLING PROTOCOL

NICOLA J. HOLT

**ABSTRACT:** Following previous work by Holt, Delanoy, and Roll wherein affective rather than cognitive dimensions of creativity were significantly correlated with the reporting of subjective paranormal experiences, the present paper tests whether the same holds for psi-performance in a free-response ESP

task. Collectively, previous research reveals no clear relationship between creativity and psi, and, at best, suggests that any association arises in interaction with other variables (e.g., as predicted by Palmer's magnitude and direction model). Despite this, there is one consistent finding, that artistic populations have performed at a higher level than controls in free-response ESP tasks and in ganzfeld studies at a higher level than that reported in meta-analyses of all ganzfeld samples. The current study sought to investigate this "artist-psi" effect further, using a broader range of creativity assessments, by controlling for potentially confounding variables that have been associated with both creativity and psi in previous research: extraversion, belief in the paranormal, a proclivity to have unusual experiences, and self-confidence, and by including both artists and "non-artists" in order to avoid ceiling effects with some creativity measures. After considering both the potential advantages of the ganzfeld task demands for artists ("performing" by free associating audibly in a novel scenario or looking inward and observing visual imagery) and the potential efficacy of "take-home" ESP procedures, an alternative ESP protocol was devised. This was based on an amalgam of experience-sampling methodology and descriptive experience sampling and involved participants recording psi-impressions concerning a target video clip at their own impetus over a 24-hour period. This was enabled by a personal digital assistant, which recorded both audio impressions and written notes and drawings, and presented a questionnaire concerning the state of consciousness in which the impression arose, at the participants' instigation. The overall outcome of the study was perceived to be such that the methodology warrants further research although a number of pitfalls were identified. Psi-performance was at levels commensurate with the performance of artists in previous free-response ESP research ( $r = .423$ ,  $n = 30$ , with a hit rate of 43%). However, the planned sum-of-ranks analysis did not reach statistical significance ( $z = 1.03$ ,  $p = .152$ , one-tailed). Artists did not outperform carefully matched controls who differed only on "artistic creative personality," possibly attributable to the autonomy enabled by the experience-sampling protocol. In line with previous research, none of the selected creativity measures significantly predicted psi-outcome: thus the hypothesis that affective dimensions of creativity might be related to psi-performance was rejected. However, in planned exploratory analyses one cognitive style significantly predicted psi-performance, where the use of ideas that seem to come from "beyond the self" in the creative process was associated with psi-missing ( $\rho = -.429$ ,  $p = .018$ , two-tailed); and cognitive flexibility and originality was significantly associated with magnitude of the psi-effect ( $\rho = -.535$ ,  $p = .004$ , two-tailed).

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## ENERGETIC ASPECTS OF RSPK

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ABSTRACT: According to Hans Bender, in RSPK “psyche and matter” are “inextricably entangled.” Entanglement makes the impossible necessary. If something is split in half, the two parts will continue to interact as if they were never apart. The concept is intended for quanta, but in RSPK it works for large-scale objects. The idea has entered thinking about ESP because ESP correlations do not require energy but may occur at any distance of space-time whereas RSPK is an energetic process since movement of objects entails expenditure of energy. Because the strength of energy is attenuated by distance, there should be fewer RSPK incidents with greater distance from the source. Measurements between agents and objects have in fact shown attenuation in six cases with object movements. Three cases, where the evidence for RSPK was best, were analyzed in depth and showed that the attenuation could be accounted for by formulae that combine the inverse square with the exponential decay function. Unlike inanimate systems, the source of energy in RSPK is a human body. Emission of photons from the body has been shown by Joines and Roll and by Baumann, Joines, and colleagues in two subjects. The same process may underlie RSPK. The location of a material object is described by four quantum numbers of which one refers to the spin of an electron. This can be made to change by an applied magnetic field and cause the object to become unstable and to fly to another location where it is again stable. Since RSPK tends to begin on days of increased geomagnetic perturbation, anomalous electromagnetic fields could initiate the process. The concept of consciousness waves by Jahn and Dunne combines the electromagnetic and affective parts of RSPK whereas consciousness charge describes occasions when incidents take place in the agent’s absence. Like quantum processes, RSPK is a function of observation. There are no incidents when the object is being observed or filmed (but many occasions when the agent is observed), a situation described by the Heisenberg uncertainty principle for quantum events. In some respects, RSPK is like familiar behavior. In both, individuals act on objects because of their affective importance, and in both the affective component of objects can be nonlocal. When a person actually interacts with a nonlocal object in RSPK, the process may be described in part as entanglement and in part as energetic. The more is known about the movement of material objects without tangible aid, the more normal it seems, and the more we know about matter, the more paranormal it appears.

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ADVANCES IN ANOMALOUS COGNITION ANALYSIS: A JUDGE-FREE  
AND ACCURATE CONFIDENCE-CALLING TECHNIQUE

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ABSTRACT: We developed an automatic confidence-calling method that relies upon having an estimate of a null hypothesis distribution for a blind rating system. We used basic fuzzy set ideas to compute a *Figure of Merit* as the normalized intersection between a fuzzy set representation of the response and of the target in an anomalous cognition (AC) trial. By using data from a previous AC experiment, we estimated the *Figure of Merit* null distribution from cross matches within that dataset. The only input from the experimenter in the study reported here was to encode (in a blind way) each response as a fuzzy set. All further analyses were carried out by a computer code. Three experienced participants contributed a total of 50 trials. The targets in the study were randomly selected from 12 groups of three orthogonal categories each. We observed 32 hits in 50 trials (binomial  $p = 2.4 \times 10^{-6}$ ,  $z = 4.57$ ,  $ES = 0.647$ ) and of the 11 confidence calls resulting from significant *Figures of Merit*, 10 were correct (Binomial  $p = 5.7 \times 10^{-6}$ ,  $z = 4.39$ ,  $ES = 1.32$ ).

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DIFFERENCES BETWEEN SPIRITIST MEDIUMSHIP AND DISSOCIATIVE  
IDENTITY DISORDER ON A STRUCTURED INTERVIEW

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& ETZEL CARDEÑA<sup>3</sup>

ABSTRACT: We studied the similarities and differences between Brazilian Spiritistic mediums and Dissociative Identity Disorder (DID) patients based on a structured psychiatric interview. The clinical and sociodemographic features of Spiritist mediums enrolled in Brazilian Spiritist centers were investigated in this study and compared with the scientific literature on DID patients. Despite the paucity of data regarding this issue, we hypothesized that mediums and DID patients, although sharing some dissociative experiences, would differ in that only the latter group would exhibit dysfunctionality and other indexes of psychopathology. We carried out an investigation with 115 mediums randomly selected from Spiritistic centers in São Paulo, Brazil. All mediums completed a sociodemographic questionnaire, the Self-Report Psychiatric Screening Questionnaire (SRQ), and the Social Adjustment Scale (SAS). In a second stage, we interviewed with the DDIS (Dissociative Disorders Interview Schedule) all mediums with scores suggestive of a mental disorder (SRQ+  $n = 12$ ) and a subset of mediums with scores indicative of no mental disorder (SRQ-  $n = 12$ ). DDIS data on this sample were compared with those of DID described in the

literature. The initial sample of 115 mediums was comprised of 76.5% women, mean age for the sample was  $48.1 \pm 10.7$  years; 2.7% of the volunteers were currently unemployed; 52.2% were married; and 46% had a college degree. This sample exhibited a low prevalence of common mental disorders (7.8%) according to the Self-Report Psychiatric Screening Questionnaire (SRQ) and a sound level of social adjustment ( $1.85 \pm 0.33$ ) according to the Social Adjustment Scale (SAS-SR). The 24 selected mediums had an average age of  $48.5 \pm 11.7$  years (range 27–72), 79.2% were female, and 45.9% had a college degree. The Spiritist mediums were similar to published data on DID patients only with respect to female prevalence, high frequency of Schneiderian First-Rank Symptoms, and reports of anomalous experiences. However, as compared with individuals with DID, the mediums differed in having better social adjustment, low prevalence of mental disorders, lower use of mental health services, no use of antipsychotics, and lower prevalence of histories of physical or sexual childhood abuse, sleepwalking, imaginary childhood playmates, secondary features of DID, and symptoms of borderline personality. Mediumship in this sample differed from DID in having better mental health and social adjustment, and a different clinical profile.

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## CAN SENSORY CUES FACILITATE REAL ESP IN AN RNG GUESSING TASK?

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**ABSTRACT:** Previous experiments by Palmer suggested that nonblind psychic readings are more successful than blind readings when other aspects of the situation are controlled. Although the increased success was most likely due to logical inferences from sensory cues available in the nonblind situation, it is also possible that the presence of sensory cues facilitated genuine ESP, perhaps by increasing participants' confidence. The present experiment was intended in part to test this latter hypothesis by embedding random ESP targets within a sequence of symbols that was biased overall. It was predicted that scoring would be significant on these embedded random targets, and significantly higher than when random targets were presented in isolation. The primary purpose of the experiment was to study the unconscious learning of the contingency in a biased sequence of targets (implicit sequence learning, or ISL). Twenty believers in psi and 20 skeptics each completed three runs in a computer guessing task in which they had to identify in which of four directions (up, down, left, right) an arrow would point that they would see immediately after each response. In the first run (100 trials) all targets were random. In the other two runs (200 scored trials each

and labeled B1 and B2), a clockwise (CW) or counterclockwise (CCW) bias was introduced, such that (for a CW bias) the target on Trial  $t + 1$  was displaced  $90^\circ$  CW from the target on Trial  $t$  in 40% of the trials, and  $90^\circ$  CCW in only 10% of the trials. For purposes of ISL, the targets were contingencies, defined as the relationship between Trial  $t$  and Trial  $t + 1$ : CW (+1), CCW (-1), opposite (2), or repeat (0). In each biased run, 50 random target contingencies were inserted at 50 random locations within the run, with the other 150 (fixed) target contingencies then inserted in random order to fill the other locations. Hits on the real-time targets (not contingencies) were significantly above chance on the random trials in the first biased run (B1) and suggestively higher than the slightly positive ESP score in the random run. The ESP score in B2 declined to chance. Hits on the fixed trials were highly significant, a trend which began early in B1, before participants could be expected to learn the bias. In most cases skeptics scored higher than believers, but the difference was only significant in the fixed trials of B1. An unintentional bias in some of the real-time targets in the biased runs was shown not to influence the results. Contrary to previous trends in the literature, high ESP scores in the random run were negatively associated with intuition-sensing on the Myers-Briggs Type Indicator and reported high motivation for the computer game to a suggestive degree. The overall results supported the hypothesis that embedding true ESP targets among targets containing sensory cues can facilitate scoring on the true ESP targets, although why this is so has yet to be determined.

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“SEEING AND FEELING GHOSTS”: ABSORPTION, FANTASY  
PRONENESS, AND HEALTHY SCHIZOTYPY AS PREDICTORS OF  
CRISIS APPARITION EXPERIENCES

ALEJANDRO PARRA

**ABSTRACT:** An apparition is a visual experience in which there appears to be a person or animal present, often in connection with an agent who is dying or undergoing some other crisis. This study treats the apparitional experience (AE) and the sense of presence (SP) as phenomena worthy of study in their own right. Six hypotheses were tested: people who see or feel apparitions have a higher capacity for absorption, fantasy, and cognitive-perceptual schizotypy than non-experients. Six hundred and fifty-six undergraduate students, 76% females and 24% males (age range 17–57), completed four scales: the Paranormal Experiences Questionnaire, Creative Experiences Questionnaire, Tellegen Absorption Scale, and Schizotypal Personality Questionnaire. Experients scored higher on absorption (AE:  $z = 6.06$  and SP:  $z = 5.19$ ), fantasy proneness (AE:  $z = 4.76$ ), and cognitive perceptual schizotypy (AE:  $z = 7.01$  and SP:  $z = 8.21$ ) than nonexperients. Our results suggest that, apart from the dominant schizotypy proneness, a second dimension (absorption) may underlie the differentiation of

the two groups of participants. Gender differences were overall nonsignificant. Apparitional and other apparition-like experiences are related to higher levels of reports of absorption and imaginative-fantasy experiences. Visions of ghosts may be related to cognitive processes involving fantasy and cognitive perceptual schizotypy proneness, which are correlated with each other. Many therapists still regard clients who report apparitions as mentally ill; however, they often do not tell anyone about their experiences. This study demonstrated the viability of adopting a psychological approach to better understand the crisis apparition experience.

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“TOKEN-OBJECT” EFFECT AND MEDICAL DIAGNOSIS:  
AN EXPERIMENTAL STUDY

ALEJANDRO PARRA & JUAN CARLOS ARGIBAY

**ABSTRACT:** Some psychics and healers claim to obtain impressions of body sensations, visual images of organ dysfunctions, or an “inner knowing.” However, there are few reports of quantitatively evaluated studies with psychics. They sometimes perform “psychometry,” which is defined as an anomalous cognition system, specifically the ability to get “impressions” from objects. Usually it is described as a type of knowledge which allows a psychic or sensitive to receive impressions using a physical object as an inductor or instrument. A series of psychometry-based experimental sessions was designed. The aim was to explore if there is a significant difference between psychics and nonpsychics. One hundred fifty participants ( $M$  age = 45.85;  $SD$  = 12.29) who reported personal experiences of psi were split into two groups, persons claiming ESP experiences but no abilities, or “nonpsychics” ( $N$  = 88), and persons claiming ESP skills as well as experiences, or “psychics” ( $N$  = 62). Four adult volunteers who suffered from medically diagnosed diseases (i.e., diabetes mellitus, hernia hiatal, osteoarthritis, and varicose veins) acted as target persons (TPs). They delivered personal objects (a comb, handkerchief, hair brooch, or billfold), which were coded and recoded blind by both experimenters. Instructions asked participants to describe the symptoms in nontechnical language. Each participant received four pairs of objects (target and control) to be “touched.” They performed four trials of psychic diagnosis of the TPs, who remained unidentified. Although both groups combined scored significantly above chance ( $p$  = .01), there was only slight support for the claim that the “psychics” ( $p$  = .03) scored higher than the nonpsychics ( $p$  = .08). Although neither group obtained highly significant results, high variability was found; it was in the positive direction for the psychics and the negative direction for the nonpsychics ( $p$  < .05). It appears that psychic diagnosis

relates to perceptions of "information" in and around TPs, and that these may be difficult to translate into physical diagnoses. The psychics and healers were also not trained in medical terminology, anatomy, or physiology, and therefore may have had difficulties providing impressions specific to anatomical structures and quantifiable in conventional terminology.

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### PARANORMAL BELIEF, ANXIETY, AND PERCEIVED CONTROL OVER LIFE EVENTS

CHRIS A. ROE & CLAIRE BELL

**ABSTRACT:** The psychodynamic functions hypothesis has been proposed as a means to explain the high levels of paranormal belief among the population. According to this view, the world appears to some to be unpredictable, uncontrollable, and inherently meaningless, which gives rise to anxiety. Paranormal beliefs may develop to allay this anxiety by offering the promise of order and personal power. Although there is some evidence to support the putative association among the three variables of perceived helplessness, anxiety, and paranormal belief, these have not previously been considered together in the same population. Sixty-five participants completed a battery of measures including the State-Trait Anxiety Index (Spielberger, 1983) and the Paranormal Belief Scale (Tobacyk, 1988) as well as the newly constructed Estimated Likelihood of Stressful Events and Perceived Control over Stressful Events scales. No relationship was found between perceived control over future life events and paranormal belief, but measures of state and trait anxiety correlated significantly with both perceived control and paranormal belief. Results of a path analysis suggested a model that was broadly in agreement with the psychodynamic functions hypothesis in describing a mediating role for anxiety.

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### PSYCHOLOGICAL AND NEUROPSYCHOLOGICAL ASPECTS OF RSPK

WILLIAM G. ROLL

**ABSTRACT:** The author discusses the evidence for RSPK in seven cases of RSPK he and his colleagues investigated and outlines the psychological and neuropsychological aspects of the cases. There was evidence of RSPK in all seven cases, and in the Gonzales, Callihan, and Resch cases the evidence was conclusive

as far as the investigators were concerned. Movement of objects was seen from beginning to end when they watched Roger Callihan; target objects they had set out moved when Victor Gonzales was away from the area, often when they watched him; and target objects from a table moved when Tina Resch was away from the table and when she was being watched. The incidents seemed to express anger because they disrupted the lives of people and damaged their property, but the psychological tests did not always bear this out. While the Rorschach, TAT, and other tests indicated anger for Michael Lessing, Victor Gonzales, and Tina Resch, there were no clear signs of anger in the records of Arnold Brooks and Sonja Bloom. It is also relevant that the RSPK was destructive only when the agents were in the company of parent-figures who seemed to arouse their ire (showing evidence of "parapsychopathology," according to J. B. Rhine). When the agents were together with the investigators, the occurrences continued but were not destructive. Of the four agents who were tested on the EEG or diagnosed medically, the EEG of Arnold Brooks showed a burst of positive spikes that would have indicated complex partial seizure if more persistent; Peter Mueller had been medically diagnosed with epilepsy; Tina Resch had symptoms of Tourette's syndrome, while Victor Gonzales showed no evidence of seizure. Van Lucadou's theory for the elusiveness of RSPK is examined, and there is a discussion of Martinez-Taboas and Alvarado's objection to the anger theory for RSPK and their criticism of the evidence for seizure activity.

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#### A PEEK IN THE FILE DRAWER: REVIEW OF 96 UNDERGRADUATE STUDENT PROJECTS AT THE KOESTLER PARAPSYCHOLOGY UNIT

CAROLINE WATT

**ABSTRACT:** To encourage consideration of file-drawer issues in parapsychology and the evidential status of student projects, this paper reviews 96 undergraduate student projects supervised by members of the Koestler Parapsychology Unit at Edinburgh University. Conducted between 1987 and 2007, the majority of the projects (87.5%) were supervised or co-supervised by Robert Morris. A total of 4,717 participants was involved, with a mean sample of around 50 per project and approximately equal numbers of male and female participants. About 40% of the projects were unrelated either to psi or to paranormal experiences and beliefs, reflecting Morris's interest in mainstream topics, such as volition and performance enhancement, that he considered could provide mutually beneficial links with parapsychology. Around 20% were related to paranormal experiences and beliefs but contained no psi task. The paper focuses on the 38 projects (about 40%) that included a psi task. Of these, 27 projects predicted overall significant performance on a psi task, of which 8 (29.6%) found the predicted significant

overall positive psi scoring. While this is more than the 5% usually expected by chance, many of the projects contained more than one psi task, had multiple hypotheses, and did not pre-specify a single outcome measure or the analyses that would be used to test the hypotheses, thus inflating the likelihood of significant results by chance alone. Failure to find predicted psi performance did not appear to be due to the nonsignificant studies having lower statistical power (in terms of participant numbers) than the significant studies. Although the projects were very diverse, in an attempt to discern informative trends, four small clusters of projects were identified that had used similar psi tasks. Of these, the PK-RNG and EDA presentiment studies tended not to show any consistency of performance on the psi task, and the majority (8/9 studies) obtained nonsignificant psi results. Furthermore, questions were raised about the validity of the one significant study in this group. In contrast, significant results and relatively consistent effect sizes were found in the majority of the ganzfeld studies, specifically those with selected participant populations, such as those who were “creative,” extravert, or who had practiced a mental discipline. None of the EDA-staring studies was statistically significant; however, all three found effects in the predicted direction and of a magnitude comparable with studies elsewhere ( $r \approx 0.15$ ). These results are discussed in terms of what can be learned from these projects, and how future research can be guided by their findings. A larger question that is raised by such projects is their evidential status. Should student projects be closely controlled by supervisors? While this would provide systematic and well-conducted studies that can contribute meaningfully to parapsychology’s database, it would also limit their pedagogical function and the students’ creativity. Appendices in the conference proceedings give a full list of the psi and psi-related projects.

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#### THE ALBUQUERQUE 300 EXPERIMENT: FIELD RNG ANALYSIS OF THE ALBUQUERQUE TRICENTENNIAL

BRYAN J. WILLIAMS

**ABSTRACT:** As part of the effort to further explore the possible correlation between instances of focused group attention during mass spectator events and the occurrence of structural nonrandom patterns in the output of random physical systems, a field random number generator (RNG) experiment was carried out during the events of the Albuquerque Tricentennial celebration, held between December 2005 and October 2006. Sample data were collected from a noise-based, truly random RNG running unobserved in the author’s home during the course of 11 individual, highly publicized celebration events held for the general public at various locations in the northeast and downtown sections of Albuquerque, New Mexico. The general prediction was for the RNG data from the events to show

a significant nonrandom deviation, both collectively and individually. Analysis revealed that although the collective data were in the predicted direction, they were not significantly different from chance. On the individual level, 6 of the 11 events were found to have shown nonsignificant deviations in the negative direction, opposite to prediction. A post hoc examination of graphical representations of data from each of the 11 events revealed suggestive transient, nonrandom structural patterns within the data for 2 events that may be of incidental note. The 1st event was a royal banquet and ball held in honor of the Duke and Duchess of Albuquerque, who had traveled from Spain to participate in the tricentennial celebration. The other event was one of a series of entertainment performances and open market activities held in a downtown park that was known as the "Fiestas de Albuquerque." Although they cannot be taken as direct evidence for an effect, the nonrandom patterns observed in the data from these 2 events were notably in the positive direction. Four possible ways to account for the null results obtained in the experiment are considered: the inherent weakness of mind-matter interaction effects, a distance effect, an experimenter effect, and the effect of the psychological atmosphere of the crowd gathered for the celebration. It is argued that of these four, psychological atmosphere could be a rather strong factor based on the author's impression of the events (e.g., the attention of the individuals in the crowd was more wandering than focused at times), further hinting that psychological atmosphere could be a possible factor in developing conditions that may be conducive to "field consciousness" or "group consciousness" effects.

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#### EXPLORATORY FIELD RNG STUDY DURING A GROUP WORKSHOP ON PSYCHIC EXPERIENCES

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**ABSTRACT:** In an attempt to further explore the apparent correlation between group mental coherence and nonrandom statistical deviations in the output of random physical systems, sample data were collected from an electronic random number generator (RNG) actively running during a 5-day group workshop entitled "Embodiment and Psychic Experience" that was given at the Esalen Institute in Big Sur, California, by William G. Roll, PhD, in August of 2006. Four men and six women participated in the workshop, which consisted of 13 individual 2-hour sessions involving personal and case narrative, open and in-depth group discussion, and active group exercises in receptive psi. Eleven of these sessions were the focus of data collection. Before each session, the noise-based RNG was attached to a laptop computer and placed on the far side of the workshop room to collect data unobtrusively, with the computer's monitor facing away from the workshop group and its screensaver engaged to reduce the possibility



of observer effects. The workshop participants were aware of the presence of the RNG and of its intended purpose, although no feedback regarding the RNG's output was given to them until after the workshop was over. It was predicted that the RNG session data would tend to show a positive deviation away from standard randomness, both collectively as a whole and on the level of individual sessions. However, analysis revealed a collective deviation that was opposite to prediction and nonsignificant overall. Eight of the 11 individual sessions had also shown deviations in the negative direction, although none were independently significant. A post hoc analysis of the data from the 7 sessions in which the active group exercises in receptive psi were held seemed to reveal a collective deviation in the RNG output that, if predicted beforehand, would have been significantly negative ( $p = .963$ , equivalent to  $p = .037$ ). Further post hoc examination of a graphical meanshift representation of all session data combined by way of a Stouffer's  $Z$  seemed to indicate a similar negative deviation, which appears to have been driven largely by a single exercise session (involving a guided past-life regression) that produced a rather strong negative trend. Ways in which the results might be useful in developing hypotheses for testing in future field RNG studies held during group workshops and similar settings are discussed.

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## SPIRIT CONTROLS AND THE BRAIN

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**ABSTRACT:** The mediumistic phenomenon of spirit control or trance personality has been present since the early days of psychical research, and remains an aspect of both mental and physical mediumship that is not well understood. Several psychical researchers who have worked with trance mediums, including Eleanor Sidgwick, Sir Oliver Lodge, William James, and Richard Hodgson, have found that the knowledge, personality, and ways of speaking by spirit controls is limited to and reflect the medium's. The few empirical studies that have been done regarding spirit controls have also produced evidence that they are expressions of the medium's own personality. A comparison of spirit controls with the multiple personalities of patients diagnosed with dissociative identity disorder shows that the two are similar in several respects and suggests that they may result from the same or similar neurological processes. Roll has argued that humans possess a dual mind, the mind of the left-brain hemisphere and the mind of the right-brain hemisphere. This is supported by evidence from cerebral lateralization studies, which suggest that the two hemispheres have different functions. The left hemisphere is the principal seat of language and

thereby gives rise to the idea of an individual self that belongs to a particular body and that uses the sensory-motor system of the body to interact with local objects. In contrast, the right hemisphere is adept at visuospatial processing, the recognition and expression of emotions, and the cognitive tracking of the passage of time. Roll suggests that the right hemisphere uses an extrasensory-psychokinetic system to interact with distant or nonlocal objects, and that this gives rise to a transpersonal or long-body self. We propose that spirit controls may be conceptualized as mental constructs, created and personified by the medium, and that they represent identities consistent with the medium's left hemispheric sense of self, but that they occupy the wider space-time field of the right hemisphere. Given that the right hemisphere encompasses nonlocal objects, the construct would be conceptualized by the medium as capable of interacting with such objects, including the minds of the departed. The construct would incorporate cognitive and memory details from the medium's own knowledge and personality, and would emerge only under trance. The emergence of spirit controls may be accommodated by Persinger's model of vectorial cerebral hemisphericity, which postulates that the subjective experience of an incorporeal presence or an ego-alien entity may result from a transient episode of interhemispheric coherence, wherein the right hemispheric equivalent of the sense of self "intrudes" into left hemispheric processing. Such episodes would primarily occur between the temporal-parietal cortices of both hemispheres as well as adjacent limbic structures. The subjective experiences associated with spirit controls have been induced by the application of complex, pulsed magnetic field patterns to the junction of the temporal and parietal lobes. Hypotheses and suggestions for testing our proposal that the formation of spirit controls relies on the same or similar neurological processes as the alternate personalities of dissociative identity disorder.

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PANEL: THREE PARAPSYCHOLOGICAL ASSOCIATION GOALS:  
A 50TH-ANNIVERSARY ASSESSMENT

CHAIR: REX G. STANFORD, PA PRESIDENT

REX G. STANFORD, EBERHARD W. BAUER, STANLEY KRIPPNER, & EDWIN C. MAY

## INTRODUCTION: THE CHARACTER OF THE ASSESSMENT

REX G. STANFORD

ABSTRACT: The Constitution of the Parapsychological Association described as the objectives of this organization “to advance parapsychology as a science, to disseminate knowledge of the field, and to integrate the findings with those of other branches of science” (*Proceedings of the Parapsychological Association*, Number 1, 1957-1964 p. 4). For this, the 50th Annual Convention, three distinguished PA Members (Drs. Eberhard W. Bauer, Stanley Krippner, and Edwin C. May) were each asked to describe his personal assessment of how the field has fared in the past 50 years relative to a particular one of these objectives, with Bauer addressing “advancement,” Krippner, “dissemination,” and May, “integration with other branches of science.” An equally distinguished discussant, Dr. Jessica Utts, was invited to comment on these presentations and offer her own integration and reflection after hearing, at the actual session, the full remarks of the presenters. (For this reason, no abstract of her remarks is available for publication.) The panelists and the discussant agreed to these assignments, recognizing that their expressed views were intended to represent personal views, not necessarily those of this organization, its Board of Directors, its officers, or its membership.

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## GOAL I: ADVANCEMENT OF PARAPSYCHOLOGY AS A SCIENCE

EBERHARD W. BAUER

ABSTRACT: On the PA’s 50th Anniversary, we justifiably can ask, perhaps with some trepidation, how far we have come in realizing this original aim. Has parapsychology proven successful as a science? Have we really made progress? Or, to put it in another way: Is it socially or professionally desirable (or even acceptable) for a young scientist to become known as a parapsychologist or known to have been involved in parapsychology? Even if there might be a broad consensus among active PA members that parapsychology represents “an interdisciplinary area of research,” it is not clear whether criteria for assessing scientific advancement should be modeled after the example of a 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, 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 is what happens in parapsychology. There exists, as a comparative or content analysis of PA Presidential Addresses over 50 years would reveal, a broad spectrum of

opinions on the advancement issue. Consider also that when we are looking for evidence of “advance,” “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 in heightened prestige and greater recognition for the field and its investigators. Judged by such criteria of scientific advancement, parapsychology is still in its infancy. Even among “professional parapsychologists,” there may be 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 are met with some scepticism, even among PA members. It would, though, be unfair to say that there are no promising signs of scientific advancement within parapsychology. First, we should not forget that successful psi research is not restricted to the formal PA community. Then, there is progress in the technological sophistication and in the statistical refinement in experimental parapsychology. There is also clear progress in the academic recognition of “anomalous psychology,” especially in UK, where 10 universities offer courses in parapsychology within psychology departments—a sociological fact that I would like to call the “Bob Morris legacy of an interdisciplinary, integrative parapsychology.” A good example of that is the very active “Centre for the Study of Anomalous Psychological Processes” (CSAPP) at the University College Northampton, where a new MSc course “Transpersonal Psychology and Consciousness Studies” (including a “Parapsychology” module) is offered. Another promising sign is the development of what might be called “clinical parapsychology,” which means special counseling and information services for people feeling distressed or impaired by paranormal or anomalous experiences. For me, however, the most promising sign that parapsychological research has made progress is a new theoretical understanding of the so-called psi phenomena. We really should abandon the old signal model underlying the Rhinean paradigm, which implies that mind is a real force, and come to a full appreciation of the experimental and theoretical consequences of the correlational model whose foundations were laid down in the 1974 Geneva conference “Quantum Physics and Parapsychology” and culminated provisionally in the 2006 San Diego conference “Frontiers of Time – Retrocausation – Experiment and Theory.” I suggest that treating psi phenomena as entanglement correlations in a generalized quantum theory belongs to those “ideas that will catalyze the growth of parapsychology,” to quote Gardner Murphy from his first dinner address, “Progress in Parapsychology” (*JASPR*, 53, 1959, pp. 12–22) to the PA Convention nearly 50 years ago.

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## GOAL II: DISSEMINATION OF THE KNOWLEDGE OF PARAPSYCHOLOGY

STANLEY KRIPPNER

**ABSTRACT:** These are the best of times and these are the worst of times for dissemination of knowledge about psi research. They are the best of times in that some excellent books have been published, both by psi researchers and by people outside the mainstream of the field. Numerous blogs mention psi research, sometimes accurately and sometimes inaccurately. These are the worst of times in that most of the professional journals in the field have gone belly up, being months or even years behind their purported publication date. There are a handful of laboratories in the entire world doing respectable research in psi phenomena, and this might account for the lack of articles available to fill the journals. Lack of subscriptions and high publication costs may be another factor. On the other hand, the Internet is taking up the slack, with websites, listserves, and online journals disseminating information in ways that would have been unpredictable a decade ago. The field is ripe with new paradigms, novel theoretical ideas, and even practical applications. But funding sources are drying up, and conceptual and experimental breakthroughs depend upon financial support that is no longer present. In the meantime, so-called “skeptical” magazines are doing well in the subscription department; much of this is due to the fact that they are directing their efforts toward the anti-evolutionists, the religious fundamentalists, and those who are blurring the line between church and state domains, efforts that many parapsychologists would applaud. Some of the work in psi research is being done by nonparapsychologists and it would be ironic if breakthroughs came from these sources.

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## GOAL III: THE INTEGRATION OF PARAPSYCHOLOGY WITH OTHER BRANCHES OF SCIENCE

EDWIN C. MAY

**ABSTRACT:** With some notable exceptions, the path of science is intimately connected to technology. That is, theories of various sorts are only as good as the technology is capable of verifying them. For example, in physics in the early days of the 20th century, the Rayleigh-Jeans law—the relationship between the electromagnetic emission of a heated “black body” and the associated wavelength of that radiation—was the going theory of the day. However, technology improved to allow the measurement of shorter and shorter wavelengths, and what was found was that the theory failed to match observation by many orders of magnitude—so much so that the term coined by Paul Ehrenfest, “the

Rayleigh-Jeans ultraviolet catastrophe” survives today. This catastrophe was part of the inspiration for Max Plank and the beginning of quantum theory, which realigned “black body” emission theory with measurement. Technology has had and obviously continues to have a positive and significant impact upon research parapsychology—perhaps not yet as much in direct theory development as in the development of experimental protocols. Better and more reliable data, however, clearly do have an impact upon theory. One of the primary tasks for investigators in any arena is to reduce the source of variance in experiments prior to measurements. Years ago, computers and other automatic recording devices eliminated inadvertent recording errors and sharply reduced said variance. Advances in statistics allowed researchers to parse variance *post hoc* (e.g., ANOVA). For the most part, modern parapsychology research has abandoned forced-choice protocols in favor of free-response ones and reaped the benefit of more than a 10-fold increase in effect size (i.e., nominally 0.02 to 0.25). In part, this increase results from an *a priori* variance reduction by eliminating the substantial memory/imagination problem associated with forced-choice guessing. One problem in ESP experiments survives but may be solved with a new research trend. When an ESP experiment participant is asked to provide data in the laboratory, we implicitly require two assumptions to be true: that person will have an ESP experience and will be able to report that experience in words and/or drawings accurately. Both assumptions are shaky at best, and probably either or both are usually not valid and constitute a source of unwanted variance. Technology may come to the rescue through the use of psychophysiological experiments that appear to bypass the cognitive experience reporting problem. The prestimulus response and presentiment experiments illustrate the point. Advances in our understanding of parapsychological phenomena will come only with more variance reduction and technology improvements. Our discipline has not yet taken advantage of all the technology that is currently available. The burden and responsibility lies with us to learn about these systems, become competent in their use, and not to avoid replication simply because the experiments and analyses are complex. To quote the late Richard Feynman, “It doesn’t matter how beautiful your theory is, it doesn’t matter how smart you are. If it doesn’t agree with experiment, it’s wrong.”

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## PANEL: FORGOTTEN PIONEERS OF PARAPSYCHOLOGY

CHAIR: CARLOS S. ALVARADO

GERD H. HÖVELMANN, CARLOS S. ALVARADO, EBERHARD BAUER,  
PETER MULACZ, ALEJANDRO PARRA, & NANCY L. ZINGRONE

THE MANY FACES OF A PARAPSYCHOLOGICAL PIONEER:  
MAX DESSOIR (1867-1947)

GERD H. HÖVELMANN

**ABSTRACT:** In a certain sense, German philosopher-psychologist Max Dessoir (1867-1947) probably is the best-remembered of the “forgotten” parapsychological pioneers. After all, in an 1889 article, he had introduced the term “parapsychology,” which we still use today to identify the areas of our scientific interest and to name our professional organization. In recent decades, that paper has become something of a standard reference. Today, we are able to show that Dessoir had privately suggested the term “parapsychology” even two years previously, in 1887. Yet, beyond that early terminological initiative, very little else is known among modern international parapsychologists about Dessoir, his many other scientific activities pertaining to parapsychology, and his remarkably manifold scientific career in various disciplines. But there’s much worth knowing. In many respects, Dessoir may be considered a young genius (who, incidentally, played the violin for the German Emperor as a child). Dessoir was 20 when he suggested the term “parapsychology,” presumably for the first time. He was only 18 when he had sittings with the notorious medium Henry Slade. At the same age he joined the Society for Psychical Research. He had just turned 19 when he published his first full article, in English, in the SPR Proceedings. At the age of 21, he published the first of two volumes of a comprehensive bibliography of then-recent publications on hypnotism (including eight papers that he already had published himself). That bibliography is so obviously useful even from a modern perspective that it was reissued in the United States in 2002. Max Dessoir was just 24 when he published his famous booklet on the “Double Ego” that led some to describe its author as an “immediate precursor of Freud and his school.” Two years later he published, under a pen name, a booklet of “psychological sketches” including a lengthy chapter on the psychology of legerdemain and its relevance to psychical research, which is still considered one of the best treatments of the subject. Before the age of 26, Dessoir had received both a doctorate in philosophy and an MD degree, could look back on probably over 100 scientific publications (including half a dozen books) and was soon to become a professor of philosophy at the University of Berlin. In subsequent years, Dessoir published a voluminous book recounting his experiences with Slade, Palladino, and many other mediums, and also dealing in depth with what he termed the “Secret Sciences.” Also, being one of Schrenck-Notzing’s major opponents, he was the *spiritus rector* behind many parapsychological controversies in Germany during the 1920s, and he initiated important publications such as the *Zeitschrift für kritischen Okkultismus* and the so-called “Three Men’s Book” with its highly skeptical analyses of physical mediumship. Apart from that, Dessoir was responsible for the establishment of aesthetics as an academic discipline in its own right, he did much to promote systematic historiography of philosophy, he was hired in 1915 by the imperial government to do a study on war psychology (which, to the probable dismay of those

who had contracted him, Dessoir very subtly turned into an anti-war treatment), he pioneered public education through radio broadcasts throughout the 1920s, and he wrote several books on art and aesthetics, on the history of philosophy, on psychology in everyday life, and on the art of making public speeches. The Nazis virtually terminated Dessoir's scientific career in 1933. In 1945, Dessoir's Berlin home was hit by a presumably American bomb. His library and his extremely important scientific files were destroyed. Dessoir escaped to Königstein, near Frankfurt, where he died, forgotten by many, in 1947, a few months after his 80th birthday. Those two post-war years, however, were sufficient time for him to author two more books: an important, highly instructive autobiography and what may be considered a synopsis of his views on parapsychology at the end of his life. Max Dessoir was the person to give parapsychology its name. He spent considerable parts especially of his early life and career in search of what he called "established and comprehensible facts" in parapsychology. He always was one of the most outspoken critics of the field and at the same time one of the staunchest defenders of its legitimacy. And he ended his life as a reluctant believer at least in telepathy.

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#### RUFUS OSGOOD MASON (1830-1903) AND THE POPULARIZATION OF PSYCHICAL RESEARCH IN AMERICA

CARLOS S. ALVARADO

**ABSTRACT:** American physician Rufus Osgood Mason is one of the forgotten figures of late 19th-century American psychical research. Born in 1830 in Sullivan, New Hampshire, Mason initially studied in a theological seminary, and later went into medical school, graduating as an MD in 1869. He practiced medicine in New York City, where he died in 1903 at the age of 73. While Mason wrote about different medical topics, he distinguished himself for his defense of the therapeutic use of hypnosis. In addition, Mason published on double personality, reporting on a case he observed. Mason's main publication in psychical research was his book *Telepathy and the Subliminal Mind* (1897), in which he compiled many articles, some of which had appeared before in the *New York Times*. His work in the field centered on two areas: case studies and popularization. Mason, being a member of the Society for Psychical Research (SPR), occasionally sent cases to the Society. For example, the December 1894 issue of the *Journal of the Society for Psychical Research* has a case Mason observed in 1870 of alleged supernormal phenomena shown by a hypnotized young hysterical woman. In other publications Mason described cases of ESP dreams, hypnotically induced mental travels to distant locations, and planchette writing. In an article published in *The Arena* in 1891, he speculated on the existence of a "psychic medium" connecting minds to explain telepathy. These studies, he believed, led us to conclude that "sensation



is conveyed from the operator to the subject by some other means than through the recognized channels of sensation.” Such phenomena, he stated at the end of his *Telepathy and the Subliminal Mind*, could not be explained by conventional psychological and physiological explanations. Most of Mason’s efforts centered on the popularization of the work of the SPR in the United States. In the above-mentioned 1891 article, he discussed the SPR’s thought-transference experiments. This was followed by a discussion of thought transference and other aspects of the work of the SPR in a series of articles in 1893 issues of the *New York Times*. In the articles, psychical research was presented to the American public as the cutting edge of psychology. He also discussed frequently Frederic W.H. Myers’s (1843-1901) ideas of the subliminal mind. Arguing that supernormal phenomena were part of the normal functions of the mind, Mason argued in newspaper articles and in his book *Telepathy and the Subliminal Mind* that the subliminal self was the agent responsible for telepathic manifestations that were in turn communicated to the conscious mind. Later, in 1903, Mason published in the *New York Times* a two-part article reviewing Myers’s *Human Personality and Its Survival of Bodily Death* (1903), a work that he praised. His views of Myers’s work provided a balance to the more negative views of the book of American psychologists. While Mason’s cases are interesting, he was not a major contributor to the empirical data base of 19th-century psychical research. His main contribution was his efforts to popularize the field in the United States, with particular attention to the work of the SPR and the subliminal psychology of Myers.

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#### EMIL MATTIESEN, GERMAN COMPOSER AND “METAPSYCHOLOGIST”

EBERHARD BAUER

ABSTRACT: Emil Mattiesen was of Baltic origin. Born on January 24, 1875, in Dorpat, the son of a councillor, he showed quite early a noticeable musical talent: at the age of 8 he set ballads of Felix Dahn to music. In 1892 he started to study philosophy, natural sciences, and music at the University of Dorpat and continued his studies one year later at the University of Leipzig. In 1896 he got his PhD with a thesis dealing with the philosophical critique in the work of Locke and Berkeley. Between the years 1889 and 1903 Mattiesen was going round the world. His aim was to learn different languages, religions, and philosophical and ideological systems in a most comprehensive way. For years he lived in several Asiatic countries to get first-hand knowledge of the religious systems. Between 1904 and 1908 he spent academic years in Cambridge and London and started to write down his first major work, which was finished in 1914 but which could be published only after the First World War in 1925 under the title *Der Jenseitige Mensch. Eine Einführung in die Metapsychologie der mystischen Erfahrung* [*Man of Next World. An Introduction into the Metapsychology of the Mystical*

*Experience*]. This book, the ambitious attempt to give the psychology of religion a new basis by integrating paranormal phenomena—Mattiesen called them “facts of metapsychology”—into the phenomenology, psychology, and psychopathology of religious, mystical, and other “transliminal” experiences is a real treasury of knowledge of what could be called today “altered states of consciousness.” From 1908 Mattiesen was living in Berlin, where he developed his musical talent in a systematic way. In the following years he published as a composer 17 albums [Liederhefte] of songs and ballads. This double talent, as a composer and as a parapsychologist, (“metapsychologist”) is a characteristic trait of Mattiesen’s work. From 1925 he was living a quiet and retired life near Rostock devoted only to writing his second major work, which dealt with the survival problem. The first two volumes appeared in 1936 and the third one in 1939. It was entitled *Das persönliche Überleben des Todes: eine Darstellung der Erfahrungsbeweise* [*The Personal Survival of Death: An Account of the Empirical Evidence*]. In the same year that the Second World War had just begun, on September 25, Emil Mattiesen died of leukemia. He was 64 years old. Mattiesen’s legacy to (German) psychical research and parapsychology is two extensive works, comprising all together more than 2,100 pages, which were published by Walter de Gruyter, still today one of the most prestigious publishing houses in Germany for scientific and academic literature, specializing in law, medicine, natural sciences, history, philosophy, theology and religious science. The reasons why Mattiesen’s name is nevertheless nearly forgotten are intimately connected with the following historical and cultural factors: (1) Mattiesen was living in a self-chosen isolation. He did not participate in the public controversy dealing with “occult” phenomena in Germany during the late 1920s and early 1930s (see, for the contrary, the role of Max Dessoir); (2) although Mattiesen was praised as the figurehead of the spiritistic movement in Germany, there was no adequate audience for the sophisticated discussion of his arguments, comparable with the British SPR; (3) when Mattiesen’s *opus magnum* on survival research was published, National Socialism had come to power in Germany and there were no parapsychological journals or organizations available which could provide a forum for a detailed and critical discussion; (4) for whatever reasons, Mattiesen’s work remained totally unknown in the English-speaking world; his books were never reviewed in the journals of the British and American SPR.

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### CHRISTOPH SCHRÖDER (1871-1952): THE HUB OF A PARAPSYCHOLOGICAL NETWORK

PETER MULACZ

ABSTRACT: Besides his professional life, little is known about the biographical data of Prof. Dr. Christoph Schröder, Berlin-Lichterfelde-Ost. Trained as a

zoologist, he specialized in entomology, in which field he edited a three-volume textbook, a two-volume survey on the insects of Central Europe, particularly Germany, and published a book on the biology of insects. He made his living as a teacher of biology at a Berlin lyceum. Hinrich Olhaver of Hamburg, a successful businessman and devoted spiritualist, author of "Die Toten leben" (i.e., *The Dead are Alive*), had been the founder of a spiritualist group, named *Revalo Bund* (i.e., *Revalo Union*) whereby *Revalo* is just an anagram of his name. This *Revalo Bund* published, starting in 1925, a monthly journal which in 1927 changed its name to *Zeitschrift für psychische Forschung* (abbr. *Z.ps.F.*, *Journal for Psychical Research*). When it faltered after another two years, Schröder commenced publishing his own *Zeitschrift für metapsychische Forschung* (abbr. *Z.mp.F.*, *Journal for Metapsychical Research*—very strange that Schröder used the French terminology) running from 1930 through 1941. In his first issue, Schröder denies any connection between his new journal and the former *Z.ps.F.*, yet not only are they like twins in reference to their layout, also most authors of the two subsequent journals are identical, including Schröder himself, who edited Grunewald's report on his visit to Talpa after the latter's untimely death. The *Z.mp.F.* was edited "in connection with the Institute for Metapsychical Research," which in fact was located at Schröder's residence. In 1925, Schröder had founded this "Institute," not least in order to take over the ingenious apparatus designed by Grunewald. In parapsychology, the early focus of Schröder's attention was on what he called the "Frau Maria Rudloff'sche Spiegelphänomenik" (i.e., the mirror phenomena of Mrs. Maria Rudloff). Maria Rudloff, also known by her alias "Maria Vollhart" (Malcolm Bird spells the name as "Vollhardt"), coincidentally was the mother-in-law of Christoph Schröder. Earlier, she had been the subject of the studies of Friedrich Schwab, M.D., that were published in his book on teleplasm (an alternative term for ectoplasm) and telekinesis. By "mirror phenomena," the appearance of crude drawings, such as stick-figures, on mirrors or other flat glass surfaces (windows), mostly overnight, is understood. In isolated cases, lines resembling Arabic characters appeared. The substance of these drawings is said to have been dried-up blood plasma. (The glass surfaces did not survive the bombings of World War II, and the phenomenon remains disputed.) Mrs. Vollhart/Rudloff also showed some dermal effects, numerous parallel scratches on the back of her hand, as if they had been made by using a brush. In 1926, Countess Wassilko, together with Eleonore Zugun, visited Schröder and his family, resulting in a kind of competition between the two mediums. There were five International Congresses for Psychical Research in the years between the two World Wars, organized by Carl Vett—kind of forerunners of the PA Conventions; of these, Schröder took part at least in the Congress held in 1927 at the Sorbonne in Paris. During the trial of the famous clairvoyant (or rather pseudo-clairvoyant) Erik Jan Hanussen (real name: Hermann Steinschneider), he served, together with Walter Kröner, as an authorised expert (Leitmeritz, Czech Republic, 1931). Starting in 1932, Schröder published an additional quarterly, "*Mitteilungen der Gesellschaft für metapsychische Forschung*" (i.e., *Notes from the Society for*

*Metapsychical Research*), which was bound together with his *Z.mp.F.*, so every third issue was split between the two periodicals. He was running this “Society for Metapsychical Research” though being previously affiliated to the “Deutsche Gesellschaft für wissenschaftlichen Okkultismus” (DGWO, German Society for Scientific Occultism), in the context of which he had published his brochure “Grundversuche auf dem Gebiete der psychischen Grenzwissenschaften” (i.e., *Basic Experiments in Psychic Scientific Fringe Areas*) in 1924. In 1937, the quarterly changed its name to “*Die Unsichtbare Wirklichkeit*” (abbr. *U.W.*, *The Invisible Reality*). Schröder, not a tremendously important parapsychological researcher as such, was nonetheless pivotal in parapsychological networking due to the fact that in the journals he edited (regardless of their confusing and often changing names) many noted parapsychologists of that time found a forum to publish their papers, e.g., Grunewald, Mattiesen, the Austrian Kasnacich, and some others. It needs to be particularly emphasized that his periodicals were published until 1941, i.e., even during the first years of the war. In contrast, the (admittedly more important) *Zeitschrift für Parapsychologie* (i.e., *Journal for Parapsychology*) terminated its appearance by mid-1934 when Gabriele, Baroness Schrenck-Notzing, Albert’s widow, resolved to withdraw her financial support, leaving Schröder’s journals the sole surviving ones in Germany.

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Vienna, Austria*

“BIOLOGY WITHOUT METAPSYCHICS, A BIRD WITHOUT WINGS”:  
ORLANDO CANAVESIO’S CONTRIBUTIONS TO PARAPSYCHOLOGY

ALEJANDRO PARRA

ABSTRACT: Surgeon and neurologist Orlando Canavesio, one of the pioneers of parapsychology in Argentina, was born in Buenos Aires in 1915. He focused on medical and biological aspects of psychic phenomena, and also he was one of the few Argentinean experts in the advance of scientific diagnosis in mental disease. He founded the Asociación Médica de Metapsíquica Argentina, AMMA (Argentinean Medical Association of Metapsychics) in 1946. The Association published the journal *Revista Médica de Metapsíquica*, of which AMMA issued only three copies. He was interested in using EEG in psychical research to study brain activity associated with ESP performance, what he referred to as the “metapsychic state.” He studied self-claimed psychics such as the dowzers Enrique Marchessini, and Luis Acquavella, Eric Courtenay Luck, Federico Poletti, and Conrado Castiglione, who worked as psychics. Some of Canavesio’s main studies included an early EEG study and many comprehensive case studies of a single psychic, such as Eric Courtenay Luck, one of his “star” psychics. In a paper published in 1947, he said that states conducive to ESP ranged “from deep-sleep, normal or somnambulant, to an apparent wakefulness characterized by an expectant attention, concentration or isolation.” In a study with Eric Courtenay

Luck, Canavesio took EEG measurements while Luck went into trance and reported that the “alpha rhythm disappears, becomes more or less regular, and the potential diminishes by 60%.” Canavesio thought that dowsing performances were better suited for EEG testing. Canavesio’s medical dissertation was entitled *Electroencefalografía en los Estados Metapsíquicos (Electroencephalography in Metapsychic States)*. It was the first dissertation in Latin America based on a parapsychological topic, and it was granted by the Faculty of Medicine of the University of Córdoba. Canavesio attempted to place parapsychology within government institutions and universities. Canavesio was appointed head of the Instituto de Psicopatología Aplicada (Institute of Applied Psychopathology), which was established in 1948 to determine whether the spiritualist movement could represent a public mental health concern. Canavesio also was a strong defender of the incorporation of parapsychology (or metapsychics) in the chairs of psychological medicine at the faculties of medicine in Argentina. In addition, Canavesio participated in numerous public events. He gave a number of lectures in scholarly forums as well as radio programs, and in newspapers. Argentina was represented for the first time in one of the most important international parapsychological events when Canavesio participated in the First International Conference of Parapsychological Studies held at Utrecht in 1953. He presented some of the work he reported in his dissertation. He also participated in a psychical research conference on parapsychology in Bologna. Unfortunately, most of Canavesio’s efforts did not have much impact. One aspect possibly leading to the neglect of his work was that the psychological movement displaced the medical approach to parapsychology, so that psychologists, and not physicians, were usually the professionals that were the most interested in and involved in parapsychology. Some felt that Canavesio’s work had several pitfalls and that it lacked an adequate methodology. Canavesio’s approach was mainly qualitative instead of the quantitative approach used by some European psychical researchers. Canavesio was interested in other topics, such as dowsing, psychology, medicine, experimental psychopathology, and Jung’s theories. He also participated in PK experiments conducted by parapsychologist José María Feola, who directed the “Grupo La Plata.” This group was a home-circle formed by nonspiritualists interested in the physical phenomena of Spiritualism, who carried out a series of experimental sessions of table-tipping, table levitations, raps, and other phenomena between 1950 and 1955. On December 14, 1957, travelling to Mar del Plata city in his car, Orlando Canavesio had an accident, as a consequence of which his left leg had to be amputated. He died soon after. Canavesio was only 38 years old and was starting a new parapsychological society at Rafaela. Its guiding principle was expressed in a motto printed on the cover of the journal: “Biology without metapsychics, a bird without wings.”

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CHARLES EDWARD STUART (1907-1947) AND  
EXPERIMENTAL ESP RESEARCH

NANCY L. ZINGRONE

ABSTRACT: Charles Stuart was an important member of the ESP research team at Duke University from 1931 until his death in 1947 at the age of 39. Born in 1907 in Pennsylvania, Stuart obtained a BA in mathematics with a minor in philosophy from Duke University in 1932. While an undergraduate he volunteered to be tested for ESP and produced an endless stream of card-guessing results, which, among other findings, contributed to the establishment of the decline effect. In J. B. Rhine's monograph *Extra-sensory Perception*, published in 1934, Stuart's photograph appeared on the frontispiece as one of the Laboratory's high-scoring "star" subjects. Stuart was also featured in the text as one of Rhine's principal assistants, along with J. Gaither Pratt. Moving into the Duke PhD program in psychology after his graduation, Stuart became a formal member of the Rhine group. His PhD was awarded in 1941, only the second time Duke University had conferred the degree for a dissertation devoted to psychical research. Titled "*An Analysis to Determine a Test Predictive of Extrachance Scoring in Card-Guessing Tests*," it highlighted both Stuart's methodological and his mathematical expertise. Like Pratt, Stuart spent two years working away from the Laboratory. In Stuart's case, he was the fourth Thomas Welton Stanford Fellow in Psychical Research at Stanford University, serving in that capacity from 1942 to 1944, following John L. Coover (1912-1937), John L. Kennedy (1937-1939), and Douglas G. Ellson (1939-1942). Stuart suffered from heart disease throughout his adult life and, consequently, was not among the group of young men who left Duke in 1941 to serve in World War II. Although his illness sometimes kept him from the Laboratory, he was one of the most prolific members of his cohort. Not only was Stuart a contributor to the debate over statistical methods then being developed in psychology and parapsychology, not only did he take the lead in the Laboratory's interaction with its critics, not only did he co-author an early testing manual with Pratt as well as provide a key contribution to the Laboratory's magnum opus, *Extrasensory Perception after Sixty Years*, but Stuart also conducted and published a wide variety of experiments. For example, he refined Warcollier's drawing methodology and established a robust line of free-response testing both to bring the experience of ESP in life more fully into the Laboratory and to maintain subjects' motivation across a testing session. Committed to methodological relevance in light of then "modern" psychology as well as to a reasoned response to substantive criticism, as a single researcher or in collaboration with others, Stuart's experiments are exemplars of good design. Among them were: examinations of the relationship of atmospheric conditions, personality characteristics, changes in guessing tempo, and subjects' estimations of success to forced-choice scoring; and classroom versus single-subject test administration, and subjects' target "reception" styles to free-response scoring. To his credit, Laboratory members remembered him as

a congenial colleague, dedicated not only to his own and the field's advancement but to that of his colleagues as well.

*Parapsychology Foundation*  
New York, NY, USA

PANEL: IAN STEVENSON'S WORK IN PARAPSYCHOLOGY

CHAIR: CARLOS S. ALVARADO

NANCY L. ZINGRONE, ERLENDUR HARALDSSON, CARLOS S. ALVARADO,  
& JOHN PALMER

IAN STEVENSON ON THE IMPORTANCE OF SPONTANEOUS CASES

NANCY L. ZINGRONE

**ABSTRACT:** Ian Stevenson is well known for his work with spontaneous cases. This includes cases of children claiming to remember previous lives, as well as accounts of ESP experiences, apparitions, and near-death experiences. Such work differed from the emphasis many parapsychologists, particularly in PA circles, have placed on the study of psychic phenomena. Stevenson defended the importance and necessity of research with spontaneous cases throughout his career. In his first PA Presidential Address in 1968, entitled "The Substantiability of Spontaneous Cases," Stevenson discussed the topic in detail. In his view, spontaneous cases could provide evidence for the existence of a phenomenon, and were superior to experiments in that in cases it was possible to know what information was communicated, while the same was not the case in many experiments. He also argued that emphasis on experiments could limit too much the database of material necessary for the development of theory in the field. In Stevenson's view, criticisms of the weakness of human testimony, while valid in some cases, did not necessarily apply to all. Stevenson returned to the topic briefly in his second Presidential Address to the PA in 1980, in which he discussed the idea of a mind separate from the body. As he said: "The common factors of successful experiments appear to be emotion ... but we can observe the effects of strong emotion much better in spontaneous cases than in laboratory experiments. The important events of life that generate strong emotions do not happen in laboratories, or not often. I am referring here to such events as serious illness, accidents, other stresses, and—above all—death." Detailed discussions of the weaknesses and strengths of human testimony have appeared in Stevenson's books. In *Cases of the Reincarnation Type: Vol. 1: Ten Cases in India* (1975), he focused on a variety of issues regarding reincarnation-type cases. As before, Stevenson's major message was that while evidence from cases was not perfect, it was an exaggeration to claim that the weaknesses of human testimony disqualified all possible evidence for psychic phenomena coming from spontaneous cases.

Stevenson returned to aspects of case studies in two papers published in 1987. In "Changing Fashions in the Study of Spontaneous Cases" he argued that emphasis on experimental evidence may have hindered our efforts to learn things about the phenomena that can only be obtained from case studies. He called for a more balanced science based both on experiments and the study of spontaneous cases. In the second paper, "Why Investigate Spontaneous Cases?," Stevenson focused on the importance of careful investigation of testimony to avoid errors. Overall, Stevenson's message was clear. He believed that parapsychology was destined to be an incomplete science if it continued the emphasis on experimental data. Furthermore, he cautioned us repeatedly of citing the weakness of human testimony as a blanket statement to dispose of cases. Instead, he reminded us, we needed to approach the issue of human testimony empirically.

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## IAN STEVENSON'S REINCARNATION RESEARCH

ERLENDUR HARALDSSON

**ABSTRACT:** In psychological research there was a long tradition of investigating evidence relevant for the question of life *after* death. Stevenson started a new field of inquiry, namely the investigation of phenomena that might give evidence for life *before* birth, i.e., for the theory of reincarnation. He will primarily be remembered for his pioneering field investigations and numerous publications in this area, nine books, and numerous papers. His first publication on this topic, "The Evidence for Survival from Claimed Memories of Former Incarnations," was published in *JASPR* in 1960. It was a winning essay of a contest in honor of William James. There he analysed 44 cases that he had found in the literature, gave a brief description of seven of them, and with his characteristic thoughtfulness and circumspection he discussed nine hypotheses that might possibly explain them. He made some proposals for further research which should be carried out. From this paper it is evident that he had been collecting cases of this kind long before this publication in 1960. With support from Chester Carlson, Stevenson started active field research into cases of children who claimed to have memories of a previous life. In 1966 he published *Twenty Cases Suggestive of Reincarnation* on cases he had investigated in India, Sri Lanka, Brazil, Alaska, and Lebanon. After this the major thrust of his research concerned memories of a previous life. He visited a great number of countries in search of them. There followed further publications, eight books and numerous papers on individual cases as well as on their characteristics, interpretation, and potential explanatory value. In his later years he became increasingly interested in birthmarks and birth defects that seemed related to past-life memories. On this topic he wrote two large volumes (2,268 pages!) *Reincarnation and Biology: A Contribution to the Etiology of Birthmarks and Birth Defects*. His last book, *European Cases of Reincarnation*,



was published in 2003. All his books and papers reflected the thoroughness of his fieldwork and his great commitment to details. In his work Stevenson was not spared criticism nor derision. He was accused of a bias toward superficial and sloppy fieldwork, and he was continuously reminded of the great difficulties of interpreting his data on past-life memories, of which he was fully aware and often discussed in his various publications. Stevenson gradually developed a team of interpreters and coworkers in various countries and got some of his staff at the then Division of Parapsychology at the University of Virginia involved in this work, such as Emily Williams Kelly, Antonia Mills, and Jim Tucker. In the late 1980s he convinced Jurgen Keil and myself to do independent studies of children claiming past life memories, which resulted in the publication of a few papers. Stevenson's output of writings on this subject was enormous. Also astounding is that his work was based on extensive field trips to foreign countries.

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#### IAN STEVENSON'S CONTRIBUTIONS TO RESEARCH WITH SPONTANEOUS ESP EXPERIENCES

CARLOS S. ALVARADO

**ABSTRACT:** In his first published paper on parapsychology, "The Uncomfortable Facts about Extrasensory Perception," published in *Harper's Magazine* in 1959, Ian Stevenson wrote favorably about the early investigations of spontaneous ESP. When Stevenson started publishing his own case studies from 1960 on, most of the scientific studies of psychic phenomena focused on experimental studies. His work, however, had some contemporary context, as seen in the studies of groups of cases of Louisa E. Rhine and G. Sannwald, as well as in the single-case reports of others such as Rosalind Heywood and Guy W. Lambert. Stevenson's first work with ESP cases was with precognitive experiences. His first paper on the subject appeared in 1960 in *JASPR* and was entitled "A Review and Analysis of Paranormal Experiences Connected with the Sinking of the Titanic," a topic he revisited in a 1965 paper. In 1961 he delineated the criteria and characteristics of precognitive experiences. In other papers published in the 1960s Stevenson documented the form of imagery in the experiences and argued for the importance of the percipient's previous experiences in facilitating specific topics in precognitive dreams. Stevenson's last paper on precognition was "Precognition of Disasters" (1970), in which he presented a review of previously published cases on the subject. In another influential study published with Jamuna Prasad, "A Survey of Spontaneous Psychical Experiences in School Children of Uttar Pradesh, India" (1968), the spontaneous ESP experiences of Indian school children were investigated using questionnaire responses. As has been documented in other studies before and after, dream experiences were more common than waking experiences. Stevenson's main and most detailed work with spontaneous ESP

was reported in his book *Telepathic Impressions* (1970), in which ESP impression experiences were studied. These included imageless experiences in which the person had thoughts, feelings, emotions, physical symptoms, or impulses to take action, which corresponded to a relevant veridical event taking place at a distance. The work had two parts. In the first part he analyzed published cases. In the second he presented 35 new cases he investigated. The analyses included such aspects as interaction with demographic variables, relationship between percipient and agent, state of consciousness in which the experience occurred, and action taken by the percipient as a function of having an agent thinking about them. In his last publication on the subject, "A Series of Possibly Paranormal Recurrent Dreams" (1992), Stevenson presented a study of a single case of apparent recurrent veridical dreams. He commented on the importance of vividness as a possible identifying factor of ESP dreams. Stevenson emphasized the careful study of cases. From the beginning of his career to his death, he believed that careful investigation of cases could provide evidence for the existence of ESP. Furthermore, his work was an important contribution to the cataloging and understanding of the features of ESP experiences, and provided a healthy and much-needed balance to the emphasis on experimental research in modern parapsychology.

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## IAN STEVENSON ON MENTAL MEDIUMSHIP

JOHN PALMER

**ABSTRACT:** Although Ian Stevenson is best known for his extensive research on cases suggestive of reincarnation, his interests comprised all areas of survival research. Of these secondary topics, Stevenson made the most contributions to the study of mental mediumship. These contributions centered on two topics: "drop-in" communicators and the combination lock test. Drop-in communicators are intruders who come to a sitting uninvited, and Stevenson considered them more evidential of survival than standard communicators. He adhered to the general proposition that the most likely source of paranormal information, whether in survival or nonsurvival contexts, is the candidate with the strongest motivation to communicate. Neither the medium nor the sitters generally have a motive to communicate with a drop-in, and if it can be reasonably inferred that the drop-in did possess a motive to communicate, the likelihood that the drop-in is the information source, and hence real, is markedly increased. Stevenson authored or co-authored full reports of five drop-in cases. These reports were of the same genre as those of his reincarnation cases, with a detailed listing of accurate and inaccurate statements, successful and unsuccessful attempts to obtain corroborating documentation, and an analysis of fraud, cryptomnesia, and ESP from the living as alternative hypotheses to survival. For balance, he also published a critique of several nonevidential cases from a single medium. Arguably the most impressive

of Stevenson's drop-in cases was one he co-investigated with panelist Erlendur Haraldsson. The communicator was a drunkard nicknamed "Runki," who dropped in on multiple sessions by the famous Icelandic medium Hafsteinn Bjornsson. As in the other three detailed cases, the communicator (Runki) did not die of natural causes; he drowned. His body washed ashore but was missing a thighbone, and Runki's motive for communicating was for someone to find it. After making inquiries, one of the sitters determined that the thighbone had been buried behind a wall in the sitter's own house, and the bone was recovered. In addition to providing verifiable information, Bjornsson also adopted Runki's passion for snuff and alcohol during the sessions. The investigators also conducted a controlled mediumship experiment with Bjornsson that produced significant results. The combination lock test was a variant of a procedure developed by Robert Thouless. Persons 55+ years and in good mental/physical health would generate a word or phrase that was meaningful to them but not easily guessed by their surviving relatives. Using a special code, the word or phrase would be translated into a six-number lock combination. Aspirants would set the lock before death and attempt to communicate the word or phrase to a medium after death. As a control, mediums would try to open the lock before the aspirant died. At least 10 locks were registered with Stevenson, most notably those of Thouless and Stevenson's former colleague J. G. Pratt. However, to date no one has been able to open any of the locks. Stevenson set two locks himself, and it will be interesting to see if he can succeed where his predecessors have so far failed.

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# CONTEMPORARY METHODS USED IN LABORATORY-BASED MEDIUMSHIP RESEARCH<sup>1</sup>

By JULIE BEISCHEL

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**ABSTRACT:** As with the study of any natural phenomenon, bringing mediumship into the regulated environment of the laboratory allows for the controlled and repeated examination of anomalous information reception by mediums. It also lends statistically analyzed evidence regarding the survival of consciousness hypothesis and addresses the relationship between consciousness and brain. Ideally, laboratory-based mediumship research includes 2 equally important factors: (a) a research environment that optimizes the mediumship process for both the medium and the hypothesized discarnate and (b) research methods that maximize the experimental blinding of the medium, the rater, and the experimenter in order to eliminate all conventional explanations for the information and its accuracy and specificity. The Windbridge Institute for Applied Research in Human Potential utilizes several methods that build upon historical as well as modern mediumship investigations in order to meet these 2 research goals. The research methods discussed include: detailed research reading protocols; the pairing and formatting of readings; experimental blinding; the thorough screening of all research participants; and a specific scoring system used by raters.

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The analysis of information conveyed by mediums (individuals who report experiencing regular communication with the deceased) is important for several reasons:

- The survival of consciousness (i.e., the continued existence, separate from the body, of an individual's consciousness, personality, identity, or self after physical death) is a vital issue to many people. The general public's deep concern with survival and mediumship is illustrated by the recent rise of these topics in popular television shows, books, and movies.
- Investigating the phenomenon of anomalous information reception (AIR) by mediums is essential in understanding the mind's perception and processing of nonlocal, nonsensory information.
- An extensive understanding of the information mediums report and the process by which they report it is necessary in order for such information to be sensibly utilized by society. For example, mediums may be able to regularly and consistently find missing persons and contribute to criminal investigations if parameters such as error rates can be identified. Furthermore, because the source of the information anomalously reported by mediums has

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<sup>1</sup> An earlier version of this paper was presented by the author at the Rhine Research Center conference "Consciousness Today," Myrtle Beach, South Carolina, March 23-25, 2007.

not been determined, it is possible that in the future, when the process is better understood, the knowledge acquired through AIR may benefit scientific, technological, and social progress.

- Providing empirical evidence on a topic historically linked with religion (i.e., the afterlife) may greatly impact modern society as well as contemporary western healthcare. For example, research in Terror Management Theory has found that belief in an afterlife may liberate people from “the compulsion to continually prove our value and the correctness of our beliefs” (Dechesne et al., 2003), an impulse that can manifest in the extreme as radical nationalism (which provides the individual with the psychological comfort of symbolic immortality). Additionally, empirical evidence for the survival of consciousness may alleviate the fear and anxiety commonly experienced by hospice patients and their families, and mediumship readings may even be beneficial in grief recovery. However, evidence for survival of consciousness may also have socially negative consequences (e.g., possible increased justification for terrorism or suicide).
- Finally, survival and mediumship studies provide unique evidence for an issue central to consciousness science: the relationship between the mind/consciousness and the brain. That is, is consciousness (a) a product of the brain as theorized by materialist neuroscientists such as Francis Crick and Christof Koch (e.g., Crick & Koch, 2003) or is consciousness (b) mediated, transmitted, transformed, guided, arbitrated, or canalized (Forman, 1998) by the brain as hypothesized by such scientists as Max Plank and William James? (This second theory is discussed, for example, by Clarke, 1995.) In addition, research investigating the survival of nonhuman consciousness (i.e., deceased companion animals) may help us better define exactly what consciousness is.

As with the study of any natural phenomenon, bringing mediumship into the regulated environment of the laboratory allows for the controlled and repeated examination of AIR by mediums.

## HISTORY

Several comprehensive reviews of more than a century of mediumship research findings exist (Braude, 2003; Fontana, 2005; Gauld, 1984). In addition, the methods used during this time to evaluate the information reported by mediums (and psychics) have also been reviewed (Burdick & Kelly, 1977; Fontana, 2005; Schouten, 1994; Scott, 1972), though only Fontana’s review includes research performed since 2001, albeit briefly (p. 221). The contemporary findings generally confirm and extend early observations (e.g., the systematic assessment of individual

mediums or the examination of spontaneous cases) that certain mediums can report accurate and specific information about the deceased loved ones (termed *discarnates*) of living people (termed *sitters*) even without any prior knowledge about the sitters or the discarnates and in the complete absence of any sensory sitter feedback. Moreover, the information reported by these mediums cannot be explained as a result of fraud or “cold reading” (a set of techniques in which visual and auditory cues from the sitter are used to fabricate “accurate” readings; described extensively by Rowland, 2001, and Hyman, 1989, p. 404) on the part of the mediums or rater bias on the part of the sitters.

However, although “the concept of survival was basic for the beginning and development of such key moments in the history of parapsychology as the early work of the Society for Psychical Research and the work of J. B. Rhine and his associates at Duke University” (Alvarado, 2003, p. 68), progress in the quantitative evaluation of the information provided by mediums “has been slow compared to developments in other areas of parapsychological research” (Schouten, 1994, p. 223). “Since interest shifted towards psychic abilities such as telepathy, clairvoyance, and precognition in the 1930s, scientific research into mediumship has steadily declined” (Fontana, 2005, p. 226). Furthermore, several authors have noted that historical mediumship research lacked the proper research design, statistical power, and elimination of potential sources of error for current researchers to value even “positive” studies (Lester, 2005, p. 210; Schouten, 1994, p. 245; Scott, 1972, p. 88).

#### CURRENT RESEARCH

The methods employed by the Windbridge Institute for Applied Research in Human Potential were developed through the integration of previously published protocols (Russek et al., 1999; Schwartz et al., 1999) and observations and build upon historical studies (reviewed by Schouten, 1994) as well as modern single-blind (Robertson & Roy, 2001; Schwartz et al., 2001; Schwartz & Russek, 2001b), double-blind (O’Keeffe & Wiseman, 2005; Roy & Robertson, 2001, 2004; Schwartz et al., 2002) and triple-blind (Beischel & Schwartz, 2007) mediumship investigations. Our research also involves protocols that are palatable to modern, American participants who practice mental mediumship<sup>2</sup> and methods of a technological nature that were not readily available during prior studies (e.g., e-mail readings, Internet-based participant recruitment, and digitally recorded three-way phone readings).

It is important to note that these investigations were designed to take into account the grieving nature of the sitter participants and that this issue as well as the processes of the mediums, sitters, and ostensible

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<sup>2</sup> Mental mediumship “occurs in a conscious and focused waking state” (Buhrman, 1997, p. 13). In contrast, trance mediumship occurs in a “sleep-like state” and involves amnesia (Sher, 1981, p. 108).

discarnates during the readings are continuously contemplated as part of protocol design. For example, we intentionally refer to the phenomenon as anomalous information *reception* (versus *retrieval*) to better describe the medium's experience. Furthermore, we generally strive to include research methods that represent the best of both traditional empirical analyses and a postmodern worldview (Krippner, 1995).

Ideally, contemporary laboratory-based mediumship research should include two equally important factors: (a) a research environment that optimizes the mediumship process for both the medium and the hypothesized discarnate in order to increase the probability of capturing the phenomenon, if it exists, in a laboratory setting, and (b) research methods that maximize the experimental blinding of the medium, the rater, and the experimenter in order to eliminate all conventional explanations for the reported information and its accuracy and specificity. Together, these two factors optimize the possibility of achieving positive results while also controlling for experimental artifacts.<sup>3</sup>

In order to meet these two research goals, the Windbridge Institute employs the following research methods:

1. specific research reading protocols including deceased-directed and asking questions sections;
2. the pairing and formatting of research readings;
3. experimental blinding including five levels of blinding;
4. the thorough screening of all research participants including mediums, sitter-raters, and discarnates; and
5. a specific scoring method used by raters that includes both item-by-item and whole reading scores.

These methods are discussed in turn below.

#### RESEARCH READINGS

The research reading protocols currently used at the Windbridge Institute began their evolution at the University of Arizona where the author served as codirector of the VERITAS Research Program with Gary

<sup>3</sup> To address this two-fold methodological model, we use the metaphor "one cannot study football on a basketball court using baseball players and the rules for hockey." If negative results are achieved in this situation, it is not appropriate to conclude that the phenomenon of football has been disproven. In turn, it is not appropriate to claim that a quarterback has exceeded passing records if all (or even some) of his passes occurred in the absence of a defense or using a nonregulation ball. In order to study football appropriately, only trained, skilled participants and the established equipment, environment, and regulations should be used. The same is true for mediumship. Thus, negative results from a study using methods that did not appropriately optimize the experimental environment and positive results from a study that did not maximize all possible controls are equally ineffective in establishing new scientific knowledge.

E. Schwartz. The reading formats were developed based on the knowledge about the discarnate communication process that was gained during the use of each consecutive protocol. In order to obtain the most objective and replicable information, protocols were attempted that were more and more specific at each step. It is important to note that although several of these reading formats were used throughout the history of mediumship research, it was necessary to examine their practicality with present-day mental mediums using contemporary technology.

The first methodological question asked if the sitter was a necessary component of an accurate reading. During these readings, an experimenter acted as a proxy sitter who sat in for the actual absent sitter during in-person readings with a medium. The use of proxy sitters during mediumship readings is nearly as old as mediumship research itself; the work of C. Drayton Thomas in the 1930s (1932–33, 1935, 1938–39, 1939) and of D. J. West (1949) and Gertrude Schmeidler (1958) in the following decades serve as important examples (also reviewed by Kelly, in press).

Proxy sitters are used to (a) mimic the reading practices with which mediums feel comfortable (i.e., with a sitter present or on the phone) in order to optimize the reading conditions while (b) blinding the medium to cues from the sitter and, in some cases, (c) blinding the absent sitter to the reading until scoring. Based on initial pilot work, it was concluded that skilled present-day mediums could report accurate information about a discarnate without a sitter associated with the discarnate present, a replication and extension of the historical research.

The next step tested the hypothesis that a specific discarnate could be “asked for” during a reading as this (a) mimics what is often the format of a “natural” reading between a client and a medium, (b) serves to focus the medium, and (c) allows for the production of similar one-discarnate readings across a study. When the mediums were given the first name of the discarnate the sitter most wished to hear from (i.e., the “target discarnate”) and sometimes his or her relationship to the absent sitter, they were again able to provide accurate information during these “Discarnate-Directed” sections. The obvious criticism of this method is that the names themselves provide information to the medium that can be used for a type of cold reading. This does not appear to be the case. Actual names of discarnate pairs chosen for recent studies (described in the Pairing section) include: Ron and Brandon, Cindy and Joan, Daniel and Larry, Vicki and Eleanor, Cliff and Harry, Nick and David, Jennifer and Anna, James and Michael, Matthew and Frank, and Barbara and Linda. Because the mediums are asked to provide specific information about the physical lives of each discarnate (described below), it seems unlikely that they could obtain the necessary information solely from these names. In cases in which the names provide overt evidence about the discarnates’ ethnicities and in turn their probable physical descriptions (e.g., Scandinavian: Lars or Signild, African: Naeem or Kianga, Irish: Seamus or Siobhan, Hispanic: José or Manuela, Japanese:



Mamoru or Kiyoshi, and so on) or provide other identifying information (e.g., religion), either a pair is chosen to include two discarnates of the same ethnicity or religion or the discarnates are chosen only for studies in which blinding is not necessary.<sup>4</sup>

The ability to obtain information about a specific discarnate led to the hypothesis that specific pieces of information about the discarnate could be obtained through the asking of specific questions. The use of questions during a reading (a) increases the probability of obtaining information related to the identification of the discarnate, (b) further focuses the medium, and perhaps most importantly, (c) emulates normal human communication. The asking questions paradigm is also important during data analysis: Instead of estimating the probability of the medium's potentially general statements being accurate (for example, Saltmarsh & Soal, 1930), the medium is simply asked to provide specific information.

The exploratory "Asking Questions" readings contained three sections: "Life Questions," "Afterlife Questions," and a "Reverse Question." The Life Questions included items about the discarnates' physical lives and contained questions asking for information often found in nonlaboratory mediumship readings (e.g., physical and personality descriptions and causes of death) as well as questions requesting information that most mediums and/or discarnates are unable to provide (e.g., specific dates of birth and death, names of family members, and so on). We found that several of the questions were repeatedly answered accurately and, at Windbridge, we continue to use the Life Questions format in our current research and during the test readings used to screen prospective research mediums.

If a medium can report information about a discarnate's physical life, the next logical question asks if she<sup>5</sup> can also report information about the discarnate's current life: that is, what is it like to be dead? Due to the observation that the answers to the Afterlife Questions may be linked to the mediums' own ideas and beliefs about the afterlife, these questions are not used in our current protocols.

The Reverse Question section is included in all question-based protocols to ensure discarnate and sitter motivation and to show respect and compassion for the sitter and the hypothesized discarnate. The Reverse Question asks, "Does the discarnate have any questions, comments, or requests for the sitter?" This allows for information and messages ubiquitous

<sup>4</sup> Examples of studies in which blinding is not necessary are those investigating the effect mediumship readings have on grief recovery or those specifically examining the mediums' experiences during discarnate communication.

<sup>5</sup> For ease of reading, when a single medium is referred to in this text, the female pronouns (i.e., she, her) rather than the terms using both genders (i.e., he/she, his/her) are used. This does not, of course, denote that all mediums are female (however, the group of research mediums that the author has worked with over the last several years is roughly 90% female). In addition, when a singular sitter is referenced, the male tenses are used (though the majority of research sitters are female) in order to simplify the text.

in nonlaboratory mediumship readings to be conveyed to the sitter during highly controlled laboratory experiments. Discarnate-Directed, Life Questions, and Reverse Question sections are all included in the readings used to test prospective research mediums. Additionally, a formal study containing these reading formats and achieving positive results was recently published (Beischel & Schwartz, 2007).

The conditions for research readings have also evolved beyond historical mediumship studies due to modern technological advances such as digital recording devices and the Internet. As stated above, the proxy-sitter question was initially answered during in-person readings, as were some preliminary asking questions sections. However, the current research readings performed at Windbridge take place over the phone with a blinded experimenter acting as a proxy for the absent, blinded sitter. This optimizes the mediumship process by allowing the medium to perform the readings in a comfortable location of her choice, an issue Dutch parapsychologist Hendricus Boerenkamp also found important while investigating psychics (reviewed by Schouten, 1994, pp. 242–244).

The research reading protocols used in Windbridge studies (a) mimic the reading practices with which mediums feel comfortable and the format of “regular” medium-client readings, (b) focus the medium and blind her to cues from the sitter, (c) blind the absent sitter to the reading until scoring, (d) allow for the production of similar one-discarnate readings across a study, (e) increase the probability of identifying the discarnate, and (f) emulate normal human communication.

#### PAIRING AND FORMATTING RESEARCH READINGS

##### *Pairing*

In order to maximize sitter-rater blinding, research readings performed at the Windbridge Institute are paired and each associated paired rater scores two readings—one that was intended for him and one that was intended for the other rater—without knowing which is which, that is, blinded to the origin of the readings. The paired readings are for discarnates of the same gender to prevent any obvious gender-based clues to the blinded rater during scoring. Having control raters evaluate the information in a reading intended for someone else is a useful test of the generality/specificity of the statements and has been used throughout the history of mediumship research; two temporally extreme examples are the work of Saltmarsh (1929) and that of O’Keeffe and Wiseman (2005). After item-by-item and whole-reading scoring (described in the Scoring section), each rater is asked to choose which reading he believes was intended for him, that is, “which of the two readings was for your discarnate?” This forced-choice method is a common end point in mediumship studies as well as other parapsychological tests (discussed in Burdick & Kelly, 1977).

However, to maximize each rater's ability to discriminate between the two readings and increase the probability of obtaining positive findings (see the Current Research section), the gender-matched discarnates in our studies are paired before the readings to optimize their recognizable differences while still maintaining rater blinding. This is in stark contrast to studies such as those performed by Saltmarsh (1929) in which discarnates who are similar (in age and cause of death in this example) are paired, but it is similar in principle to choosing specifically varied target sets in telepathy research (e.g., Honorton, 1975). Therefore, in our studies, when a medium describes a blonde, humorous, outgoing father who passed from a sudden heart attack in one reading and a dark-haired, serious, quiet son who was the victim of a drunk driver in the other, having each associated sitter choose which reading was intended for him is a much more objective and revealing process than giving randomly-paired raters a number of readings all describing short, plump grandmothers who enjoyed baking and sewing, and asking each rater to choose which reading was intended for him. The latter scenario does not optimally test a medium's ability to report specific information using a forced-choice end point.

In their review of statistical methods used in parapsychology, Burdick and Kelly (1977) describe, in reference to the forced-choice method, how "unless the correspondences between responses and their targets were very striking (which they often were not), all-or-none judgments would tend to become insensitive" (p. 111). Historically, preferential ranking of the readings was often used to avoid this issue. However, the pairing of optimally dissimilar discarnates prior to the readings allows for the appearance of the "very striking correspondence" between responses (i.e., readings) and their targets (i.e., discarnates).

Pairing begins during sitter screening (described in the Participant Screening section). The sitter is asked several questions about the physical life of the target discarnate. Using the sitter's descriptions, an experimenter assigns codes to the discarnate. There are five main categories (age at passing, physical description, personality, hobbies, and cause of death), the latter four each having subcategories (build, height, and hair color when young; introverted/extroverted, serious/playful, and rational/emotional; outdoors/indoors, solitary/social, and athletic/nonathletic; and primary body part affected, natural/unnatural, and quick/slow, respectively). Once the discarnates are coded in each category, they are paired to optimize their differences in the five categories. Pairing decisions also include a final subjective step in which the sitters' original answers are reviewed to ensure proper pairing in all categories and review the practicality of the pair.<sup>6</sup> Only pairs that follow all of the criteria are used even if this limits the possible study size. The criteria used are the most stringent collection attempted that still allowed for a practical study size. We have found that it is usually

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<sup>6</sup> For example, we once found and had to reject a pair meeting all the pairing criteria because both discarnates shared the same first name.

necessary to gather the screening information from four to seven sitters in order to find one study pair. Gender-matched paired discarnates are read by the same medium and each reading is formatted as described in the next section in order to obtain similar readings across studies.

### *Formatting*

Just as pairing optimizes a rater's ability to discriminate between readings, formatting the readings optimizes the rater's capacity to score the items objectively. During formatting, a blinded experimenter removes all references to the discarnate's name and assigns a number to each reading in order to ensure rater blinding; she then organizes the items into single, direct statements. Specifically, the formatting experimenter:

- Creates a numbered list in which every item is a single, scorable statement.
- Inserts headings describing the section of the reading to the rater.
- Replaces any weak or uncertain associations with clear statements. For example, phrases such as "I think . . ." and "which might mean . . ." are removed. Thus, "I think she might have had red hair but I'm not sure" is replaced with "she had red hair."
- Removes phrases referencing the manner in which the discarnate provides the information to the medium (e.g., "He is saying..." or "She is showing..."). The exception is any direct quote from the discarnate.
- Replaces statements referring to the medium's sensory experience of the items (e.g., "I'm seeing a red rose" to "The image of a red rose" or "I smell cigarettes" to "the smell of cigarettes").
- Replaces specifics about the discarnate that would jeopardize blinding but must be included for proper scoring with "[the deceased]" or "[s/he]" in the item list.
- Removes any reference to the medium's history or opinions (e.g., "She looks like my sister...").
- Inserts explanations for "medium-speak." For example, "there are a boy and girl below her" would be listed as "there are a boy and girl below her [i.e., in a younger generation]" and "in the physical" would be listed as "in the physical [i.e., living]."
- Groups information that is repeated into one item containing the different ways the item was stated and in the most appropriate section of the reading, taking care not to disrupt the meaning of the information.
- Removes any items that are obviously or overtly emotionally or psychologically painful for a sitter to read. This includes detailed descriptions of a physically painful manner of passing (in this case, verifiable items such as body parts affected and the existence of

pain are included while pain descriptors are removed) and negative emotions attributed to the discarnate directed at the sitter. Though the readings are performed for the purpose of data collection and the sitters are notified during consent about potential risks of emotionally painful reactions, mediums are not 100% accurate and the inclusion of potentially traumatic information is neither statistically necessary nor ethically responsible.

Below is a comparison of the formatting of a specific reading by O’Keeffe and Wiseman (2005) and how the same reading would have been formatted at Windbridge.

Original reading by the medium:

I think there is a lady in the room. Who are you? Mother?  
 Yes, mother. About 5 foot 4. I can see a pot, a cooking pot, a brass cooking pot. That’s a rather large pot, isn’t it? It’s got a lid. You [*spirit*] worked in cooking, dinner cooking. You [*spirit*] worked in a shop selling pots and pans. You had something to do with a shop, pots and pans. Did you have a favourite piece in your shop? Ah, yes, I can see it now. Is it a long pan for cooking fish or something? That’s very nice indeed. It looks like a fish cooker to me. You’re English, aren’t you? Yes (*refers to Mother*).

O’Keeffe and Wiseman formatting:

- S1: I think there is a lady in the room. Who are you? Mother? Yes, mother. About 5 foot 4.  
 S2: I can see a pot, a cooking pot, a brass cooking pot. That’s a rather large pot, isn’t it? It’s got a lid.  
 S3: You [*spirit*] worked in cooking, dinner cooking.  
 S4: You [*spirit*] worked in a shop selling pots and pans. You had something to do with a shop, pots and pans.  
 S5: Did you have a favourite piece in your shop? Ah, yes, I can see it now. Is it a long pan for cooking fish or something? That’s very nice indeed. It looks like a fish cooker to me.  
 S6: You’re English, aren’t you? Yes (*refers to Mother*).

Windbridge formatting:

1. The discarnate is female.
2. She is a mother.
3. She is about 5’4.”

4. The image of a large brass cooking pot with a lid.
5. The discarnate worked in dinner cooking.
6. The discarnate worked in or had something to do with a shop selling pots and pans.
7. The discarnate's favorite piece was a long pan, perhaps for cooking fish.
8. The discarnate was English.

It is important to note that the items are in no way randomized during formatting in our laboratory. The interdependence of scorable statements in a reading is a commonly referenced "limitation" of the scoring of mediums' statements (Scott, 1972; Schouten, 1994). However, the context and the flow of the content during a reading contain information potentially relevant to the rater that would be removed were the statements to be randomized. The interdependence of statements is a necessary component of the processing of information that occurs during—and not a limitation of—normal human communication.

We have found that formatting mediumship readings using the tasks listed above ensures rater blinding, optimizes the clarity of the items for scoring, and unifies the quality of the information across readings and between mediums.

#### BLINDING

Numerous nonparanormal psychological processes are at work during readings in which a medium or psychic can receive immediate and nonregulated feedback from the client or sitter (reviewed by Schouten, 1994). These normal processes can be solely responsible for a "successful" reading. Therefore, the blinding of the medium to feedback from the sitter was one of the first controls imposed on the mediumship process during investigation of the phenomenon (e.g., Saltmarsh, 1929). In addition, blinding the rater to the origin of the readings (i.e., "mine" or "not mine") is important in limiting bias on the part of the rater during scoring.

Although some elements of rater blinding occur during reading pairing and formatting, the majority of experimental blinding at Windbridge is established during protocol design. It is important to note that the blinding terms used here are not directly correlated with the similar terms used in medical treatment testing. The blinding described refers to the number of blinded individuals participating in the mediumship reading procedure and, thus, the levels of blinding ensuring the controlled environment of the reading. Blinding is essential in order to eliminate conventional factors (e.g., fraud, cold-reading, rater bias, unintentional cuing by the experimenter) as explanations for the accuracy of the information a medium provides. The blinding may also begin to control for telepathy (Bem & Honorton, 1994) with the sitter or experimenter by the medium, but because the mechanisms

and limits of telepathy as well as other parapsychological phenomena such as precognition and clairvoyance are unknown at this time, definitive controls for them are not possible.

During single-blind readings, only the medium is blinded: All information about the sitter and the discarnate (save for the discarnate's first name) is kept from her before and during the reading to eliminate cold-reading and fraud as explanations for the accuracy of the information. In a single-blind scenario, the sitter-rater is given just one reading to score and is aware that the reading was intended for him; in addition, the rater may or may not provide the medium with feedback through a proxy during the reading and may or may not have heard the reading as it took place.

During double-blind conditions, the medium is blind to information and feedback before and during the reading and the rater is blind to the origin of the readings during scoring to prevent rater bias. Because more than one reading is necessary to blind the rater, the pairing of discarnates/readings discussed above is tremendously beneficial in this scenario.

A previously published triple-blind study (Beischel & Schwartz, 2007) led to the current quintuple-blind protocol in use at Windbridge. In a triple-blind setting, the medium and the rater are blinded as in the previous conditions, but additionally, the experimenter interacting with the rater during scoring and with the medium during the readings is blinded to information about the rater and his associated discarnate to further remove fraud as well as eliminating experimenter cuing (and possibly telepathy with the experimenter/proxy at the time the reading takes place) as explanations for the results.

In the quintuple-blind protocol currently used by the Windbridge Institute, (1) the medium is blinded to information about the sitter and the discarnate before and during the reading; (2) the raters are blinded to the origin of the readings during scoring, (3) the experimenter who consents, screens, pairs, and trains the sitter-raters (Experimenter 1) is blinded to which mediums read which sitter pairs and which blinded readings were intended for which discarnates; (4) the experimenter who interacts with the mediums during the phone readings and formats the readings into item lists (Experimenter 2) is blinded to any information about the sitters and the discarnates beyond the discarnates' first names; and (5) the experimenter who interacts with the sitters during scoring (i.e., sends and receives the blinded and paired readings during scoring) (Experimenter 3) is blinded to all information about the discarnates, to which medium performed which readings, and to which readings were intended for which discarnates/sitters.

As a further precaution, the order in which the pairs of sitters participate, which pairs are read by which medium, and the order in which the discarnate names are provided to the medium are all randomized. In addition, one rater in each pair receives his own reading to score first and one rater receives the control reading to score first. Furthermore,

neither sitters nor mediums receive any feedback about the study until all experimental trials are complete. This entire scenario eliminates fraud, cold-reading, rater bias, experimenter cuing, and perhaps even telepathy of the experimenter and/or absent sitter as plausible explanations for the accuracy and specificity of the information provided during the readings.

## PARTICIPANT SCREENING

### *Sitters*

In order to optimize sitter-rater motivation and, thus, accurate and reliable scoring and discarnate participation, sitter participants are chosen from a volunteer sitter pool. Participants from all over the country sign up to participate through the Windbridge website ([www.windbridge.org](http://www.windbridge.org)). Sitter participants are initially chosen based on their affirmative answers to questions regarding their beliefs about mediumship, their knowledge about the discarnates they have lost, and their willingness and ability to participate in readings and scoring as well as their reasons for wanting to participate. The motivation of the sitter and, in turn, the hypothesized discarnate is considered during this initial screening. For example, the motivation for a discarnate to communicate during a reading with a sitter who strongly believes that all mediums are charlatans or frauds may be low; thus, choosing this sitter would not optimize the mediumship process. The issue of sitter/discarnate motivation during initial screening is often moot because individuals who do not entertain mediumship as a realistic possibility rarely volunteer to participate in studies.

Further information is then collected from sitters passing the initial screening. At this time, the first name of the target discarnate and his/her relationship to the sitter is noted. Sitters are also screened using questions about their beliefs, the nature of their relationship with the target discarnate, the likelihood the discarnate will participate in a research reading, and the estimated risk that other discarnates known to the sitter will attempt to “drop in” during an experiment.

Additionally, data are collected during the screening steps about the sitters’ gender, prior readings with mediums and/or psychics, religious affiliations, and the effect religion has on their beliefs about mediumship. The sitter’s age and the time that has passed since the target discarnate died is also noted; it is our policy to work only with sitters over 25 years of age<sup>7</sup> and who have been grieving for more than 1 year in all studies not specifically

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<sup>7</sup> When working with undergraduate student sitter participants, we found it difficult to obtain large sample sizes due to the small percentage of students who had experienced the death of someone close to them. We also noted that some students had difficulty with objectivity during scoring. For example, for a pair of readings in which the medium described one discarnate as a “man” and one discarnate as a “kid,” one student sitter chose the “man” reading, even though other descriptions in the “kid” reading were accurate, because he did not view his deceased 17-year-old friend as a “kid.”



investigating grief. Prospective sitters are also asked about their prior experiences with any personal after-death communication. Finally, sitters are asked about their computer proficiency in order to optimize the rater training and scoring, which take place over e-mail. Based on the answers to these questions as well as the discarnate pairing method described above, sitters are chosen to participate in research readings.

For current research, each adult sitter chosen to participate had a close relationship with at least one deceased person who passed more than 1 year ago and whose personality was consistent with wanting to volunteer for mediumship research. Additionally, each sitter values discovering the truth about mediumship and the survival-of-consciousness hypothesis and has experienced some form of after-death communication from the target discarnate. Before the research readings take place, each sitter is trained in the scoring method described below.

### *Discarnates*

In order to optimize the mediumship process during experiments, it is important to keep in mind throughout protocol development that there are potentially three people participating in a reading: medium, sitter, and discarnate. And, although the Office for Human Research Protections federal regulations do not require informed consent from hypothesized discarnate participants (for obvious theoretical and practical reasons), Windbridge investigators take into account factors such as motivation, fatigue, and communication abilities when choosing hypothesized discarnate participants and designing research protocols. For example, to honor their participation, we write instructions for each experiment directed to the discarnates along with those for the mediums and sitters.

For official experiments, Windbridge chooses discarnates based on the discarnate pairing method described above. However, as data cannot be collected about the accuracy of a mediumship reading without a sitter-rater, the sitters associated with the discarnates must also fulfill the sitter qualifications described above. In addition, during test readings used to screen prospective research mediums (described below), discarnates are chosen only if the sitters indicate that, in their opinion, the hypothesized discarnate has successfully communicated with a medium before. This ensures that during test readings, any failure to produce accurate information can be potentially attributed to the prospective medium rather than to a hypothesized “naïve” discarnate not familiar with communicating with a medium.

### *Mediums*

In addition to optimal experimental conditions and well chosen sitter and purported discarnate participants, the quality of the medium

participants is of paramount importance for a successful mediumship study. Fontana (2005) emphasizes the “obvious necessity to have trial runs with mediums when developing experimental methodologies” and then to “work only with those mediums who appear to perform well under these methodologies” (p. 224). (This issue is addressed here in Footnote 3.) Also, this is one factor that may have been responsible for the negative results of one recent mediumship study (O’Keeffe & Wiseman, 2005). The medium participants in that study “were recruited via a list of certified mediums provided by the Spiritualists Nationalist Union” with no apparent trial runs to ensure that the mediums could perform under the stringent conditions of the experiment. To ensure that this is not an issue in our studies, we have developed a rigorous screening protocol for medium participants. In addition, we prefer to replicate results across numerous skilled mediums rather than to use repeated trials with one “star” medium as was often the case in historical research (e.g., Thomas, 1928; Saltmarsh, 1929).

Before participating in mediumship research at Windbridge, each prospective medium is screened over several months using an intensive eight-step screening procedure based on a similar system previously used to screen Integrative Research Mediums (IRMs) at the University of Arizona. Upon successful completion of the eight steps, the medium is termed a Level 1 Windbridge Certified Research Medium (WCRM–1). [Previous IRM certification from the UA may serve in lieu of the Windbridge screening steps.] The mediums’ certification levels increase as they participate in additional research studies. Each WCRM agrees to donate a minimum of four hours per month to assist in various aspects of the research, uphold a code of spiritual ethics, embrace a strong commitment to the values of scientific mediumship research, and abide by specific Windbridge standards of conduct.

The eight steps are listed here and described in detail below:

- Step 1: Written questionnaire
- Step 2: Personality/psychological tests
- Step 3: Phone interview (with an existing WCRM)
- Step 4: Phone interview (with a Windbridge investigator)
- Step 5: Two blinded phone readings
- Step 6: Mediumship research training
- Step 7: Human research participants training
- Step 8: Grief training

To begin, each prospective medium completes a brief, written questionnaire about factors including family history, medical history, culture, education, personal experiences, and training (Step 1). It has been suggested that mediums (and psychics) may share common life experiences such as a difficult youth (Schouten, 1994, p. 248) and this step aims to address these possible similarities.

After finishing the questionnaire, prospective WCRMs then complete three standard personality tests (Step 2): the NEO Personality Inventory (NEO PI-R), the Myers-Briggs Type Indicator, and the Tellegen Absorption Scale. By collecting detailed historical data during Step 1 and personality data during Step 2 from all mediums and comparing them to test reading data (Step 5), the specific characteristics correlated with exceptional mediumship skill can be determined. This examination of possible predictors of mediumship ability is similar in principle to research involving predictors of psi performance (reviewed by Palmer, 1977). Like studies examining the predictors of psi, this analysis of potential predictors of mediumship ability increases the yield of information gained during the experiments/screening without requiring any disturbance “of the delicate interface with the respondent” (Burdick & Kelly, 1977).

A prospective medium then participates in a phone interview with one or more existing Windbridge Certified Research Mediums (Step 3) in which she is asked about her mediumship history, process, and goals. This step facilitates a noncompetitive team dynamic between mediums, provides mentor relationships for the new mediums with the interviewer WCRMs, and supplies the researchers with a noninvestigator opinion of the prospective mediums’ motivations, cooperativeness, and values. A second interview (Step 4) then takes place with a Windbridge researcher about the prospective research medium’s experiences and any factors that affect discarnate communication.

The test-reading portion of the screening process (Step 5) is completed to ensure that each prospective medium is able to report relatively specific, accurate, consistent, and scorable information under various experimental conditions. The test readings also ensure that a medium is able to convey accurate information while following specific experimental instructions and that she accurately conveys her experiences during the reading with little editing or under- or over-statement.

The test readings consist of two identically formatted, scheduled phone readings (each with two parts) with two different sitters chosen from the prospective sitter pool and paired as described in the Pairing section. For each of the two paired sitters, the test readings contain two sections completed on two different days. Thus, each medium performs four readings, each with multiple sections (see Table 1). This tests the mediums’ abilities in several different reading formats.

The first double-blind portion of the test reading is an audio-recorded phone reading that takes place at a scheduled time between a Windbridge investigator and the prospective medium (“Sitter-Absent”). The sitter does not hear or participate in this portion of the reading and the experimenter serves as a proxy for the absent sitter.

TABLE 1  
 TEST READING FORMATS\* FOR THE SCREENING OF  
 PROSPECTIVE WINDBRIDGE CERTIFIED RESEARCH MEDIUMS

Day	Sitter	Section	Subsection	Blinding	Scored	Scores given
1	A	Sitter-Absent	(all)	Double	After reading	Global, Choice
1	A	Sitter-Absent	Discarnate-Directed	Double	After reading	Estimated %
1	A	Sitter-Absent	Questions	Double	After reading	Estimated %
2	B	Sitter-Absent	(all)	Double	After reading	Global, Choice
2	B	Sitter-Absent	Discarnate-Directed	Double	After reading	Estimated %
2	B	Sitter-Absent	Questions	Double	After reading	Estimated %
3	A	Sitter-Present	Sitter-Silent	Single	During reading	Global, Estimated %
3	A	Sitter-Present	Interaction	Non-blinded	During reading	Global, Estimated %
4	B	Sitter-Present	Sitter-Silent	Single	During reading	Global, Estimated %
4	B	Sitter-Present	Interaction	Non-blinded	During reading	Global, Estimated %

\*Each medium performs readings for two paired sitters, A and B; each sitter’s reading has two sections, each with two subsections (see text for details). Note: Although the days are numbered consecutively here, the readings do not take place on four consecutive days; the Sitter-Present readings do not take place until the scoring of all of the Sitter-Absent sections is complete. Key: Double = medium is blinded to information and feedback and sitter is blinded to the origin of readings during scoring; Single = medium is blinded as above but sitter hears reading; Nonblinded = medium receives controlled feedback from sitter; Global = rater gives numerical score (0-6, see Scoring section for details) to the reading or section; Choice = blinded rater chooses the more applicable of two paired readings; Estimated % = rater estimates the percent of accurate items.

During the Sitter-Absent readings, the medium is provided with the first name of the target discarnate and asked to provide information about the named discarnate (“Discarnate-Directed” subsection) as well as the answers to five questions about the discarnate’s physical and personality traits, hobbies or activities, cause of death, and comments for the sitter

("Questions" subsection). Each subsection of the two paired Sitter-Absent phone readings is transcribed and formatted and then each sitter estimates the percent of accurate items for each subsection, gives each whole reading a global score from 0–6, and chooses which reading he believes was intended for him (described in the Scoring section). Because these readings are used for screening prospective mediums and not for data collection and due to time and personnel limitations, individual item scoring is not used in WCRM screening test readings. Both sitters are provided with subsections from both paired readings for scoring and blinded to which sections were intended for which discarnate; thus, each reading acts as a control for the other reading during scoring.

The second portion of each test reading consists of an audio-recorded three-way phone reading with an experimenter, the prospective medium, and the sitter ("Sitter-Present"). These second phone readings take place after each of the two blinded sitters score the first Sitter-Absent phone reading sections. The Sitter-Present reading contains two subsections: a single-blind "Sitter-Silent" section and a nonblinded but controlled "Interaction" section.

In the first Sitter-Silent section, the sitter can hear the reading and takes notes but gives no feedback and the medium reports any new information about the named discarnate that she is receiving. During the Interaction section, the medium is introduced to the sitter by first name and can ask the sitter yes-or-no questions to which the sitter can respond "yes," "no," "maybe," "sort of," or "I don't know." During short breaks in the Sitter-Present reading, the sitter records both a global score and an estimated percent accuracy score for each of the two subsections. This second Sitter-Present phone reading is hypothesized to provide motivation for the discarnate to participate in the first Sitter-Absent portion of the test reading as well as to provide motivation for the sitter to complete the scoring of those readings accurately and in a timely fashion.

To be considered for research, a medium must:

- be given an average global score of 3.5 or higher (on the 0–6 scale described in the Scoring section) over the two double-blind Sitter-Absent sections by the intended sitter for his own reading with an average difference of 1.5 or more over the score given to that section by the other control sitter,
- be given an average estimated percent accuracy of 60% or higher over the two Discarnate-Directed subsections of the Sitter-Absent reading by the intended sitters for their own readings with a difference of 25% or more over the estimated percent accuracy given to those sections by the other sitter,
- be given an average estimated percent accuracy of 55% or higher over the two Questions subsections of the Sitter-Absent reading by the intended sitters for their own readings with a

difference of 20% or more over the estimated percent accuracy given to those sections by the other sitter,

- provide at least one Sitter-Absent reading that the intended sitter chooses as his own,
- be given an average global score of 3.5 or higher over the two Sitter-Silent subsections of the single-blind Sitter-Present phone readings,
- be given an average estimated percent accuracy of 60% or higher over the two Sitter-Silent subsections of the phone readings,
- be given an average global score of 4.25 or higher over the two nonblinded but controlled Interaction subsections of the phone readings, and
- be given an average estimated percent accuracy of 75% or higher over the two Interaction subsections of the phone readings.

These criteria are based on the results of a pilot study utilizing triple-blind phone readings completed by claimant mediums (Beischel & Schwartz, 2007) and the results to date of two studies utilizing certified research mediums.

During analysis of a prospective medium's test reading scores, differences in individual mediumship processes, the ability of different deceased individuals to communicate, and the ability of different raters to accurately score the readings are examined before final decisions are made about the medium's performance. For example, an experimenter may note the following: discrepancies in either direction between the estimated percentage of statements scored as accurate by the sitter and the global score given by that sitter to the reading, a sitter's tendency during the phone reading to accept statements that are not true or to reject statements that are, and/or scores for the intended readings that may not reach the passing criteria but that are considerably higher than the associated control scores. This subjective yet process-focused analysis step is necessary to help ensure that truly talented mediums are not erroneously rejected based on the limited data from two rigorously controlled readings scored by first-time raters. It also helps ensure that mediums who are unable to perform under the controlled portions of the readings but who receive high scores from sitters during the portions in which they receive sitter feedback (i.e., those who may be using cold reading) are not erroneously accepted based on skewed scoring averages. In addition, scoring criteria may change as more mediumship reading scoring data is collected.

To continue the next portion of the screening process, prospective WCRMs are required to read a lay-person overview of historic mediumship research, the currently used methods of investigation, and the implications

of evidence for survival of consciousness after death. They then complete a simple but thoughtful take-home examination on the material (Step 6). The purpose of this step is to educate mediums about the early history of the research, some of the key research questions, and the possibilities for the future. In the process, prospective mediums are invited to provide feedback and ask the researchers questions that might lead to future hypotheses and experiments. WCRMs then sustain their awareness of mediumship research by reading current research reports as they are published. This continuing process helps ensure WCRMs maintain their unique status as research mediums. The training differentiates WCRMs from anonymous study participants; as certified research mediums, they are knowledgeable about the research in which they participate.

Before becoming official WCRMs, prospective mediums complete the National Institutes of Health (NIH) online course "Human Participant Protections Education for Research Teams" (Step 7), a free, Web-based course designed to provide appropriate education for researchers whose work involves human participants (<http://cme.cancer.gov/clinicaltrials/learning/humanparticipant-protections.asp>). Because WCRMs work with human participants (i.e., sitters) during research experiments and are themselves research participants, gaining an awareness of and appreciation for the legal and ethical constraints of doing research with human participants is essential training. Additionally, the credibility and evolution of mediumship research is enhanced by WCRMs becoming credentialed in this arena.

Along these lines, it is also beneficial for Windbridge Certified Research Mediums to be aware of the psychological aspects of the grieving process that each sitter is experiencing. To gain some basic understanding on this topic, prospective mediums are required to read one of the following texts: *The Grief Recovery Handbook* (James & Friedman, 1998); *The Journey Through Grief* (Wolfelt, 2003); *Grief Counseling and Grief Therapy* (Worden, 2001); or *Life After Loss* (Moody & Arcangel, 2002). Mediums can also recommend that a book not listed be added to the list and can read that text for completion of this step. The prospective medium then writes a brief (1–2 page) summary of her chosen text and a description of what she found most interesting and helpful about it (Step 8). Upon completing all eight screening steps, and with his or her permission, each WCRM is listed on the Windbridge website (<http://www.windbridge.org/mediums.htm>).

The extensive screening of prospective mediums helps ensure a participant population that is reliable, skilled, trained, dedicated, ethical, and professional. This brings a new level of credibility to the field of mediumship research as well as to laboratory mediums themselves.

#### SCORING

One of the major challenges facing research regarding information obtained from mediums concerns the scoring of transcripts obtained

during the readings. It is essential to recognize that the requirements for scoring are more advanced and sophisticated when the research focuses on the *process* of mediumship compared with research that focuses on *proving* the reality of mediumship. *Process-focused* research is more comprehensive, inclusive, and detailed; *proof-focused* research is more conservative, exclusive, and limiting.

As with the other methods described here, the scoring method currently used by the Windbridge Institute had its beginnings at the University of Arizona. The current scoring system was designed to examine and quantify the process of mediumship. However, when employed in a more restrictive manner, it can be used to examine and quantify proof-focused data as well.

Challenges involved in scoring a medium's reading come from two sources: (a) the process(es) by which the information comes to and is reported by the medium and (b) the process(es) by which the rater perceives and judges the information. Scoring challenges concerning the mediums' process include the following issues:

- The information is often complex.
- The utterances from the mediums are often incomplete: subjects, verbs, and/or objects may be missing.
- The information comes through in uncontrolled "packets" of different lengths and does not always express a discernable logic or flow.
- The information is often indirect if not symbolic.
- The information includes perceptions and experiences of the mediums as well as interpretations of the impressions they receive.
- The information often comes in quick bursts that may be transient, unclear, and/or incomplete to the medium.

Some of these issues are addressed during reading formatting.

Scoring challenges concerning the process of the rater are also intricate:

- The rater's knowledge and memory of the deceased is limited.
- The rater's understanding of the scoring instructions may be limited.
- The rater's personal biases (e.g., belief or disbelief in survival; liberal or conservative in making judgments) will influence the judging.
- The rater's expectations and emotions will color the judging.
- The rater's ability to derive rational interpretations and draw connections within complex information may be limited.



Although the scoring of the mediumship readings is the last event to take place during a study, it is obviously the most important step from a data-collection viewpoint. However, the scoring collected is meaningless unless the other issues discussed above have been designed and carried out thoroughly and accurately. As with those other issues, the scoring procedure used by the Windbridge Institute underwent numerous revisions.

In order to facilitate the accurate scoring of various types of mediumship readings by diverse types of raters and for different types of scoring information, four scoring systems were developed for the scoring of accuracy and emotional significance. It is important to note that each system was developed by upgrading and/or reformatting the previous version based on what was learned during each version's use.

Two of the versions implement a whole reading and choice system to test for specificity. In addition, a fifth experimenter version was developed for use in characterizing the information provided by the medium which is similar to the method used by Boerenkamp (reviewed by Schouten, 1994). In that system, an experimenter rates the type (e.g., place, name, date, etc.) and form (e.g., complete or incomplete statement) of the information as well as how the medium conveyed it (e.g., experience, interpretation, etc.) for each item in a reading. The experimenter also notes any items by which the medium seemed confused or surprised. It is important to note that the experimenter scoring system can only be used during in-person or phone readings because several of the ratings are dependent on the manner in which the information was reported by the medium.

A set of instructions, plus scoring forms or worksheets, are used to implement the various rater versions of the scoring systems. An on-line scoring form in which the rater scores each item in a Web-based format is planned for use in the future. This version would also provide immediate electronic storage and organization of the data from each rater. Currently, paper forms for in-person scoring and electronic forms for e-mail scoring are used.

The scope of this paper will only discuss the version of the scoring method used by current raters. Each rater scores each item in two gender-matched and blinded readings for accuracy, scores each whole reading, and chooses the more applicable reading (details below). This method is used during the current ongoing quintuple-blind phone study and portions are used in the current Step 5 prospective medium screening test readings.

Before scoring, each reading is blinded and formatted as described above. Prior to the readings, each rater is provided with extensive instructions including examples and "hints for understanding mediumship readings" and is trained using the scoring system with short "practice" readings. During scoring, each sitter in a pair acts as a matched control for the other sitter in the pair: each sitter scores the reading intended for him as well as the reading of the control sitter while remaining blinded to the origin of the readings. Sitters score each item for accuracy by contemplating the

question “How well does the piece of information fit?” and choosing one of the following six options:

- 5: Obvious fit (used if the item is a direct or concrete hit that does not require interpretation to fit)
- 4: Fit requiring minimal interpretation (used if the item indirectly applies and needs minimal interpretation or symbolism to fit)
- 3: Fit requiring more than minimal interpretation (used if the item indirectly applies and needs a greater degree of interpretation or symbolism to fit)
- 2: Other fit (used if the item does not fit the named discarnate or the rater, but does fit someone else that the rater is/was close to and that is likely to be the subject of the statement)
- 1: No fit (used if the information is a concrete miss—is clearly wrong—or if it is information for which there is no reasonable interpretation)
- 0: Don’t know (used if the rater does not understand the item or does not have enough information to judge its accuracy).

For scores of 2, 3, and 4, the rater also provides a written explanation. It is important to note that although these scores appear to have numerical value, they are not weighted and are simply tallied individually during analysis. Weighted scores, such as those used by Saltmarsh (1929), Schmeidler (1958), or Roy and Robertson (2004), are not used because they presuppose a scale of importance based on specificity that may not reflect the “scale” of importance used by the sitter—the individual for whom the information was intended.

Sitters also give each full list of items a global numerical score (0–6) based on scoring scales developed for remote viewing studies (Targ et al., 1995):

- 6: Excellent reading, including strong aspects of communication, and with essentially no incorrect information.
- 5: Good reading with relatively little incorrect information.
- 4: Good reading with some incorrect information.
- 3: Mixture of correct and incorrect information, but enough correct information to indicate that communication with the deceased occurred.
- 2: Some correct information, but not enough to suggest beyond chance that communication occurred.
- 1: Little correct information or communication.
- 0: No correct information or communication.

After summary scoring is complete for both readings in a pair, the sitters are asked to “Pick the reading which seems to be more applicable to

you. Even if they both seem equally applicable or nonapplicable, pick one.” They are then asked to rate their choice compared to the other reading according to the following scale:

- a. clearly more applicable to me
- b. moderately more applicable to me
- c. only slightly more applicable to me
- d. both seemed applicable to me and to the same extent
- e. neither seemed applicable to me

Finally, raters are asked, “Please explain what led you to pick the reading you did, and any problems you had in making the decision, giving references to the relevant items.”

Once scored, data from raters for whom the reading was intended can be compared with data from control raters using a *t*-test analysis as well as higher level statistical analyses. The statistic  $p_{rep}$  is used in addition to traditional null-hypothesis testing to determine replicability (Killeen, 2005). For proof-focused research, only the highest category of accuracy scores (“obvious fit”) are counted as hits and described in relation to the total number of items scored. For process-focused research, the upper two categories (“obvious fit” and “fit requiring minimal interpretation”) are counted as hits in relation to the total items minus the items scored as “don’t know.” Further analysis using correlation and regression statistics can be done concerning the effect of classification or form of the items on the scoring of fit as well as the effect of the emotional significance of an item on this scoring if the more extensive and experimenter scoring systems are used. In summary, we believe that these scoring systems bring clarity, reliability, and validity to the scoring of information obtained during the process of mediumship.

#### CONCLUSIONS

The current use of the reading protocol, pairing, formatting, blinding, and scoring practices and the specific participant screening techniques employed by The Windbridge Institute during its investigation of the anomalous information reception experienced by mediums reflects significant methodological and conceptual innovations beyond both historical mediumship research and modern published studies (e.g., O’Keeffe & Wiseman, 2005; Robertson & Roy, 2001; Roy & Robertson, 2001, 2004; Schwartz & Russek, 2001a, 2001b; Schwartz et al., 2001). Specifically:

- Using reading protocols that focus the medium on one discarnate and then ask specific questions about that discarnate provides similar types of information in each reading for a more objective rating procedure.

- The pairing of readings for discarnates that are optimally different but gender-matched optimizes rater blinding as well as the ability of raters to recognize identifying descriptions in each transcript during scoring.
- The formatting of the readings into lists of single items allows for the objective and repeatable scoring of clear, concise statements.
- The use of quintuple-blind conditions eliminates all conventional rationalizations as plausible explanations for the findings.
- The screening of sitters and discarnates helps ensure a motivated and skilled group of raters.
- The extensive screening of mediums helps ensure that suitable participants are used during hypothesis testing and also provides a reliable and ethical participant pool with which to work.
- The use of item-by-item scores in addition to a global rating scale provides an additional measure of data quality regarding the hypothesis of anomalous information reception by mediums.

A recently published study illustrates how these or similar methods can come together and provide positive and significant data (Beischel & Schwartz, 2007). Specifically, in that triple-blind phone study, the findings included significantly higher whole-reading scores for readings intended for the sitter versus readings intended for the paired control rater ( $p = .007$ , effect size = 0.5,  $p_{\text{rep}} = .96$ ) and significant forced-choice results when the raters were asked to choose which readings were intended for them ( $p = .01$ ). The resulting medium effect size (the magnitude of the effect independent of sample size) and high  $p_{\text{rep}}$  value (the probability of replicating the effect) indicate that under stringent triple-blind conditions, utilizing a global rating scale used by blind raters, evidence for anomalous information reception can be obtained.

Through these methods, we are attempting to bridge the gap between the qualitative aspects of a more postmodern, feminist, and human science (Krippner, 1995; White, 1991; reviewed by White, 1990; Irwin, 1999) and more traditional quantitative parapsychological methods. Historically, “holistic” methods (e.g., assigning a global or summary score to a reading) and “atomistic” methods (e.g., item-by-item scoring) evolved somewhat independently over the course of research regarding the objective analysis of verbal statements (Burdick & Kelly, 1977, p. 110). We find it important to include both methods during the analysis of each reading.

In addition, the future goals of our research attempt to address the survival of consciousness hypothesis as well as the determination of which conventional and/or paranormal factors are responsible for the information mediums provide. Because all of the research mediums certified to date claim to be able to differentiate between the processes

used during mediumship readings for the deceased and those used during psychic telepathy readings for the living (one of the Step 3 screening interview questions), the analysis of mediums' experiences is a logical first step in addressing the survival hypothesis. We recently published a qualitative phenomenology study regarding mediums' experiences (Rock et al., in press) and are in the process of completing a quantitative study utilizing the Phenomenology of Consciousness Inventory (Pekala, 1991) to aid in our further understanding of the mediumship process (see Rock & Beischel, in preparation). However, the survival question and methods to address it were challenges in historical mediumship research and continue to be difficult today.

Furthermore, we believe it is important to address here the theoretical experiments that have historically been suggested as "ideal" in the testing of mediums. These include the retrieval of the combination to a lock (or other code) during a reading that only the discarnate knew; asking the medium to respond to a language (in that language) that the discarnate spoke but that the medium does not (xenoglossy); asking the medium to perform a complicated intellectual task using skills and expertise that the discarnate possessed but that the medium does not (e.g., solving a difficult mathematical proof); obtaining information during a reading from a discarnate unknown to the sitter, medium, or experimenter (i.e., drop-in communicators); and acquiring information that cannot be fully understood until information from another reading is obtained (i.e., cross-correspondence) (Irwin, 1999, pp. 175–9; Braude, 2003, pp. 283–8). These suggestions contain several serious errors.

First, several of the proposed experiments involve pervasive and unsupported assumptions about the capability and the motivation of the discarnate to communicate specific information and about the medium's ability to receive and convey it. For instance, perhaps the discarnate no longer wishes to speak French, play competitive chess, or write a concerto. Maybe without a body constrained by "earthly" physics, the combination to the lock holds no interest or has been forgotten. Perhaps not all types of stored memories are retained after death. Maybe the medium's consciousness filters out information for which she does not have a personal reference. An emotional aspect to the information and a motivation to convey items that will be important to the sitter appear to be the necessary components of mediumship communication based on the readings we have collected to date. There is no way, at this time, for us to know if the above examples represent the reality of being dead and basing experiments on unsupported assumptions is not, to say the least, ideal.

Second, several of the suggestions involve phenomena that usually only occur spontaneously, therefore creating difficulty in designing repeatable experiments addressing them. Although drop-in communicators can be "asked for" (e.g., "during this segment of the reading, we are open to drop-ins"), would their appearance then provide the support suggested

by this phenomenon? The same issue surrounds the appearance of cross-correspondence. Because these phenomena, although impressive and evidential, cannot be easily or repeatedly tested, they fail to meet the standard for ideal empirical research.

Finally, even if the suggested studies were possible and practical, the data that they would provide may still not differentiate between survival and, for example, super-psi (also called super-ESP; reviewed in Braude, 2003, p. 10 and Fontana, 2005, p. 103) or psychic reservoir explanations (reviewed in Fontana, 2005, p. 113) since the possible limits of psi are not fully understood at this time. Their conclusions may simply support what is already established: that certain mediums are capable of anomalous information reception. Through this discussion, it is evident that the search for the ideal survival study continues.

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#### ABSTRACTS IN OTHER LANGUAGES

##### *Spanish*

RESUMEN: De forma similar al estudio de otros fenómenos naturales, el estudio de la mediumnidad en el ambiente del laboratorio permite el estudio controlado y

repetido de la recepción de información anómala con médiums. También permite el análisis estadístico de la evidencia sobre la hipótesis de la sobrevivencia de la conciencia y es pertinente a la relación entre la conciencia y el cerebro. Idealmente la investigación de la mediumnidad en el laboratorio incluye dos factores importantes: (a) un ambiente de investigación que optimiza el proceso de la mediumnidad tanto para el médium como para el agente desencarnado hipotético; y (b) métodos de investigación que maximizan las condiciones ciegas del médium, el evaluador, y el experimentador para eliminar todas las explicaciones convencionales de la información, su exactitud, y especificidad. El Windbridge Institute for Applied Research in Human Potential utiliza varios métodos que se basan en investigaciones históricas y modernas de médiums para poder lograr estas dos metas de la investigación. Los métodos de investigación discutidos incluyen: protocolos detallados, el emparejamiento de los registros, condiciones experimentales a ciegas, la separación minuciosa de todos los participantes en el experimento, y un sistema de puntuaciones específico usado por los evaluadores.

*German*

ZUSAMMENFASSUNG: So wie es mit jedem natürlich vorkommenden Phänomen der Fall ist, lässt sich die anomale Informationsaufnahme bei Medien kontrollieren und wiederholt überprüfen, wenn man die Medialität unter festgelegten Laboratoriumsbedingungen untersucht. Dadurch wird es auch möglich, das für die Annahme eines Fortlebens des Bewusstseins in Anspruch genommene Beweismaterial statistisch auszuwerten und den Zusammenhang zwischen Bewusstsein und Gehirn zu behandeln. Idealerweise berücksichtigt eine auf Laboratoriumsbedingungen beruhende Untersuchung von Medialität zwei gleichermaßen wichtige Faktoren: (a) eine Forschungsumgebung, die den medialen Prozess sowohl für das Medium wie für die hypothetische leibfreie Entität optimiert, und (b) Forschungsmethoden, mit deren Hilfe sich Medium, Beurteiler und Versuchsleiter maximal verblinden lassen, um jegliche konventionelle Erklärungen für die Informationsaufnahme, was ihre Genauigkeit und Spezifität betrifft, auszuschliessen. Um diesen beiden Forschungszielen gerecht zu werden, werden am Windbridge Institute for Applied Research in Human Potential, verschiedene Methoden verwendet, die sowohl auf historischen wie auch modernen Untersuchungen zur Medialität beruhen. Die hier diskutierten Forschungsmethoden umfassen: eine detaillierte Auswertung von Protokollen nach Forschungsgesichtspunkten, der paarweise Vergleich und das Formatieren medialer Aufzeichnungen, das experimentelle Verblinden, die gründliche Abschirmung aller Versuchsteilnehmer und ein speziell entwickeltes Auswertungssystem seitens der Beurteiler.

*French*

RESUME: Tout comme l'étude de n'importe quel phénomène naturel, l'étude de la médiumnité dans l'environnement du laboratoire permet l'examen contrôlé et

répété de la réception anormale d'informations par des médiums. Cela apporte également des données analysables statistiquement concernant l'hypothèse de la survie de la conscience et la nature de la relation entre la conscience et le cerveau. Idéalement, la recherche sur la médiumnité en laboratoire inclue deux facteurs d'égale importance: (a) un environnement de recherche qui optimise les processus médiumniques à la fois pour le médium et pour l'hypothétique entité désincarnée et (b) des méthodes de recherche qui améliorent le contrôle de l'expérience pour le médium, le juge et l'expérimentateur, afin d'exclure des explications conventionnelles concernant l'acquisition de l'information, son exactitude et sa spécificité. Le Windbridge Institute for Applied Research in Human Potential utilise plusieurs méthodes conçues à partir d'études historiques et modernes de la médiumnité afin d'améliorer ces deux facteurs essentiels pour la recherche. Les méthodes discutées incluent: des protocoles de recherches détaillés; l'association et la mise en forme des descriptions des médiums; l'utilisation du double et du triple aveugle; la sélection minutieuse de tous les participants et un système de jugement spécifique.

# EPISTEMIC AUTHORITY AND NEUTRALITY IN THE DISCOURSE OF PSYCHIC PRACTITIONERS: TOWARD A NATURALISTIC PARAPSYCHOLOGY

BY ROBIN WOOFFITT

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**ABSTRACT:** It is argued that although there have been experimental tests of psychic practitioners (mediums, clairvoyants, Tarot readers, and so on), demonstrations of paranormally acquired information in real-life consultations with practitioners have been relatively ignored. Analysis of these routine consultations can provide insight into what are, for members of the public themselves, parapsychological phenomena in their natural settings. It is also argued that contemporary demonstrations of parapsychologically acquired information are mainly linguistically mediated events. Using a qualitative method for the analysis of naturally occurring verbal interaction, this article examines transcripts of recordings of real-life consultations between psychic practitioners and their clients or audience members. The article describes recurrent features of interaction through which the participants address the practitioners' epistemic authority: the source or basis of their ostensible paranormally acquired knowledge. The article concludes by comparing the approach adopted here to explicitly sceptical accounts of psychics' discourse. It is also argued that naturalistic, ecologically valid research of the kind illustrated here complements established experimental traditions in parapsychology.

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Contemporary demonstration of mediumship or psychic powers is a mundane, practical, and largely discursive matter.

It is mundane because it is so ubiquitous in contemporary western culture. In the UK, for example, members of the public can consult mediums and other kinds of psychic practitioner in a variety of private and public contexts. Psychic fairs seem to be very popular: These are meetings in specially booked rooms in public houses or hotels lasting a short period of time, such as one evening, at which a small number of psychic practitioners are available for consultation. Private one-to-one sittings can be arranged either in the sitter's home or in the home of the psychic or medium. Psychics advertise their services in national and local newspapers and magazines. Psychics may be consulted over the phone, via the internet, or through mobile phone text messaging services. Mediums demonstrate spirit communication around the country at several hundred Spiritualist church services held weekly. Some psychic practitioners have established successful television careers. Stage demonstrations of mediumship attract large audiences. The British medium Doris Stokes was internationally renowned and able to draw large audiences to her public demonstrations all over the world.

Contemporary stage mediums also enjoy a large public following. A recent observational study of a British stage medium reports that, at a

conservative estimate, he is demonstrating mediumship to at least 50,000 people each year across the UK (with entry prices set, at the time of writing, between £12 and £14 per person). And, as he refuses television work or radio appearances, this popularity is based on “word of mouth” endorsements alone (Wooffitt & Gilbert, in press).

In the UK, then, contemporary consumption of psychic powers and mediumship is relatively straightforward. It is likely that consumption of psychic powers is similarly organized and available in the US and, with cultural variations, in other Western European countries also.

The consumption of psychic powers is a practical matter in that, quite simply, it involves a demonstration of those abilities. This has always been the case. Take, for example, mediumship. In the late 19th and early 20th centuries, proof of the medium’s paranormal powers was demonstrated physically: The spirits offered visible, audible, and sometimes tangible evidence of their presence (Irwin, 1999; Nelson, 1969; Oppenheim, 1985). During the latter part of the 20th century, however, demonstrations of physical mediumship declined (but see Keen, Ellison, & Fontana, 1999). A key feature of contemporary mediumship is that demonstrations are primarily discursive events: It is through the words of the medium—in the reports of spirit messages or activities—that the presence of the spirit is established. And it is through the information they are able to provide about their clients or sitters that other psychic practitioners establish the authenticity of their parapsychologically acquired knowledge. Demonstrations of mediumship and psychic abilities are pragmatic and communicative activities.

Parapsychology has largely ignored the practical and discursive features of everyday demonstrations of psychic and mediumship abilities. Parapsychological research has been primarily experimental and designed to test the authenticity of claimed abilities. This is the case whether spectacular psychic gifts are claimed, as in the case of Uri Geller (Targ & Puthoff, 1974), Ted Serios (Eisenbud, 1967, 1977), and Pavel Stepanek (Pratt, 1973), or in cases where lesser known individuals claim more modest psychic abilities (Parra & Argibay, 2007; Roe, 1995; Smith & Wiseman, 1992/1993; Wiseman & Morris, 1994, 1995).

There has, however, been a resurgence of parapsychological writings on mediums. Alvarado’s historical scholarship re-examines the relationship between parapsychology and mediumship (Alvarado 2003, 2004); Braude’s philosophical analysis of the evidence for survival evaluates the mediumship of key figures such as Leonora Piper and Gladys Leonard (Braude, 2003); and there have been reassessments of the evidential value of early mediums (Moreman, 2003; Randall, 2001, 2003) as well as attempts to refine methodologies for the accuracy of mediums’ statements (for example, Roy & Robertson, 2001; Robertson & Roy, 2001, 2004).

Perhaps the most notable methodological developments are the experimental studies of Schwartz and his colleagues. In a series of controlled laboratory experiments, Schwartz has attempted to assess the

accuracy of information provided by well-known mediums. He argues this research offers evidence for post-mortem survival and spirit communication through mediums (Schwartz, 2002; Schwartz & Russek, 2001; Schwartz, Russek, Nelson, & Barentson, 2001; Schwartz, Russek, & Barentson, 2002; Schwartz, Geoffrion, Jain, Lewis, & Russek, 2003). However, it has been argued that his methodology is not sufficiently rigorous to warrant claims of experimental proof of mediumship (Bem, 2005; Hyman, 2003; Wiseman & O’Keeffe, 2001, 2004). However, the focus on experimental studies of the authenticity of psychics’ claimed abilities has ensured that there has been little investigation of the contexts in, and characteristics of, their work in real-life settings.

There may be much to be gained from a nonexperimental approach to psychic practitioners. Instead of asking mediums and psychics to perform for professional experimenters in the artificial environment of a laboratory, we can study them working for their clients in what might be termed their “home environments”: in face-to-face sittings, or in performance to audiences in stage demonstrations, or in telephone consultations. This allows us to further our understanding of the broader features of the ways in which members of the public actually consult psychic practitioners and consume demonstrations of parapsychological knowledge acquisition in their everyday lives. Thus, we can begin to develop naturalistic and ecologically valid parapsychological perspectives to complement laboratory-based studies. Moreover, we can begin to explore the communicative skills through which psychic practitioners demonstrate their paranormally acquired knowledge and through which, in consultations with sitters or audiences, that information is ratified, negotiated, contested, rejected, and amended. This in turn suggests a novel approach to the question of the authenticity of psychic practitioners’ claims.

A concern to establish proof and authenticity is central to the culture of psychic practitioners. For example, mediums will often begin public demonstrations with claims that, tonight, they are going to offer proof of the existence of the afterlife. The genuineness of psychic abilities underlies the content and organization of advertising materials, such as flyers (Wooffitt, 2006) and magazine adverts. Proof of survival and the spirits’ abilities to return to provide messages for their living friends and family are also constant themes in mediums’ autobiographies and in the *Psychic News*, the weekly UK newspaper for spiritualists and psychics. But instead of exploring the authenticity of psychic practitioners experimentally, in procedures established by professional scientists, we can begin to see how psychics, mediums, and their clients *themselves* address issues of proof and authenticity in their consultations. That is, we can ask: what counts for the participants as a successful demonstration of psychic abilities? How is ostensible parapsychological knowledge introduced into sittings, consultations, and stage demonstrations? And what are the broader communicative competencies that practitioners and their clients draw on?

This article presents some key findings from qualitative analysis of audio recordings and transcriptions of consultations between members of the public and psychic practitioners, such as mediums, clairvoyants, Tarot readers, and so on. It describes the properties of one recurrent pattern in their consultations through which evidential information is offered and accepted as displays of parapsychological cognition. The latter part of the analysis describes specific features of the practitioners' discourse that orient to issues of proof and authenticity.

#### DATA, TRANSCRIPTION, AND METHOD

##### *Data*

The data corpus used in this research consists of:

1. Thirty-eight recordings of sessions of psychic practitioners conducting sittings with individual clients. In all cases, the sittings were recorded by the psychics themselves (they provide a tape of the sitting as part of the fee). The sittings were conducted either at psychic fairs or in the psychic's or the sitter's home in various locations in the UK. The sitters were either students who volunteered to go to a psychic and provide me with a copy of the tape or people who have consulted psychics independently of this research and who subsequently provided me with copies of the tape recording of their sitting.

Of the student volunteers, only two knew that the focus of the subsequent research would be the organization of verbal interaction between psychic practitioner and sitter. Some of the student volunteers had readings from more than one psychic, and there were seven psychics from whom more than one reading was obtained.

2. Data from six stage demonstrations. A colleague, Colin Clark, provided transcribed fragments taken from a tape of "edited highlights" of a Doris Stokes performance at the Dominion Theatre in London recorded in the early 1980s. A doctoral student provided me with a CD recording of a performance of stage mediumship recorded in 2004. There are also ethnographic notes of four other stage demonstrations of mediumship in large halls and hotel conference rooms; these were observed by the author between 2003 and 2006 in the north of England.

3. An audio tape of a private sitting conducted in the Northwest of England and a videotaped reading by an American medium, both of which were recorded independently of the research project outlined in this article. (These were provided by the James Randi Educational Foundation.)

4. Fragments transcribed from the video recording of a 1998 terrestrial UK television documentary about mediumship.

In total, the corpus stands at audio recordings of 42 sittings and stage demonstrations, and ethnographic notes from a further four stage

demonstrations that were not recorded. The corpus contains sittings and demonstrations from 28 psychic practitioners. There are 34 sitters in the corpus. This does not include the numerous audience members who identified themselves as recipients of messages from the spirits at the five stage demonstrations in the corpus.

### *Method and Transcription*

The data were analyzed according to conversation analytic conventions. Conversation analysis (hereafter, CA) is a qualitative method for the study of naturally occurring interaction. Despite its title, CA methods are not only applicable to the study of ordinary conversation but provide a rigorous set of analytic procedures for the investigation of all kinds of naturally occurring verbal interaction (see for example Drew & Heritage, 1992). As its application to parapsychology has been outlined in detail elsewhere (Wooffitt, 2003, 2005), a brief summary of the key methodological features is provided.

CA treats talk as social action. It investigates how turns at talk perform discursive actions: greetings, questions, answers, requests, assessments, accusations, agreements, rebuttals, clarifications, and so on. Analysis reveals how participants manage interactional activities through strongly patterned turn-taking sequences. Analysis proceeds on the assumption that the orderliness of talk as social action is not consciously produced but is the outcome of tacit communicative skills that underpin language use. The explication of these tacit communicative skills is a key task of CA research.

In the following empirical sections, analytic claims will be made about the interactional force and consequences of utterance. However, this should not be taken to imply that psychic practitioners and sitters are deliberately using language to achieve these ends. The communicative competencies which they employ, and which are revealed by the design of their utterances, are *tacit* skills. They inhabit the weave of everyday interaction, but they do not yield easily to reflection or introspection, and often resist explicit articulation. They are identified only through the analysis of turn design and the discovery of sequential environments.

Although CA research is qualitative, it is quite different from other qualitative methods, such as those advocated by scholars working in interpretivist, postmodern, or (some) microsociological traditions in that analysis is not driven by the analyst's interpretative skills or analytic agenda. That is, the goal of analysis is not to provide a set of subjective interpretations (or "readings") of data (or "texts") but to describe stable and objective structures in interaction (Schegloff, 1997). As such, in CA research there are formal requirements which govern the production of empirical claims, and which safeguard against unwarranted interpretation. Empirical claims are always grounded in close description of the data. Analysis proceeds



initially from close examination of particular cases. Analytic findings are then developed via inspection of collections of instances of particular verbal practices. In this sense, although not an experimental procedure, conversation analysis has much in common with the procedures in scientific naturalism in which several instances of a type of creature or plant may be examined to identify generic properties of the species. (Introductions to CA research can be found in Heritage, 1984; Heritage & Atkinson, 1984; Hutchby & Wooffitt, 1998; Psathas, 1995; Sacks 1992; Schegloff, 2007; Ten Have, 1999.)

Finally, it must be stressed that CA is ultimately agnostic about the content of verbal interaction. It is not, then, predisposed to an underlying sceptical appreciation of the ultimate ontological status of psychic practitioners' claimed abilities. So, although, as will become apparent, the results from the application of a CA methodology do lend themselves to a sceptical interpretation of the psychics' powers, it would be an error to assume that the method itself assumes a sceptical position.

The data were transcribed using the conventions of conversation analysis. CA transcriptions try to capture characteristics of verbal interaction omitted from transcripts that merely record the spoken word. This is because research has shown that even speech events that seem trivial can have important consequences for the participants. This means transcriptions capture aspects of utterance delivery as well as what was said. To capture these often overlooked features of verbal interaction, CA employs a transcription system, developed by Gail Jefferson, which uses symbols available on conventional typewriter and computer keyboards, a description of which is provided in the Appendix.

#### "SUCCESSFUL" DEMONSTRATIONS OF PARAPSYCHOLOGICALLY ACQUIRED COGNITION IN PSYCHIC PRACTITIONER-SITTER INTERACTION

A routine feature of the discourse of psychic practitioners (a term I shall use generically to refer to mediums, clairvoyants, Tarot readers, and so on) is the use of questions to initiate topics or develop ongoing topics, which then become, even if only momentarily, the focus for both participants. Moreover, these questions embody or "hint at" aspects of the sitters' current circumstances or their future plans, information that should not be available to a stranger such as the psychic. If the sitter finds the psychic's utterance to be accurate or in some way relevant, it is receipted and accepted with a minimal turn, usually a simple "yes" or "yeah." After the sitter's minimal acceptance or confirmation, the psychic practitioner moves swiftly to a turn in which the now-accepted knowledge is attributed to a paranormal source. From the psychics' perspective, these instances may be considered "successes," and they routinely exhibit a three-turn structure. To explicate this structure we will consider the following extract. This comes from the transcript of a sitting between a psychic who uses

Tarot cards and a young woman. During this sitting, the psychic is using the cards to discern aspects of the sitter's present and future life. (In this and subsequent extracts, the psychic practitioner is designated by the letter "P" and the sitter by the letter "S.")

(1) (KOJ:7/F:F) (The code before the slash indicates the recording from which this extract is taken. The code following the slash indicates the gender of the practitioner and the sitter.)

*(Discussing S's plans to travel after graduating.)*

S: I graduate in June I'm probably going to work until  
about february [so: jus' (.) any old j[ob ]y'know.

P: [RIght okay [right]

P: and are you going to the states,  
(.)

S: yeah.

P: yea:h, c'z e I can see the old ehm:  
(.)

S: Hh [huh Hah `h ]

P: [statue of ] liberty around you,

S: heh heh h[e `hhh

P: [there you are, there's contentment for  
the future.

The question "and are you going to the states" may be heard as displaying the psychic's special knowledge that the sitter is indeed planning to visit the US. Once this has been accepted it is retrospectively cast as having been derived from the Tarot cards: the psychic's utterance "c'z e I can see the old ehm: statue of liberty around you," portrays her prior turn as a consequence of her ability to discern from the arrangement of cards a classic iconic representation of the US and interpret its relevance to the sitter. Moreover, the turn is initiated with a derivation of "because," thus explicitly establishing that the topic of her prior utterance was generated from the special powers subsequently claimed in her turn.

This three-turn sequence can be described schematically as:

- T1 Psychic: a question embodying a claim about, or knowledge of, the sitter, his or her circumstances, and so on.
- T2 Sitter: minimal confirmation/acceptance
- T3 Psychic: attribution of now accepted information to paranormal source.

(From Wooffitt, 2006)

This is a routine organization of ostensibly successful claims about the sitter. The following two extracts come from sittings with mediums. Extract 2 is taken from a sitting with a medium in the US and comes from an early part of the sitting; Extract 3 comes from a sitting in the UK.

(2) (JREF:2/M:F (US)) (In this and other extracts, conventional speech marks are used to indicate direct reported speech.)

- P: So spirit wants me to do a scan on your bo:dy, talk about your health, so I'm going to do that okay? I'm going to do this for your health (0.8) Let's see what's going on with you. 'hh number one thing is your >mother in spirit please?< T1  
(0.2)
- S: Yes T2
- P: >'cause I have (n-m) y'r mother standing right over T3  
here, 'hh and she said "I WANna TALK to HER and I want to speak to her" because hh your mother has very lou:d when she comes through. h she speaks with a in a very lou:d way a very uhm (.) y'understand very [she has to be  
S: [ye:s.  
P: heard, h and like this would not happen today without her coming through for you. D'y' [un'erstand?  
S: [ 'kay  
S: Ye:s.

Extract 2 begins with a section from the psychic practitioner's description of how the sitting will proceed. After this initial preamble, he produces a question about the sitter's mother. This could be heard as a genuine question about the sitter's mother—that is, it may be equivalent to "has your mother passed on or is she still living?"—or it could be heard as a question which seeks confirmation of information already known to the medium. The sitter's minimal response does not disambiguate the prior turn in that a simple "yes" could be an answer or a confirmation. The medium's next turn, however, reveals that he is in contact with the spirit of the sitter's mother. Moreover, the medium prefaces this turn with "'cause"; this establishes that his prior turn was a consequence of, or an upshot of, information or events he is about to disclose in his current turn. This retrospectively characterizes his first turn as a question seeking confirmation of information already at hand. Also, it can now be inferred that the knowledge that the sitter's mother has died came from a paranormal source: the spirit of the mother herself.

Extract 3 provides three further examples of the sequential unit outlined above.

(3) (TV:1/M:F/F) (In this extract there are two sitters, a mother and her daughter (“S1” and “S2”). At this point in the sitting the medium claims to be in contact with the spirit of their husband/father.)

- |     |   |    |
|-----|---|----|
| P:  | >’ave you ‘ad< (.) bit >(o’)< trouble with<br>your back as <u>w</u> ell.  | T1 |
|     | (0.2)   |    |
| S1: | yes a little bi[t   | T2 |
| P:  | [he says ah’d best send her a bit of<br>sympathy down so you understand it,<br>’hh [h   | T3 |
| S1: | [ye [s  |    |
| P:  | [coz y’know h y’try to <u>b</u> ottle things<br>up and you don’t always let people<br>get <u>cl</u> ose to you in that sense do you | T1 |
| S1: | <u>n</u> o.   | T2 |
| P:  | he says she can be quite stubborn at times y’know<br>(.)  | T3 |
| P:  | is that true  |    |
| S1: | yes:  |    |
| P:  | an’ he knows czh you are <u>f</u> ussy about the bungalow<br>aren’t you [girl   | T1 |
| S1: | [yes I am   | T2 |
| P:  | bless her he says   | T3 |

There are three questions, each of which can be heard as proposing that the psychic has access to intimate knowledge about the sitter: that she has back trouble, that she can be withdrawn, and that she is houseproud (“fussy about the bungalow”). To each of these questions the sitter provides minimal confirmative responses. And on each occasion the psychic then goes on to report what the spirit of the sitter’s husband has said to him, thereby making it inferable that it was the spirit who provided the information about the sitter.

The display of paranormal cognition, then, is sequentially ordered: it is in the third turn of the sequence where now-accepted claims about the sitter are attributed to a paranormal source, and thus constitute evidence of paranormal cognitive abilities. Space restrictions prevent further demonstration of this sequence by examination of other cases. This three-turn sequence however, has been found in one-to-one consultations, in stage demonstrations, and in telephone interaction on a television programme between a medium and viewers; it occurs in consultations at psychic fairs,

and in the sitter's home; it informs the discourse of mediums, clairvoyants, Tarot readers, and other kinds of psychic practitioners; it can be observed in recordings of world famous mediums as well as lesser known local psychics, and in recordings from the US and the UK; it occurs in sittings consisting of male practitioners and female sitters, and in sittings of female practitioners and male sitters; it even informs written recollections of notable successes in mediums' autobiographies (Wooffitt, 2006). This is not the only way in which psychic practitioners can demonstrate paranormally acquired knowledge, but it is a recurrent and generic feature of psychics' discourse.

*Deviant Case Analysis: Projected and Completed Extensions of Second Turns*

The analysis so far suggests that the third turn in the sequence is significant because it is here that paranormally acquired cognition is retrospectively claimed and thereby demonstrated. Evidence of the practitioner's tacit understanding of the epistemic significance of the third turn may be found in cases in which participants deviate from the established pattern of this sequence. We will consider two cases in which sitters do not provide minimal acceptances/confirmations.

In the following extract the psychic's question implies knowledge of the sitter's ill health.

(4) (UniS:5/F:F)

- |    |   |    |
|----|---|----|
| P: | are you fi:nding that >y'got to have< check<br>ups and it's getting you down<br>(1.8)           | T1 |
| S: | yea:h ah've got my[( )]   | T2 |
| P: | [yeah] yeah >we(II) ah know<<br>'cos I've got the medical: (0.2) feel arou:nd<br>you `hhh erhm: | T3 |

There are three features of the sitter's turn which mark its difference from routine acceptance/confirmations: first, it is delayed; second, the turn initial item is a slightly extended "yeah," which could be hearable as expressing hesitation or unwillingness to produce an unequivocal endorsement; and finally, "ah've got my" projects a forthcoming report or telling.

The psychic begins to talk in overlap with the sitter. Indeed, her utterance cuts across the sitter's on-going turn, which is then abandoned before reaching any recognizable completion. Moreover, it can be inferred from "ah've got my" that the sitter is working up to a disclosure or announcement of some kind, the site of which is projected after the production of "my." Thus the psychic's first "yeah" is timed to collide with precisely that part of the sitter's utterance in which it is likely that the sitter

will produce a word or phrase which reveals what the topic of her turn will be (for example, “operation,” “appointment,” and so on). The psychic’s turn is initially composed of “yeah” repeated, and only when she is clear of co-occurring talk from the sitter does she, first, explicitly claim to know already about the sitter’s problems, “we(II) ah know,” and, second, attribute that knowledge to a paranormal source: “‘cos I’ve got the medical: (0.2) feel arou:nd you.”

Similar concerns inform the following extract. Here, the psychic proposes that earlier in her life the sitter may have considered a career in what is characterized broadly as a caring profession. The sitter treats this as correct, but instead of a minimal acceptance, she states specifically which kind of caring profession she had intended to enter.

(5) (UniS:10/M:F)

- P: ‘h ↑y’ever though(t) o(f) ‘h did you want to go  
into a caring pro↓fession early on, when  
>y’w’s uh(t)< y’know when you were  
choosing which way you were gonna go. T1  
(.)
- S: yeah I wanted to: go into T2  
child care actuall[y when I ]
- P: [MMMmm:::]:::=
- S: =when I let school
- P: that’s right yeah >well< ‘h (.) ’m being shown T3  
that>but (t)-< ‘h it’s (0.2) it’s not your  
way ye(t) actually but i(t) y’y may be caring for  
(t-)ch- children or whatever later on okay?

Here again, the sitter does not provide a one-word acceptance/confirmation, but in T2 embarks on an extended turn in which she discloses factual information. The psychic’s subsequent turn begins with a loud and extended agreement marker. While this is positioned at a possible turn transfer location (the end of “actually”) it is continued in overlap with the sitter’s continuation. The psychic’s agreement marker has an exaggerated and extended character and seems to be designed to close down the sitter’s on-going turn. Indeed, the sitter does abandon this turn, albeit temporarily, and the end of the psychic’s overlapping agreement marker occurs in the clear. However, the sitter recommences her turn exactly at the point where psychic’s “mmm” finishes, and completes it. And, as in the previous extract, when the psychic eventually gets the chance to produce the third turn in this sequence, the demonstration of knowledge obtained from a paranormal source is delayed, this time, by the inclusion of “that’s right yeah,” an item which is responsive to the sitter’s informing.

In Extracts 4 and 5 the sitters treat the psychic's prior utterance as warranting or inviting disclosure of fairly specific information, and in both cases the sitters' departure from the established pattern of second turns is followed by the psychics' departure from the established pattern of third turns. In Extract 4 the psychic initiates an overlapping turn, thereby demonstrating an orientation to the possible loss of relevancy of the third turn. And in Extract 5, although the psychic's agreement marker is placed in the vicinity of a location where turn transfer may be initiated, its exaggerated and extended production seems—conspicuously—to cut across a factual report from the sitter and ends when it appears that the sitter has terminated her turn. Moreover, before the psychics move to an attribution they produce components that are responsive to the “informings” being produced. However, they do not mark the informing as “new,” as this would constitute a clear breach of the lay understanding that psychics are meant to tell the sitter things, not the other way around. Instead, they produce agreements: “yeah” and an exaggerated “mm,” thereby exhibiting that they are confirming news, not receiving it. And in both cases, the psychics then establish that they already knew what the sitter has just revealed. This is explicitly addressed in Extract 4 when the psychic says “>we(II) ah know<.” In Extract 5 it is realized by “that's right yeah,” an unmarked acknowledgment which specifically proposes that the speaker is already aware of—and therefore in no need of—the information being presented to them (Heritage & Sefi, 1992: 395–398).

These turns, then, display the psychics' understanding of the interactionally problematic nature of extended second turns. This is because they threaten the practitioners' epistemic authority.

Consider Extract 5: once the sitter has revealed that she had wanted to work in child care, the psychic is placed in the position of having to claim in his next turn that information which has just been disclosed by the sitter just so happens to have been revealed to him through a paranormal source. This invites a sceptical query about the authenticity of the psychic: if he already knew this, why didn't he mention it before the sitter? Furthermore, insofar as the sitter has elaborated upon the kinds of work adumbrated by “caring professions,” it is now apparent that the paranormal source has provided less specific information than a human one. This raises another basis for doubt about the credibility of the psychic, for even if it is accepted that the psychic is indeed using paranormal powers to glean information, what value are his reports if they are less perceptive or insightful than those provided by the sitter? Finally, his subsequent prediction about the sitter's future involvement with child care—“it's not your way ye(t) actually but i(t) y'y may be caring for (t-) ch- children or whatever later on”—seems transparently to originate not so much from a paranormal source but from her disclosure that she had *wanted* to work in this area, a formulation from which it can be inferred that she had not yet done so.

Extended utterances, then, threaten the effectiveness of the third turn as the site in which attribution can be accomplished. The design of third position turns in Extracts 4 and 5 addresses this: claiming that something was known already provides for the possibility of a subsequent attribution; treating the sitter's disclosure as "news" does not. In this, the oriented-to properties of the sequence provide the grounds for the psychic's attempts to close down or forestall utterances designed to provide factual information. Furthermore, it demonstrates the psychics' understanding that the third turn in this sequence is the site in which their epistemic authority—the grounds for the claims to have access to parapsychologically derived knowledge—may be demonstrated.

The attributive sequence, then, is a vehicle for the negotiation of implicit epistemic claims that bear directly on attributions of authenticity. In the following sections we explore this feature of the sequence in more detail and focus in particular on various ways in which psychics can establish epistemic neutrality in first position, topic-initiating questions.

#### EPISTEMIC MANAGEMENT AND NEUTRALITY

Analysis of the way that authority is invoked, warranted, and negotiated in interaction has been a longstanding focus of conversation analytic research (for example, Clift, 2006; Heritage & Raymond, 2005; Pomerantz, 1980, 1984, 1986; Raymond, 2000; Raymond & Heritage, 2006; Sacks, 1979, 1984, 1992; Stivers, 2005), and has been the focus of research in cognate disciplines such as discourse analysis and discursive psychology (Edwards & Potter, 1992; 2005; Potter, 1996; Potter & Hepburn, 2003; Stokoe & Hepburn, 2005; Wiggins & Potter, 2003). A key finding of these studies is that epistemic authority is not a given in social interaction, an invariant feature that simply reflects the participants' roles, relative status, or identities. These studies show how epistemic authority is the outcome of discursive activities embedded in routine communicative procedures, such as turn-taking and turn design, and an attribution that may be challenged, negotiated, and warranted in various ways.

But it is not only epistemic *authority* that has to be accomplished interactionally: so do interpersonal stances that exhibit the speaker's neutrality towards a topic, issue, or state of affairs. This is particularly clear in institutional contexts in which there is an expectation that one or more parties should be seen to be impartial, such as courtroom activities (Atkinson, 1992), television news interviews (Claymen, 1988, 1992, 2002; Heritage & Greatbatch, 1991), and family mediation (Greatbatch & Dingwall, 1999).

Examination of the attributive sequence suggests that the accomplishment of neutrality is also relevant to psychic practitioners. The third turn of the sequence is primarily concerned with demonstrating that now-confirmed knowledge was available to the practitioner because of some form of parapsychologically derived cognition. It is a clear and



explicit display of epistemic authority. In the first turn, however, there is, routinely, no attribution to any kind of source for the hinted-at knowledge claim, paranormal or otherwise.

This section presents a closer analysis of some recurrent properties of design and delivery of topic-initiating first turns. Data are presented which strongly suggest that practitioners display a tacit understanding that first-position turns should not explicitly state or implicitly hint at an attributable source for the suggested knowledge claim. We then examine properties of questions by which practitioners establish a neutral stance toward the knowledge claims they are providing, and thereby manage the epistemic basis of their authority and authenticity as psychic practitioners.

*“Conspicuous” Nonattribution*

A recurrent phenomenon in the corpus is that practitioners do not identify a source for implied knowledge claims prior to their confirmation. The absence of attribution can become noticeable and conspicuous when viewed in the context of on-going talk. This is most clearly evident in consultations with mediums. It is routine to find that even when there is an explicit claim of concurrent spirit communication there is no implication that the spirit might be the source of the information hinted at in any subsequent topic-initiating question. In the consultation from which the next extract is taken, the medium has established communication with the sitter’s deceased husband. The medium is reporting that the husband liked to give gifts of jewelry to his wife; other remarks about the husband follow.

(6) (JREF:2/M:F (US))

P: and uhm it was very special (.) for him to give  
you some jewellery. hh and he reserved that for  
special times, >s’wa’< s[pecial- occas[ions:] when

S: [mm hm.- [Yes:.]

he did this with you. ARhm: hhh °got you°

(1.3)

P: he is a tough man to figure out,

(0.2)

P: he’s a a tough guy to figure out h he has  
his own agenda.

(0.2)

S: that (.) could be true.

P: mm hm because um, he’s also a person (.) it’s  
very hard to get to know him.(.) h he has  
very t- tough skins. he’s very tough-skinned. h  
and it feels like (.) he doesn’t let many  
people through, (0.2) but he let you through,

- S: mm hm  
 P: you understand?  
 S: yes.  
 P: and this is what he is talking about.  
 S: [ˈkay=  
 P: he said he let liz through. h  
 >did he ever call you< Lizzie? T1  
 (0.4)  
 S: Ye:s,  
 (0.4)  
 P: because he says “I let lizzie through”.

A topic-initiating question (identified by “T1” in the transcript) implies that the practitioner knows that the sitter’s husband used this name for his wife when he was alive. Once the implied knowledge claim is confirmed, it is attributed explicitly to the spirit of the sitter’s husband. But in the first turn, there is no attribution.

This is conspicuous given that in the immediately prior talk, it is clear that the practitioner is reporting concurrent and on-going communication with the spirit. So, earlier in the sequence, after discussing the deceased husband’s fondness for giving his wife jewelry, the medium produces a *sotto voce* “got you,” thereby acknowledging on-going communication from the spirit. Furthermore, the practitioner establishes that he is reporting the spirit’s words, “and this is what he is talking about.” The present tense of “talking” implies concurrent communication from the spirit. The spirit’s words are also paraphrased in indirect reported speech: “said he let liz through,” which further attests to on-going contact with the spirit. There is evidence, then, that the practitioner is receiving a continuous, on-going stream of information from the spirit. Yet the topic-initiating question and its implied knowledge claim—which is subsequently attributed to the same spirit—does not index a paranormal source.

Extracts 7 and 8 provide further instances of a nonattributive question being produced immediately after a stretch of talk in which the spirits’ presence, participation, or words have been reported. In Extract 7 the practitioner, a medium, is in contact with a spirit (referred to here as “she”) who is a deceased relative of the sitter. The medium reports: the spirit’s pleasure at some event, some communication from the spirit which was problematic, the spirit’s happiness, images of flowers presented by the spirit, the spirit’s words of advice for her living relative (in direct reported speech), the spirit’s gestures towards the sitter, the spirit’s concern for the sitter, and, in indirect reported speech, the spirit’s greetings to the sitter’s (non present) wife. It is clear that the medium seems to be reporting on a stream of information from and activity by the spirit.

(7) (JREF:1/F:M )

P: oh she's so pleased. (0.3) she's so pleased she's  
really (.) (ptchuh) h ahm: (.) (ah reck'n) (tchuh)  
(0.8) 'h and I suppose if I go back to the: (.) ellen  
(0.2) and then say (.) alice bennett (0.4) because I said  
where's the enn then (0.2) ah said is it lesley ann=do  
you remember,

S: mm hm  
(0.2)

P: hhh but now I understand what she was trying  
to give me (.) >and it was all getting jumbled up,<  
(3.5)

P: she's so: happy,  
(0.7)

S: good.

P: and so happy to see: (.) everybody, and she brings  
me the beau:tiful colour of violets, (0.2) that lovely  
soft colour of violets, (0.5) which is lovely (.) and  
it's  
beautifully peaceful (0.3) and uh  
(1.2)

P: and then (.) she just said "don't ↑ever be afraid:  
(0.4) don't  
↑ever be afraid: (0.2) there's nothing to be afraid of."  
(0.7)

P: an(g)uh:,  
(3.3)

P: (ptch) oh it's lo:vely,(0.2) she just leaned forward  
and put a scarf round your neck and turned your collar  
up huh huH HUH HAH HAH HAH(n) nn HHH which is a a(hh)y  
o(h)f sa(hu)ying, 'hh (.)h "I look after  
you?"(ch)huh) (ch)huh huh=  
=Yeah.

P: 'h (ch)Hhu(n) sure she would've always been  
co[ncerned ↑are you warm enough, (w'y-)hh hu(n)

S: [yeah

P: hu(n) hu(n) hhh a:nduh: (0.2) and (.) her ↑love to  
lesley  
because 'h she's a nice girl she said (0.4) a:nd um:  
(10)

P: swimming. (2.5) who's been swimming,

T1

When the medium introduces the topic of swimming, there is no suggestion that the spirit, whose presence has been firmly established in

the preceding talk, is the source of this implied knowledge claim. Moreover there is no indication that communication with that spirit has now ended. Indeed, the turn “her ↑love to lesley because `h she's a nice girl she said (0.4) a:nd um:” suggests report of further communication from the spirit is forthcoming.

Extract 8 details the stretch of talk prior to the three consecutive attributive sequences in Extract 3.

(8) (TV:1/M:F/F) (This extract is taken from a video recording, hence the descriptions of the sitter's visible reactions.)

- P: cos I know it's been very difficult for you at  
the moment [bless you
- S1: [yes
- P: and you know it's so hard to get yourself motivated  
isn't it
- S1: °yes°
- P: you haven't been feeling well neither bless you  
have you
- S1: no ((S1 getting watery eyed))
- P: w'l he says “just tell her ah'm been tuning into her so  
much” (0.6) you don't sleep and (what you're told do you)  
((S1 very tearful))
- P: s'alright tissues are down if you want them  
they're down here girl
- ? ( )
- P: alright so (0.8) but as he says he just wants to let  
you know he's here he's not missing out on anything  
(0.8) alright (0.5) now (.) he says “tell her to stop  
worrying” because y- he says to it's not worth it now  
what you've got to remember is (0.6) you're important to  
him now can you understand it (0.6) your life's important  
to him as well  
>'ave you 'ad< (.) bit >(o')< trouble T1  
with your back as well.

Again, after a relatively lengthy account of the spirit's positive regard and concern for the sitter, in which the co-presence of the spirit is suggested by direct reported speech of his utterances, a subsequent topic-initiation question does not index that spirit as the source of the medium's implied knowledge of the sitter's back trouble. It subsequently transpires, though, that the spirit was indeed the source of that information.

Topic-initiating utterances are designed so that there is no inferable source for the implied knowledge claim, even when the logic of the sitting, and the content of the practitioners' prior and on-going talk,

strongly suggests that they have current “live” access to paranormal sources of information. This suggests that practitioners orient to a procedural requirement to produce unattributed and epistemically neutral first position turns. In the following sections we examine three discursive practices through which epistemic neutrality can be further established.

*“Relevance Implicative” Properties of Topic-Initiating Questions*

First position turns have a propositional quality, in that they implicitly propose that the information around which the question is built is relevant to the sitter. Extracts 9–16 provide further examples.

(9) (Misc:11/F:F)

P: yer must be looking to travel at the <sup>↑</sup>moment are ya?

(10) (KOJ:7/F:F)

P: and who’s got debts,

(11) (Misc:5/F:F)

P: do you ever find under the(t) rib aches a bit as well.

(12) UniS:10/M:F

P: (okay) hh <sup>↑</sup>are you suffering a bit of bad period <sub>↓</sub>problems just recently,

(13) (KOJ:7/F:F)

P: and who’s pregnant around you.

(14) (JREF:1/F:M )

P: and steve who’s steve.

(15) JREF:1/F:M

P: who’s david.

(16) (Misc:8/F:F)

P: and who’s bi:ll,

The questions may be said to be relevance implicative, as they are designed to propose that the sitter *should* be able to recognize the relevance of the referent(s) of the question: that the sitter is likely to suffer from rib pain, or does indeed suffer from menstrual problems, or is going traveling; or that someone known to the sitter has got debts, or is pregnant, or is called Steve, David, or Bill.

The relevance implicativeness of these questions emerges from various design features. First, each utterance is concerned with only one issue, statement, or implied knowledge claim. As the sole focus of the turn, that issue or claim is highlighted, and its potential significance to the sitter is implicitly underlined. Second, topic-initiating questions can be almost declarative in that they display an unequivocal confidence that that sitter will recognize, for example, a name, or a person identified by a particular characteristic. For example, “and who’s got debts,” and “who’s david.” are not mitigated by turn components that imply any degree of uncertainty as to the answer of the question (such as “is there,” “have you,” and so on). Third, topic-initiating questions can be prefaced by “and.” The use of “and” to preface turns is a feature of utterance design in a range of institutional or work related contexts and implies that the speaker is working through a set of predetermined issues or topics (Sorjonen & Heritage, 1991). In this context, and-prefacing works to suggest that what follows is merely one in a series of pre-established issues relevant to the sitter.

Confidence in the relevance of the topic-initiating question can also be underlined by the use of “so.” For example:

(17) (KOJ:7/F:F)

P: so who’s going to Greece?

In conversational interaction “so” projects that what is to follow is in some sense a gist, upshot, or consequence of prior talk, that is, it is in some sense relevant to and grounded in prior action (Raymond, 2004). Here, the “so” projects that “who’s going to Greece” is in some way the upshot or consequence of—that is grounded in—some (unstated but implied to be paranormal) means of knowledge acquisition.

Relevance implicativeness can also be emphasized by the use of “yknow” as a preface to a topic-initiating question, which proposes common knowledge, and phrases which are linguistically predisposed to elicit agreement, such as tag questions like “do you,” “don’t you,” and “aren’t you.” Examples of both these devices are illustrated in a topic-initiating question from the series in Extract 3.

(From Extract 3)

P: coz y’know h y’try to bottle things up and you don’t  
always let people get close to you in that sense do you

*Topical Disjunctiveness*

A feature of topic-initiating questions that works to propose their relevance to the sitter is that they are routinely disjunctive to the on-going topic of the immediately prior exchanges. In Extract 18 both participants are discussing the sitter's plans to travel.

(18) (KOJ:7/F:F)

P: an' and travel?-

S: what I'm I'm go(n)- (.) (plan these)  
travel[s with- f' when've (.)]

P: [okay well that will be:] eh[:m:

S: [finished

P: that will be that then. [travel? 'h ahr: because

S: [yeah

P: feel that this country you've had enough  
of it fo[r a while [and the ] studying and

S: [(k)hh hu ye(hh)ah [ ( ) ]

P: learning is saying that you haven't got the knowledge at  
the moment, but you're go(n) - you're doing it.

S: y[e:ah]

P: [ 'h w]ho works at computers ↓sally.

(1)

S: Ehrm::

(0.6)

S: I can't think of anybody actually

Over a series of turns the psychic establishes that the sitter intends to travel, then formulates motives for these travel plans: the sitter has "had enough" of this country. The psychic then refers to the sitter's current progress in her university studies "you haven't got the knowledge at the moment but you're go(n)- you're doing it." After the sitter's confirmation of this general and vaguely optimistic prognosis, and in overlap with that confirmation, the psychic introduces an entirely new topic, unconnected to any feature of the prior talk in this extract, or indeed, to any topic introduced in the entire sitting prior to the section transcribed here: "who works at computers ↓sally."

This topical disjunctiveness is a robust feature of topic-initiating questions. Extracts 19–22 provide further examples (indicated by arrows). (See also Extract 6.)

(19) (Misc:8/F:F)

P: hh who has links with austria

S: oh I have a sister in austria  
 P: thank you very much (.) erm: (0.6) now I don't know  
 what (.) gladys - how gladys comes into this 'hh er but  
 she certainly knows about the austrian (.) er (.) part  
 of the family y'know hh so: (.) she may have been a  
friend of that part of the family 'hh ah get a lovely  
 little old lady 'ere who just pops in and says "she  
 doesn't know me mandy 'hh but I know the ones in austria"  
 she's saying (.) 'hhh  
 → and who's into nursing luvvie

(20) (KOJ:7/F:F)

P: =y- I feel th't you go for eyes, you >know what I  
 mean, <=you like people [with nice eyes as well. 'h and  
 S: [↑yea:h,  
 P: there's also travel, for you,  
 (.)  
 S: m[m hm]  
 P: ['h ] and there's also ↑money for you as wg:ll? 'h  
 → an' are y' changing a ca:r,

(21) (6) (Misc:11/F:F)

P: as you mature an' as y' get older I think you'll see more  
 of 'im 'h an' I think it'll take you around about five or  
 six years before you seem a little bit more closer  
 (0.4)  
 S: r[ight  
 P: [for some reason 'hhh  
 → you don't want to live in the area d'ya?

(22) (KOJ:7/F:F)

P: and are you going to the states,  
 (.)  
 S: yeah.  
 P: yeah, c'z e I can see the old ehm:  
 statue of liberty around you,  
 S: heh heh h[e 'hhh  
 P: [there you are, there's contentment for  
 the future.  
 S: oh go[od  
 P: → [who's pregnant around you?



In these cases, the on-going topics are, respectively: a spirit who knows members of the sitter's family living abroad, a series of statements about the sitter's romantic preferences and her forthcoming travels and financial developments, the sitter's relationship with her father, and the sitter's plans to travel. The psychic then produces questions that set new topics: someone known to the sitter with interest in nursing, plans to change a car, the sitter's dislike of the area in which she lives, and someone known to the sitter who is pregnant.

Abrupt topical jumps such as these are inferentially effective ways of suggesting relevance to the sitter. This is because lexical components and figures of speech that mark topic changes in routine interaction (for example, Button & Casey, 1984; Drew & Holt, 1998; Jefferson, 1984) are absent. This implies the psychics' concurrent access to a paranormal source of information—be it the spirit world or their parapsychological abilities—is yielding information of such a pressing and vital kind that routine conversational procedures for topic change can be abandoned and the utterance delivered disjunctively to the focus of immediately prior talk.

*Self Repair/Termination of On-Going Turn and Projected Turns*

The “pressing relevance” of paranormally acquired information can also be established via the termination in mid-production of on-going turns.

(23) (JREF:1/F:M)

- P: and she's pleased about that and she's (.) says  
sh(e) - ↑who's ↓derek.  
(0.5)
- P: who's derek.=
- S: =derek is a nephew

Prior to the exchange in Extract 23 the practitioner, a medium, has been reporting the positive stance of a spirit toward aspects of the sitter's life. This continues with “and she's pleased about that,” “she” here being the spirit with whom the medium is in contact. The utterance “and she's (.) says sh(e)” suggests that the medium is about to embark on further report of the spirit's communication. However, the final component of the word “she” is curtailed and the practitioner immediately asks “↑who's ↓derek.” The practitioner thus shifts her focus: a direct question to the sitter which initiates a new topic has “cut across” her on-going report of the spirit's discourse about a prior matter. The abrupt termination of the projected, on-going turn exhibits an understanding that the new turn takes priority—that this is now more important to the sitter, or that this is what the spirits

have just impressed upon the medium (for the attention of the sitter). This is the basis upon which it can be heard as exhibiting “special relevance” for the sitter.

The practitioner’s self-repair (Schegloff, Jefferson & Sacks, 1977) on an on-going turn to produce a topic-initiating question is not unusual. For example, in the following case, the psychic is clearly embarked on a report concerning the sitter’s brother.

(24) (UniS:13/F:F)

PP: yes your brother will ahm- (.) is your brother quite sensitive?

The projected report is terminated in mid-production (following a minor hesitation) and the psychic then asks a question about the brother’s personality. Insofar as both the abandoned and new turn are concerned with the sitter’s brother, there is a degree of topical continuity. The focus on the brother’s personality, however, is disjunctive to the projected report of something he will do or experience.

Extract 24 is interesting in that it illustrates that psychics do not only terminate on-going turns which deal with substantively different matters to those they are about to embark on: they also curtail turns which project actions such as informings, reportings, and advice-giving. Again, this is a recurrent phenomenon. In Extract 25, the psychic begins a turn with what looks like a report of her opinion on some matter (“I also think that you should do X”) or a prediction (“I also think that X will happen”).

(25) (UniS:3/F:F)

P: er:m: (0.2) I also think that uhm:  
(.)

P: `h are there three of you th’t’re very close,  
(0.3)

S: there is in our house yeah yeah I share a house

This projected report/prediction is abandoned and replaced with a question that topicalizes the sitter’s friendship or kinship network.

Extract 5, discussed earlier, also provides an instance.

(5) (UniS:10/M:F)

P: `h ↑y’ever though(t) o(f) `h did you want to go  
into a caring pro↓fession early on, when >y’w’s uh(t)<  
y’know when you were choosing which way you were  
gonna go.

Here, the psychic's utterance “↑y'ever though(t) o(f)” is the first component of a projected turn. Used as initial components in a turn, the words “y'ever thought of” suggest that the speaker is about to offer a suggestion or advice. This projected turn is terminated mid-production, and the practitioner then issues a question, beginning with “did you.”

It seems, then, that projected turn formats that are subsequently abandoned have been designed to display some degree of epistemic commitment to the topic of the utterance. So, a turn which begins with “I think” implies that the speaker believes that what follows is true (or reasonable, rational, appropriate, and so on). Similarly, an utterance that advises a course of action may be deemed to reflect or express the speaker's endorsement of that advice. A question format, however, does not convey that level of epistemic commitment, in that it allows the psychic to suggest knowledge of the sitter but does not imply an endorsement of or commitment to the substance of that claim.

In the light of these observations, consider the next two extracts. In both cases, there is an instance of the three-turn attributive sequence identified earlier. But prior to this sequence, the practitioners explicitly or implicitly announce that they are going to “give news.”

(26) SD:4/M:Aud (Ethnographic notes) “R” is audience respondent.

P:	I'm just going to tell you something <i>(long pause approx 3 seconds)</i>	
P:	did you overfill a kettle recently?	T1
R:	yes	T2
P:	He heard what you said	T3
	Aud: <i>laughter</i>	

(27) (JREF:2/M:F (US))

P:	So spirit wants me to do a scan on your bo:dy, talk about your health, so I'm going to do that okay? I'm going to do this for your health (0.8) Let's see what's going on with you. `hh number one thing is your >mother in spirit please?< (0.2)	T1
S:	Yes	T2
P:	>'cause I have (n-m) y'r mother standing right over here,	T3

In Extract 26, which comes from a stage demonstration of mediumship, the practitioner is addressing an audience member and claims to be in contact with the spirit of her dead husband. He then announces that he is going to make a report, which, in context, is hearable as a report

of something the spirit has communicated. However, instead of a report, his next turn is the topic-initiating question. And in Extract 27, from a one-to-one sitting with a medium, the practitioner reports that the spirits want him to focus on the sitter's health. He states, "so I'm going to do that okay? I'm going to do this for your health," which establishes his commitment to the health scan, and then "Let's see what's going on with you," which suggests an assessment is about to begin. Both the stated commitment to a scan and the suggestion of its onset imply a subsequent report of the results of that assessment to the sitter (that is, it would be perverse for spirits to initiate a check on the health of a sitter that was not intended to be disclosed to the sitter, and for their benefit only). However, instead of a report on the sitter's health, the practitioner asks a question about the sitter's mother that, when confirmed, is retrospectively recast as an implied knowledge claim via its attribution to a paranormal source. (The practitioner does not offer or refer to the assessment of the sitter's health in the rest of the sitting.)

#### SUMMARY

The analysis has identified and described some properties of a core sequential organization that informs demonstrations of various kinds of claimed parapsychological cognition in a range of interactional and discursive contexts. In particular, I have focused on features of the psychic practitioners' turns in which they attend to epistemic matters: the basis of and warrant for implied claims to have genuine parapsychological abilities. This has revealed that epistemic authority is not a uniform and constant feature of consultations but is handled variably in relation to the activities utterances perform. In first-position topic-initiating turns, practitioners display epistemic neutrality with respect to the knowledge claims their turns implicitly make. Moreover, there are various communicative resources through which this neutrality can be established. In third-position turns, however, there is explicit attribution to paranormal sources.

A concern with proof and authenticity, then, is not the preserve of the professional parapsychologist and to be explored through experimental procedure: it is inextricably implicated in the detailed design and sequential organization of practitioners' utterances, and handled in the moment-by-moment trajectory of the encounter. It is as much a concern for participants as it is for professional parapsychologists.

#### DISCUSSION

The methodological approach advocated in this paper allows us to supplement experimental, laboratory-based tests of the authenticity of psychic practitioners by examining naturalistic data: recordings and detailed transcriptions of real-life encounters between members of the public and psychic practitioners working in private homes, public houses, clubs, halls,

hotel conference rooms, and theatres. By analyzing the communicative competencies and sequential features of psychic-sitter interaction we have been able to develop robust empirical claims about generic properties of the ways in which mediums, clairvoyants and many other kinds of psychic practitioners actually work with their clients.

CA research is agnostic as to the truth or falsity of claims that are advanced in interaction. It focuses instead on the mechanisms by which such claims are advanced and the organized ways in which co-participants treat them. It might seem that the results of these impartial analyses lend themselves to recruitment to a sceptical position. The finding that practitioners work to establish their epistemic neutrality prior to confirmation from the sitter; and that attribution to a paranormal source is sequentially located after confirmation, can be recruited as support for the argument that no genuine parapsychological abilities are being demonstrated.

However, description of the communicative practices through which knowledge claims are made, attributed, accepted, rejected, or revised is not the same as an exposé of linguistic tricks by which a false claim is made persuasive, or through which one person can deliberately mislead another. Studies of authoritative or factual language have shown that even reports of uncontentious states of affairs may be formulated in such a way as to address anticipated sceptical responses or hostile responses (Billig, 1997; Billig et al., 1988; Edwards, 1995; Pomerantz, 1986; Potter, 1996). The issue is this: a psychic practitioner's knowledge claim still has to be established as authoritative and warranted in the course of the exchange with the sitter, whether it comes from extrasensory cognition, spirit communication, or by conscious inspection of the sitter's demeanor. Whether psychic practitioners possess genuine parapsychological forms of cognition or not, naturally occurring demonstrations of paranormally acquired knowledge in the consultation are irreducibly socially organized phenomena.

It may be assumed that the analysis presented here is aligned to cold-reading accounts of psychic demonstrations (for example Hyman, 1981). However, there are clear differences. CA is agnostic about the content of talk, whereas cold reading assumes that the psychics' claimed abilities are false. CA takes no position on the participants' morality or intellect, whereas cold-reading accounts presume, at best, some degree of gullibility and self-deception, or worse, outright fraud and lamentable credulity. Finally, cold-reading explanations provide only the most cursory inspection of broad features of psychic sitter interaction; CA's attention to detail of turn design and delivery, unencumbered by assumptions of fraud or deception, allows for a deeper and richer appreciation of the actual details of participants' conduct (Wooffitt, 2006). Cold-reading accounts can also invite misinterpretation of the significance of specific discursive activities.

A common theme in cold-reading literature is that psychics will ask questions to obtain information which can then be recycled, in some

suitably amended form, as evidence of spirit contact or parapsychological powers. In Hyman's classic (1981) account, he discusses "fishing," which is:

... a device for getting the subject to tell you about himself. Then you rephrase what he has told you into a coherent sketch and feed it back to him. *One version of fishing is to phrase each statement in the form of a question* (Hyman, p. 87; italics added)

According to this perspective, then, psychics use questions to elicit information. Intuitively, that seems a reasonable claim, but our intuitions are a poor guide to the way in which we actually use language. When we study the sequential and interactional use of questions, a different answer emerges. A conversation analytic perspective has revealed a sequence that is invariably initiated by a question; these questions, however, do not seem to be used to expose information about the sitter but are designed to initiate a short sequence of utterances that return the floor to the psychic with minimal sitter participation. Empirical evidence for this account can be derived from close inspection of the participants' own conduct: If sitters provide more than a minimal acceptance, psychics begin to talk in overlap with them, eventually curtailing that turn. We can understand this because of the significance of the third turn *in this interactional sequence*. It is in this sequential location that the psychics can attribute the now-accepted information as coming from a paranormal source.

Psychic practitioners do ask questions, lots of them, and it is not the argument of this paper that psychic practitioners do not glean information via them which may be used later in the sitting falsely to give the impression of paranormal cognition. The analysis has demonstrated, however, that whatever else practitioners may be doing, their use and design of questions display a clear orientation to sequential organisation of the interaction in which and for which the questions are produced. It is incorrect to assume that these questions are primarily explicitly strategic devices.

There is a broader point: People consult psychic practitioners, in significant numbers and in a variety of contexts, regardless of the experimental efforts of professional researchers, whatever the outcome, or the arguments of sceptics. And this in turn suggests that more effort should be devoted to analysis of the ways that ordinary people actually consult psychic practitioners. To understand the consumption of what is offered as parapsychologically acquired knowledge in everyday life, it is necessary to try to capture the lived experience of psychic demonstrations as they occur, in the ways in which they occur.

It is this to which conversation analysis can make a significant contribution. It allows the analyst to identify the structural, communicative procedures through which the sitting or demonstration is conducted, and which define it as a distinct form of social interaction. It permits us to describe

the tacit reasoning processes that can be seen to inform the participants' contributions to the turn-by-turn unfolding of the encounter. Furthermore, it exposes assumptions and expectations that shape participants' inferences about and evaluations of each other's conduct. The acceptance or rejection of parapsychological cognition is a discursive activity. Whatever the lived experience of a sitting or demonstration is for the participants, it is manifest in the communicative orders explicitly investigated in conversation analytic research.

This analytic approach is not based on post hoc reflections about peoples' experiences of their consultations nor on retrospective accounts from practitioners about their activities, but it is derived from direct examination of actual recordings of parapsychological abilities being offered, demonstrated, accepted, challenged and so on. We have, then, an emic, organically grounded analysis of the interactional discourse practices of psychics and mediums through which matters such as proof and authenticity (and inauthenticity) are addressed in the routine progression of the consultation or stage demonstration. In this sense, we are examining what are, *for the participants themselves*, parapsychological phenomena, mediated through interaction and discourse, in their natural settings.

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#### ABSTRACTS IN OTHER LANGUAGES

##### *Spanish*

RESUMEN: Se expone que aunque han habido estudios experimentales de psíquicos practicantes (médiums, clarividentes, los que usan el Tarot, etc.), las demostraciones de información paranormal en consultas en situaciones fuera del laboratorio han sido relativamente ignoradas. Análisis de estas consultas de rutina pueden proveer un entendimiento sobre lo que los fenómenos parapsicológicos son en ámbitos naturales para las personas del público. También se discute que las demostraciones contemporáneas de información adquirida paranormalmente son principalmente eventos mediados por medios lingüísticos. Utilizando un método cualitativo para el análisis de interacciones verbales de ocurrencia natural

este artículo examina transcripciones de grabaciones de consultas entre psíquicos, clientes, o miembros de una audiencia. El artículo describe características recurrentes de interacción a través de las cuales los participantes se refieren a la autoridad epistémica de los psíquicos: el origen o base de su supuesto conocimiento paranormal. Se concluye comparando el enfoque presentado aquí a discusiones escépticas del discurso de los psíquicos. También se defiende que investigaciones de validez ecológica como las discutidas aquí complementan las tradiciones experimentales establecidas en la parapsicología.

### *German*

**ZUSAMMENFASSUNG:** Es wird die Meinung vertreten, dass – ungeachtet der Tatsache, dass parapsychisch Praktizierende wie Hellsehmedien, Tarotkartenleger u. dgl. experimentellen Überprüfungen unterworfen worden sind –, Demonstrationen von paranormal erworbenem Wissen in alltäglichen Beratungssituationen mit Praktizierenden bisher weitgehend unberücksichtigt geblieben sind. Eine Analyse des Ablaufs von Routineberatungen kann Einsichten darüber vermitteln, welche Bedeutung parapsychologische Phänomene in ihren natürlichen Kontexten für die Allgemeinheit gewinnen kann. Es wird auch davon ausgegangen, dass gegenwärtige Demonstrationen von parapsychologisch erworbenem Wissen in erster Linie aus linguistisch vermittelten Vorgängen besteht. Unter Verwendung einer qualitativen Methode für die Analyse von natürlich vorkommender verbaler Interaktion, untersucht der Artikel transkribierte Aufzeichnungen von alltäglichen Beratungsgesprächen zwischen parapsychisch Praktizierenden und ihren Ratsuchenden oder Teilnehmern ihrer Vorträge. Der Artikel beschreibt wiederkehrende Merkmale der Interaktion, mit deren Hilfe die Teilnehmer die epistemische Autorität der Praktizierenden in Anspruch nehmen, nämlich als die Quelle oder Basis ihres offensichtlich paranormal erworbenen Wissens. Den Abschluss bildet ein Vergleich zwischen dem hier zugrunde gelegten Zugang und bewusst skeptischen Erklärungsversuchen eines Diskurses über Medien. Es wird die Meinung vertreten, dass ein naturalistischer, ökologisch valider Forschungszugang, wie er hier vorgestellt wird, die herkömmlichen experimentellen Traditionen innerhalb der Parapsychologie ergänzt.

### *French*

**RESUME:** Nous avançons que, bien qu'il y ait eu des tests expérimentaux menés sur des praticiens psychiques (médiums, clairvoyants, cartomanciens, etc), la mise en évidence de l'information acquise de manière paranormale dans les consultations quotidiennes de praticiens a été relativement ignorée. L'analyse de ces consultations routinières peut fournir un aperçu de ce que sont, pour le grand public, les phénomènes parapsychologiques dans leur milieu naturel. Nous avançons également que les mises en évidence contemporaines de l'information acquise de manière parapsychologique correspondent principalement à des événements médiatisés par le langage. En utilisant une méthode qualitative

pour analyser l'interaction verbale qui a lieu naturellement, cet article examine les retranscriptions des enregistrements de consultations entre des praticiens psychiques et leurs clients. Cet article décrit les caractéristiques récurrentes de l'interaction à travers laquelle les participants s'adressent à l'autorité épistémique du praticien: la source ou la base de leur prétendu savoir acquis de manière paranormale. Cet article se conclut par la comparaison entre l'approche adoptée ici et les comptes rendus sceptiques du discours des voyants. Nous avançons également qu'une recherche naturaliste et écologiquement valable, telle que celle illustrée ici, constitue un complément aux traditions expérimentales établies en parapsychologie.

## APPENDIX

## TRANSCRIPTION

The transcription symbols used here are common to conversation analytic research, and were developed by Gail Jefferson. The following symbols are used in the data.

- (.5) The number in brackets indicates a time gap in tenths of a second.
- (.) A dot enclosed in a bracket indicates pause in the talk less than two tenths of a second.
- ˙hh A dot before an “h” indicates speaker in-breath. The more h’s, the longer the inbreath.
- hh An “h” indicates an out-breath. The more “h’s” the longer the breath.
- (( )) A description enclosed in a double bracket indicates a non-verbal activity. For example ((banging sound))
- A dash indicates the sharp cut-off of the prior word or sound.
- :
- : Colons indicate that the speaker has stretched the preceding sound or letter. The more colons the greater the extent of the stretching.
- ( ) Empty parentheses indicate the presence of an unclear fragment on the tape.
- (guess) The words within a single bracket indicate the transcriber’s best guess at an unclear fragment.
- .
- , A comma indicates a continuing intonation.
- ? A question mark indicates a rising inflection. It does not necessarily indicate a question.
- Under Underlined fragments indicate speaker emphasis.
- ↑ ↓ Pointed arrows indicate a marked falling or rising intonational shift. They are placed immediately before the onset of the shift.
- CAPITALS With the exception of proper nouns, capital letters indicate a section of speech noticeably louder than that surrounding it.
- ° ° Degree signs are used to indicate that the talk they encompass is spoken noticeably quieter than the surrounding talk.
- Thaght A “gh” indicates that word in which it is placed had a guttural pronunciation.
- > < “More than” and “less than” signs indicate that the talk they encompass was produced noticeably quicker than the surrounding talk.
- = The “equals” sign indicates contiguous utterances.
- [ ] Square brackets between adjacent lines of concurrent
- [ ] speech indicate the onset and end of a spate of overlapping talk.

A more detailed description of these transcription symbols can be found in Atkinson and Heritage (1984: ix–xvi).

# TESTING FOR TELEPATHY USING AN IMMERSIVE VIRTUAL ENVIRONMENT

BY CRAIG D. MURRAY, TOBY HOWARD, DAVID J. WILDE, JEZZ FOX  
AND CHRISTINE SIMMONDS-MOORE<sup>1</sup>

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**ABSTRACT:** Within this paper we report on the use of immersive virtual reality (IVR) as an experimental environment and medium for the study of telepathy. We argue that IVR has a number of advantages over ganzfeld work using static or dynamic stimuli, as well as telepathy studies using physical objects. Our own Telepathy Immersive Virtual Environment (TIVE) uses 3-dimensional computer graphics technology to generate artificial environments that afford real-time interaction and exploration in conjunction with head mounted displays (HMDs), sound, and instrumented data gloves that allow participants to interact with virtual objects. Here we report the results of a test of telepathic communication using TIVE. A total of 200 participants (88 males, 112 females,  $M$  age = 28.9, range 16–64 yrs,  $SD = 9.13$ ) were tested in pairs, once as a sender and once as a receiver. This study did not find support for the psi hypothesis, either in terms of directional hitting or in a post hoc magnitude analysis, in which the outcomes were no different from what would be expected by chance. Suggestions for this outcome are discussed along with suggestions for further work.

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The ganzfeld has become the most favoured and successful experimental method for the assessment of general ESP performance, such as telepathy, in modern parapsychology (Bem, 1993; Milton, 1999). One reason that it is favoured concerns the development of computers as a central part of its experimental method, enabling the automation of the randomisation and selection of object sets and targets, minimising experimenter errors in recording participants' responses, and creating an electronic record that contributes to safeguards against fraud. Such work has also been argued to provide the most convincing evidence for psi. However, the current climate in parapsychology is one of an interim phase of self-assessment and evaluation regarding the future of the ganzfeld. This is in the wake of the publication by Milton and Wiseman (1997, 1999) of a meta-analysis of the results of ganzfeld experiments that challenge those of several previous meta-analyses undertaken on ganzfeld studies which yielded significant outcomes (Bem & Honorton, 1994; Honorton, 1985; Hyman, 1985; Radin, 1997), to argue that there is not a replicable psi ganzfeld effect (Milton & Wiseman, 2002). However, Bem, Palmer, and Broughton (2001) provide an analysis of those studies that adhere to a "standard" ganzfeld

<sup>1</sup> The work reported in this paper was supported by a grant from the Bial foundation ("Telepathy and presence in immersive virtual reality," project number 135/04). We would like to thank Fabrice Caillette for his programming work and Fiona Campbell for help in running the trials. We would also like to thank two anonymous referees for their comments on a previous draft of this paper that have helped to improve it.



procedure and argue that there is a replicable effect which is diluted by the inclusion of studies which deviate from this procedure in significant ways.

The features of studies employing the ganzfeld technique have varied, with different “hit” rates that have led to discussion of what features of ganzfeld studies may be more or less conducive to higher hit rates (e.g., Bem et al., 2001). Target materials as employed in the ganzfeld have often been purely visual; most researchers have employed pictures or video clips, whereas some researchers have employed objects and geographical locations as targets (Milton, 1991). It has been suggested that psi-conductive targets are more dynamic and multi-sensory and may have a psychological impact on the receiver (Delanoy, 1989). Target pools have been comprised of both dynamic and static stimuli. Honorton et al. (1990) described dynamic targets as comprising films, documentaries, and cartoons, whereas static targets are comprised of art work, photographs, and magazine advertisements.

Attempts to address the nature of a good target have suggested a preference for dynamic target clips compared to static ones (Honorton et al., 1990) and for more complex (colourful) target clips over simple (black-and-white) targets (Watt, 1996). It is of interest that real events and locations were successfully employed as targets in the “remote viewing” experiments conducted by Targ and Puthoff and other researchers in the 1970s (cf. Tart, Puthoff, & Targ, 2000). The dream ESP series at Maimonides (e.g., Ullman, Krippner, & Vaughan, 1973) were also very successful in terms of ESP outcomes (see Sherwood & Roe, 2003, for a review of dream ESP studies conducted since that time). It is of note that here the agent often attempted to act out aspects of the pictorial target material. Such literature suggests a need to develop and employ more realistic target material in future assessments of ESP in the laboratory.

A second issue in such telepathy research is the dislocation of sender and receiver (which, as will be elaborated, until relatively recently was impossible to overcome). In extant research, and for sensible methodological reasons, the sender and receiver are separated by physical space, be they separate rooms or buildings in a research institution or in their own homes several miles apart. The sender is required to try to transmit some information (a name, a picture, an emotion, etc.) and the receiver is required to identify the target from a pool of possible targets.

Much experimental research in psychology involves methodological choices about experimental control and ecological validity. Concern with the former arises from the importance placed on the precise manipulation of independent variables, whereas the latter emerges from an emphasis on experiments to approximate as closely as possible situations that are experienced in day-to-day life (Aronson & Carlsmith, 1969). Optimal experimental designs that seek to control extraneous variables usually involve laboratory environments and stimuli which are simple and “unrealistic.” This is because as the complexity of the experimental environment and stimuli increase the experimenter finds it more difficult

to conduct precise manipulations of independent variables and to control extraneous variables.

Contrastingly, one reason for inculcating ecological validity or mundane realism in experiments is to aid participants' full engagement within experimental situations and to increase their sensitivity to manipulations of independent variables (see Korn, 1997),<sup>2</sup> and as a consequence increase the degree to which such manipulations affect participants as intended. However, one drawback of increasing mundane realism in experimental psychology is that this is accompanied by a loss of experimental control.

One way in which the unnaturalness of the experimental laboratory might be alleviated in telepathy studies would be if the sender and the receiver could experience the same environment within which the target is located. If they were allowed to interact with the target pool (such as a book, a vase, or a chair) this might also facilitate both the acts of sending and receiving. Both of these features are in stark contrast to that ganzfeld work in which static or moving images are presented to participants in separate rooms. However, there are a number of difficulties with this. First, having both the sender and the receiver in the same place at the time the target is available introduces the possibility of fraud and sensory leakage. The receiver could enter the room after the sender has left, but this still allows the possibility of fraud and has the added drawback of the temporal separation of the sender and receiver's involvement in the experimental trial.

A second possibility would be to have participants in similar physical rooms with identical object sets. However, this also has a number of problems. First, unless the environments were physically identical it would not be possible for two participants to have the same visual experience. Second, the selection of object sets and the objects that comprise them, along with the storage of these objects, would be cumbersome, and the variety of objects which could be employed would be limited. Third, physical objects wear as they are used in experiments. This means that, unless sets of objects are replaced each time they are used, some objects may deteriorate more rapidly than others. As a result, object pairs, rather than being "identical," may begin to look different from one another, or certain objects which are handled more than others may change in appearance, which in turn may influence participants' choices in subsequent trials (e.g., worn items might be more or less likely to be chosen as the target). A final issue regarding the use of physical objects in telepathy studies is the possibility of anomalous information transfer that occurs when one participant touches an object which has been previously handled by another person (such as postulated in psychometry); for example, a person who handles an object

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<sup>2</sup> Fox (2005) notes that it is an assumption that participants are actually "participating" in ganzfeld experiments, at least in the manner desired by the experimenter and what might be most conducive to demonstrating psi effects.

may not choose it as a target because of negative impressions which arise from the personal meaning of the object evoked during physical contact by a previous participant.

These problems may seem insurmountable; however, we believe recent technological advances, in the form of Immersive Virtual Reality (IVR), provide a remedy for them (Murray, Simmonds, & Fox, 2005; Murray et al., 2006, in press). Virtual reality (VR) denotes the use of three-dimensional computer graphics technology to generate artificial environments that afford real-time interaction and exploration. While virtual environments can be presented on desktop computer displays, a sense of immersion is often promoted through the use of head-mounted displays (HMDs). These can present stereo images and sound to create a perceptually encompassing computer environment. A sense of “presence” or telepresence (presence-at-a-distance), of feeling “there” in a virtual environment is, perhaps, the ultimate aim of VR research. This calls for a dampening of awareness in “reality” and a heightened “acceptance” of the surrounding virtuality (Sheridan, 1992).

Researchers of ostensibly paranormal abilities have been at the forefront in embracing and incorporating into their research the developments and increased sophistication in technology (see Broughton, 1993). Such technological developments have aided researchers in increasing mundane realism while minimising the negative impact to experimental control. Immersive Virtual Reality (IVR) has been documented as providing participants with a compelling sense of personal, social, and environmental presence (Witmer & Singer, 1998). Blascovitch et al. (2002) outline how the use of IVR in experimental psychology circumvents to a considerable degree the problem involved in making choices about control versus mundane realism. The researcher gains optimal control over the experimental environment and actions that take place within it while increasing the mundane realism of the experiment and the full engagement of the participant.

The observation that the environment around the target has often served as part of the target in General ESP studies, even if this was not intended by the experimenter (Morris, 1978), adds further support to the proposed use of virtual environments for facilitating ESP performance. This suggests that the mind of the receiver may seek to put the target into the wider context, for example, of the room in which the target material is being played/viewed.

The use of IVR would also go some way toward addressing some of the problems with telepathy experiments identified by researchers such as Braude (1982), who argued against a purely visual transfer model of telepathy. This move to more complex (on a number of levels) target material would also seem supported by the literature highlighted earlier (e.g., Honorton et al., 1990; Watt, 1996). Personal handling of target pool objects by both the sender and receiver might be expected to add

other aspects to the telepathic communication process usually absent in the methodological design of research on this topic. As the relationships among the sender, the receiver, and the target pool objects become more interactive, this might facilitate the transfer of emotions, meanings, and experiences that better convey what these are. An object which can be handled might be expected to make accessible the personal meanings, purposes of use, and so on, of the object for the sender and receiver than might possibly be achieved via a static (or even moving) image or written name (which are more commonly used in telepathy research studies).<sup>3</sup>

IVR also provides solutions to the problems identified earlier in using less technologically intensive methods, such as sets of physically identical objects: the sender and receiver could simultaneously experience an identical environment (albeit a virtual one) within which the target is located while avoiding the possibility of fraud and sensory leakage inherent in sharing a physical environment; they could physically interact with the target pool (unlike in those ganzfeld studies that use static or moving images), arguably making the targets richer and more dynamic and further facilitating the acts of sending and receiving. Virtual objects do not wear, so they are not subject to the same problems as physical objects, which may deteriorate and take on a different appearance over time. Finally, the possibility for detrimental anomalous information transfer between previous and subsequent participants is avoided.

As well as providing the above benefits, IVR enables the same advantages discussed earlier in relation to the development of ganzfeld work that incorporated computers and provided the automation of the randomisation and selection of object sets and targets, the minimisation of experimenter errors in recording participants' responses, and the creation of electronic records that contribute to safeguards against fraud.

Having detailed the potential of IVR for telepathy research, we now turn attention to describing our implementation of such a study. Here we report on the Telepathy Immersive Virtual Environment (TIVE), and the findings of an empirical study of telepathy using this technology.

## METHOD

### *Participants*

Participants were recruited via poster and e-mail advertisement at the University of Manchester. A total of 200 (88 males, mean age = 30.06, range 16–64 yrs,  $SD = 9.96$ ; 112 females, mean age = 27.99, range 17–50 yrs,  $SD = 8.34$ ) people took part in the study (whole sample: 200, mean age = 28.9, range 16–64 yrs,  $SD = 9.13$ ).

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<sup>3</sup> Such a view would find support from work in ecological psychology, particularly Gibson's (1986) work on optical flow and affordances.

*Immersive Virtual Telepathy Setup*

*Physical spatial arrangements.* The study took place in two rooms in the same building at the University of Manchester, arbitrarily called “Study Room A” and “Study Room B.” Room A was always the sender’s room, and Room B was always the receiver’s room. (The possibility of sensory leakage was minimized as these rooms are approximately 150 feet apart, on different floors, and have seven doors in between them.)

*Immersive virtual reality equipment.* A V6 stereoscopic head-mounted display (HMD) was used to transmit the visual elements of the virtual environment to the participants. This has a 640 x 480 (307,200 colour elements) pixel resolution per eye, and a 60° diagonal field-of-view. The participant was able to “look around” the virtual environment by making corresponding movements of his or her physical head. The senders heard the sound made by objects via an in-ear phone (left ear). They were also able to hear (with their right ear) the spoken mentation of the receiver via speakers placed close by. The receiver heard the sound made by objects via headphones built into the V6.

The physical interaction of participants within the IVR was achieved via the use of an instrumented glove (the 5DT-14 wireless lycra data glove), which allowed the “handling” of virtual objects. This enabled participants to interact with virtual objects but did not provide tactile or haptic feedback. A sensor attached to an elasticated band was placed around the wrist and another was placed around the elbow. A third sensor was attached to the top of the HMD. A Polhemus cube was placed on a tripod approximately 50 cm in front of the participant. This device relayed the information received from all three sensors to a Polhemus Fastrack box that translated them into corresponding movements of the participant’s virtual body in the virtual environment.

*Immersive virtual reality environment.* A virtual reality environment was created for use in this project. The environment itself resembled a virtual room containing four walls, ceiling, floor, a door, two windows, and a wall-mounted shelving system, similar in appearance to a bookshelf. The operators were free to turn around and take in a 360° view of the room. They were able to see their virtual body in a similar fashion to the way we see our own real bodies, that is, arms, legs, and parts of the torso, but they were unable, for instance, see their own face, head, or back. Movement was restricted within the environment to motions that served only the purpose of the experiment. So, participants were free to move their right arm, hand, and fingers in virtual space, but they could not move their left arm or “virtually walk” anywhere around the room. The target objects appeared in the virtual room on the shelving mentioned above. Targets were selected from the shelf via a gesture of the hand (the participants bent their thumb in toward the palm of their hand) that the equipment registered as a selecting gesture. When an object was selected, it moved from the shelf

and affixed itself to the participant's virtual hand. Participants were then free to interact with the object (more details of this will be described in the procedure section) (see Figure 1). At no time was the sender or the receiver able to see their experimental partner's virtual body in the room with them. Essentially, although the environment they inhabited was identical in nearly all respects, it should be viewed and treated as two separate rooms.



*Figure 1.* An example of one of the virtual objects (a trumpet) as it appears to a participant in the telepathy immersive virtual environment.

### *Computer Equipment and Setup*

The experimental setup was identical for both the sender and receiver, in their respective rooms, as follows. For each participant we used two computers. The first is a small-form-factor “XPC” from Shuttle, Inc., running an Ubuntu Linux operating system. This computer hosted the V6 stereoscopic head-mounted display, computer monitor, Polhemus Fastrack, and the data-glove.

The software running on the Shuttle was a custom-built application implemented by the authors for this project. The software communicated with the identical Shuttle in the other (receiver's) room using a standard Internet “socket” library, connecting with the other Shuttle via a standard ethernet connection. This received instructions from the sender's computer/software. Real-time actions by participants in the virtual world were displayed on computer monitors in each room, enabling the experimenter to view and record what was happening.

The sender's first computer governed the selection and randomization of target pools, sets, and objects. It also governed the presentation of objects during the judging phase. We based the random

selection of objects on the Linux (Unix) system call `rand()` [<http://www.cplusplus.com/reference/cstdlib/rand.html>], which returns an integer selected from a pseudorandom sequence which was initialized by “seeding” it with the current system time (in milliseconds) at which the software was started. Thus, for every run of the software, a different sequence of pseudorandom numbers was used.

The second computer in each participant room was a standard office PC running Windows XP. This computer hosted the Skype Voice-Over-Internet Protocol (VOIP) telephony software, which enabled the sender to hear the mentation of the receiver (via a microphone) via Skype also running on the PC in the receiver’s room. The experimenters were able to communicate with one another using the text “chat” function of Skype. This allowed the experimenters to synchronize activities, such as when Experimenter 1 (with the receiver) signaled that they were stopping the trial and beginning the judging procedure (during which the sender’s speakers were turned off by Experimenter 2). After each completed study, the record of each Skype session, containing the dialogue between experimenters, was saved for future reference.

In order to translate participant gestures into commands in the virtual environment, we wrote software to recognize two simple glove gestures only: the recognition of a movement of the thumb into the open palm (to select an object from the virtual shelf), and the recognition of a fully closed palm (a fist, to replace an object on the virtual shelf).

### *Target Pools and Objects*

In order to familiarize participants with the experimental procedure and the procedures for selecting and deselecting objects, the sender and receiver first used a demonstration set comprised of four doors with different colours and different knocking or bell-ring sounds. The target pool was comprised of four sets and a total of 16 objects with associated sounds. The objects were: football, telephone, toaster, and toilet (Set 1); trumpet, ping pong bat; rubber stamp, and maracas, (Set 2); balloons, cleaver, electric drill, and tambourine (Set 3); electric hair dryer, plunger, teapot, and coil spring (Set 4).

### *Measure of Presence*

One common measure of presence in immersive virtual reality is a Presence Questionnaire. Whereas “immersion” refers to the objective factors of a virtual system such as field of view, display resolution, and degree of interactivity possible, “presence” refers to the psychological and behavioural response to these factors (Slater & Wilbur, 1997).

Slater and colleagues (Usuh, Catena, Arman, & Slater, 2000) argue that Presence is comprised of three aspects: a sense of being in the virtual

environment (VE), the degree to which the VE becomes the dominant reality for participants, and the extent to which participants view the VE as a “place” they visited rather than simply images they saw. The questionnaire used in the present study (adapted from Usoh et al., 2000, with “virtual environment” replacing “office space”) consists of six items, scored from 1–7. In the present study this gives a possible range of 6–42, where higher scores are taken to indicate a higher sense of presence. Example items are: “Please rate *your sense of being in the virtual environment*, on the following scale from 1 to 7, where 7 represents your *normal experience of being in a place*” and “To what extent were there times during the experience when the virtual environment was the reality for you?”

### *Procedure*

Upon arrival, participants were greeted by the researchers and given a short tour of the study rooms where the experiment took place and asked to decide between them which role each would prefer to take first, that of receiver or sender, for the first trial. When they had made their choice, the first experimenter remained with the sender in Study Room A, while the second experimenter took the receiver to Study Room B. Participants were asked to complete a battery of questionnaires and psychometric tests. (The findings of this data will be reported elsewhere.)

Next, participants received a set of verbal, standardized instructions about what they were asked to do in this part of the experiment. Both the sender and receiver were then fitted with a head-mounted display and instrumented glove. In each room, the sender and receiver first experienced the demonstration set. During this time there was a two-way audio link between the sender and receiver rooms. Once participants felt comfortable with the task and the equipment, and had mastered the selection/deselection gestures, the microphone in the sender’s room was physically disconnected for the remainder of the study. This isolated the receiver from any verbal cues the sender may have given. Trial 1 then formally began.

The sender’s computer selected one of the four object sets randomly from the target pool and presented four objects on the virtual shelf in each of the virtual environments. In the sender’s environment, they saw one object that was randomly selected as the target from the object set, and three fixed square opaque panels. The placement of the target object on the shelf in each trial was randomized and was in the same position for both the sender and receiver. In the receiver’s environment, they initially saw four square opaque panels. These panels hid the objects from view. The sender was restricted to seeing and exploring the target object but was free to explore the object by pointing at it and making a gesture with the hand that the instrumented glove interpreted as a selecting action. The object then came off the shelf and affixed itself to the sender’s virtual hand.



At the same time, an associated sound was played through the headset headphones. The sounds for each object were related in a logical manner. For instance, when handling the telephone, participants would hear it ring; when handling the hairdryer, they heard a recording of one switched on; and when handling the trumpet or maracas, participants heard the sounds such instruments would usually make. These sounds would be heard in a loop while the object was being handled. The sender was then free to interact with the object, turning it around and looking at it from different angles, and was able to carry out object-specific actions. For instance, if the object was a cup, then the sender could simulate drinking motions by lifting the cup up to his or her mouth. When the sender was finished with the object, he or she was able to perform a gesture (making a fist) that returned it to the virtual shelf. Concurrently, in the receiver's virtual environment, the participant was free to explore all four objects in the same fashion as the sender.

Throughout the trial period, both participants were encouraged to verbalize their impressions, feelings, and thoughts as they tried to send and receive, respectively. A one-way audio connection between the sender and the receiver allowed the sender to hear the receiver's spoken aloud mentation. This provided the sender with real-time feedback on how well the pair was performing.

At the end of the first trial (which lasted 7 min) Experimenter 1 (with the receiver) signaled to Experimenter 2 that they were stopping the trial by using the text "chat" function of Skype. Experimenter 2 then switched off the speakers in the sender's room and quit the Telepathy Immersive Virtual Environment (TIVE). Judging in the receiver's room did not begin until the experimenter had received confirmation via the Skype chat facility that the speakers in the sender's room were switched off. The senders were then free to remove their HMD and to complete a questionnaire that assessed their degree of Presence in the TIVE during the trial. Once the Presence questionnaire was completed, they then signed a sheet to confirm what the target object was. The receivers kept their HMD on while they carried out the judging procedure. During this procedure, the experimenter pressed a "reveal" function on the keyboard and the receiver was able to see all four objects simultaneously in the order they appeared on the shelf. First, the receiver was asked to indicate whether he or she felt that there were any items which were definitely not the target (they could choose from 0 to 3 of the items). The receivers were then asked to rate each object in terms of how much they felt each object was the target. This was expressed as a percentage (0-100) for each object. Receivers were asked to give a different numerical rating for each object, which the experimenter wrote onto the judging sheet. These confidence ratings were then used to derive ranks for each object.

Once the judging procedure was complete, the receiver removed his or her HMD and completed the first Presence questionnaire. The

experimenter with the receiver then confirmed with the receiver what his or her first choice was and relaying this to the second experimenter in the sender's room using the Chat facility in Skype. This information was given to the sender, and the actual target object was relayed back to the first experimenter in the receiver's room, who relayed this to the receiver. Next, the sender and receiver reversed roles and performed Trial 2. This was essentially the same as the first trial; with the exception that this time the sender's computer randomly chose the second object set from the three remaining sets in the study target pool.

## RESULTS

### *Randomness and Response Bias Checks*

Each participant pair was exposed to two of four available sets. Each object set would be expected to appear 50 times over 200 trials, 25 times in each of the two sender-receiver trials that comprised the present study. An object set was chosen from a second pool of objects (to be used in a later study) by human error on one occasion. A series of chi-square goodness-of-fit tests were conducted to check if the computer was truly choosing object sets at random over the course of the two trials. No significant results were found for either Trial 1,  $\chi^2(3, N=100) = 2.96, p > .2$ , two-tailed, or Trial 2,  $\chi^2(3, N=100) = 2.54, p > .2$ , two-tailed, or for Trials 1 and 2 combined,  $\chi^2(3, N=200) = 1.70, p > .2$ , two-tailed.

A series of chi-square goodness-of-fit tests were carried out to check if receivers were more likely to choose an object in one of the four available positions. No significant results were found for either Trial 1,  $\chi^2(3, N=100) = 4.24, p > .2$ , two-tailed, or Trial 2,  $\chi^2(3, N=100) = 7.76, p > .05$ , two-tailed, or for Trials 1 and 2 combined,  $\chi^2(3, N=200) = 6.48, p > .05$ , two-tailed.

A series of chi-square goodness-of-fit tests were run to test if participants showed any preference for choosing one object over another in each of the four sets of objects. There was a significant result for Object Set 11 in Trial 1,  $\chi^2(3, N=31) = 21.26, p < .001$ , two-tailed, and Trial 2,  $\chi^2(3, N=20) = 14.80, p < .01$ , two-tailed, and when both trials were combined,  $\chi^2(3, N=51) = 32.22, p < .001$ , two-tailed. Object Set 11 contained the following objects: football, telephone, toaster, and toilet. Examination of the  $\chi^2$  equation cells revealed that participants were almost 2½ times more likely to choose the telephone than would be expected by chance. No significant results were found for any of the other object sets in either Trial 1 or 2 or Trials 1 and 2 combined.

### *Level of Participant Presence*

Both senders ( $M=22.32, SD=7.69$ ) and receivers ( $M=23.17, SD=7.55$ ) reported similar levels of Presence while immersed in the virtual environment.

*Direct Hit Results and Post Hoc Analyses*

Two hundred trials were conducted in which a mean chance hit rate of 50 (25%) was expected. Forty-eight hits (24%) were scored (equally spread in both trials); this was tested using a binomial test of significance and found to be nonsignificant,  $p = .81$ ,  $z = -0.24$ , Cohen's  $d = -0.44$ . The percentage ratings given by participants to targets and nontargets were converted into  $z$  scores for later correlational analyses. A one-sample  $t$  test for directional scoring found no significant effect,  $t(199) = -.245$ ,  $p = .807$ . These findings are not surprising given the results of the planned analysis.

Results were also analysed in terms of ESP magnitude effects. This was undertaken by regrouping the ranks into extreme (1 and 4) versus middle (2 and 3) ranks and undertaking a binomial test to address whether participants were more likely to rank the target as 1 (indicative of psi-hitting) or 4 (indicative of psi-missing) than a 2 or 3. There were 200 trials of which 48% (96) were extreme ranks and 52% (104) were middle ranks, whereas the mean chance expectation would be 50% (100). These groups were not found to be significantly different from one another when compared by a binomial test,  $p = .621$ .

Post hoc analyses (binomial tests of significance) found no experimenter pairings produced any significant results (32 trials for DW and CM:  $p = .57$ , binomial test of significance,  $z = 0$ , Cohen's  $d = -0.21$ ; 20 trials for DW and CS:  $p = .38$ , binomial test of significance,  $z = 0.24$ , Cohen's  $d = -0.19$ ; 138 trials for DW and FC:  $p = .35$ , binomial test of significance,  $z = -0.39$ , Cohen's  $d = -0.41$ ).

## DISCUSSION

Within this paper we have reported the findings of a telepathy study using TIVE, an immersive virtual environment. This study did not find support for the psi hypothesis, either in terms of directional hitting or in a post hoc magnitude analysis, in which the outcomes were no different from what would be expected by chance. For proponents of telepathy, these results will be disappointing, particularly as they do not come close to the significant effect found in much ganzfeld research.

Although our results could be used to argue for the nonexistence of psi, there are alternative explanations. First, if telepathy is possible it may be that the current theoretical understanding of how telepathy works is not sufficiently developed in order to suitably identify and produce the conditions necessary for its reliable occurrence under experimental conditions. Although our approach here has been to stimulate and engage the senses of participants, it may be that additional sensory stimulation is not helpful, and could even be disadvantageous, for telepathic communication. Additionally, researchers familiar with the literature on the experimenter

effect in psi research may question whether the intention of the experimenters was psi-conductive (see, for example, Smith, 2003), although it is difficult to establish this apart from looking at different patterns of findings between experimenters.

Although the above issues are worthy of consideration, we reserve more in-depth discussion regarding the limitations of the present study to the selective manner in which our experimental design drew upon previous ganzfeld work, in particular on those studies that incorporated computers in both the sender and receiver environments, to provide the theoretical underpinnings for much of our rationale as to why immersive virtual reality may optimize the conditions expected to be conducive to observing telepathy in the laboratory. However, although there are a number of technical similarities between these ganzfeld studies and our IVR system, arguably our work has more resemblance to forced-choice experiments using real objects. Our work therefore differs in other, perhaps more crucial, ways from ganzfeld work. Indeed, just as Bem et al. (2001) pointed to the diluting effect that the inclusion of nonstandard studies made to the results of meta-analyses of ganzfeld work, it might be that it is the departure of the present study from a standard ganzfeld “recipe” which has produced similarly nonsignificant outcomes.

Whereas the “standard ganzfeld” places the participant in a relaxed hypnagogic state that is designed to facilitate spontaneous internally generated imagery, our own IVR system places the participant in an increased state of arousal and sensory alertness and is based on external, stimulus-influenced imagery. This relaxation period during the ganzfeld has been proposed by some researchers to be in part responsible for when a significant effect is found in such studies (e.g., Parker, 2000). During this period, the participant typically first generates response content freely for a time and then that material is later used (typically by means of a review) when making a final choice or ranking several possible targets. In contrast, the IVR is not free-response but a forced-choice design.

Second, we did not select a particular “special” population (e.g., “meditators” and “creatives”) to take part in the study which previous work has suggested would obtain better hit rates than student samples (e.g., Dalton 1997; Parker, 2000). However, with this study we are at a similar stage to early ganzfeld work that took a similar approach. With the development of computerized ganzfeld systems, it is possible for researchers to reap the benefits of the extensive time and work that have been involved in developing those systems and focus their own efforts on select populations. Similarly, a considerable portion of our own time has been given to developing the TIVE, which can now be exploited in further work with samples hypothesized to excel at such tasks.

A third criticism may be that—again unlike the ganzfeld, in which trials frequently last as long as 2 hr—our own trials lasted 7 min each. Some researchers may feel that this is too short a time to inculcate the necessary

conditions for the occurrence of telepathy in the lab. A further argument may be that in the present study participants took the role of receiver and sender only once each, and an increased number of trials testing participants in the same roles might be more successful in demonstrating an effect.

As discussed earlier, previous researchers have suggested that psi-conductive targets are more dynamic and multisensory and may have a psychological impact on the receiver (Delanoy, 1989). We envisaged that IVR would provide a much more dynamic and multisensory rendition of target stimuli than has been achieved in previous research, such as those ganzfeld studies involving static or moving images as stimuli, and therefore provide an increased opportunity for the correct identification of the target by the receiver. However, it may be that more personally meaningful or emotive targets might improve the potential psi-conductive nature of this type of study. For example, Parker et al. (1998) found a suggestive relationship between emotionality and effects of change in emotional tone of target material and psi-hitting, whereas Dalkvist and Westerlund (1998) found a negative relationship between target emotionality and psi-hitting in a forced-choice design.

Although the findings regarding target-emotionality and psi-hitting are unclear, it is conceivable that the relationship of participants to the stimuli is important in the likelihood that a correct identification will be obtained. For instance, one extension of the present work that we propose is the inclusion of people with a variety of phobias and the use of phobic material or objects such as spiders, snakes, blood, and needles. The use of such participants and stimuli might be expected to increase the likelihood of correct target identification when such stimuli are the targets, or to inhibit this (psi-missing) when such material acts as a distracter.

There is a further issue related to whether the potential benefits of IVR technology were adequately utilized in this study. The tendency for participants to score at the mid-point of the Presence scale may be used to argue that the TIVE was not as engaging as intended, and modifications which could lead to elevated levels of Presence might also lead to greater "hit" rates. For instance, the virtual environment itself could be modified further to include increasingly realistic objects that allow for more participant interaction. A qualitative analysis of how participants interact with the objects used in the TIVE has found that certain objects that make up the object sets enable particular types of interactions which others preclude, or invite particular types of interactions which the technology at present does not afford (Murray, Wilde, Simmonds-Moore, Fox, & Howard, 2006). Rather than placing all objects within a set for the receiver, it would be possible to construct four virtual rooms which, with an object in each, could holistically function as targets in themselves. If this were the case, then participants could explore and interact with objects in a series of rooms rather than an object in isolation (e.g., a target might be a hairdresser's, a pub, an office, etc.).

Future analysis and research dissemination will explore correlates of psi performance within the same study reported here. This approach takes the view that the psi process may function differentially according to state of consciousness and personality factors. The null effect overall reported here may therefore reflect a systematic balance of psi-hitting and psi-missing.

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#### ABSTRACTS IN OTHER LANGUAGES

##### *Spanish*

RESUMEN: En este artículo informamos sobre el uso de Realidad Virtual Sumergible (RVS) como un ambiente experimental y una forma de estudiar la telepatía. Proponemos que la RVS tiene un número de ventajas sobre el ganzfeld que usa estímulos estáticos o dinámicos, al igual que sobre estudios de telepatía que usan objetos físicos. Nuestro Ambiente de Telepatía Virtual Sumergible (ATVS) usa tecnología gráfica computarizada tri-dimensional para generar ambientes artificiales que permiten interacciones en tiempo real en conjunto con pantallas montadas en la cabeza, sonidos, y guantes que permiten a los participantes tener interacciones con objetos virtuales. Informamos los resultados de una prueba



de comunicación telepática usando ATVS. Un total de 200 participantes (88 hombres, 112 mujeres, M edad = 28.9, rango 16–64 años, SD = 9.13) fueron estudiadas en pares, una vez como emisores y otra vez como receptores. Este estudio no encontró evidencia a favor de la hipótesis psi en término de aciertos direccionales y en un análisis de magnitud post hoc, en el cual los resultados no fueron diferentes de lo esperado al azar. Se presentan sugerencias para explicar estos resultados y para trabajos futuros.

### *German*

**ZUSAMMENFASSUNG:** In dieser Arbeit stellen wir die Verwendung einer ‚immersive virtual reality‘ (IVR) (‚eingetauchten virtuellen Realität‘) in Form einer experimentellen Umgebung und als Mittel zur Untersuchung von Telepathie vor. Wir sind der Meinung, dass die IVR eine Anzahl von Vorzügen im Vergleich zur Ganzfeldtechnik aufweist, bei der statisches oder dynamisches Stimulusmaterial verwendet wird, wie auch bei Telepathiestudien mit physikalischen Objekten. Unser eigenes ‚Telepathy Immersive Virtual Environment‘ (TIVE) verwendet eine dreidimensionale Computergraphiktechnologie, um künstliche Umgebungen zu erzeugen, die eine Interaktion und Erkundung in Echtzeit gestatten in Verbindung mit am Kopf angebrachten Displays, Ton sowie mit Instrumenten ausgestatteten Datenhandschuhen, die es den Teilnehmern ermöglichen, mit virtuellen Objekten zu hantieren. Hier werden die Ergebnisse eines Tests der telepathischen Kommunikation unter Verwendung der TIVE vorgestellt. Zusammen wurden 200 Teilnehmer (88 Männer, 112 Frauen, Altersdurchschnitt = 28.9, Streuung = 16–64 Jahre, SD = 9.13) in Paaren getestet, einmal als Sender, einmal als Empfänger. Die Psi-Hypothese liess sich nicht bestätigen, weder in Form einer richtungsabhängigen Trefferleistung noch in Form einer post hoc vorgenommen Größenabschätzung, die ergab, dass die Ergebnisse sich nicht von dem unterschieden, was unter Zufallsbedingung zu erwarten war. Deutungsmöglichkeiten für dieses Ergebnis werden diskutiert zusammen mit Vorschlägen für künftige Arbeiten.

### *French*

**RESUME:** Dans cet article, nous présentons l’utilisation d’une réalité virtuelle immersive (IVR) en tant qu’environnement expérimental et moyen d’étude de la télépathie. Nous pensons que l’IVR a plusieurs avantages par rapport au dispositif Ganzfeld et aux études télépathiques avec des objets physiques. L’environnement virtuel immersif télépathique (TIVE) que nous avons développé utilise une technologie graphique en trois dimensions pour générer un environnement artificiel qui permet une interaction en temps réel, et une exploration en conjonction avec un dispositif placé sur la tête (HMDs), du son, et des gants informatisés qui permettent aux participants d’interagir avec des objets virtuels. Nous décrivons dans cet article les résultats d’un test de communication télépathique utilisant le TIVE. Un total de 200 participants (88 hommes, 112 femmes, âge moyen = 28,9, de 16 à 64 ans, SD = 9,13) ont été testés par paire, avec un émetteur et un

récepteur à chaque essai. Les résultats ne soutiennent pas l'hypothèse psi, ni dans le sens prévu, ni dans une analyse post hoc de la magnitude, dans laquelle les résultats ne sont pas différents de ce que l'on pourrait attendre par le simple fait du hasard. Des suggestions pour expliquer ces résultats sont discutées, ainsi que des propositions pour de futures études.

# ESP UNDER HYPNOSIS: THE ROLE OF INDUCTION INSTRUCTIONS AND PERSONALITY CHARACTERISTICS

BY PATRIZIO TRESSOLDI\* AND GUIDO DEL PRETE\*\*

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**ABSTRACT:** In the present study, we compared directly the efficacy of two types of hypnotic induction instructions on a forced-choice clairvoyance task in a sample of participants selected for their medium to high absorption or transliminality scores. The first kind of instructions (ESP) emphasized the capacity to visualize a remote picture, freeing the mind from any thinking activity. The second kind of instructions, the out-of-body experience (OBE), emphasized leaving the body and allowing the mind to go where the target was presented. The two instructions were applied in a within-subject design to control individual differences better. In the 2 sessions of 10 trials each, the mean hit scores were: first session:  $M = 3.33$  ( $SD = .65$ ); second session:  $M = 2.41$  ( $SD = .79$ ). The mean hit score of the first session was well above  $MCE$ ,  $\pi = .60$ ;  $CI: .28-.91$ ; contrast:  $\Delta\pi = .10$ . No substantial differences were obtained with the two kinds of instructions. These data replicate the findings obtained by Del Prete and Tressoldi (2005), supporting the hypothesis that a combination of hypnosis and special induction instructions tailored for the ESP task facilitate the performance in participants with medium to high absorption or transliminality scores.

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The role of hypnosis as a mediator for ESP has been documented (see Stanford & Stein's 1994 meta-analysis). Even if it is well established that hypnosis facilitates ESP better than normal awakening or self-relaxation, little, if any, systematic research on the role of specific instructions to induce hypnosis has been carried out. Cardeña (2006, 2007) repeatedly underlined that enhanced psi phenomena depend on a trait (high hypnotizability), a state (the hypnotic context), or an interaction between the two.

In this paper we manipulated the state, comparing directly the efficacy of two kinds of instructions. The first, which we named ESP, was characterized by the emphasis on the capacity to visualize a remote picture while freeing the mind from any thinking activity. The second, which we named OBE, was characterized by instructions to leave the body and allow the mind to go to the place where the target was presented (see details below). The two instructions were applied by using a within-subject design to control individual differences better. To maintain the personality traits under control, we selected participants with a medium to high level of transliminality or absorption. It is well documented that these traits act as mediators for ESP (Dalton, Zingrone, & Alvarado, 1999; Thalbourne, 1996, 2004) as well as for hypnotizability (Glisky, Tataryn, Tobias, Kihlstrom, & McConkey, 1991). Del Prete and Tressoldi (2005) demonstrated that these personality traits were strongly correlated with hits in a clairvoyance-like

task, but only if participants were in a deep hypnotic state using OBE instruction.

We expected that, once in a state of hypnosis, participants with these personality traits would benefit more from suggestions to use OBE to complete a clairvoyance task than from suggestions to use ESP because the targets were presented in a room not very far from the place where the participants were located. However, the OBE suggestions can be considered less credible than the ESP ones, that is, the possibility to let the mind leave the body and move to the room where the targets are presented. There is some evidence that the credibility of the treatment acts as a mediator on the effects obtained under hypnosis (Milling, Shores, Coursen, Menario, & Farris, 2007). To our knowledge, there is no evidence of the role of the credibility of hypnotic suggestions on ESP performance. In this sense, our comparison between OBE and ESP instructions has to be considered as exploratory.

## METHOD

### *Participants*

Twelve volunteers (7 males and 5 females) were recruited by the first author among relatives and people attending his Center, to participate in an experiment to test the potentialities of hypnosis. They were selected from among other people if their scores on the Revised Transliminality Scale (Lange, Thalbourne, Houran, & Storm, 2000) were above 25.7 out of a maximum of 37.3 of the corrected scores and/or above 23 (over 2/3 of the range, 0–34) on the Tellegen Absorption Scale.

Previous findings (Del Prete & Tressoldi, 2005), suggested that the contribution of these personality characteristics to ESP required at least a medium level of transliminality or absorption; therefore we maintained this criterion. The participants' mean chronological age was 35, standard deviation = 10.1. The volunteers were not paid for their participation.

### *Task*

The task was devised as a simple gambling-like task. Twenty different series of four emotionally neutral figures (representing landscapes, animals, buildings, flowers, and so on) for a total of 10 trials, were presented in sequence one at time on a PC monitor for about 1 min and then presented simultaneously to allow the participant to guess which one could be the target. At the same time, the target, chosen by a pseudorandom algorithm, was projected on a second monitor. This monitor was in a room connected to the equipment installed in a second room separate from the one where the volunteer was located. During the experiment, the two rooms were completely isolated. The experimental assistant and the participant could not see what was being shown in the adjacent room.

*Hypnosis Induction Procedure*

The hypnotic state was induced by the first author, a medical doctor with more than 15 years of experience in clinical hypnosis. The procedure started with a modified Jacobson technique (20–30 min) followed by 15–20 min of real hypnotic induction. The attainment of the deep hypnotic state was based on behavioural indices observed by the hypnotist. The main indices are: deep muscular relaxation, slow and regular breathing, reports of spontaneous images, slow ocular movements, and a sensation of hand paralysis.

Each participant was shown the monitor on which the target would appear and was then invited to lie down on a couch in the main room, isolated from the environmental noise. The task was explained as follows:

When you are in the desired mental state after the induced hypnotic state, you will see four pictures presented one after another for about 1 minute each on the monitor in front of you. Afterwards, you will see all four pictures together and you will have to choose the target. Remember, do not try to look for any rules because the target has been chosen by a randomized algorithm.

OBE instructions contained indirect flight suggestions, in line with Erickson's procedure (Erickson & Rossi, 1981), to induce spontaneous OBE experiences, plus an element of expectancy or "mental set," whereby the participant was encouraged to want an OBE and firmly believe it could happen. With ESP instructions, the emphasis was placed on the capacity to receive spontaneously the target image without mental effort (an abbreviated description of the instructions is reported in Appendix B; a more complete version may be requested from the second author).

The participant was instructed to report every impression arising during the hypnotic state. Following the reception period, participants were shown the four possible targets and asked to choose the real one using their impressions. After the participant had chosen the target, the experimenter input the answer on the computer and the program recorded the choice in a file without any feedback.

The order of instructions, ESP and OBE, was counterbalanced among participants.

Each session comprised 10 trials. Due to the individual differences in achieving the appropriate mental status and performing the task, the time needed to induce the optimal hypnotic condition and deliver the instructions varied among the participants. It was then necessary to complete each session in a different number of days, ranging from two to four.

## RESULTS

*Data Analysis*

Instead of a factorial design 2 (session) x 2 (order) we chose to focus our statistical comparison to test specific hypotheses (Fur & Rosenthal, 2003). Furthermore, we preferred nonparametric statistics given the low number of data. Effect sizes and their Confidence Intervals were calculated using the bootstrap method suggested by Algina, Keselman, and Penfield (2005).

The number of correct hits out of 10 for each participant is presented in Appendix A.

*Level of Transliminality and Absorption*

The mean scores of transliminality and absorption were:  $M = 28.8$ ,  $SD = 1.8$ , and  $M = 26.2$ ,  $SD = 2.5$ , respectively. The mean absorption is close to 25.5 (no standard deviation available) reported by Cardeña (2006) in his group of high scorers in hypnotisability.

The main hypothesis tested is an exploratory two-tailed main instructions effect or an interaction of instructions by order considering possible decline or learning effects.

*Instructions Effect*

Mean scores with the OBE and ESP inductions were  $M = 3$ ,  $SD = .74$  and  $M = 2.75$ ,  $SD = .96$ , respectively. The statistical comparison with the Wilcoxon paired test gave a nonsignificant result ( $z = .57$ ).

*Session Effect*

Ten out of 12 participants obtained a better hit score in the first session than in the second. If we compare directly the data obtained in the first session with the second one, we obtain: first:  $M = 3.33$ ,  $SD = .65$ ; second:  $M = 2.41$ ,  $SD = .79$ . The statistical comparison with the Wilcoxon statistic gives a  $z = 2.39$ ,  $p = .021$ , two-tailed; effect size  $d = 1.24$ ; CI: 2.4–.36. The mean hit score of the first session is well above the  $MCE$ ,  $\pi = .60$ ; CI: .28–.91; Contrast:  $\Delta\pi = .10$  (Rosenthal & Rubin 1989).

*Order Effect*

When the order of instructions was OBE followed by ESP, all six participants scored better in the first condition. Their mean scores in the two conditions were: OBE,  $M = 3.33$ ,  $SD = .52$ ; ESP,  $M = 2.17$ ,  $SD = .75$ . A direct comparison with the nonparametric statistic Wilcoxon paired test

gives a  $z = 2.33$ ,  $p = .02$ , two-tailed. On the other hand, when the order of instructions was ESP followed by OBE, only four out of six participants scored better in the first condition. The corresponding means were: OBE,  $M = 2.67$ ,  $SD = .82$ ; ESP,  $M = 3.33$ ,  $SD = .82$ . The statistical comparison gives  $z = 1.16$ ,  $p = .24$ , two-tailed.

#### *Correlations with Absorption and Transliminality Scores*

The correlation between hits obtained in the first and second session with absorption and transliminality scores are presented in Table 1.

TABLE 1  
CORRELATIONS ( $R_s$ ) BETWEEN HITS AND ABSORPTION  
AND TRANSLIMINALITY SCORES

Session	Absorption	Transliminality
1	.38	.53*
2	.56*	.22
ESP	.53*	.58*
OBE	.23	.05

\* $p < .05$ , one-tailed

The combined relationship of both absorption and transliminality scores on hit scores was  $R = .37$  ( $ns$ ) and  $R = .14$  ( $ns$ ) for the first and second session, respectively, and  $R = .52$  ( $p = .04$ , one-tailed) and  $R = .14$  ( $ns$ ) on the ESP and OBE instruction conditions, respectively. Even if interesting, further correlations splitting session and instruction conditions were omitted as they were based on only six data. The correlation between the scores of the two personality variables was  $r_s = .28$  ( $ns$ ) whereas the correlation between the hits in the ESP and OBE conditions was  $r_s = -.25$  ( $ns$ ).

#### DISCUSSION

The main result obtained in this investigation is the session effect. The 33% of correct hits obtained in the first session is well above an MCE of 25%. The percentage of correct hits obtained in the first session is close to the 37.5% obtained by Del Prete and Tressoldi (2005) using the same apparatus, design and OBE instructions.

In the second session, the 24.1% of correct hits is in the range of MCE. The drop from the first to the second session is plausibly another instance of the "decline effects" (Bierman, 2001; Kennedy 2003) the mechanisms of which are still unknown. One possible cause could be fatigue from maintaining the optimal mental condition. We would like to remind that for each trial, participants needed twenty to

thirty minutes. This drop reminds all experimenters how difficult it is to maintain the “mental set” necessary to achieve the best performance in these experiments. Unfortunately, this effect was not expected and, as a consequence, no information was collected to monitor if this happened, for example interviewing participants about their mental status or the strategies used to solve the task. The advice we can draw from this result is to reduce the number of trials to the minimum necessary within each session. It is interesting to observe that this recommendation has also been made by Kahneman (2003) to prevent the so-called cognitive System1, the cognitive system which permits intuition, to be interfered with by the cognitive System2, based on reasoning.

A direct comparison between the two instructions seems to suggest a slight advantage of the OBE, given the statistical difference from the ESP instruction when it is used in the first session and the lack of statistical difference when applied after the ESP session. However, in this case, the percentage of correct hits of 26.7% is very close to the *MCE*. For this reason, it seems more plausible to accept the interpretation that there are no differences between the two types of instructions.

The roles of absorption and transliminality as mediating factors for ESP are confirmed by the relationship of transliminality with hits in the first session and absorption in the second session, and by its differential influence depending on the induction instructions. This differential effect is at odds with the result obtained by Del Prete & Tressoldi (2005), who found an  $R = .75$  using only OBE instructions alternated with self-relaxation. Owing to this, we can give only speculative interpretations. For example, it is possible for the effects of absorption and transliminality to be reduced when OBE instructions are alternated with ESP ones, since the latter exploit the specific characteristics of absorption and transliminality, i.e., immersion in sensations and visual imagery; letting feeble sensations rise to the level of consciousness, and so on, whereas the OBE instructions essentially ask the mind to leave the body and travel to perceive the target. However, more direct testing of these hypotheses is necessary.

To summarize the main results obtained in the present investigation, we have a replication of the findings obtained by Del Prete and Tressoldi (2005) whereby a combination of hypnosis and special induction instructions tailored for the ESP task facilitate the performance in participants with a medium to high level of absorption or transliminality scores, confirming the Cardeña et al. (2007) hypothesis that the experiences of people high in hypnotisability in “deep” hypnosis, and we add, with special induction instructions, are more likely to be conducive to psi phenomena.

Future investigations will be necessary to learn how to increase the hits score from the level obtained by these procedures.



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#### ABSTRACTS IN OTHER LANGUAGES

##### *Spanish*

RESUMEN: En este estudio comparamos directamente la eficacia de dos tipos de instrucciones de inducción hipnótica sobre una tarea de clarividencia de respuesta limitada (forced-choice) en una muestra de participantes seleccionados por puntuaciones medianas o altas de absorción o de transliminalidad. Las primeras instrucciones, sobre percepción extrasensorial (PES), enfatizaron la capacidad de visualizar una ilustración remota liberando la mente de actividades de pensamiento. Las segundas instrucciones, sobre experiencias fuera del cuerpo, enfatizaron salir del cuerpo y dejar la mente ir al lugar en donde se encontraba el objetivo. Las dos instrucciones fueron usadas en un diseño intra-sujeto para controlar por diferencias individuales. En las 2 sesiones de 10 ensayos cada una, el promedio de éxitos fue: primera sesión:  $M = 3.33$  ( $SD = .65$ ); segunda sesión:  $M = 2.41$  ( $SD = .79$ ). El promedio de éxitos en la primera sesión fue sobre lo esperado al azar,  $\pi = .60$ ; CI: .28–.91; contraste:  $\Delta\pi = .10$ . No hubo diferencias substanciales entre las dos clases de instrucciones. Estos resultados replican los hallazgos de Del Prete y Tressoldi (2005), y apoyan la hipótesis de que una combinación de la hipnosis y

de instrucciones especiales de inducción adaptadas para la prueba de PES facilitan el desempeño en los participantes con puntuaciones medianas o altas de absorción y transliminalidad.

### *German*

**ZUSAMMENFASSUNG:** In der vorliegenden Studie wurde ein direkter Vergleich der Wirksamkeit zwischen zwei Arten hypnotischer Induktionsinstruktionen bei einem Hellsehtest mit begrenzten Wahlmöglichkeiten vorgenommen. Die Stichprobe bestand aus ausgewählten Probanden, die mittlere bis hohe Trefferscores bei ‚Absorption‘ oder ‚Transliminalität‘ erzielten. Die erste Versuchsinstruktion (ASW) betonte die Fähigkeit, ein räumlich entferntes Bild zu visualisieren, indem sich der Geist von jeder reflektierenden Aktivität frei machen sollte. Mittels der zweiten Instruktion (Außerkörperliche Erfahrung, AKE) sollte der Körper verlassen werden und der Geist sollte sich an diejenige Stelle begeben, an der sich das Zielobjekt befand. Die beiden Instruktionen wurden der jeweils gleichen Versuchsperson gegeben, um individuelle Unterschiede besser kontrollieren zu können. In den beiden Sitzungen mit jeweils zehn Versuchsdurchgängen wurden folgende mittlere Trefferquoten erzielt: Erste Sitzung :  $M = 3.33$  ( $SD = .65$ ); zweite Sitzung:  $M = 2.41$  ( $SD = .79$ ). Die mittlere Trefferquote der ersten Sitzung lag deutlich über der Zufallserwartung MCE,  $\pi = .60$ ; CI: .28–.91; Kontrast:  $\Delta\pi = .10$ . Die beiden Instruktionsarten führten zu keinen wesentlichen Unterschieden. Die Befunde replizieren die Ergebnisse von Del Prete und Tressoldi (2005) und unterstützen die Hypothese, dass eine Kombination von Hypnose mit speziell auf eine ASW-Aufgabe zugeschnittenen Versuchsinstruktionen die Trefferleistung bei Probanden begünstigen, die bei ‚Absorption‘ oder ‚Transliminalität‘ mittlere bis hohe Trefferscores erzielen.

### *French*

**RESUME:** Dans la présente étude, nous comparons directement l'efficacité de deux types d'inductions hypnotiques sur une tâche de clairvoyance à choix forcé, avec un groupe de participants sélectionnés pour leurs scores moyens et élevés en absorption et en transliminalité. Le premier type d'instructions (PES) met en avant la capacité de visualiser une image à distance, libérant l'esprit de toutes les activités de pensée. Le second type d'induction, la sortie hors du corps (OBE), met l'accent sur le fait de quitter son corps et de permettre à son esprit d'aller là où la cible est présentée. Les deux inductions ont été employées dans un dispositif avec des sujets permettant de mieux contrôler les différences individuelles. Dans les 2 sessions de 10 essais chacune, le taux de score moyen fut : première session :  $M = 3.33$  ( $SD = .65$ ); seconde session:  $M = 2.41$  ( $SD = .79$ ). Le score moyen à la première session fut bien au dessus de ce qu'on pouvait attendre du hasard,  $\pi = .60$ ; CI: .28–.91; contraste:  $\Delta\pi = .10$ . Aucune différence substantielle n'a été obtenue avec les deux types d'induction. Ces données répliquent les découvertes obtenues par Del Prete & Tressoldi (2005), supportant l'hypothèse qu'une

combinaison d'hypnose et d'inductions spécifiquement créés pour les PES facilite la performance des participants ayant des scores moyens et élevés d'Absorption et de Transliminalité.

## APPENDIX A

## CORRECT HITS OF EACH PARTICIPANT FOR EACH SESSION

ID	Session 1	Session 2	Order
1	3	2	OBE-ESP
2	3	2	OBE-ESP
3	3	2	OBE-ESP
4	4	3	OBE-ESP
5	3	1	OBE-ESP
6	4	3	OBE-ESP
7	4	2	ESP-OBE
8	3	4	ESP-OBE
9	4	3	ESP-OBE
10	3	2	ESP-OBE
11	2	3	ESP-OBE
12	4	2	ESP-OBE
<i>M</i>	3.33	2.41	
<i>SD</i>	.65	.79	

## APPENDIX B

## ABBREVIATED DESCRIPTION OF THE INSTRUCTIONS

## OBE:

*Reception phase:*

There is a light point on the ceiling... you are attracted to it... you want to take it ... imagine your hands, arms, feet, stomach, head, lifting toward it.

... as you approach this lighting point you see it becoming larger and larger like a sun wrapping you in its warmth. You feel as if you are floating on air.

Now you are tired. You are gently leaving your body. You feel light ... you are flying in the air.

Now cross the wall of the room where you saw the monitor on which the target should be presented ... the target image is there now... look at it ... it is getting clearer... still clearer ...

You will remember this image only for two minutes. When I say “erase” you will forget it forever.

*Identification phase:*

Remember that you are in a dream. You can also open your eyes.

Now look at the four images on the screen ... show the image you saw in the room.

Now forget this. Do not think, do not act.

## ESP:

*Reception phase:*

Do not think, do not act.

The target image is now presented on the monitor in the room you visited.

Let this image raise spontaneously in your unconscious mind.

There is a fog, but this image emerges from the fog ... it is getting more and more clear.

Now you recognize it.

*Identification phase.*

Remember that you are in a dream. You can also open your eyes ...

Now look at the four images on the screen ... show the image you saw in the room.

Now forget this. Do not think, do not act.

# TAROT CARDS: A LITERATURE REVIEW AND EVALUATION OF PSYCHIC VERSUS PSYCHOLOGICAL EXPLANATIONS

BY ITAI IVTZAN

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**ABSTRACT:** Tarot cards, considered by some a tool to predict the future and understand one's inner issues, originated in ancient Egypt and remain popular in our day. The clash between the paranormal and the nonparanormal explanations revolves around people's claims that the cards accurately reflect their own individual issues. The paranormal explanation claims that the cards portray opportunities, hidden motives, and potentials, therefore allowing clarity concerning the individual's questions and conflicts. The cards, according to the paranormal explanation, provide a reflection of the client's inner processes. The nonparanormal explanation, on the other hand, is based upon two psychological explanations: the Barnum effect and "cold reading." The Barnum effect refers to our tendency to interpret general statements as applying specifically and accurately to one's own unique circumstances, whereas "cold reading" refers to a set of deceptive psychological techniques that are being used in the psychic reading to create the impression that the reader has paranormal ability. This review juxtaposes these two perspectives while reporting studies that involve tarot cards.

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It is estimated that more than 400 different tarot decks exist today, representing ideas derived from different occults, religions, and spiritual brotherhoods (Decker & Dummett, 2002). The roots of the word *tarot* derive from the Italian word *tarocchi* (referring to the tarot deck) from the beginning of the 16th century; the French derivative of this Italian word is *tarot* and this is why the final *t* is silent. The origin of tarot cards is a topic of heated debates and arguments but remains nonetheless obscure. One of the earliest existing tarot decks is the hand-painted German "hunting" pack of Stuttgart, which dates back to about 1420 and depicts a hunting series with dogs, stags, ducks, and falcons for suit signs (Kaplan, 1980). There are different theories as to the origins of tarot prior to recorded history. One of the popular theories points to ancient Egypt; some researchers claim that the major arcana constituted the Egyptian hieroglyphic book of Thoth (Egyptian god of wisdom), which is also known as the book of tarot (Willis, 1988).

Almost all tarot decks follow the same 78-card structure, which is divided into the major arcana (22 cards), and the minor arcana (56 cards); *arcana* is a Latin word meaning *mysteries*. The cards in the major arcana, major mysteries, represent the main themes concerning human life; such archetypes might be change, love, death, spirituality, acceptance, and so on. The minor arcana is divided into four suits, which might be the sword, staff, cup, and coin but could be divided differently according



to the intentions of the deck's devisor. The cards of the minor arcana are considered to be lesser compared to the major arcana because they discuss the minor mysteries of life, less important archetypes. It is for the devisor of the deck to decide which archetypes are considered important and thereby incorporated within the major arcana, and which are less important and placed in the minor arcana.

There are different techniques for choosing the cards in a reading: one popular option is for the reader to ask the client to shuffle the cards while focusing on a question, spread the deck, and choose the cards he or she feels most drawn to. The layout changes according to the amount of detail the reader is interested in and according to the type of question asked by the client. An example of a layout might be the ancient and popular "Celtic cross" where the client chooses 10 cards of the 78 and lays them, face down, in the shape of a Celtic cross. Each of the 10 positions in the layout carries a different meaning; one position, for example, might signify the main theme while a different position might signify past events influencing this theme.

#### JUXTAPOSING THE PARANORMAL AND NONPARANORMAL APPROACHES

There is no doubt regarding the popularity of tarot cards as a mean of divination. Even in western societies where, in certain areas, pragmatic mainstream science leads public opinion, we can still see the culture of tarot reading flourishing. A quick Web search reveals over a million sites for tarot readers (both online and face-to-face options). The popularity of a subject, on the other hand, is not an indication of reliability or validity, nor does it make the roots of the phenomenon clear. When examining the phenomenon of tarot cards, two juxtaposing approaches regarding its popularity might be taken: the first approach, the paranormal one, claims that indeed some paranormal forces are at work as a reading takes place. The second approach, the nonparanormal one, claims that there is nothing mysterious in the process of tarot reading and the whole phenomenon can be explained by examining simple psychological effects.

Within the paranormal approach it is claimed by occultists (e.g., Sharman-Burke & Greene, 1986; Waite, 1910) that the tarot reveals the quality of the moment for a consulting individual. It is important to say that the cards cannot predict the future as if it is fixed and fated (in contradiction with common belief and common practice of many tarot readers). The cards, therefore, portray opportunities, hidden motives, and potentials and do not describe unchangeable events. According to a variety of writers working with tarot (e.g., Bartlett, 2006; Sams & Childers, 1991) tarot cards allow the reader to deeply penetrate the meaning of the moment for a client by creating more awareness regarding its potentials and influences. In this context we need to shift our understanding of the word "moment" away from the Western perspective of it being restricted by the constraints of time

and move toward the understanding of the moment on a qualitative level. Here the “moment” is viewed as an expression of all that the individual is, on any possible level, conscious and unconscious, connected with any past event and influencing any future one. As the themes of the moment can be illustrated by main archetypes, tarot cards are focusing on a variety of archetypal meanings that aim to interpret the individual’s moment. All the potentials and deepest understandings of the “moment” exist, according to this approach, in the unconscious of the individual, and the images from the tarot cards help us to connect with such inner knowledge. Chosen cards in a reading, therefore, are not random but the exact archetypes that express the deepest unconscious inner knowledge and provide important insights. In the words of Metzner (1971, p. 56):

Like the sphinx, an equally obscure image of equally mysterious origin, the tarot poses a riddle: what is the meaning? And, since no external explanations that would allow us to categorize it in neat, pre-programmed concepts, come with it, we are forced to look within if we want to solve the riddle. And so it awakens us a little more to the unused treasures, which lie buried within each and every one of us.

This paranormal perspective might be explained in two different ways: ESP or PK. One explanation might be that the reader is using ESP to read the client’s mind and is therefore able to comment accurately on the client’s issues. The second option is that these situations involve PK, in which the client’s mind is influencing either the choosing of the cards or the reader’s mind so that his or her own inner issues are expressed. Under this hypothesis, for example, it might be claimed that the process of choosing the cards is PK-based; therefore the cards in the layout are not random but are coherent expressions of the client’s inner workings. It might also be that both ESP and PK are integrated in the process of tarot reading.

Nonparanormal approaches focus on psychological processes and possible fraud when explaining the popularity of tarot reading. One of the most emphasized factors is the Barnum effect, i.e., the tendency to interpret general statements as applying specifically and accurately to one’s own unique circumstances. In his article “Wanted—a good cookbook,” Meehl (1956, p. 266) portrays the Barnum effect by saying:

. . . personality descriptions from tests are made to fit the patient largely or wholly by virtue of their triviality. . . Any nontrivial, but perhaps erroneous, inferences are hidden in a context of assertions or denials which carry high confidence simply because of the population base rates, regardless of the test’s validity.

This quotation refers to clinical psychology testing, but precisely the same understanding can be applied to any divination reading. Perhaps it is the triviality of the statements given by the reader that makes the client accept them so eagerly, and any nontrivial piece of knowledge (which is dangerous since it might be erroneous, as Meehl says) is well hidden and only subtly stated. Such general statements are easy to use in divination as the issues that the readings are dealing with are archetypes, concerning almost every individual's life. Studies supporting the validity of the Barnum effect include Dickson and Kelly (1985), Dies (1972), Fichten & Sunerton (1983), and Forer (1949).

A wider nonparanormal explanation to divination's success might be found in the "cold reading" techniques. "Cold reading" is a set of deceptive psychological techniques which are used in the psychic reading to create the impression that the reader has paranormal ability (Rowland, 2002); the Barnum effect technique, which has been described earlier, is one branch in this tree of "cold reading" (Dutton, 1988). This nonparanormal explanation might be attributed to the work of palm readers, astrologists, tarot readers, clairvoyants, tea leaves readers, spirit mediums and any other individual who conveys an impression of paranormal powers when working with a client. In his 1977 paper, Hyman provides a list of techniques the cold reader relies on. These techniques involve the use of good memory and sharp observation while carefully studying the client. Cues might be elicited from a variety of sources such as clothing (cost, style, age) that provide plentiful information for those who have learned to observe such things; clothes might indicate socioeconomic level and how conservative the client is. Another cue might be physical characteristics of the client: skin colour, weight, posture, general appearance, and hands could provide important hints, just as the manner of speech, the use of grammar, and gestures could provide the reader with many valuable pieces of information.

The reader usually holds premeditated lists of information concerning different categories of people (similar to the reader's statements suggested by Roe, 1996). Each category contains different issues and therefore different statements that can be used. Preliminary information gathered by the different cues might be used by the reader in creating an initial category regarding the client. When such a category is established, further delving into this information might be done by testing the client's reactions. The reader can touch upon the general hypothesis and observe the client's responses: verbal content, eye movement, pupillary dilation, and other bodily movements that indicate the accuracy of the statement given by the reader. Observing these reactions allows the reader to impress the client by seemingly knowing what bothers him or her. The reader can also "fish for details" by casually throwing in a sentence such as "I can see something concerning January"; if January carries no importance for the client, he or she will not respond to that (and chances are the client will forget about it by the end of the reading). On the other hand, January

might be meaningful for the client for some reason, leading to a comment like: “my birthday is in January” or “my mother passed away in January,” statements the reader will use and develop to strengthen the notion of knowledge and ability. It might be that the reader is purely a charlatan, knowingly taking advantage of different cold reading techniques to impress the client, but it might also be possible that the reader unintentionally picks up on different clues at an unconscious level and interprets this knowledge as having a paranormal basis. For example, the reader might observe the way a client is dressed and deduce his or her financial state. During divination the reader might deliver points that are connected to these financial understandings without actually linking between the knowledge obtained and this financial information, which is provided, according to the reader’s belief, by the cards.

Schwartz (1978) described some cold reading techniques in a radio program in which Peter Hurkos was a psychic reader. During a divination performance via the phone with one of his listeners, Hurkos (who had a thick Dutch accent) said “I see a duk” (which rhymes with *took*). The caller responded to this statement by saying, “Why, that’s amazing! Our dog is right here in the room with me.” It is quite obvious (when we have the time to analyze and think) that the word “duk” sounds similar to a variety of other possible words, which widens the options for a hit. The caller (as the client in a reading) craves for information and finds meaning in ambiguous data. The client wants the reading to work and to provide interesting information and might ignore or mend statements given by the reader. An example of that might be Hurkos saying: “One, two, three, four, five—I see five in the family.” And the caller answers: “That’s right. There are four of us and Uncle Raymond, who often stays with us.” Perhaps the caller truly considers Uncle Raymond as a family member but it might also be that the answer “four” did not match the “five” stated by Hurkos, and counting Uncle Raymond provided a solution. These are examples of cold reading combined with the client’s enthusiasm, which provide persuasive results.

#### PARAPSYCHOLOGICAL STUDIES

The field of parapsychology is not abundant with tarot experiments; few studies can be found. Blackmore’s (1983) tarot study describes three experiments testing the validity of tarot cards as interpreters of the participants’ personality. Tarot cards can be used for a variety of explorations, and divination is only one of them. Learning about one’s present or past, concentrating on personality characteristics, is another option; Blackmore’s study explores this option. Experiment 1 involved 10 participants who were each given two readings. The participants were all enthusiastic students in a parapsychology course who were interested in tarot. The first reading (ordinary) was a regular face-to-face reading after which participants were asked to rate the relevance of the reading on a 7-point scale; the mean

score was 5.7. The second reading (test) was conducted without any face-to-face contact between the reader and the participant. The participant first shuffled and chose the cards; then a second experimenter recorded the chosen cards and their order and gave the data to the reader to interpret alone.

The reader wrote a description for each of the 10 layouts, and the descriptions were given to the participants a week later for rating. The aim was to find out whether or not the participants would be able to find their own reading and rate it significantly higher compared to the other participants' readings. The mean score participants gave their own reading was 4.1 and they gave the other readings a mean score of 3.2. This difference is significant statistically,  $t(9) = 2.13$ ,  $p = 0.03$ , one-tailed. Such results hint at a possible paranormal effect by showing that participants could actually distinguish between their own readings and nonrelevant ones. Another important piece of data is the fact that participants gave much higher scores for the ordinary readings (5.7) compared with the test readings (4.1),  $t(9) = 3.54$ ,  $p = 0.003$ , one-tailed, which does not rule out a possible paranormal effect but may suggest that a face-to-face interaction is more effective and powerful for the participant on the experiential level.

In her own paper, Blackmore criticized this experiment due to the fact that the participants knew each other. If participants know each other they might, for example, avoid choosing a certain description since it "fits" a certain individual in the group. Kennedy (1979) describes a situation in which judges know each other: under such circumstances this knowledge might influence the choices of the judges, therefore creating dependency which invalidates the type of statistical analysis Blackmore was using in her first experiment. It should be noted that multiple judging of free-response experiments can never be regarded as statistically independent.

A second experiment in her study used the same methodology except that participants were recruited by an advertisement. Here the mean score participants gave to their own reading was 3.3, which was not significantly higher than the 3.2 mean score given to others' readings,  $t(9) = 0.21$ ,  $p = 0.84$ , one-tailed. These results contradict those found in Experiment 1, and one explanation might be that the participants in Experiment 2 were not as involved, interested, and enthusiastic as those in Experiment 1. To deal with this issue, Blackmore chose 10 participants for Experiment 3 who were involved in parapsychology. However, Experiment 3 produced nonsignificant results: a mean score of 3.4 for participants' own readings and 3.3 for the others' readings (full statistical analysis is not given). It is hard, therefore, to reach any clear conclusion from these results as Experiment 1 produced different results from Experiments 2 and 3 although Blackmore herself concludes that these experiments show that participants were not able to pick out their own description. It should be added, in the context of these experiments, that there is agreement among tarot readers regarding the importance of face-to-face interaction when

reading the cards, which allows the reader to connect to the client fully and to interpret the chosen cards coherently (Angeles, 1987); a sceptical explanation for that might be the easy usage of “cold reading” techniques (which will be discussed later) in a face-to-face environment.

McCusker and Sutherland (1991) tested the frequency of choosing particular tarot cards in comparison with the mean chance expectation. In their experiments, participants meditated for 20 min and then randomly picked up three cards from a tarot deck while the cards were facing down; this procedure was repeated every morning for 365 days (not always successive) leading to an accumulated 1,095 recorded selections. The results of this experiment seem to show that the frequency of appearance for the tarot cards does not follow the chance expectation probabilities. In other words, this might imply that the cards do not appear randomly but are influenced by the client’s PK effect. It is important to mention Blackmore’s (1991) criticism of this study, which focuses on the fact that the choosing process was biased. Tarot cards, over time, accumulate stickiness or roughness of the surface, scratches on the surface, and other kinds of imperfections that allow the person who is using the cards to identify (consciously or unconsciously) and choose certain favoured cards. These imperfections might have influenced the choosing process that was made by hand, giving an alternative explanation to the results that has nothing to do with any paranormal influence. Another point, which Blackmore does not mention, is the fact that such stickiness or roughness of the surface might influence the actual randomization process. When such cards are being shuffled, they might stick to each other or influence the shuffle in other ways as a result of their damaged surface, producing a nonrandom shuffling process.

The third and last experiment specifically dealing with tarot cards is Roe’s (1996) study. This research examined the possible paranormal approach, claiming that it is a PK effect from the client that allows the accuracy of the reading; the client is using PK in order to influence the reader’s mind so that the reader expresses certain issues and solutions which are most relevant for the client. Note that this is a different PK approach from the former experiment in which PK was examined in connection with the process of card choosing compared to influencing the reader’s mind as examined in this study. This mind-to-mind influence could also be regarded as PK of the recipient’s mind. Twenty-seven participants received a tarot reading via a computer screen while thinking that it was a human reader who was supplying the statements appearing on the screen. These statements were actually taken out of a 75-item list. Twenty items were chosen for each reading; half of those were selected “live” by an RNG (experimental items) and the other half were pre-chosen by using random number tables (control items). The idea behind this novel and creative experiment was that the RNG represents an equivalent to the reader’s mind. Experienced readers, according to Roe, develop a list of statements and ideas they use in their readings. The reason is that, although we wish

to consider our life unique, we all share, in many aspects, the same general problems, issues, and doubts, which allows the experienced reader to create a corresponding list of answers. If PK influence does take place in a tarot reading, the client might be influencing the reader's mind so that the most accurate statements will be given. In the same way, the participant sitting in front of the computer screen might be influencing the RNG so that the chosen statements (experimental) might reflect his/her issues more accurately compared to pre-selected items (control) that were not influenced by the client's PK. Therefore, the hypothesis in Roe's study was that experimental items will be rated as more accurate compared to control ones. Results show that RNG-produced items were rated higher, as predicted, but the difference was not significant,  $t(39) = -1.333$ ,  $p = .097$ , one-tailed. These interesting results, which are suggestive of a possible PK influence in the process of tarot reading, invite further research.

It is important to point out the variety of perspectives regarding the possible ways PK might be influencing the outcome of tarot readings. It is common to find the definition of PK as being a "mind-to-matter" interaction, whereas ESP represents "mind-to-mind" interaction (Girden, 1962). Roe's (1996) study represents a different understanding of PK in which a "mind-to-mind" interaction has to be considered instead of the normal "mind-to-matter" one except that here we are dealing with "mind to mind" on an influencing level instead of the receptive one. In Roe's study, PK is considered to be directed from the client, influencing the reader's mind. Under these circumstances the tarot cards become meaningless, an epiphenomenon that is irrelevant to the reader's report. A different perspective on the matter might be that the client is influencing the actual choosing of the cards in a way that makes the specific chosen cards meaningful, therefore allowing the reader to gain relevant information from these cards. The common ground for both of these perspectives is the influence of the PK effect, which is being manifested in these two different ways.

#### CONCLUSION

As we have seen, tarot cards might be seen as based upon paranormal influences that navigate the entire interaction between the reader and the client, just as they might be seen as based upon nonparanormal influences in which simple psychological processes, such as the Barnum effect and "cold reading," explain the information provided by the reader to the client. The most important point, though, as we consider the topic of tarot cards, is people's fascination with it. Facing one's own inner processes and receiving a reflection of that which constructs our deeply buried conflicts and questions seems to provide an important experience that many are attracted to. Hopefully, this article has made the nature of this attraction clearer.

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#### ABSTRACTS IN OTHER LANGUAGES

##### *Spanish*

RESUMEN: Las cartas Tarot, consideradas por algunas personas como una herramienta para predecir el futuro, y para entender nuestros asuntos internos, se originó en el antiguo Egipto y sigue siendo popular en nuestros días. El conflicto entre explicaciones paranormales y no paranormales gira alrededor de alegaciones que las cartas reflejan asuntos individuales de forma precisa. La explicación paranormal dice que las cartas muestran oportunidades, motivos ocultos, y posibilidades que proveen claridad sobre las preguntas y conflictos de las personas. Las cartas, de acuerdo a la explicación paranormal, presentan una reflexión de los procesos interiores del consultante. Por otra parte, la explicación no paranormal se basa en dos conceptos psicológicos: el efecto Barnum y “cold reading.” El efecto Barnum se refiere a nuestra tendencia a interpretar afirmaciones generales como específicas y certeras a nuestras propias circunstancias, mientras que “cold reading” se refiere a un grupo de técnicas psicológicas de decepción usadas para crear la impresión que la persona tiene habilidades paranormales. Esta revisión contrasta estas dos perspectivas e informa sobre estudios que utilizaron las cartas Tarot.

##### *German*

ZUSAMMENFASSUNG: Tarotkarten, die von manchen als Mittel zur Zukunftsvorhersage und zum Verständnis persönlicher Anliegen herangezogen werden, stammen aus dem alten Ägypten und blieben bis in unsere Zeit hinein populär. Der Konflikt zwischen paranormalen und nichtparanormalen Erklärungen ergibt sich aus weitverbreiteten Behauptungen, die Karten würden persönliche Anliegen genau widerspiegeln. Die paranormale Erklärung nimmt an, die Karten würden günstige Gelegenheiten, versteckte Motive und Potentialitäten symbolisieren und daher zur Klärung persönlicher Fragen und Konflikte beitragen. Dieser Erklärung zufolge spiegeln die Karten die innerpsychischen Prozesse des Ratsuchenden. Die nichtparanormale Erklärung hingegen basiert auf zwei

psychologischen Erklärungsansätzen: dem Barnum-Effekt und dem „cold reading“ (,kaltem Lesen‘). Der Barnum-Effekt bezieht sich auf unsere Tendenz, allgemein gehaltene Aussagen so umzudeuten, als würden sie sich auf spezifische Art und Weise auf einzigartige persönliche Situationen beziehen; „cold reading“ dagegen umfasst eine Anzahl psychologischer Täuschungstechniken, die bei medialen Aussagen verwendet werden, um den Eindruck zu erwecken, der Kartenleser habe paranormale Fähigkeiten. Dieser Übersichtsartikel vergleicht diese beiden Perspektiven unter Rückgriff auf Untersuchungen mit Tarotkarten.

### *French*

RESUME: Les cartes de Tarot, considérées par certains comme un instrument pour prédire le futur et connaître les destinées personnelles, tirent leur origine de l’Égypte ancienne et restent encore populaires de nos jours. L’explication paranormale suppose que ces cartes décrivent des opportunités, des motivations cachées ou potentielles, et permettent par conséquent de clarifier les questions et les conflits d’un individu. Selon l’explication paranormale, les cartes fournissent une analyse des processus internes du client. L’explication non-paranormale est en revanche fondée sur deux explications psychologiques: l’effet Barnum et la “lecture froide”. L’effet Barnum correspond à notre tendance à interpréter des propositions générales comme si elles s’appliquaient spécifiquement et de façon pertinente à nous-mêmes, alors que la “lecture froide” renvoie à un éventail de techniques psychologique qui sont utilisées dans la voyance pour créer l’impression que le voyant a vraiment une capacité paranormale. Cet article associe ces deux perspectives à travers une revue des études impliquant des cartes de Tarot.

# A STATISTICAL ARTIFACT IN WILLIAM BRAUD'S (1990) EXPERIMENT ON REMOTE MENTAL INFLUENCE OF HEMOLYSIS

BY JOHN PALMER

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**ABSTRACT:** In 1990, William Braud reported an experiment in which 9 of 32 participants demonstrated remote mental influence on the hemolysis of red blood cells to a statistically significant degree, but not all in the same direction. Each participant completed 4 trials, 2 while attempting influence (experimental) and 2 without such attempts (control). Because the process of hemolysis follows a decelerating curve as a function of time, the experimenter could have unintentionally created this bidirectional result artifactually by consistently commencing the measurement process slightly earlier or later on pairs of trials he might have guessed were experimental than on pairs he might have guessed were control, even though he was blind as to the actual status of the trials and even if the guesses were no better than chance. The fact that 7 of the 9 “successful” efforts were in the predicted direction of hemolysis retardation ( $p = .09$ ), plus evidence of a positive correlation between hemolysis retardation and the earth’s geomagnetic field the day before testing, indicate a genuine directional effect in Braud’s data, but only suggestively.

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In preparing to conduct a conceptual replication of a generally well-designed experiment by William Braud (1990) that apparently demonstrated remote mental influence on the hemolysis of red blood cells, I studied the report in some detail. This examination uncovered a previously undetected statistical artifact. Our replication is reported elsewhere (Palmer, Simmonds, & Baumann, 2006).

Braud (1990) tested 32 volunteers in his study. Fourteen of the participants (Ps) donated their own blood to be used in the experiment, whereas the remaining 18 attempted to influence blood that was not their own (presumably supplied by the other 14). P was alone in a room separated from the room in which the hemolysis procedure would be performed by the experimenter (E). The procedure consisted of transferring blood to a test tube containing a concentration of .425% physiological saline. After the contents were mixed by shaking, the test tube was placed inside a spectrophotometer that measures the hemolysis. When red blood cells burst, the solution becomes more transparent. The spectrophotometer charts the progress of the hemolysis by passing a light beam through the test tube and recording the amount of light that is absorbed at specified time intervals. Sixty hemolysis measurements were recorded during each trial, i.e., 1 per s. These measurements can be graphed, demonstrating the time course of the hemolysis during the run.

Each session consisted of four 15-min trials. Two of these trials, as determined by a random process, were experimental trials, during which Ps were to concentrate on retarding the hemolysis taking place in the test room while having the opportunity to observe a photo of healthy blood cells if they so chose. During the control trials, Ps were asked not to think about the red blood cells, and if that was impossible, to concentrate on having the hemolysis occur at the normal rate. E was blind as to which two trials were the experimental ones. Prior to the first trial, Ps listened to a progressive relaxation and guided imagery tape over headphones.

During each of the four trials, E performed the hemolysis procedure on groups of either two or eight test tubes, resulting in 10 tubes being tested in the experimental and control conditions, respectively. This manipulation was introduced to allow a test of decision augmentation theory (May, Utts, & Spottiswoode, 1995), which maintains that apparent micro-PK effects (under which rubric the hemolysis task would fall) are in fact caused by ESP. For example, the experimenter responsible for randomizing the order of experimental and control trials might use precognition to assign as experimental those trials in which the hemolysis effect was going to be stronger anyway. The theory makes differential predictions as to the results in the two- and eight-tube cases, hence the manipulation.

The main analysis indicated no significant difference between performance in the experimental and control trials, nor did it make any significant difference whether Ps attempted to influence their own blood or someone else's blood. It also made no difference whether the scores were based on two or eight test tubes. However, there was highly significant variability among the scores of individual subjects. Of the 32 subjects, 9 achieved independently significant scores, whereas only 1.6 would be expected by chance, assuming an alpha criterion of .05, two-tailed. Of the nine significant sessions, seven were in the psi-hitting direction and two were in the psi-missing direction. The author concluded from the excessive number of significant sessions that PK had been demonstrated in the experiment.

The main control introduced in Braud's (1990) study was the random ordering of the experimental and control trials, an order to which E was blind. Although this control is effective with respect to directional findings, it is not effective with respect to variance or bidirectional effects of the type Braud found. To illustrate, assume that E in the Braud (1990) experiment could by some means slightly influence the rate of hemolysis on individual trials. Assume further that E consciously or subconsciously made a guess for each session which two trials were experimental, and that the results of this guessing were purely random (no ESP). Finally, assume that E then unintentionally and unconsciously performed the hemolysis procedure such that hemolysis scores would be significantly higher in the *expected* experimental trials than in the *expected* control trials. This is quite plausible, as the bias could cumulate over the 10 tubes tested in each

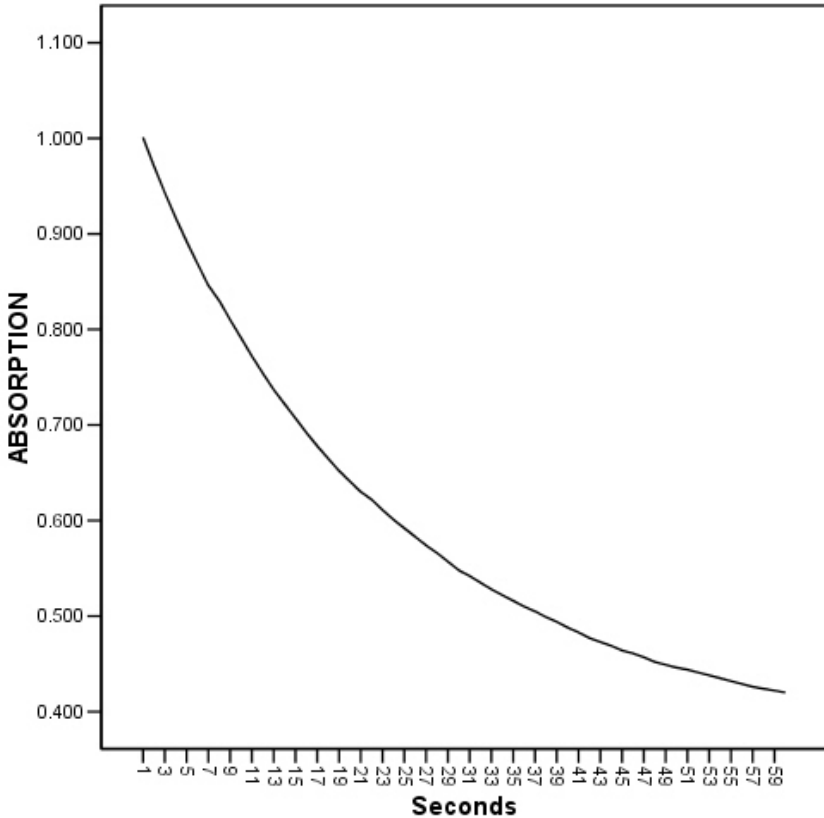
condition. There are six possible combinations of trials in the experimental and control conditions, as illustrated below. (Note that the order of the trials within each experimental or control pair doesn't matter.)

Exp.		Con.	
<b>1</b>	<b>2</b>	3	4
<b>1</b>	3	<b>2</b>	4
<b>1</b>	4	<b>2</b>	3
<b>2</b>	3	<b>1</b>	4
<b>2</b>	4	<b>1</b>	3
3	4	<b>1</b>	<b>2</b>

Assume that for a particular session E expected Trials 1 and 2 to be experimental. (These trials are in boldface in the illustration above.) It can be seen that two of the six sessions (first and last rows) line up (bi-directionally) with E's guesses. One would expect significant results in these cases. In the other four cases, E is right once and wrong once, so the effects should cancel leaving a net effect of near 0. (Note that the probabilities are the same regardless of which two trials are selected as experimental.) Thus, the model predicts that significant outcomes should appear for one third of the sessions (33%). In fact, Braud (1990) obtained significant results in 9 of 32 sessions, or 28%—very close to what the model predicts. The model also predicts that the number of positive and negative directional outcomes (psi-hitting or psi-missing) should be the same. In fact seven of the nine significant outcomes were in the hitting direction, compared to the chance expectancy of 4.5. Although the obtained ratio is encouraging, the departure from the null hypothesis of an even split is not quite significant, exact binomial  $p = .090$ , one-tailed. In conclusion, the significant result from Braud (1990) conforms satisfactorily to the artifact model and thus cannot be claimed as evidence for psi.

So how could E have produced higher hemolysis scores in some trials than in others? The most likely means would be to subtly vary the starting times of the measurement process. In our experiment, we found it impossible in practice to keep the starting times uniform to the degree required. We quickly discovered that the 60 hemolysis measurements per tube do not decrease linearly over time. As illustrated in Figure 1, they follow a decelerating curve. This means that the rate of hemolysis is much greater at the beginning of the process than at the end. Thus, it makes a big difference what stage of the process one measures on a given trial. If one starts early in the process, the rate of hemolysis over a 1-min period (reflected by the slope of the curve) will be greater than if one measures later in the process. If E started on the average at slightly different times in experimental and control trials, an artifact could be generated. Although Braud (1990) was aware of the problem and reported efforts to keep the hemolysis measurement procedure uniform, no data are reported on how

successful these efforts were in reducing the variability of start times. Based on our experience, keeping the starting times absolutely uniform is very difficult if not impossible to achieve in practice.



*Figure 1.* Decline in absorption of light over a 1-min interval in a hemolysis trial from Palmer et al. (2006).

We found in our data that the artifact is a quite strong one. We had 160 trials in our experiment, each involving eight cuvettes or hemolysis measures. For each trial we computed the correlation between the absorption score at the start time and the change in the average absorption score from the first to the last 5 s of the 1-min measurement period, the same change (hemolysis) measure Braud (1990) used. These 160 correlations ranged from +.051 to +.996, with a mean of +.703. We probably had more variability in our start scores than Braud did because our E had to overcome the additional hurdle of closing the door of a metal cage over the specimen before measurement could begin. However, she became quite proficient at this technique over the course of the study and some of the start-time

standard deviations were quite low. However, they would have to be nearly zero to erase the artifact. We found that the correlations described above correlated only a modest  $+0.251$  with the start-time *SDs*. Also when we restricted our sample to trials with *SDs* of  $.01$  (representing a range of about  $.03$  units on the absorption scale) or less for the start times ( $22.5\%$  of the total trials), the mean correlation of  $.703$  dropped only to  $.510$ . Fortunately, this artifact can be controlled for statistically (which we did), but Braud (1990) reported no such adjustments.

The one piece of evidence for psi in Braud's experiment comes from a separate paper that reports significantly ( $p = .023$ , one-tailed) greater activity in the earth's geomagnetic field (GMF) on the day preceding those hemolysis sessions showing a net decrease in hemolysis (psi-hitting) in experimental trials compared to psi-missing trials (Braud & Dennis, 1989). This finding refers to the direction of psi scoring and thus the artifact does not apply. Although this report combines the results of the formal experiment described above with those from an earlier pilot study, and the 1-day-before time was apparently selected post hoc from up to seven possibilities (including the day of the testing), the fact remains that a significant outcome was obtained that merits a replication attempt. In fact, we suggestively replicated Braud and Dennis's result in our own hemolysis experiment, using the Ap index (Palmer et al., 2006).

These GMF results, combined with the  $7/2$  split in favor of the predicted direction of the hemolysis effect among the high scoring participants, suggests that there might have been a real directional effect in Braud's (1990) data, but the support for this hypothesis is no more than suggestive. If the effect is real, the absence of a control for the effect of variation in the starting times of hemolysis measurement increases the likelihood that it was due to experimenter psi (see Palmer, 1997). The specific interpretation would be that E unconsciously used psi to select hemolysis starting times favorable to the hypothesis.

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#### ABSTRACTS IN OTHER LANGUAGES

##### *Spanish*

RESUMEN: En el 1990, William Braud reportó un experimento en el cual 9 de 32 participantes demostraron influencia mental remota sobre la hemólisis de células sanguíneas rojas con significación estadística, pero no todas en la misma dirección. Cada participante participó en 4 ensayos, 2 mientras intentaba una influencia (condición experimental), y 2 sin tal intento (control). Debido a que el proceso de hemólisis sigue una curva de deceleración en función del tiempo, el experimentador pudo haber creado este resultado bidireccional sin intención comenzando consistentemente el proceso de medición un poco antes o después en pares de ensayos que él pudo haber adivinado eran condiciones experimentales en vez de en pares de ensayos que él había adivinado eran controles. Este pudo haber sido el caso aún cuando él era ciego hacia las condiciones y aún si las adivinanzas no fueran mejores de lo esperado al azar. El hecho que 7 de los 9 esfuerzos “exitosos” fueron en la dirección esperada de retardación de hemólisis ( $p = .09$ ), y que hubo evidencia de una correlación positiva entre retardación de hemólisis y el campo geomagnético de la Tierra el día antes de la prueba, indica un efecto direccional genuino en los datos de Braud, pero solo de forma sugestiva.

##### *German*

ZUSAMMENFASSUNG. William Braud veröffentlichte 1990 ein Experiment, in dem sich bei 9 von 32 Probanden ein mentaler Einfluss auf Distanz auf die Hämolyse roter Blutkörperchen statistisch nachweisen liess, allerdings nicht bei allen in der gleichen Richtung. Jeder Teilnehmer absolvierte 4 Versuchsdurchgänge (trials), 2 mit Beeinflussungsversuch (experimentelle Bedingung), 2 ohne Beeinflussung (Kontrollbedingung). Da sich der Hämolysevorgang in Abhängigkeit von der Zeit verlangsamt, hätte der Experimentator dieses bidirektionale Ergebnis unabsichtlich als Artefakt produzieren können, indem er konsistent den Ablesevorgang bei denjenigen Trialpaaren etwas früher oder später vorgenommen hätte, die er als zur Experimentalbedingung zugehörig einschätzte als bei denjenigen Paaren, die er unter die Kontrollbedingung rechnete, obwohl er in Bezug auf den tatsächlichen Stand der Trialdurchgänge blind war und sogar



wenn er beim Raten nicht besser als Zufall abschnitt. Die Tatsache, dass 7 von 9 „erfolgreiche“ Beeinflussungen in der vorhergesagten Hämolyseverlangsamung lagen ( $p = .09$ ), zusammen mit einem Hinweis auf eine positive Korrelation zwischen der Hämolyseverlangsamung und dem Erdmagnetfeld einen Tag vor dem Test, spricht für einen, wenn auch nur andeutungsweise, echten Richtungseffekt in Brauds Daten.

*French*

RESUME: En 1990, William Braud présenta une expérience dans laquelle 9 des 32 participants démontrèrent une influence mentale à distance sur l'hémolyse de cellules sanguines rouges jusqu'à un degré statistiquement significatif, mais selon des directions différentes. Chaque participant a complété 4 essais: 2 en essayant d'influencer (essai expérimental) et 2 sans rien faire (essai contrôle). Etant donné que le processus de l'hémolyse suit une courbe qui diminue en fonction du temps, l'expérimentateur pourrait avoir créé sans le vouloir ce résultat artificiellement, en commençant la mesure du processus un peu avant ou après les paires d'essais, devinant ainsi où étaient les paires expérimentales et les paires contrôles, même s'il était aveugle quant au statut actuel de l'essai, et même s'il ne devinait pas mieux que ce qui est attendu du hasard. Le fait que 7 des 9 essais ayant "réussi" furent dans la direction prédite du retardement de l'hémolyse ( $p = .09$ ), en plus de la preuve d'une corrélation positive entre le retardement de l'hémolyse et le champ magnétique terrestre le jour avant le test, indique un véritable effet dans les données de Braud même s'il est d'une faible teneur.

# OBITUARIES

IAN STEVENSON

1918–2007

BY ERLENDUR HARALDSSON

On the 8th of February, 2007, Ian Stevenson, longtime Carlson Professor of Psychiatry at the University of Virginia Medical Center, passed away. He was a leading figure in the paranormal field for half a century and opened up a new field of inquiry. In psychical research there had been a long tradition of investigating evidence relevant to the question of life *after death*. Stevenson started a new field of inquiry into phenomena that might give evidence for life *before birth*, i.e., for the theory of reincarnation.

I first heard Ian speak at the 1968 Parapsychological Association convention in Freiburg, when he was president of the Association. Due to sickness he did not appear in person and his presidential address was played from a tape recording. A paper was also presented for him on the characteristics of cases of the reincarnation type. Both became very memorable to me.

In 1970–71 I stayed a year at his Division of Parapsychology (now of Perceptual Studies) during an internship in clinical psychology at the University of Virginia. This was the beginning of an association that lasted almost four decades. His empirical approach, his choice of research topics, and the thoroughness of his investigations all appealed very much to me. I felt enriched by every piece of work that I did with him or for him, and his personal company was always delightful. His knowledge of the field was truly exceptional and greater than that of anyone else I knew.

My first stay at the University of Virginia led to the publication of three joint papers on mediumship (Haraldsson & Stevenson, 1974, 1975a, 1975b). In the late 1980s, Ian asked me if I would be willing to conduct an independent investigation of cases of the reincarnation type, which I gladly accepted.

In the early 1970s I had already helped him by conducting a few interviews during my work with Karlis Osis in India. We also started a psychological study in India of children who claimed to remember a past life, which came abruptly to an end when I met with a car accident in India. In the 1990s I took up this thread again.

My association with Ian lasted until the end of his life. He offered me his house to stay in during a long visit to Charlottesville last winter, and by chance I happened to be present at his deathbed.

Ian was an extraordinarily hard and persistent worker. This was very noticeable to everyone who worked with him. Emily Kelly, his longtime personal assistant, has told me that once there came a questionnaire from the university enquiring about the working habits and workload of its professors. There was a question about how many hours they worked per day. Ian's reply was 12 hours per day. And how many days of the week? Seven days of the week, was his reply. This was in line with the observations of those of us who had the opportunity to work with him.

Ian was a meticulous notetaker. From the age of 17 he kept a logbook in which he recorded titles of all the books he had read. By 2003, when he stopped keeping it, they numbered 3,535, almost 53 books per year for 67 years. Paging through that logbook makes interesting reading.

Ian Stevenson was born in Montreal, Canada, on October 31, 1918. His father, John Alexander Stevenson, was born in 1883 in Scotland, where his father was a schoolmaster in Beith, a small town within an hour's drive west of Glasgow. Ian's mother was Ruth Cecilia Preston, born in 1891 in London. Later she moved to New Jersey where her mother had a second marriage. It was on a voyage from England to America that Ruth Cecilia met John Alexander. They married in 1916.

Ian attended a Montessori School and had a normal elementary schooling in Canada. During this time he was often sick with a lung problem and had to stay in bed, attended by his loving mother. While being tied to his bed, he became an avid reader. Around 1931, Ian was sent to England to attend an innovative public school in Bryanston, Dorsetshire. While at Bryanston, his brother writes, "he developed a voracious appetite for history, reading widely and memorizing almost every historical date of any importance worldwide" (White, 2008). White writes that Ian had an almost flawless memory for places, events, dates, and names. I noticed this myself when he was investigating cases of the reincarnation type and the drop-in cases that we studied together. Ian stayed in Bryanston until 1937, when he enrolled at St. Andrews University in Scotland to major in history. His aunt Mary was a physician and lived close to St. Andrews, and this fact may have determined the location. Ian had at this time increasingly bothersome bronchiectasis—a chronic, almost incurable, lung infection that he had suffered from since birth. He returned home for the summer in 1939. As World War II was approaching, he decided to stay on in Canada.

In 1940, Ian took up the study of medicine at McGill University, perhaps influenced by his mother or by his aunt in Scotland. He was always an outstanding student. No doubt, what he described as his "unusually retentive memory" must have been a great asset to him. He obtained his medical degree from McGill University in 1943 with a Holmes golden award for the highest aggregate grade in all subjects forming the medical curriculum.

As a student in 1941, Ian had already published his first paper in the *McGill Medical Journal*. It was a long historical paper on William Harvey, who revolutionised medicine when he discovered blood circulation. This finding had met with considerable resistance, which Ian did not fail to discuss, fighting as he did most of his life with those he described as having a “half-closed mind.”

It must be considered quite remarkable that at the time Ian graduated from McGill in 1943, he had already published five papers in medical journals. From this time on he published an average of four papers per year until 2006, when he was 87 years old. (More precisely, there was no paper in 2004 but five in 2005.) In addition, he wrote 17 books. This is enormous production, especially when one considers the high quality of scholarship that was so characteristic of Ian. He did not write his papers only once; he went through them several times, rewrote them, and even asked for comments by his coworkers before he completed the final version that he submitted for publication.

Due to his continuing lung problems, he moved from Canada to Arizona in 1944 for the warm and dry climate. Later he moved to New Orleans and New York, where he became increasingly involved in medical research, particularly psychosomatic medicine.

In 1949, Ian became Assistant Professor in the Department of Psychiatry at Louisiana State University in New Orleans. In 1952 he was promoted to Associate Professor. During this period, Ian underwent psychoanalysis and soon became critical of Freud's basic ideas. American psychiatry was dominated at the time by the Freudian view that human personality is more plastic in infancy and childhood than in later years. After considering many empirical studies, Ian concluded that this assumption is unproven (Stevenson, 1957). The paper aroused much attention within psychiatry, and it brought him considerable fame, as well as some enemies and a reputation as a maverick. His first book, *Medical History-taking* (Stevenson, 1960a), became a widely used textbook.

In 1957, at the age of 38, Ian was appointed joint Professor and Chairman of the Department of Psychiatry and Neurology at the University of Virginia Medical Center in Charlottesville.

Ian's first published paper on the paranormal is entitled “The Uncomfortable Facts about Extrasensory Perception” (Stevenson, 1959). By this time he had behind him 76 papers in medical journals dealing with a wide range of issues, even some experimental studies with rats—radically different from what was to come. In the 1959 article he promoted the urgent need to critically examine both new and old ideas, especially those that do not fit rigid contemporary scientific paradigms, such as extrasensory perception.

Ian's second paper, “The Evidence for Survival from Claimed Memories of Former Incarnations” (Stevenson, 1960b, 1960c), dealt with the paranormal and turned out to be the beginning of a long journey

that he is not likely to have foreseen. It was a winning essay of a contest in honour of William James. It is obvious when reading this paper that Ian had for a long time been searching for written accounts of memories of past lives.

In this essay he wrote about the types of evidence for which reincarnation has been invoked as an explanation, such as extraordinary talents at a young age; statements made by ostensible discarnate communicators through sensitives; predelictions, fears, and so on, possibly related to former incarnations; déjà vu experiences; and apparent memories of former incarnations.

He analysed 44 cases that he had found scattered in obscure places in the literature, and he briefly described seven of them.

With his characteristic thoughtfulness, Ian discussed nine hypotheses that might possibly explain these alleged memories, such as fraud, racial memory, extrasensory perception, retrocognition, possession, and reincarnation. Furthermore, he made proposals for further research.

When Eileen Garrett read this paper, she invited Ian to conduct an original investigation of a case that she had heard about in India. Ian accepted. He found more cases in India and Sri Lanka, as well as in other places such as Brazil, Alaska, and Lebanon. Soon Ian was deeply involved in the study of these cases, and Mrs. Garrett (but primarily Chester Carlson) gave him the needed funding. From this time on, the major thrust of Ian's research concerned memories of a previous life. He went around the globe in search of them.

This line of research was shunned by most of his academic colleagues but courageously supported by the President of the University and the Dean of the Medical School.

Chester Carlson, Ian's benefactor, died in 1968. Ian then, to his surprise, learned that Carlson had bequeathed to the University of Virginia one million dollars for Ian's research on paranormal phenomena. This led to the chair named the Carlson Professor of Psychiatry, and the founding of the Division of Personality Studies. Now Ian was able to devote all his time to research, hire coworkers, and continue unhindered with his worldwide studies of reincarnation cases.

Stevenson gradually developed a team of interpreters and coworkers in the various countries he visited, and he got some of his staff at the Division of Parapsychology at the University of Virginia involved in this work, including Emily Kelly (born Williams), Antonia Mills, and Jim Tucker. In the late 1980s, he convinced Jurgen Keil and myself to do independent studies of children claiming past-life memories. This resulted in the publication of several papers. Our independent studies revealed the same features of the cases as Ian had already found and described.

Ian also made several contributions to the study of near-death experiences, many of them in cooperation with Bruce Greyson, who succeeded him as Carlson Professor of Psychiatry.

## SELECTED PUBLICATIONS ON THE PARANORMAL

*Spontaneous Telepathy*

Ian's foremost interest was the study of spontaneous paranormal phenomena. His book *Telepathic Impressions* (Stevenson, 1970) was one of his major contributions.

*Mediumship*

Ian had great interest in mediumship, particularly in cases of the drop-in kind. These are cases when communicators that are unknown to the sitters and the medium appear in seances. Such cases, he argued, cannot be explained by telepathy from the sitters, and hence they provide impressive evidence for survival. He also emphasized the great importance of the *purpose* and *intent* expressed in many drop-in cases. As there were often difficulties in excluding possibilities of latent subconscious memory (cryptamnesia) and fraud, thorough investigation was required. Ian's first paper on mediumship (Stevenson, 1965) was on a well-known 19th-century case, published in 1875 by the highly regarded medium Stainton Moses. Ian revived this case and gave it a new importance through a fresh and thorough investigation of contemporary obituaries, archival records in Washington, DC, and at Greenwood Cemetery, where the communicator, Abraham Florentine, was buried in 1874.

In this paper, Ian wrote that he was preparing a monograph reviewing some 60 cases of this type, mostly from the published literature but some not yet published. A draft of this monograph with extensive notes exists among Ian's extensive collection of files. He had apparently been collecting these cases for many years, and long before this 1965 publication.

In the early 70s I had the memorable opportunity to work with Ian on the investigation of two cases in Iceland involving the medium Hafsteinn Björnsson (Haraldsson & Stevenson, 1975a, 1975b). We also conducted one tightly controlled (double-blind) and successful experiment with this medium (Haraldsson & Stevenson, 1974). Ian likely would have made a much greater contribution to the study of mediumship had he not become deeply involved in investigating cases of the reincarnation type.

*Apparitions*

Ian made a lasting contribution to the study of apparitions, particularly of the dead. In his paper "The Contribution of Apparitions to the Evidence for Survival" (Stevenson, 1982) he discusses the two main interpretations of veridical hallucinations (or apparitions), namely the theories of Gurney (all explained by telepathy) and of Myers, who argued that the perceived discarnate plays a part in generating the apparitional

experience. Myers's theory implies some activity on the part of the agent, who is in some sense present at the physical site of the apparition. This deceased agent thus creates a "phantasmogenetic effect." For Ian, collective experiences and post mortem apparitions, particularly those with evidence of purpose, could in some cases provide evidence for survival after death.

### *Xenoglossy*

*Xenoglossy*, speaking in a foreign language that the person involved was never known to have learned, was one of the phenomena that greatly interested Ian. He wrote two books on the subject, *Xenoglossy* (Stevenson, 1974) and *Unlearned Language* (Stevenson, 1984). They describe in great detail three cases, two American ones in which the phenomena were evoked through hypnosis, and one Indian case with no hypnosis involved. In *Xenoglossy*, Ian also discusses minor cases, including cases of *xenography*, writing by the medium in a language unknown to him/her. Several instances of xenography are described from the heyday of spiritualism. With Ian's cooperation, I studied one example of xenoglossy in Hafsteinn Björnsson's mediumship.

### *Special Participants*

Ian was primarily interested in real-life phenomena and highly gifted individuals. He gave considerable attention to four very different psychics. He initiated or took part in experiments involving three of them. In the case of the fourth, Stefan Ossowiecki (1877–1944), Ian was instrumental, with Mary Rose Barrington and Zofia Weaver, in making available in English numerous reports on him that were originally in Polish. The book was entitled *A World in a Grain of Sand: The Clairvoyance of Stefan Ossowiecki* (Barrington, Stevenson, & Weaver, 2005).

### *Reincarnation*

The major thrust of Ian's research was memories of a previous life. He went around the globe and visited a great number of countries in search of them. The cases had certain recurrent characteristics, wherever they were found. The children started to talk about the alleged past-life experiences at a very early age. Most of them spoke about how they had died, and most had suffered a violent death. Many suffered from phobias, and some had birthmarks or deformities related to their mode of death. In the majority of cases, the memories faded away as the children grew older, often about the time they went to school.

*Twenty Cases Suggestive of Reincarnation* (Stevenson, 1966) was Ian's first major publication about cases that he had investigated. He reported in great detail about cases from India, Sri Lanka, Brazil, Alaska, and Lebanon.

He concluded with a long and thoughtful general discussion of the cases and of children who claim to remember a past life. The book was translated into many languages and received considerable attention.

There followed four volumes, published in 1975–1983, on cases in India, Sri Lanka, Lebanon, Turkey, Thailand, and Burma (Stevenson, 1975, 1977b, 1980, 1983). These volumes deal with the most impressive cases Ian had found in each of these countries.

In a paper entitled “The Explanatory Value of the Idea of Reincarnation” (Stevenson, 1977a), Ian suggested that reincarnation could have considerable explanatory value for several features of human personality and biology as an addition to genetics and environmental influences. The relevant features were phobias and phobias in childhood, unlearned or untaught skills, gender identity confusion, birthmarks, congenital deformities, and differences between members of monozygotic twins.

First published in 1987 and later revised, Ian’s book entitled *Children Who Remember Previous Lives* (Stevenson, 1987, 2001) gives an overview of the evidence from the cases, their characteristics, and his thoughts about the explanatory value of the idea of reincarnation. Also discussed are the methods of research, the methodological difficulties in studying the cases, and their possible interpretations. This is Ian’s best review of cases of the reincarnation type and their various aspects, problems, and interpretations.

In his later years, Ian became increasingly interested in birthmarks and birth defects that seemed to be related to past-life memories. On this topic he wrote two huge volumes collectively entitled *Reincarnation and Biology: A Contribution to the Etiology of Birthmarks and Birth Defects* (Stevenson, 1997a). Each was over 1,000 pages, a total of 2,268! They contain extremely detailed reports about numerous cases, with long discussions about the various categories. Fortunately, Ian also wrote a popular shorter version, entitled *Where Reincarnation and Biology Intersect* (Stevenson, 1997b), in which he leaves out most of the details of the individual cases. This is an excellent overview of his work on birthmarks and birth defects.

In his last book, entitled *European Cases of Reincarnation* (Stevenson, 2003), Ian describes European cases, both those that he investigated himself and cases from the early part of the 20th century investigated by others. His purpose was to show that cases of this kind have also been found in Europe and that they carry the same basic features as cases from Asia and West Africa, and from tribes living in the Northwest of North America.

### *Final Publication*

Ian’s last paper, entitled “Half a Career with the Paranormal” (Stevenson, 2006), was biographical. It dealt with all his research in the paranormal field. (In 1990 he had written a comparable paper on his journeys in medicine.) In this last paper, Stevenson writes, “As for the behavioral residues of past lives, I have repeatedly drawn attention to their



importance as a third component to the development of human personality, the other two being genes and the environment after conception" (p. 20).

#### CONCLUSION

To Ian's disappointment, few in today's orthodox medical establishment would even examine his data, to say nothing of embracing his conclusions. As he wrote in *Harper's Magazine* (Stevenson, 1959), all those many years ago, there still are far too many Western scientists "with half-closed minds."

Still, after Ian's death a full-page obituary appeared in the *British Medical Journal*, an indication that there were some persons in the medical establishment who appreciated his work. Also, some major newspapers, such as the *Washington Post*, the *New York Times*, and the *Telegraph* published long obituaries about him.

Ian was not spared criticism and even derision for his work. The major critics were Ian Wilson, Paul Edwards, C. T. K. Chari, and Scott Rogo. He was accused of everything from bias to superficial and sloppy fieldwork. The thrust of the criticism, though, concerned the interpretation of the cases. He was very much aware of this problem and discussed various interpretations in his many publications.

Ian Stevenson will remain best known and remembered for his work on children who claim to remember past lives. He brought that phenomenon to the attention of parapsychologists and to the wider general public. Thereby, he added an empirically researchable phenomenon to the discussion about survival. He opened up the question of preexistence and discovered an empirical approach to it.

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RHEA A.  
WHITE  
1931–2007

BY NANCY L. ZINGRONE

Rhea A. White made more than “the most” out of her 75+ years of life, reinventing herself more than once. Born in Utica, New York, on May 6, 1931, White attended Utica College and Syracuse University from 1949 to 1951 and obtained her BA from Pennsylvania State University in 1953. Her golf game was of such excellence that she had a chance to become a national champion when a car accident in her junior year and its subsequent near-death experience turned her attention both inward and at that point toward parapsychology. From 1954 to 1958, she was a research fellow at the Duke University Parapsychology Laboratory, contributing to the experimental literature of the field with a productive group of then-young collaborators such as Robert Van de Castle (Van de Castle & White, 1955), and Margaret Anderson (Anderson & White, 1956, 1958a, 1958b). It was a heady time for the staff members of the Laboratory, and for the younger members especially exciting. The Parapsychology Laboratory occupied part of the second story of the West Duke Building on East Campus. On summer evenings after J. B. Rhine and the older staff members had gone home, White once told me, the younger researchers would kick off their shoes, put a rock and roll record on a portable turntable, and sit with their feet up double checking ESP data in the large upper story windows where the late afternoon breeze caught the scent of the magnolia trees on Duke University’s East Campus lawn.

In 1959, White began her lifelong association with the American Society for Psychical Research, starting out as a Research and Editorial Associate and finishing decades later as a consulting editor on the *Journal of the American Society for Psychical Research*. In 1965 she obtained a Masters in Library Science from the Pratt Institute in New York City and took up her “day job” as the Reference Librarian at the East Meadow Public Library in East Meadow, New York, a position she held for 30 years. She published

a number of seminal papers across her career, among them articles on "depth perspectives" (White, 1960), on methodology in ESP experiments (White, 1964), on spontaneous cases (Dale, Murphy, & White, 1962), on experimenter effects (White, 1976a, 1976b), on the ESP experiences of Catholic saints (White, 1981, 1982), on parapsychology and transcendence (White, 1984), and on feminist approaches to the field (White, 1994b), among other topics. Her work on the reference materials of the field moved Stanley Krippner to call her the field's "bibliographer" (e.g., White, 1965, White, 1977, 1989, 1991; White & Dale, 1973) as indeed she was. But she was also committed for a time to the professional needs of the field. She was elected to the presidency of the Parapsychological Association (PA) in 1984 and received the Outstanding Contributions to Research Award from that group in 1992.

White's most important work began before she retired from East Meadow Library, after she founded the Parapsychology Sources of Information Center (PSI Center) and established its main bibliographic publication, *Parapsychology Abstracts International* (PAI), and before her work on a doctorate in sociology at the State University of New York at Stony Brook (1991–1993)—the latter resulting in a never-finished doctoral dissertation that topped 3,000 pages by the time she died. As she pursued her quest to understand fully and deeply not only her own exceptional human experience (a term she coined) but also those of others, she left the confines of parapsychology proper and moved into a wider field of research that she largely defined. To that end she changed *PAI* into the journal *Exceptional Human Experience* and the PSI Center into the Exceptional Human Experience Network (EHEN) with its unique website, [www.ehe.org](http://www.ehe.org). A flood of richly argued publications followed, among them a consideration of the implications of exceptional experiences for the philosophy of science (White, 1990), a presentation of the classification and compilation of exceptional experiences (White, 1994a, 1994c), a review of EHEs, dissociation, and narrative (White, 1997), and an examination of reflexivity and exceptional experiences (White, 1998).

Her library and papers were left to the Parapsychology Foundation where they are currently being incorporated into the existing collection. For a memorial to White written by Dr. Carlos S. Alvarado that includes a larger bibliography of her works and a series of reminiscences by her colleagues and friends, the reader is advised to check the Parapsychology Foundation website at <http://www.pflyceum.org/187.html>. For the dictionary of exceptional human experiences and many other information resources White compiled, her website, being maintained by the Parapsychology Foundation, is still on-line at <http://www.ehe.org>.

This brief characterization of White's life and work barely scratches the surface of her interests, her industry, her publications and her contributions to parapsychology, to transpersonal psychology (for which the Institute of Transpersonal Psychology awarded her an honorary doctorate

in 2006), and to the many members of her EHE Network. When she died on February 24, 2007, she was still working nearly every day even though her last few years had been overshadowed by a lingering and debilitating illness. After she died, her “retirement” home in New Bern, North Carolina, was a testament to the continued eagerness of her intellect, being full of books, computer files, journals, magazines, articles- and books-in-progress, and dozens upon dozens of correspondence and reprint files, not to mention a small army of well-loved cats, close friends, and devoted neighbors.

In her last years she was jealous of her morning hours—her New Bern friends were warned not to bother her when she was reading and writing—but she was giving of her time, spending hours on the phone listening, encouraging, talking, thinking aloud with a wide network of colleagues and collaborators, keeping up her athlete’s pace of life as well as she could even when she found it increasingly difficult to breathe. She was full of encouragement to many of us, an epitome of what a mentor should be. There are many of us who will remember and miss her well-lived life. But her real gift to us is that decades from now many more will join us in appreciating her diverse body of work.

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ROBERT A. MCCONNELL  
1914–2006

BY RICK E. BERGER<sup>1</sup>

On July 31, 2006, Robert A. (“Bob”) McConnell passed away at age 92. He was involved with, and consumed by, parapsychology for over 60 years. He cared deeply about the Parapsychological Association, its work, and the field of research which he believed had profound consequences for the future well-being of humanity. Bob served as the first President of the Parapsychological Association (1957-1958). He was also a Life Senior Member of the IEEE, a Fellow of the American Psychological Society, Research Professor Emeritus of Biological Sciences (University of Pittsburgh), and a Fellow of the AAAS.

He was born on April 6, 1914, in a small town near Pittsburgh, Pennsylvania. He attended Carnegie Institute of Technology (now called “Carnegie Mellon University”), and graduated with a BS degree in Physics in 1935. He subsequently received his PhD in Physics in 1947, at the University of Pittsburgh. (As a piece of trivia, Dr. E. U. Condon, an eminent nuclear physicist, served on his doctoral committee. Condon later became perhaps more popularly well known as the namesake of the “Condon Report”—a four year project in the late 1960s examining the reality of unidentified flying objects. The report officially concluded that UFOs all could be explained by conventional explanations.)

Bob first became aware of parapsychology in the 1930s, hearing about the ESP card-guessing experiments that J. B. Rhine conducted at Duke University in Durham, NC. Though the phenomena interested him on an intellectual level, it was not until later (around 1943) that psychokinesis experiments on willing the outcomes of thrown dice caused McConnell, himself a physicist, to realize that these phenomena, if true, would clearly be a domain of interest to physics. At the time, McConnell, then 29 years old and contributing to the war effort by designing and building radar equipment at the Massachusetts Institute of Technology, decided to become seriously involved in studying these new and potentially world-changing phenomena.

THE WAR YEARS

Shortly before the start of WWII, he voluntarily left his position as a civilian employee at the Philadelphia Navy Yard (possibly not the best career move in light of the peacetime draft and the impending war), and without a guarantee of another position, contacted the Radiation Laboratory at MIT where he was put on the technical staff. During the course of the war, he

<sup>1</sup> I’d like to offer deep-felt thanks to Robert’s son, Tron McConnell, for his invaluable and gracious contributions and help in providing and editing this information.



was in charge of the group developing "Moving Target Indication" (MTI), the technique that used the Doppler shift of the returned radar signal resulting from the motion of an object to differentiate between stationary and moving objects.

It was while he was at MIT, during 1943, that he became aware of the work that Rhine was doing at Duke, possibly through articles in *Time* magazine or other popular magazines. He visited the Widener Library at Harvard to more thoroughly investigate the literature and this was the "trigger" of his subsequent professional lifetime interest and participation in the field. McConnell then read the entire collection of journals on psychical research that dated back to 1882 (which took him from 1943–1947). From this study, he concluded that psychic phenomena do indeed occur, even if we do not understand the mechanisms.

During the war, many physicists started to "disappear" from the Radiation Laboratory staff, with no hint of where they had gone. They were all heading west to Los Alamos to work on the Manhattan Project. In fact, Bob had been quietly asked if he was interested in a position on the new project (without being told what the project was about) but he declined, having figured out what the project was, and constrained by the fact that his wife was, by that time, in the Trudeau Tuberculosis Sanatorium at Saranac Lake in New York, and she would not have been able to follow him westward.

He decided that after the war ended and he had his doctoral work in physics completed, he would formally begin to study parapsychology on his own. He noted, in a memoir:

From the beginning of my experimental research in 1947, I spent a substantial part of my time in writing to scientists and journal editors, seeking support for the field and for my research. In the beginning, I still naively believed that scientists were what they claimed to be: open-minded and always searching for truth. I was confident that they had merely overlooked the journal evidence for psi phenomena and that they would be pleased when it was properly brought to their attention. It was not until I had completed a major experiment and spent four years trying unsuccessfully to get it published in a journal of physics (before finding a sympathetic editor in the *Journal of Experimental Psychology*) that I realized that, with rare exceptions and except within their chosen specialty, scientists are like the rest of humanity. For peace of mind they believe what they want with little regard for evidence. Except within their own fields, reality is of little concern to them. (*Joyride to Infinity*, pp. 7–8)

While he was at MIT, Bob did much of the research that he eventually used as the basis for his PhD in Physics, which he obtained in 1947 at the University of Pittsburgh. He had returned to Pittsburgh in 1946, as the Radiation Laboratory was being closed down.

After reading up on the Rhine research and the assorted criticisms and commentaries by skeptics, Bob was as taken aback by the tone and arguments of the skeptics as the work they were criticizing. This was Bob's first encounter with the often religious and irrational response of critics to parapsychology.

From 1947 to 1966, he conducted experiments (following the work of Rhine) involving subjects wishing for control of the uppermost faces, or the lateral displacement, of fallen dice. The fall of the dice was electrically initiated and the data were recorded by, and analyzed from, photographs that were taken automatically. The subjects were several hundred University of Pittsburgh student volunteers, each of whom was tested only once for a 40-minute session. Concurrently, from 1953 to 1968, he collaborated as a junior partner in ESP or PK experiments with the well-known parapsychologists G. R. Schmeidler, H. Forwald, and M. L. Anderson.

From the beginning of his experimental research in 1947, he spent a substantial part of his time in writing to scientists and journal editors, seeking support for the field and for his research.

By 1968, his laboratory experimenting was completed but not fully analyzed or reported. The reality of ESP and PK were, and had long been, in his opinion, fully established in the literature. From personal experience, he understood the nature and extent of scientists' opposition to parapsychology. At about that time, he shifted his efforts from building a scientific reputation in parapsychology to joining other parapsychologists in promoting the acceptance by scientists of the reality of psi phenomena.

By 1990, he had given gratis, an astonishing 17,800 copies of his books to scientists and to members of 29 targeted intellectual elites, ranging from 1,500 U.S. National Merit Scholar high school libraries to 1,800 National Academy of Sciences Members and Foreign Associates. Altogether, over the years, he gave away more than 38,000 pieces of parapsychological literature.

#### WRITINGS

Bob enjoyed writing to skeptics and hard-nosed scientists and then publishing their often amusing, but mostly troubling, exchanges. He was a firm believer that rational argument should sway peoples' opinions. He was all-too-familiar with the barriers that religiosity threw in the path of science, and frequently wrote on this topic, including in his 2001 book entitled *God.Org: Are You There?* He was a prodigious writer and thinker (though he often deviated into social commentary that some found off-putting). He self-published a series of books on parapsychology, which he freely distributed to a selected list

of people, chosen both from within the field and from knowledgeable outsiders who, McConnell believed, would profit by knowing about the seriousness of parapsychology.

My first face-to-face encounter with Bob occurred, as I recall, in 1988 in Montreal, Canada. I was chairing the annual meeting of the Parapsychological Association. Bob made a point to seek me out and "interview" me. He wanted to know who the movers and shakers within the PA were and who he could trust (and not trust) within this close-knit field. We became friends at this point, and, in his final years, I was often a confidant to him and we formed a close relationship.

Around 1999 or 2000, he approached me to ask if I would create a website for his parapsychological books and writings ([www.ramconnell.com](http://www.ramconnell.com)). Bob was a meticulous man, obsessed with precision and accuracy. In his final years, I was always astounded by the attention to detail of his thinking and writings, even as his memory began to fail him from disease. He surprised me many times by sending me (usually by normal mail) bound copies of letters. He would document his own decline from disease (both mental and physical) in a dispassionate and objective perspective, as if the process of watching death creep up on him was as interesting as it was painful.

He told me several times over the course of several years that he expected to die soon (presumably within days or weeks) but he hung on for several additional years. He still maintained an active e-mail correspondence with me, though I am told by his son Tron that Bob dictated most of it to be typed and that when he did it himself it involved long and painful typing by one finger.

To the end, he was producing new manuscripts and even a final one, to be published posthumously, about "Living With Psychics." He had close, personal relationships with several psychics over a long period of time and believed that much valuable insight into psi could be gained this way.

Though I often disagreed with his politics and some of his worldviews, I respected him deeply. Most of his professional life, a long and productive 60 years, was devoted to the elevation of parapsychology as a science to be placed side-by-side with physics, biology, and psychology. He will be missed.

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## BOOK REVIEWS

**PSYCHICS, SENSITIVES, AND SOMNAMBULES: A BIOGRAPHICAL DICTIONARY WITH BIBLIOGRAPHIES** by Roger I. Anderson. Jefferson, NC, and London: McFarland, 2006. Pp. ix + 250. \$49.95 (paperback). ISBN 0-7864-2770-1.

There are several instructive encyclopedic books that provide (sometimes fairly extensive) information about the lives, works, and lasting influence of those who have devoted, and sometimes maybe even sacrificed, parts of their lives and academic careers to active parapsychological research. Pilkington (1987), Berger (1988), and Berger & Berger (1991) are pertinent examples from the past two decades. However, so far there has not been a comparable volume, in any language, to portray the individuals who became known, and sometimes even made a career, as the human subjects of that research: the psychics, sensitives, mediums, clairvoyants, somnambules, and psychokinetes (or however we may call them) who are believed by many to have produced evidence for psychic phenomena of various sorts. Roger I. Anderson's welcome book tries to fill that gap, and it does so with circumspection and at least partial success.

Anderson, well known both for his articles about historical aspects of spiritualism and psychical research (e.g., Anderson, 1985) and for his bibliographic work in this field (e.g., White & Anderson, 1990), presents in this book much useful information about more than 300 selected individuals "who claim to experience the paranormal on a fairly routine basis" and who "actually provided some evidence of genuine ability" (p. 2). Anderson makes it clear from the outset, however, that he is not attempting to decide, or even to suggest, whether the phenomena and experiences ascribed to these individuals require more than normal explanations. After all, "many of these same people have also provided much of the best evidence for the view that deception, self-deception, and general credulity explain everything in the psychic realm that needs explaining, with coincidence taking care of the rest" (p. 2). Decisions about genuineness or otherwise of the reported phenomena thus are basically, and sensibly, left to the reader. The author provides only an overall evaluation when, in his preface, he states:

Though the primary focus of this book is on the real rather than the bogus, an actual count of those psychics that I regard as genuine is sobering. Of the 330 candidates considered, I would judge only about 50 to have produced phenomena that are genuinely inexplicable in terms familiar to conventional science. An equal or greater number I consider fraudulent, delusional or both, leaving

a whopping two thirds about which I can come to no firm conclusion one way or the other (p. 5).

The preface also describes the inclusion criteria that Anderson adhered to (numbering is mine; G.H.H.). First of all, sufficiently detailed information had to be available about individuals to allow a comprehensive summary of their careers, thus excluding those like Apollonius of Tyana whose fame is mainly based on hearsay, anecdotes, or legends. Second, Anderson emphasizes deceased individuals because, he says, their careers are complete and all the evidence is in. Nevertheless, a few living psychics are included as well. Third, Anderson's prime focus is on psychics in the usual meaning of the word, i.e., people who have manifested marked paranormal abilities over protracted periods of time before multiple witnesses, thus admitting fewer presumed focus persons of poltergeists and hauntings, protagonists of reincarnation or possession cases, and saints and other wonderworkers into the book. Fourth, Anderson tries to avoid inclusion of too many cases with phenomenological resemblances to each other:

This dreary similarity of cases is particularly noticeable in those of the poltergeist and reincarnation types, but it also holds for virtually every other category of psychic experiences as well. Such a close conformity to type among cases in other respects so bizarre is itself a significant finding, suggesting a certain lawfulness about the phenomena that might not otherwise be apparent, but it accomplishes little to pile on case after case of the same type once the pattern has been established (p. 4).

Fifth, in addition to the most prominent, "leading" psychics, "[s]everal minor and even obscure figures appear as well, to provide an idea of the historical richness of the subject and the manifold forms the psychic life can take" (p. 3).

Obviously, these inclusion and exclusion criteria are not always fully consistent with each other. As a consequence, the reader will find some entries he or she may not have expected after reading the preface. The relatively lengthy entry for "Mary of Nazareth. First-century Jewish woman whose first-born son, Jesus, would be venerated after his death as a god. . . ." (p. 113) is a case in point. As Anderson admits, this entry is in considerable conflict at least with the first and main inclusion criterion that demands detailed biographical information. Inevitably, given the sheer number of possible candidates for inclusion in a book like this, a number of such inconsistencies must be accepted. The volume, according to Anderson, is primarily intended as "an information and research tool" (p. 3), and as such it is a very valuable, highly informative, and welcome addition to the literature.

The author includes a great variety of entries representing individuals from different time periods, national and educational backgrounds, and scientific or ideological orientations. We encounter poltergeist agents (e.g., Angélique Cottin, Annemarie Schneider, Tina Resch), mesmeric subjects (e.g., the Didier brothers), saints (e.g., Teresa of Avila, Bernadette Soubirous), individuals with stigmata (e.g., Anna Katherina Emmerich, Therese Neumann, Padre Pio), persons who claim to remember previous lives (e.g., Shanti Devi, Sumitra Singh), some slightly obscure figures from the annals of occultism (e.g., Cagliostro, Nostradamus, Rasputin), mentalists such as Joseph Dunninger (Stuart Cumberland is missing, however), and even animals (e.g., Lady Wonder, Sugar the Cat, Gef the Talking Mongoose). The major focus, however, is on the mediumistic heavyweights such as Eileen J. Garrett, Florence Cook, Kathleen Goligher, Marthe Béraud ("Eva C."), Daniel Dunglas Home, Henry Slade, Gladys Osborne Leonard, Eusapia Palladino, Mina "Margery" Crandon, Willi and Rudi Schneider, and Leonora Piper, as well as on well-known psychics including Gerard Croiset, Pascal Forthuny, Stefan Ossowiecki, Raphael Schermann, Mary Craig Sinclair, Nina Kulagina, Alex Tanous, Uri Geller, and Ingo Swann. Some entries are collective ones, such as "Estabrooks' Subjects," "Gasparin's Subjects," "Gurney's Subjects," "Rhine's Sensitives," the "Philip Group," and "Sabom's Subjects"—but not the "Bindelof Boys" (cf. Ullman, 2001; Pilkington, 2006). Sometimes particular individuals, such as Rhine's subjects A. J. Linzmayer and Hubert E. Pearce, are identified, but in most cases their names remain unknown and were never published in the first place.

Entries for Ken Batchelder, Haakon Forwald, Rosalind Heywood, Carl-Gustav Jung, and Gilbert Murray serve as valuable reminders of the fact that there is not always, and not necessarily ever, a clear-cut line that separates psychics from those researchers who set out to investigate them. Other entries are about little-known individuals and unusual phenomena. An example is Philip S. Haley (p. 77), who used himself and his wife as subjects in studies of the multiplication of food. Another is the fascinating tale of Caroline Randolph Chapman, described as "perhaps the only person in history to become a medium on her doctor's advice" (p. 27). Alas, the reviewer's hope that he might find some fresh information about William H. Lake, a persistently elusive American physical medium who was the subject of a remarkable privately published book by ASPR member John B. Reimer (1930), was not fulfilled.

The average length of individual entries runs to about half a page, and each entry has bibliographical references presenting biographies or other primary and secondary sources about the person in question. The actual references, more than 1,700, are listed at the end of the book (pp. 191–244)—over 50 pages of books and articles (some of them annotated) from which the biographical and other information was compiled. As indicated in the beginning, Anderson's book fills a real gap in the field

of parapsychological reference sources. Although there is a handful of reference works in several languages with information about psychics, mediums, and other relevant personnel (e.g., Bonin, 1976), there is nothing in print that even remotely compares to the specific coverage that Anderson provides. The extensive bibliography allows readers to obtain further information on the subjects that interest them. The book is well researched, very scholarly, and highly recommended.

Having said (and meant) this, I would nevertheless like to offer a few critiques about the book's scope and contents in the hope that they will be considered in a future edition of this valuable biobibliographical dictionary.

When one tries to do justice to the biographies and performances of no fewer than 330 individuals in little more than 180 printed pages, space economy is absolutely essential. Information in the individual entries must be extremely condensed, and many important aspects of a person's life and career simply cannot be represented in a way that is even remotely adequate. Skipping certain bits of information altogether often seems more recommendable than squeezing in a few barely adequate words and risking that they might become the source of future misunderstandings. Inevitably, therefore, any pioneering work such as this will suffer from a number of nontrivial errors, gaps, and omissions. Some entries are simply too brief to be really useful.

Consider, for instance, the entry for Marthe Béraud. There is hardly any mention in this entry of her mediumistic career before she became more widely known under the name of "Eva C.," even though that period with her materialization séances at the Villa Carmen in Algiers, in the presence of Charles Richet, was very important for both the medium's career and the adverse impact it had on the educated public's views of psychical research (Le Maléfan, 2002). Again, Marthe's later career as one of Schrenck-Notzing's once-celebrated subjects cannot be fully understood and appreciated without a careful consideration of the almost impenetrable role of Eva's overprotective mentor, Madame Bisson, who arguably had more than a marginal function in the production of at least some, and probably very many, of her materialization phenomena (cf. Brühl, 1928; Klinckowstroem, 1928). Also, it certainly is not correct to state that the original photographs of the medium's performances in Munich "have evidently been lost and cannot now be assessed" (p. 15). In fact, many of the original photographic plates have survived in Schrenck-Notzing's estate. For decades they have been preserved in the archives of the IGPP in Freiburg, and used for various publications (e.g., Chéroux et al., 2005). There are similar nontrivial omissions in a considerable number of the other biographical entries<sup>1</sup>—and, given the size and scope of the book,

<sup>1</sup>For instance, the rather brief entry for Eusapia Palladino (p. 132) remains silent about many important and rather influential investigations, nor does it mention Eusapia's very early "career" as a potential adolescent poltergeist agent (Damiani, 1873).



they seem hardly avoidable. Therefore, the many references that go with the individual entries and the extensive bibliography in the final part of the book are particularly important.

As for other omissions, a possible future edition of the book could usefully include several individuals for whom there is sufficient information to provide entries. These include, for instance, German medium Anna Rothe (1850–1907) and her materialization of flowers. Her séances were the subject of a number of sensational trials with surviving court documents and many expert opinions from well-known researchers and critics, including Max Dessoir. Even the *New York Times* sent an observer to a Berlin trial who, on April 11, 1903, reported:

After a trial lasting six days, Anna Rothe, the famous “flower medium,” has been sentenced to eighteen months’ imprisonment. The case afforded many interesting and remarkable features. One almost forgot that the defendant was up on a charge of fraud, and the whole matter appeared to resolve itself into a consideration of spiritualism and other phenomena of occult science. The question, however, is asked by the whole Berlin public, even by those who consider the manifestations of Frau Rothe deceptive, whether the showing of these alleged wonders was deserving of such a long sentence as has been imposed on the medium. (E.T.H., 1903, p. 2)

Other useful additions would have been Léonie Leboulanger, studied by Pierre Janet and Charles Richet (Janet, 1889), Heymans’s subject A. S. Van Dam (Heymans, Brugmans, & Weinberg, 1921), astral projector Sylvan J. Muldoon (Muldoon & Carrington, 1929), Czech psychic Pavel Stepanek (cf. Pratt & Keil, 1972), who in the present volume is introduced only as one of “Ryzl’s Subjects” (p. 149), or the elusive Emélie Sagée and her no less elusive recurring apparitions or “doubles” (Alvarado, Biondi, & Hövelmann, submitted).

The major problem of Anderson’s otherwise excellent and very informative book, however, is its exclusive reliance on English-language material. As stated before, his biographical dictionary portrays 330 different individuals. Of these, no fewer than 98 (30%) were born and spent most of their lives and “psychic careers” in the non-English world, i.e., outside the US, the UK, Canada, Australia, Ireland, South Africa, or India. Consequently, almost all the relevant publications about these individuals appeared in languages other than English, with only a few translated works and not always reliable or representative summary reports in English. On the other hand, of the (if my count is correct) 1,714 references in Anderson’s extensive bibliography, *not a single one* was published in a language other

than English.<sup>2</sup> Inevitably, this sometimes is detrimental to the adequate coverage of the lives and performances of those being portrayed. A wealth of information remains unconsidered because it was never published in English and therefore did not come to the author's attention. Thus he seems unaware, for instance, of Wilfried Kugel's extensive and definitive biography of Hitler's favorite clairvoyant, Eric Jan Hanussen (Kugel, 1998), of the full story of the "Seeress of Prevorst," Friederike Hauffe (Kerner, 1829), of the wealth of medical literature on stigmatists Anna Katharina Emmerich and Therese Neumann, of George Zorab's important Dutch and Italian books on D. D. Home (Zorab, 1980a), and Florence Cook (Zorab, 1980b), and of very many other non-English sources that would have been highly relevant for his individual portraits.

This is not necessarily meant as a criticism. It is legitimate for an author to concentrate on the material that is available to him in a language in which he feels at home. Anderson's book no doubt is one of the best current reference works in parapsychology, and the only one worth mentioning that concentrates on psychics and sensitives. So we must be grateful for the immense amount of work that is reflected in this volume. However, for a second edition, the author might consider consulting or collaborating with those who are adequately familiar with the non-English literature.

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PARAPSYCHOLOGY AND THE SKEPTICS: A SCIENTIFIC ARGUMENT FOR THE EXISTENCE OF ESP by Chris Carter. Pittsburgh, PA: SterlingHouse, 2007. Pp. xi + 218. \$18.95 (paperback). ISBN 1-58501-108-8

This book ought to be required reading for recalcitrant skeptics who are dead sure that parapsychology is a pseudoscience, or for those who aspire to enter some sort of scientific Shangri-La by mindlessly repeating the skeptic's mantra: "there's not a shred of evidence." Unfortunately, such obstinate folks are unlikely to pick up this book, for all the reasons the book so amply explains: unexamined ideological assumptions, scientific or religious prejudices, and fears of various kinds. Readers of this *Journal* will not find much that is new here, so I suspect this book will be most useful to scientists and scholars who are open-minded about psi but confounded by the controversy and unsure what to make of it. It would also be a good textbook for use in a college class on critical thinking or the sociology of science.

Carter writes well and the book is digestibly compact; I read it in two sittings. Rupert Sheldrake provides a foreword. This is followed by an introduction presenting the nature of the debate; it introduces some of the better known contemporary critics, and it reviews some of the historical evidence. This is followed by three main parts, each answering a question commonly arising in skeptical debates. Part 1 asks if there is conclusive experimental evidence for psi. Carter deduces that the answer is yes after reviewing three classes of psi research: ESP cards, PK with random number generators, and ganzfeld telepathy experiments. Then he adds icing to the cake by examining research by critics Susan Blackmore, Richard Wiseman, and James Randi. He concludes that their oft-cited claims, which are repeated ad nauseam by their devotees, deserve to be regarded with profound skepticism.

A one-page postscript explains why Carter decided to write this book, and in my view it ought to have been the first page and not the last. He explains that one day while surfing the Web he came across a Web site devoted to debunking beliefs in the afterlife. He was "shocked by the crudity of the author's arguments" and his ignorance of relevant evidence, so Carter began an e-mail exchange with that author to explore his position in more detail. Carter soon found what many readers of this *Journal* have undoubtedly encountered—that some skeptics insist on maintaining strongly held positions without benefit of reading the relevant literature, and that they aren't willing or able to question the assumptions that they've wholeheartedly adopted. Carter's surprise at this irrational stance motivated him to write a book explaining how much of the more strident skepticism

one sees on many Web sites and books is fundamentally flawed. The topics he needed to cover rapidly ballooned, so he turned his idea for a book into a planned series of books, this being the first. He concludes his postscript with the promise that his next book will discuss "ancient and modern evidence for the survival [of consciousness after bodily death] hypothesis, and will carefully consider the skeptical objections."

After reading this book, I felt admiration for Carter's effort; his book pokes another hole into a skeptical dike that has been leaking for over a century but is now on the verge of gushing. Of course, when it comes to dissecting skeptical rhetoric (or, to be less charitable, sheer pigheadedness and bald-faced hubris), a nearly identical book could have been written a hundred years ago by Myers or James. What is new today is not merely much more evidence than was available a century ago but new levels of technical and analytical sophistication that have kept pace with developments in mainstream disciplines. And psi effects are not disappearing, as critics would have us believe. This tells me that someday, hopefully soon, books about skepticism and parapsychology will be of interest only to historians.

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LIFE AND MIND: IN SEARCH OF THE PHYSICAL BASIS by Savelly Savva (Ed.).  
Victoria, BC, Canada: Trafford Publishing, 2006. Pp. ii+262. ISBN  
1-4251-1090-8.

When looking at the achievements of modern physics, biology, and chemistry, one might be fascinated by the many discoveries of fundamental laws of nature, their simplicity in mathematical description, on the one hand, and their complexity considering their manifestation in nature on the other. With increasing structural complexity, it no longer seems possible to make a quantitative description of the internal processes of molecules and biological macromolecules, and their interactions. Physical laws are easy to study in laboratory environments where the studied object is well-isolated from complex interactions; biologists have used this approach and have discovered many cellular and genomic processes.

However, even when keeping knowledge about these discoveries in mind, one might still be overwhelmed by seeing the self-organizing power of nature in generating a living world in such a manifold environment. A well-versed scientist might come to the conclusion that what is known about life is not enough to explain *why* life emerges out of physical nature.

The book *Life and Mind* edited by S. Savva addresses these questions by presenting various approaches and paradoxical findings that direct our attention to the assumption that in order to study life we have to broaden our view and go slightly beyond the knowledge base of physics, chemistry, and biology at its present stage. As a consequence, the scientific reader has to be very open-minded. He has to think in slightly different ways and discuss phenomena and findings that seem to be out of line with or at least not explainable by the current state of physical understanding. In order to profit from the message of the book, a certain amount of tolerance in terms of not denying flatly or ignoring unusual thoughts and paradoxical results is required from the reader. But if the reader can share this attitude, the various contributions might open up new scientific approaches in order to study the emergence of life. This means that in the end the reader is challenged to find the answers for his various questions through further studies.

In his initial chapter, Savva introduces the term Biofield Control System (BCS) to express the seemingly intelligent self-organisational behavior of nature. The idea of an unknown structuring "field" is not new and has been proposed by several other researchers in the past, such as the idea of a "Morphogenetic field" propagated by R. Sheldrake. Beloussov supported this idea when reporting on observations in embryonic development and Drochioiu described Eugene Macovschi's concept in which "the biostructure is considered as a set of rules."

However, here a skeptical physicist might argue that the assumption of a BCS, morphogenetic field, or whatever we name it, could be used as a virtual substitute for our missing knowledge about the real nature of

the mechanisms in living organisms. These terms could be misused as pseudoexplanations, and all unexplainable and paranormal phenomena could be projected onto them. This would be similar to the archaic behavior of using the term "God" as a personality responsible for all hitherto unexplained and uncontrollable phenomena. Such a projection can be partly helpful for us in order to deal with a phenomenon at a basic level; however, we should be aware that it doesn't really answer our questions. As with the discovery of electricity, after which God was no longer the cause for thunder and lightning, we might still wait for the discovery of the real reasons and mechanisms behind the nature of life. This truth might then refine or even substitute the hypothetic BCS—and probably discover "God" for the second time. Refining those theories with the knowledge of ongoing research, we could probably change them into a powerful description of the principles of life, which we then could use in a creative way. This book presents experiments and findings that should attract our attention in order to help us realize that mind and life might obey laws and principles which go beyond the currently accepted physical and biochemical processes.

The second chapter contains four contributions to paradoxical observations in biological systems. The observed nuclear synthesis of iron isotopes in bacterial cultures is a fascinating topic but needs further research. Although those experiments seem to be done in a scientifically clean way with professional methods, they need to be continued in order to discover the principles of those nuclear reactions on a quantum physical level. Another remarkable phenomenon is reported by Burlakova and colleagues. They tell us about the effect of ultralow-dose chemical substances on enzymes and living organisms. An ultralow dose is defined as a concentration of  $10^{-13}$  M or lower, or as a concentration below the threshold in which less than one molecule of an active substance per cell is available. In a seven-page-long table, an impressive list of such substances found in other literature is printed showing that the ultralow-dose effect should be a well-known phenomenon. As one reason for such effects not being realized, they mention the so-called "dead zones," which prevented the scientists from further lowering the dose in their studies. "Dead zone" means that when a dose is lowered, the effect vanishes first before showing up again at very low concentrations. Such discontinuous dose-effect dependencies are not yet explained, but speculations are given here.

The following two reports by Kiang and Backster focus on the mental interaction between living systems. The chapter by Juliann Kiang reports on bioenergetic treatment and its influence on the intracellular  $\text{Ca}^{2+}$  concentration in human lymphoid T cells, which could be significantly heightened. Again, possible mechanisms for the mentally induced interaction in the bioenergetic process remain vague and speculative. Cleve Backster, who became quite famous in this field for his observations of mental influence on the electrical conductivity properties in plants, presents a similar study in which he showed the reaction in plants when



positioned close to dying shrimp. Here, a kind of psychological component is attributed to plants which implies that they might empathize with other living systems. Again, the question arises as to what the underlying mechanisms for such an information exchange might be. Similar to the other experimental findings reported in this book, postulating a biofield at least gives us a term that allows us to have a picture for such spooky interactions. Interestingly enough, the data and graphs Backster presents in this book seem to be 30 years old already, and one might therefore ask oneself why he is reporting on those early studies. Despite his reference to his 2003 book and mentioning replications over the last 40 years, it is unclear whether the later studies have caused any progress in this kind of research or not. However, this seems to be a major problem in all research on paranormal phenomena. The study concepts have remained similar over the last decades, sometimes replicating early findings and sometimes not. Nowadays, we have a big data-base for meta-analysis at our disposal, which reinforces the existence of paranormal phenomena. However, as far as I can see, there is hardly any modification in the experimental design to provide additional information about a possible mechanism responsible for a phenomenon.<sup>3</sup>

This precisely should be the topic of the contributions in the third part of Savva's book on alternative physical models. Obviously, there seems to be no simple way for the inclusion of these findings. If so, they would no longer be unexplainable. John O'M Bockris mentions such topics as cold fusion, parapsychological phenomena, and UFOs, which he believes are worth researching with government funds, and that could perhaps be most efficiently done with Russian scientists because they are bright and research is cheap there compared to the US. Hal Puthoff summarizes in a few pages his brilliant research on the zero point energy field. According to his results, these energy fluctuations could explain gravitational attraction and the interconnectedness of all matter in space, and could provide us with a new form of energy. This last claim is often criticized by physicists. According to the quantum mechanical predictions regarding the zero point energy field, it should not be possible to violate the energy conservation law. On the other hand, the phenomenon of zero point fluctuations does not seem to be well understood yet. Therefore, it is absolutely worth investigating as a potential source of energy and also for its possible role in consciousness and direct mental interaction between living systems, as described previously in the book. Here, Puthoff does not provide detailed theoretical considerations or experimental findings supporting his claims, but refers to his literature.

William Tiller pictures a new model of physics. In his theoretical considerations, he attempts to overcome many limitations of conventional

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<sup>3</sup> Unfortunately, this is also true for my own research on paranormal human machine interaction and telepathy. Therefore, I am desperately searching for new experimental designs that approach the question of the underlying principles.

physics. The question would now be: how can we prove if this is more than just a pleasant philosophy? In an appendix, he presents studies with an Intention Imprinted Electrical Device (IIED) that should provide experimental evidence for some of his theories. The IIED serves as a kind of tool for direct mind-matter interaction. Tiller seems to be very straightforward in drawing conclusions out of certain findings. Contrary to the views of conventional physicists, he seems to have no problem in assuming the existence of magnetic monopoles and waves with superluminal velocity. Unfortunately, I could not follow all of his thoughts and therefore hesitate to judge them. However, at least one part of his new model seems questionable to me: How can we put things like emotions, mind, and spirit into their own different dimensions? How can their dimensional character be shown? If we cannot express the states of mind, emotions, and spirit in scales, does a dimension for them make any sense? Or is there any other significant application to this model available than just having a higher interpretational freedom that is provided by the introduction of an additional dimension?

Nina Sotina suggests in her contribution the existence of a structure in the physical vacuum, an idea that would contradict Einstein's Theory of Relativity. However, when assuming a kind of superfluid property of the vacuum, this idea becomes plausible. Her conclusions seem to be very much in line with Puthoff's approach. The idea that the structured vacuum is the cause for the intelligent behavior of simple living systems such as bacteriophages brings the picture of a biofield into physical reality. She reports on a number of studies on telekinesis and attributes the nonlocal effects to quantum mechanical origin. Interestingly, this model can be supported by the formalism of the weak quantum theory, which tries to apply the theory of quantum entanglement in complementary variables to the domain of consciousness and the nonlocal phenomena between living systems, such as telepathy and distant healing. This was described by Walach (2005).

Finally, James Beichler presents an overview of unified field theories and mentions their weakness in not being able to describe the phenomena of life and consciousness. He offers his five-dimensional single field theory (SOFT) as one solution, and after discussing it in detail with Bohm's and Tiller's theories, he also summarizes some torsional field theories.

To draw a final conclusion, in the end the reader has gained some insight into experiments showing distant (sometimes mental) interactions between living systems that are used as support, proof, or justification for alternative physical models. Interestingly, such parapsychological experiments mainly provide only evidence for the existence of unexplained mental interactions, but what is clearly missing is an experiment that is able to directly measure parameters of an alternative physical model. For example, assuming there is a structured zero-point field, then a Nobel Prize-worthy project would be the design of an experiment for verifying the existence of such a structure. Therefore, I would welcome activities that support this kind of research and make it part of the widely accepted

scientific community in order to open up a new research field at the cutting edge between biophysics/biochemistry and the still mysterious nature of life. May this book draw our attention in this direction.

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GHOST HUNTERS: WILLIAM JAMES AND THE SEARCH FOR SCIENTIFIC PROOF OF LIFE AFTER DEATH by Deborah Blum. New York: Penguin Press, 2006. Pp. 370. \$25.95 (hardcover). ISBN 1-59420-090-4.

Like those of William James himself, science writer Deborah Blum's words are carefully chosen and almost lyrical in quality, making this book a quick and enjoyable read for parapsychology expert and novice alike. However, James is just one of the many players in this "Who's Who" of psychical research:

James' fellow ghost hunters included the codiscoverer of the theory of evolution, a physiologist from France who would win the Nobel Prize in Medicine, an Australian who became a founding member of the American Anthropological Society, a female mathematician who became principal of Cambridge University's first college for women, a pioneer in British utilitarian philosophy, and a trio of respected physicists.<sup>4</sup> (p. 6)

Specifically, the reader becomes familiar with Society for Psychical Research (SPR) founders Henry Sidgwick, Frederic Myers, and Edmund Gurney, as well as investigators including Alfred Russel Wallace (coauthor of the theory of natural selection), physicist and chemist William Crookes, aristocrat and future prime minister Arthur Balfour, mathematician Nora (Balfour) Sidgwick, physicist William Barrett (cofounder of the American SPR), "cheerful cynic" Richard Hodgson (p. 83), astronomer Simon Newcomb, postal inspector, author, and "skeptic in chief" Frank Podmore (p. 311), physicist (Sir) Oliver Lodge, physiologist Charles Richet, philosopher James Hyslop, and psychologist and publisher James McKeen Cattell. We also encounter mediums D.D. Home, the Fox Sisters, Florence Cook, Madame Blavatsky, Henry Slade, Leonora Piper, Eusapia Palladino, Rosina Thompson, and Helene Smith and skeptics John Tyndall, Hereward Carrington, and the Seybert Commission.

<sup>4</sup> In order: Alfred Russel Wallace, Charles Richet, Richard Hodgson, Nora Sidgwick, Henry Sidgwick, and William Barrett, William Crookes, and Oliver Lodge.

This book is not, however, an exhaustive review of the history of parapsychology; it is popular nonfiction written for a lay audience and provides a general overview of the beginnings of survival-of-consciousness research. It serves as a valuable introductory text for students new to this field and as an important tool for providing established researchers and scholars with a unique and personal perspective regarding the pioneers of the research.

*Ghost Hunters* follows a relatively chronological path but even when it jumps between continents, investigations, and players, Blum's knack for seamless transitions and her use of industrial, cultural, and scientific landmarks ensures a smooth ride. And although it treats the topic with objectivity and respect (despite its sensationalist title), *Ghost Hunters* reads in content like a stimulating tabloid: the reader learns about the investigators' personality quirks (e.g., Wallace liked to provoke and Crookes had trouble staying objective when a female medium was involved), physical appearances (e.g., "Hodgson was a big, burly, vigorous man with a fresh, ruddy face and a shock of sandy brown hair," p. 83), wardrobe choices (e.g., Gurney "wore his top hats high and his tailored suits with style," p. 54), drug use (e.g., James used chloroform and nitrous oxide, Gurney utilized laudanum, and Myers and Hodgson had tried hashish), as well as budding romances (e.g., "Sidgwick's attraction to Nora Balfour had continued to grow. Every time he met her, he liked her more," but he "had no idea of her affections. From her countenance, she might be politely indifferent, mildly friendly, or—he could only dream—simmering with hidden passion," p. 58). The narrative includes battles of wit, romantic affairs, alleged suicides, public scandals, and unrequited love.

During her research, Blum pored through materials including those found in the archives of the ASPR and in the Houghton Library at Harvard University. With its extensive inclusion of excerpts from the personal correspondences and sitting transcripts found there, *Ghost Hunters* gives the reader a "fly on the wall" perspective. Blum's citations and sources, however, are not always complete as this is not a scientific review. She states, "I have not provided citations for every brief quote, but only for the longer ones" (p. 328).

This book details the formation, investigations, and tribulations of both the British Society for Psychical Research (SPR) and American SPR (ASPR), which were "built by those who believed that objective and intelligent investigation could provide answers to the troubling

metaphysical questions of the time—and that those answers mattered" (p. 41). *Ghost Hunters* further examines the differences between the original and the American SPR. For example, while the SPR (whose initial members included Alfred, Lord Tennyson; Lewis Carroll; and Mark Twain) chose investigators based on their training as classical scholars, the ASPR opted to use only trained researchers in their investigations.

Blum also discusses the specific investigations and the mediums that were quickly exposed as frauds (e.g., Anna Eva Fay, Henry Slade, Florence Cook, the Davenport brothers, the Newcastle girls, and the residents of Lily Dale), the mediums whose possible abilities were retrospectively revoked through the exposure of fraudulent practices (e.g., the Fox sisters and Eusapia Palladino), and the mediums who repeatedly performed unexplainable feats (e.g., D.D. Home and Leonora Piper). And with not an independent review board to be found, the welfare of the mediums was rarely protected. For example, while Mrs. Piper remained in a trance state, investigator G. Stanley Hall dripped spirit of camphor into her mouth, causing blisters to form on her lips and tongue, and bruised her arm with an esthesiometer that tested for the sensation of pressure and resulted in the loss of the use of her hand for several days.

In addition to investigations of individual physical and trance mediums and crisis apparitions, the reader also learns about the examination of tools used for talking with the dead, including planchettes, slate writing, table tilting, séance cabinets, letter tiles, and “the talking board” (mass marketed as the “Ouija Board”) and other phenomena such as cross-correspondence, dream telepathy, rhabdomancy (divining rods), apports, psychometry, and the Willing Game, “a dinner party entertainment with a mind-reading twist—and a clever title. The rules were simple: after guests had gathered, one person would be chosen to leave the parlor” and a task would be chosen that “ideally, the chosen person would be ‘willed’” to do upon returning (p. 66).

Blum also details both the dismissive theories attempting to explain the phenomena (e.g., fraud, coincidence, mental illness, hallucination, delusion, overactive circulatory system, and selective memory) and the educated and objective (but not always accurate) hypotheses (e.g., psychokinesis, telepathy, creations of the subconscious, magnetic signals, a psychic force, a psychic reservoir, and survival of consciousness). Other phenomena secondary to the actual investigations were also observed. For example, William Barrett and Charles Richet suggested the use of hypnosis as a telepathy-conductive tool, Richet proposed a decline effect in mediums, and the importance of experimenter effects was seen in the investigations performed by Henry Sidgwick: “Everything seemed to flatten out when he appeared; knocks faltered, raps halted, spirits faded away. He always seemed to ‘paralyze the phenomena,’ he told his colleagues, and, depressingly, they agreed with him” (p. 83).

Perhaps the most important contribution *Ghost Hunters* makes to current psychical research is the underlying theme of how little has changed since the late 19th century (a comparison of which Blum herself is probably not aware). (The reader can decide whether that is encouraging or disheartening news about the state of the field.) For example, the investigators are part of a relatively small, interconnected community and

the research findings are dismissed outright by the mainstream scientific community without even the courtesy of their review. In her description of James's criticism of mainstream views, Blum paraphrases his observation: in their "determined orthodoxy, scientists had come to seem a mirror image of those clergymen who insisted on only one way of seeing the world" (p. 171). James, like any psychical researcher today, reminds the opposition that:

Science means, first of all, a certain dispassionate method. To suppose that it means a certain set of results that one should pin one's faith upon and hug forever is sadly to mistake its genius, and degrades the scientific body to the status of a cult. (p. 171)

James believed "it was past time... for science to open its mind" (p. 31). In addition, like today, scientists attempting objective investigation of psychical phenomena were ostracized by their mainstream counterparts: "Investigating supernatural events was off limits to scientists, unless the findings proved fraud. Those who chose to ignore the rule—unspoken but strictly enforced—would find themselves off limits as well" (p. 49).

Several of the early investigators believed in the importance of "the ordinary occult, experiences that unpredictably shadowed people's lives" and the SPR ran newspaper ads "soliciting personal stories of encounters with the otherworldly" (p. 80). As a result of the ensuing storm of letters, a phenomenon familiar to current researchers, Edmund Gurney spent his time writing dozens of replies each day.

Furthermore, the dichotomy between the interests of the general public and the focus of mainstream academics was as prevalent in the early days of the SPRs as it is today. The "most obvious successes" of early psychical research, "had been outside the halls of academia, in the more welcoming walks of popular culture" (p. 227). James, paraphrased by Blum, proposed an explanation for this: "If scientists did not afford some respect to the beliefs of the lay public ... there was little reason for the public to respect the pronouncements of [mainstream] science" (p. 26).

Even the state of our current conclusions remain similar to those of early psychical research. Blum quotes James's 1896 description of his study of "white crow" Mrs. Piper:

I cannot resist the conviction that knowledge appears which she has never gained by the ordinary waking use

of her eyes and ears and wits. What the source of this knowledge may be I know not, and have not the glimmer of an explanatory suggestion to make; but from admitting the fact of such evidence I can see no escape. (p. 206)

And, although far less eloquent, our conclusions from a recent study are

strikingly similar: “The present findings provide evidence for anomalous information reception but do not directly address what parapsychological mechanisms are involved in that reception” (Beischel & Schwartz, 2007).

James also feared how he would be remembered for his place in psychical research but remained true to the data:

Either I or the scientist is of course a fool ... with our opposite views of probability here ... I may be dooming myself to the pit in the eyes of better-judging posterity; I may be raising myself to honor; I am willing to take the risk, for what I shall write is my truth, as I now see it. (p. 313)

He, of course, was “raised to honor” in the eyes of future generations of psychical researchers (though perhaps “doomed to the pit” in those of some mainstream psychologists for his participation); it remains to be seen whether current researchers will exist in honor or in the pit in the eyes of future parapsychologists.

Overall, *Ghost Hunters* serves as an enjoyable journey through the initial stages of the two Societies for Psychical Research. The investigations included are objectively described, leaving readers to draw their own conclusions, and the researchers are portrayed as complete people, full of flaws and idiosyncrasies as well as genius and vision, allowing the reader to feel a personal connection with these pioneering scientists and their work.

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#### NOTE

Deborah Blum is a Pulitzer Prize winner and a professor of journalism at the University of Wisconsin-Madison. Outside of the US, Blum's book was published in 2007 and titled *Ghost Hunters: The Victorians and the Hunt for Proof of Life after Death*.

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READING THE ENEMY'S MIND: INSIDE STAR GATE, AMERICA'S PSYCHIC ESPIONAGE PROGRAM by Paul H. Smith. New York: Tom Doherty Associates, 2005. Pp. 507. \$24.95 (hardback). ISBN 0-312-87515-0.

As with all attempts at historical reporting on such a complex project—running nearly two decades, involving two completely different entities that were intertwined but had separate missions, only one or two common members, and certainly separate histories—this was a difficult task. Paul Smith's effort, while heroic, provides us with some very tantalizing and interesting insights into some profoundly personal viewpoints of his 7-year journey through the United States Army's now-declassified Remote Viewing Collection Program called Star Gate.

*Reading the Enemy's Mind* also offers up original viewpoints held by some of the innovative founders of the program during the critical beginning years prior to Paul's arrival. This is when the influential foundation stones were being laid regarding some of the earliest beliefs and understandings surrounding remote viewing and psychic functioning by such pioneers as Kress, Swann, Puthoff, Targ, and Tart. The book also brings us the views of many others throughout the continuing and historic saga of what *appears* to be an unbiased Star Gate history. But . . . there is a major fault line which runs diagonally through the book. It's unfortunate! I say unfortunate, because there is a lot of extremely good information contained within this book, and, I believe, had the author made a greater effort to let go of many of his personally held convictions, it could have been a book without significant faults.

Paul begins by encouraging the reader to believe that he has aspired to interview in depth as many as possible of the survivors, and to acquire and review as much as possible of the surviving declassified material that is available in his effort to bring us the complete story of the Star Gate program, and that he did this in order to present it to us in an unbiased historical format.

This simply isn't true. There is a self-storage container comprising all of the declassified materials and files from SRI-International and Science Applications International Corporation (SAIC) which are available and which, for some reason, he chose not to review. Furthermore, he did not interview Edwin C. May, the man who ran SRI-I from 1985 until the lab terminated there, and who also ran the lab at SAIC from start-up until termination of the program in November of 1995. He also did not interview the undersigned (Joe McMoneagle) for these same periods of employment

at both labs. This failure generated most if not all of the scientific errors in this book. Nor did he interview any of the other full-time personnel who worked in either of the two labs.

However, there are still a lot of basic and amazing facts which have been taken directly from the files that will be of great interest to any reader. It is clear that Paul was able to squirrel away many of the unclassified project files before the program was terminated, or he began his book long before its publication. If he had just been a little less biased in his beliefs or underscored that what he was writing was “his belief at the time,” I feel the book would have been far more accurate.

What would be some examples?

Beginning on page 81 with “Important insights,” these are presented as findings which remain unchanged over time. But these findings have changed. We have found that the responses from multiple viewers do not necessarily improve the quality of the final data. Some viewers see motion at targets, not all viewers improve with practice, and not all people can be taught remote viewing. On page 84 is the question, “Why did the CIA terminate their interest in RV?” Well, to date, no one actually has ever stated why. No one knows. One place that Paul’s real bias peeks through is on page 97, where he begins to differentiate between scientific protocols and methodologies in remote viewing. He goes right to the heart of the matter by stating that, “As the SRI research progressed, it became clear that at least as far as *verifiable targets, consistency, and replicability* were concerned, none of the usual paranormal trappings of crystals, smoked mirrors, tarot cards, and so on were necessary.” True, each of the SRI viewers had a distinctive style. Like major-league baseball pitchers, some even had favorite little rituals. Hella Hammid always wore her lucky socks while viewing, and Pat Price polished his glasses so he could “see” better. Paul goes on further to say; “Bottom line: If what one does is traditionally called something else, it is probably not remote viewing.”

He is referring to the SRI research as it progressed—until he stopped paying attention. This was roughly equivalent to approximately the end of Ingo Swann’s connection to SRI in 1988 and/or Hal Puthoff’s departure from it in 1985 even though there were another 10 years and 18 million dollars worth of research completed, which represented some of the most significant findings made in RV history. The fact that he wasn’t paying attention is clearly established by his continued inability to place “any form of methodology” in the same pile as he earlier so quickly put the smoke and mirrors.

Moving on, in the first paragraph of page 121, Paul implies all personnel at SRI were involved in the development of the CRV training program developed by Swann and Puthoff. This simply isn’t true. The work, although in many way seemingly brilliant, was almost entirely Swann’s. He developed it, after having been given entirely free reign by Puthoff. It wasn’t developed by the SRI staff. In fact, there were some on the SRI staff that were

dead set against it for varied and in some cases good reasons. At the time of its development, there were a few who thought it had some remarkable ideas, but it hadn't been thoroughly tested and it wasn't finished. No one knew if it would work, or if it did, how well. Segments of it had been tested on different people within SRI, some of whom enjoyed the testing, some of whom did not.

On a different note, Paul made a few but common misconceptions about the Monroe Institute and Hemi-Sync®. It's true that Hemi-Sync®, or the introduction of dissimilar frequencies into the left and right ears, is intended to produce an artificially produced beat frequency which the human brain then accepts as real; however, it cannot *cause* altered states of consciousness. What it does cause is a *frequency following response* which the person listening to the Hemi-Sync® can either choose to pay attention to or not. This may or may not promote an altered-state experience, which is purely dependent upon the mood or intention of the person having the experience.

There are a significant number of other technical issues that should be noted, such as: regardless of the cover letter statements, the RAPT program was never designed for screening people for the Star Gate program. The two other sources referenced only by number from 1982 through 1984, with the additional sets of ID numbers given to the undersigned, was to hide the fact that there was only a single viewer during that time period. Only Hal Puthoff and Ingo Swann contributed to the creation of CRV, while everyone else participated as test subjects. When questioned directly, Edwin C. May specifically stated that he did not help in the creation of CRV. In fact, he has stated that clearly, there was some disagreement within the lab (e.g., Hella Hammid, some of the others, and Ingo Swann) over the training method Ingo was developing.

In the 36 years of research into RV, we still do not understand what the carrier of the information happens to be. Therefore, all of the discussion within the book in reference to perception, matrix, signal line, consciousness, aperture, autonomic nervous system, structure, and objectification is purely hypothetical and should be stated as such. However, this isn't the case. It is presented as scientifically proven with the SRI lab, which it was not. Mental noise and analytical overlay was long established as a problem within remote viewing and a solution has yet to be found that positively eradicates this from a remote viewer's lexicon. Few if any remote viewers have been able to demonstrate under laboratory conditions the ability to tell when they are producing valid data versus incorrect data about the target, or to demonstrate when they are positively in connection with the target or not. This problem has rendered all remote viewing systems (methodologies) virtually useless for other than building logic response.

Paul's statement about my last 10 years of service as a Signals Intelligence Analyst and Operator is not correct. I served as Detachment Commander, Border Site A, Schleswig Detachment, Augsburg Field Station

1974–1975; I was the Senior Non-Commissioned Officer in Charge of Physical Security, Office of the S2, Field Station Augsburg, 1975–1977, after which I was assigned to Headquarters, Intelligence, and Security Command, Arlington Hall Station, where I became the CWO, and advisor to Brigadier General Rolya, the commander. I then took control of my Military Occupational Specialty (MOS) world-wide, until recruited by Project Star Gate, from which I retired on September 1, 1984. I worked until that retirement date and did not retire in May of 1984, as stated in the book.

The program didn't stop using geographic coordinates in late 1985. We moved to placing geographic coordinates into envelopes as early as latter 1979, a direct result of CIA complaints. Hypotheses about reading minds and telepathic overlay are interesting but of no scientific validity. They've never been studied in the lab in conjunction with RV, but are opined within the book as a very real part of the RV processes. There are numerous other processes mentioned that, while interesting, cannot be scientifically validated as claimed.

Up until this point my review has been critical and picky. But there are reasons for this. I read the book as it was presented—a historical presentation of what went on inside Star Gate as genuinely scientific. It's not entirely accurate, it certainly is personally slanted, and there is a lot that appears to have been deliberately left out. The question is why?

It is my belief that Paul walked in the door at a bad time. He walked in when there were no old viewers to properly mentor him. He walked in when Ingo was leaving SRI under a large cloud of disappointment and anger. He walked in after having a single and prominent viewpoint handed to him with very little other support, and just prior to having a huge amount of responsibility levied on him. Only a military remote viewer back in those times in that project could ever understand the intense stress and in some cases, duress, Paul was put under when he, like others, volunteered to become a psychic to numerous high-level agencies in our government. As I've said many times before, many days were like a knife fight in a phone booth. Paul, as did all of the others, performed admirably during his time with the unit. It is possible that under such stress he felt that he was less supported than he was tasked most of the time. That's unfortunate, because it hardened him against some of the issues that prevented this from being a better book.

Paul's book is filled with facts, many of which are heavily mixed with Paul's opinions. I have no beef with his opinions regarding training, his sense regarding analytic overlay, transference of mental imagery, how or where information might be stored, the way it's passed between humans, or any other idea that he may have regarding remote viewing. Paul has earned the right to make any comments he would like on the subject, as long as he states those are his opinions and not necessarily facts. The myriad of facts he has gleaned from the project files that he has made available to the public

vis-a-vis his book are a wonderful godsend to the public and I applaud his sincere effort. Where he has provided us with the comments of others and appropriately referenced them in footnotes, he is to be commended. Well done.

However, where the book does fall short is in the numerous errors of omission; whether they are deliberate or simply accidental doesn't matter. His biggest mistake is leaving out virtually any mention of the research effort at SRI from 1986 through 1988, and any mention of the research done at SAIC from 1988 through the project closure in November of 1995. In some cases his errors of omission shortchange some persons or implicate others where they should not. His writing style implies that issues were proven within the well-established rules of science when they were not and that many who worked at the SRI and SAIC laboratories knew more or understood more about remote viewing than they did. In most cases we knew far less than he says we did and sometimes considerably more where he says we didn't. Given the range of impact this would have had on his book and its content, and the number of chapters it would have affected, I'm left with the conclusion that these omissions could only have been deliberate.

So, I guess I'm heavily split on this book. I'd recommend reading *Reading the Enemy's Mind* for a good insider's view about many of the day-to-day activities that went into the Star Gate project, and some of the details regarding the command structure and politics of the unit. But, if you are looking for real knowledge steeped in scientific accuracy, specifically how remote viewing works from a technical standpoint, or what is known or unknown about it, the book doesn't hold up. Paul Smith is a great writer and you probably won't be disappointed reading it. Just remember to take it as only one man's viewpoint of his time in Star Gate.

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