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The “Vienna Circle” and Parapsychology

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The “Vienna Circle” was a rather informal group at the University of Vienna, comprised of scientists mainly drawn from the natural and social sciences, logic, and mathematics, and of a few philosophers, chaired by the philosopher *Moritz Schlick* though originally founded by the mathematician *Hans Hahn*, who remained the pivotal personality until his untimely death. The philosophical position of the Vienna Circle who met regularly from 1918/1924 and until 1936 was Logical Empiricism (Logical Positivism or Neopositivism). Its main aims were the critique of metaphysics, the search for an empiricist criterion of meaning, and the unification of the sciences in a postulated Unified Science. Given the pronounced anti-metaphysical position of the Vienna Circle it might come as a surprise that several members of the Circle, foremost *Hans Hahn*, took a keen interest in parapsychology (irrespective of the fact that linking parapsychology to metaphysics is but a widespread misconception by laypersons). On the other hand, when considering their empiricist position (supposed to be open towards new empirical phenomena), one might be astonished that this interest was partly met with lack of understanding or even harsh critique.

During the years following the end of World War I there were different groups in Austria, almost exclusively in Vienna, interested in promoting investigations in psychical research. Associations and institutes were founded with great ado in the newspapers and shortly afterwards vanished without traces. Only *Ubaldo Tartaruga*'s “Viennese Parapsychological Institute” operated for some years and published several brochures. Following a suggestion by the vice president of the Austrian Academy of Sciences, a committee of professors of various disciplines in medicine and science from the University of Vienna was formed to investigate the phenomena of the then famous medium Rudi Schneider. The committee did not arrive to a solid conclusion and dissolved itself again. *Schlick* was a member of this short-lived committee.

Late in 1927, following her lecture on the famous Zugun poltergeist case at the Third International Conferences of Psychical Research held in Paris, *Zoë, Countess Wassilko-Serecki*, together with the theoretical physicist *Hans Thirring* (of the Ernst Mach Society affiliated to the Vienna Circle) and several other interested persons, mainly scientists from the University of Vienna, established the Austrian Society for Psychical Research. (It might be added that this society, after a hiatus during the years 1938 to 1945, was re-founded after the war and is still in existence, however, presently operating under the denomination Austrian Society for Parapsychology and Border Areas of Science.). *Hans Hahn*, a founding member of the Austrian SPR, served on the board and later as their president. In 1930, the fourth of these international conferences took place in Athens with Austrian psychical researchers *Hans Hahn, Countess Wassilko, Alfred, Baron Winterstein*,

Karl Camillo Schneider, and *Daniel Walter* attending and (except for *Hahn*) presenting papers.

In sum, although *Schlick's* interest in parapsychology was limited, *Hahn's* and *Thirring's* engagement in various areas of parapsychological research including their own experiments with various mediums was enthusiastic; *Gödel* carried out telepathy experiments and believed in ghosts; *Menger*, however, was intimidated by an encounter with RSPK (poltergeist) and decided to stay away from the area. *Carnap* showed at least a certain interest in the field indicated by an argument with *Wittgenstein* (himself not a member of the Vienna Circle) who held parapsychology as “utterly rubbish”. *Neurath* reproached *Hahn* for his participation in séances, so *Carnap* reports, arguing that such activities would “encourage supernaturalism”, which was countered by *Hahn* who stated that scientists have the right to investigate all incidents or supposed incidents regardless of whether or how others might use or misuse their results. *Hahn* died in 1934 and *Schlick* was murdered in 1936 by a former student. With two main protagonists dead as well as with the increase of anti-Semitism in the 1930s and the subsequent emigrations of its Jewish members, the Vienna Circle dissolved even before the Nazi takeover.

Freud as a Psychical Researcher: The Impossible Freudian Legacy

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Sigmund Freud constantly attempted to distinguish psychoanalysis from occultism by explaining allegedly paranormal phenomena (such as so-called prophetic dreams) as the results of unconscious processes. His attitude towards the paranormal, however, evolved according to his increasing interest in the possibility of thought transference. In 1925, he reproduced Gilbert Murray's experiments associating telepathy and free associations. He became convinced then of the reality of thought transference and shared his conviction in “The Occult Significance of Dreams”. Yet, Ernest Jones, his biographer and then president of the International Psychoanalytic Association, was reluctant to associate psychoanalysis with psychical research and worked to marginalize Freud's interest. This article aims to retrace the context of this rarely discussed text and the experiments that preceded it to re-examine their role in ulterior definitions of the Freudian legacy and the association of psychoanalysis with experimental research on telepathic dreams.

A Brief History of Psionics

(Schmeidler Outstanding Student Award, 2016, Invited Address)

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The term *psionics* was presumably coined by Jack Williamson and is presumably derived from parapsychology's psi concept. *Psionics* originates in the science fiction literature of the 1950s

and '60s, and since then it has become a well-known meme of Western popular culture, used, for example, in the renowned tabletop role-playing game *Dungeons & Dragons* and the *StarCraft* video game franchise. Over time, psionics has become associated with psychic energy as well as gadgets that are supposed to function by means of such energy. In the parapsychological literature, the term *psionics* occurs only rarely, whereas the term *psychotronics* is slightly more frequently used. These two terms are not only lexically related but also seem to overlap in meaning, as psychotronics is occasionally associated with psychic energy and instruments related to such energy.

Moreover, *psionics* has been used as a label for certain techniques practiced as part of a subculture. The so-called *psiball* and *psiwheel* are presumably the most prominent of these techniques, and they can be traced back to the theosophical and academic literatures from the late 19th and early 20th centuries. A psiball is a ball ostensibly formed out of psychic energy, resembling what is called *thought-form* in theosophical literature. By contrast, a psiwheel is a paper cone placed on a freestanding pin and supposedly set in motion psychokinetically, resembling what is called *sthenometer* by Paul Joire (1916) as well as an instrument without precise designation constructed by Charles Russ (1921). New Age books from the 1970s and '80s used the psionic(s) label, took up these early references, and presented their own versions of these techniques.

In the 1990s, online energy communities, which used these techniques, were formed. One of the earliest online primers featuring a psiball was the *Practical Psychic Web Book*, later called *Playful Psychic*, by Jenny Gable alias Skywind. This primer later was hosted on presumably the most frequently visited website on this topic, PsiPog.net, short for "Psychic Students in Pursuit of Guidance," created by Sean Connelly alias Peebrain. The term *psionics* appears only rarely on Gable's website and more frequently on PsiPog.net. These two websites and similar ones have provided articles on certain other techniques as well. Over time, a comprehensive vocabulary has developed, reflecting the fact that these communities engaged in theory building. Remarkably, a change in meaning gradually occurred. Psi in this context is no longer a collective noun for ESP and psychokinesis, which require explanation, but it denotes an energy or substance that is supposed to explain how ESP and psychokinesis function.

Many terms of the communities' vocabulary can be traced back to fictional and New Age literatures. However, many of the techniques' descriptions appear to have been derived empirically. By her own admission, Gable was psychic to a notable degree, recognized already at a very young age. Assuming this is true, she arguably could teach other people not only from books but also from her own experience. Overall, advantageous conditions were in place when the techniques and terminology developed in these communities. First, the purpose of the generic members was not to become famous or make money but to teach and learn from and with each other. Second, they took a highly pragmatic approach with only a minimal metaphysical framework. Third, doing this on the internet has allowed people from all over the world to participate. If psychic abilities—assuming they exist—are a rare gift, these platforms might have provided the opportunity for people who were gifted or motivated enough to become so to connect on an unprecedented scale. Of course, not everyone involved must have necessarily been talented.

Looking at psi from such an amateur perspective might allow a rediscovery of topics in parapsychological research that are neglected nowadays but may be valuable for theorizing. First, although psi phenomena are often depicted as being non-local in nature, they might also entail an element with local properties. Such an element might function as a proxy for more remote sources of information, and information might be transmitted locally by this proxy. Second, it might be easier to receive emotional rather than rational psi information, possibly because the former is more salient. Third, assuming these assumptions prove to be true, a part of what constitutes psi abilities might be open to learning and even transfer.

The Creation and Validation of the Belief in the Supernatural Scale

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This study presents the development and validation of the Belief in the Supernatural Scale (BitSS). The BitSS acknowledges the nuanced nature of religious and paranormal beliefs and enables researchers to measure them both together, and separately, with equal degrees of clarity. The measurement of these concepts has been problematic because the primary measure in the field, the revised Paranormal Belief Scale (rPBS) (Tobacyk & Milford, 1983), contains a *traditional religious belief* subscale indicating that religious belief is regarded by researchers as being an aspect of paranormal belief. The term *supernatural belief* has been used to refer to either “paranormal” or “religious” concepts and such arbitrary use is dependent on what the researcher is investigating. In contrast, Metaphysical Chauvinism Theory (Beck & Miller, 2001) suggests that people can believe in different “supernatural” concepts and that there should be a separation of religious and paranormal beliefs.

Although measures such as the rPBS and the Australian Sheep Goat Scale (ASGS) are sound measures, there is a need for a scale that can measure the overarching concept of supernatural belief, incorporating both religious and paranormal beliefs, whilst maintaining the distinctions between them. Two studies were carried out to create and validate a new scale to measure supernatural belief. A total of 382 participants (study one) and 318 (study two) were recruited from the University of Derby and via social media. In study one an item pool was created by taking items from previous scales that measure religious, spiritual, and paranormal belief.

There were three stages in the process of selecting items for the item pool: stage one was the initial search for scales to draw items from; stage two was an evaluation of the scales from the initial search; the third stage was the evaluation and possible modification of the items. A 204-item pool for the new scale was generated. This was reduced to a pool of 71 items after review by experts and non-experts assessing for face validity and if they agreed the items measured religious, spiritual, or paranormal belief. This was then analysed using inter-rater reliability showing a fair agreement between reviewers. An Exploratory Factor Analysis was run on the 71 items to establish item redundancy and initial factor groupings in the proposed scale. A 44 item, five-factor solution was selected. The factors were labelled in the following way: factor one was named *mental and psychic phenomena* due to the items in the factor related to such things as ESP or mental telepathy. Factor two was labelled *religious belief*, with the items focussing mainly on religious belief and different aspects of God. The third factor was named *psychokinesis*, having items that related to concepts such as levitation or the movement of objects using the mind. The fourth factor was named *supernatural entities*, with items relating to supernatural beings such as demons, angels or a supreme being. The fifth factor was named *common paranormal perceptions*, with items relating to haunting or poltergeists.

The aim of study two was to conduct a Confirmatory Factor Analysis on the BitSS developed in study one using a fresh sample of participants. The fit indices showed that the data were not a perfect match to the model. It was concluded that this was because of the model’s complexity and the large sample size. Therefore, the model structure and the number of items were retained. The model was also correlated with three other measures of spirituality, religiosity, and paranormal belief. The BitSS scale correlated highly with the scale measuring paranormal belief, and moderately

with the other two scales. The BitSS scale showed good test-retest reliability with a three-month follow-up study showing a high correlation.

The new scale successfully captures the nature of supernatural belief and provides a wide range of items. The clear delineation of religious and paranormal belief emerging from these factor analyses supports the Metaphysical Chauvinism Theory (Beck & Miller, 2001) and concurs with previous research that distinguishes religious and paranormal believers. This further strengthens the proposition that religious belief should not be defined as a paranormal belief. The five factors of the new scale encompass the aspects of the supernatural well and are easy to interpret, by having a strong meaning based on theory, research and previous scales and factors. The new scale provides insight into how these three concepts of religious, spiritual and paranormal belief might fit together. Although religious and paranormal beliefs show a clear divide, spiritual belief is spread amongst the factors. The rPBS is a psychometrically sound scale but the BitSS has more items covering fewer factors than the rPBS and arguably a clearer factor structure. The BitSS adds another useful tool for the measurement of these types of belief that can be used alongside the rPBS, ASGS, and other measures to assess the personality and cognitive correlates of these types of belief.

Anomalistic Psychology, Parapsychology, Psychology of Magic and Psychology of Religion: An Integration Proposal to Deal with the Complexity of the Paranormal

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Anomalistic psychology, parapsychology, psychology of magic, and psychology of religion have different agendas and backgrounds, but their objects of study have strong connections and the consequences must be considered. Through a historical, conceptual, and methodological discussion, we present an integration proposal. Anomalistic psychology and parapsychology study “paranormal” experiences and beliefs under specific perspectives and backgrounds. Psychology of magic focuses on psychological processes underlying magic tricks, such as memory, social influence, perception, cognitive biases, etc. Psychology of religion studies religious experiences, behaviors, and beliefs. But the intersections between these areas are so many that it is possible to conclude that they study facets of the same topic.

Parapsychology, psychology of religion and anomalistic psychology were unified in the late 19th and early 20th centuries under the label “psychical research”. However, after the dismemberment of psychical research into specific agendas and political/ideological interests throughout the 20th century, researchers and literatures in these areas tended to maintain a state of mutual alienation. Psychologists of religion, historically, tend to be at least sympathetic to the existence of transcendence. “Traditional” anomalistic psychologists, historically, tend to be against the existence of paranormal processes. Parapsychologists, historically, tend to be supportive of paranormal

processes. Each of these tendencies creates assumptions and other biases that eventually result in studies that legitimize – possibly thanks to the expectation/experimenter effect – these same assumptions. The scenario is more alienating when we consider that they not rarely ignore recent advances in psychology of magic about psychological, cultural, and even biological processes present in many religious and paranormal experiences and beliefs. As a result, each area struggles against tough questions without knowing that the other three have concrete or even decisive contributions to make, which would advise integration. Such a broader perspective of an inclusive anomalistic psychology, coupled with improved research techniques in each of the four fields, would allow a greater dialogue between phenomenological and ontological approaches that could lead the study of anomalous experiences a step beyond what we currently achieve. We discuss the subject of classic paranormal beliefs versus religious paranormal beliefs and data from two Brazilian religious groups that perform healings based on prestidigitation, misdirection, and claims of extraterrestrial contact. At the end, we present some results of such an integrative proposal in the Brazilian academic community. Thus, we believe that the proposal of an inclusive anomalistic psychology has not only theoretical support but also a tempting practical success in terms of academic acceptance and productivity.

Training Anomalous Cognition in a Motor Task with Subliminal Auditory Feedback

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The purpose of the study was to train anomalous cognition (AC) in a motor-automatism task with subliminal auditory feedback in 5 participants (Ps) selected on evidence of high state dissociation (reports of their hand being moved by an outside force during the AC task) and trait dissociation (high scores on the Detachment subscale of the Dissociative Processes Scale) in a previous motor automatism experiment. The formal hypothesis was significantly higher AC scoring after training than before training by the Ps, both individually and collectively. The motor task is administered on a computer writing tablet on top of which is affixed a 4-inch grid conceptually divided into 16 1-in. squares conceptually divided into 4 quadrants of 4 squares each. One of the squares was randomly assigned as the target for each of the 60 trials in a run. The surface was covered by a Google map of barren terrain to support the theme of map dowsing with no lines indicating the squares. Ps were instructed to explore the grid by moving the computer pen over its surface until their intuition indicated them to stop. After they stopped for 1 second their response was registered as the corresponding square. If they stopped on the target square they got a “square hit” ($p = 1/16$). If they stopped on any square in the correct quadrant, including the target square, they got a “quadrant hit” ($p = 1/4$). They then resumed moving the pen for the next trial. The hit totals were converted to z -scores to standardize them. The average of these two z 's represents “location z s”, the dependent variable. Ps attended 2 1-run “baseline” sessions at the beginning of their participation and 2 1-run “test” sessions at the end. In between, they completed 15-20 1-run training sessions. The procedure for these runs differed only in that after each trial P heard 1.5 seconds of brownian (similar to pink) noise. If the trial was a quadrant hit, the noise had superimposed on it the spoken word “good”. If the trial was a square hit, the words “good good” were superimposed. A threshold test prior to training assured that the words were subliminal for all Ps. One of the 5 Ps (P5) sig-

nificantly confirmed the hypothesis, and there was suggestive evidence of AC in the baseline and/or test results of 4 of the 5 Ps and the five difference scores showed significant between-subjects variance. There was no evidence of learning in the training sessions, so the success of P5 cannot be attributed to it.

According to the underlying theory, the conditions for learning were not met because Ps were overly attentive to the feedback sounds, often detecting between-trial variations in the sounds that threshold testing indicated were not actually present and misinterpreting these as indications of hitting. The significant effects should be considered tentative unless and until they are successfully replicated. Nonetheless, the large number of suggestive or significant findings in the baseline and tests sessions in individuals pre-selected for dissociative tendencies and dissociative responding in a similar task in the past encourages further research on the relation of dissociation with psi in the laboratory. I am grateful to the Bial Foundation for their support of this research.

Do Changes of Thermodynamic Entropy at a Remote Site Enhance the Quality of Anomalous Cognition?

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To determine the degree to which changes of thermodynamic entropy affect the quality of anomalous cognition, we launched a three-year effort funded by the BIAL Foundation. Twenty-two San Francisco Bay Area sites were identified all of which were neutral regarding native changes of entropy. Three individuals independently fuzzy-set coded all sites against a predetermined universal set of elements, which by cluster analysis fell cleanly into five orthogonal categories. Entropic changes at a remote site was accomplished by dispensing three liters of liquid nitrogen (LN) approximately eight seconds into a picnic cooler containing 2,000, ½ inch diameter aluminum balls. Three well-calibrated participants contributed 24 sessions each that were randomly but counter-balanced for an entropic change at the stimulus site. Three experimenters (E1-3) divided the tasks for a single session - E1 tasked a participant (P), “Please access and describe the first thing you see when E1 removes the blindfold.” After the session E1 encoded the response into an automated system, which uploaded to the cloud for E3 and notified E2 who randomly chose a site and entropy condition (computer generated), waited a fixed time to obtain (or not) the LN; travelled to the site; on leaving texted E1. E1 blindfolded P and drove to a predetermined spot at the site. E1 oriented P in a predetermined direction and removed the blindfold for feedback. Overall, the effect size for the observed distribution difference between the figure of merit means for the LN pour and LN no-pour conditions was 0.251 ± 0.167 leading to a z -score of 1.503 and $p = .066$. Performance declined between the first and second half of the study for all three participants. The effect size for the first half was 0.425 ± 0.236 leading to a z -score of 1.80 and $p = .036$. The second half of the study produced an effect size for the mean differences of 0.097 ± 0.236 leading to a z -score = 0.411 and $p = .340$. The decline between first and second halves produced $t(34) = 0.984$, $p = .165$, and the effect size for the decline was 0.167 ± 0.172 . This report discusses potential psychological reasons for the decline between the first and second half of the study.

Exploring the Effect of a Contingent Cash-Based Reward on the Precall of Arousing Images

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Precall refers to the explicit recall of target material, such as words or images, where practice sessions occur *after* the recall test with the potential to influence *prior* recall performance. Though such a proposal has been called both provocative and controversial (see Cardeña, 2015) there is some evidence to support it, although it is inconsistent. For instance, Bem (2011) showed that practise on a sub-set of items was associated with higher recall for those items in the memory task *preceding* the task. However, attempts by others to produce similar effects have met with no success (e.g., Galak, LeBouf, Nelson, & Simmons, 2012). Here the aim was to elicit a precall effect using arousing images and examine whether such an effect would be mediated by a cash-based contingent reward. This idea is taken from an early model of psi put forward by Stanford (1974) that suggests that such behaviour may emerge to serve the needs and/or motives of the individual. However, recent attempts to elicit a precall effect using a contingent reward have been unsuccessful (Luke & Morin, 2014). Nevertheless, it is argued here that this lack of success may be due to weak or inappropriate rewards assumed to motivate the participants. Hence, rather than assume that a particular reward must motivate participants, an initial pilot study examined what type of reward would be considered optimal. An on-line questionnaire completed by 29 participants not taking part in the main precall study showed that a £10 cash reward was the most popular option. Hence, this study examined the effect of offering a £10 cash reward contingent on precall performance.

Two confirmatory predictions were made: first, that post recall practise of images would lead to greater precall of those images compared to those not practised. Second, that a contingent reward of £10 would lead to greater levels of precall compared to no reward. This study was pre-registered with the Koestler Parapsychology Unit (ref#1026). A repeated measures design was used with participants completing all aspects of the precall task individually in a quiet psychology lab. The task began with a short relaxation induction, followed by the random presentation of a series of 20 arousing images. After seeing the images participants were given a surprise recall task using the presented images. Following this, a random sub-set of the images was again presented twice, to allow participants to practise. Each participant's precall score represented the number of correctly recalled images *subsequently* repeated and their baseline score represented the number of correctly recalled images not repeated. Prior to analysis, data were checked to ensure that parametric assumptions were met. This revealed a non-normal distribution so a non-parametric Wilcoxon (two-tailed) test was used, which showed that precall scores were significantly higher than baseline ones. However, the contingent reward had no effect on precall scores. That an anomalous effect was evident in the data could be indicative of a Type I error. Alternatively, such a pattern would be consistent with the positive findings of others who have also reported anomalous precognitive effects (Bem, 2011; Maier et al., 2014; Subbotsky, 2013). Furthermore, the effect in this instance was not based on providing feedback, which suggests that feedback regarding performance is not essential for precall to occur. Finally, a speculative possibility that may account for this effect, put forward by Taylor (2014), is that information transfer may be influenced by the phase synchrony of the brain states at the point of recall and the point of practise.

Exceptional Experiences under Placebo God Helmet Conditions

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This study explored the psychology of exceptional experiences (ExE) in a placebo God helmet study, with a focus on presence experiences. Thirty-two strong skeptics and 35 believers in the paranormal were pre-selected by their scores on the paranormal belief scale (PBS). They also completed the Anomalous Experiences Inventory experiences subscale and responded to a question about synesthesia. Each person took part in three study sessions: a morning baseline (no helmet/baseline) session, a morning sham helmet session, and an afternoon sham helmet session. During each session, participants relaxed in a Faraday chamber for 30 minutes with the instruction to observe and verbalize their thoughts, feelings, perceptions, and imagery. Exit interviews explored subjective experiences. An inductive thematic analysis identified a coding scheme used to compare frequencies across study conditions and between believers and skeptics. Transcripts were blind-coded for 15 types of ExE. A series of chi square analyses found that believers have more ExE than skeptics. There were significantly more visual presences, flashes of color, and auditory hallucinations in the sham helmet sessions than in the baseline condition. Results are discussed in terms of prior studies and their implications.

A Test of Morphic Resonance Using Urdu Words

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In 1981 Rupert Sheldrake proposed a theory that the presence of morphic fields influence, through resonance, both the form and behaviour of organisms. These fields change overtime and act as a collective memory for each species and enables individual organisms to produce behaviours, performed previously by at least one other member of the species, without the influence of either biological inheritance or direct observational learning. Although Sheldrake reports several observations of this effect (Sheldrake, 1988) there is a paucity of experimental studies testing this theory. The experiments conducted have primarily focussed on one of two approaches: new field tests that involve the creation of a new resonating effect and testing its influence on sequential test groups, and old field tests that focus on the resonating effect on part of an already established field and testing it in a population without familiarity with it. This research explores the old field of the Urdu language, unfamiliar to most Caucasian people living on the west coast of Canada.

The participants consisted of volunteer students from VIU enrolled in one of two psychology classes and given an incentive of a small course bonus mark for their participation. The stimuli consisted of six common words from Urdu and six fabricated non-words, grammatically designed to be similar to real words. These were selected and created by a native speaker of Urdu. All stimuli were of similar complexity. Booklets were created with ten randomly selected stimuli from the twelve originals, with a minimum of 4 words and non-words in each booklet. In the experiment participants were asked to copy each word from right to left (as written in Urdu) and to indicate whether or not they felt the stimulus they copied represented a word or a non-word. They were also asked to rate how confident they were in their answer on a scale of 0-5. Next, if it they

believed the stimulus to be a word, they were asked to state what they thought it meant and to rate their confidence in their response. At the end of the booklet participants were asked to report how many languages they knew, and if they had recognized any of the stimuli.

Scientific Evidence of Telekinetic Effects on a Spinning Mobile - A Scientific Attempt to Detect and Study Telekinetic Effects even in a Non-confined Environment

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For more than a century, there has been much debate around the use of Telekinesis-Psychokinesis (TK – at the LAPDC we use TK for Telekinesis) to explain the rotating movement of light objects on an upright standing needle in the proximity of a hand. Thermally-induced aerodynamics effects have been considered as likely physical explanation factors. Despite this controversy, many still upload videos claiming the phenomenon on the Internet. Most of the scientific studies performed have focused on whether or not the effects could be observed if some physical constraints were added in order to avoid the aerodynamics factor, or if the same results could be reproduced using some thermic or/and aerodynamic artifacts instead of a human presence. The first approach runs the risk of inhibiting a phenomenon about which little is known. The second has not yet shown clear reproducible experiences providing the same results as with human presence, except in very specific situations. Our objective was to detect and study telekinesis in confined and non-confined environments with scientific measurements. We thought there could be a way to separate telekinetic effects from aerodynamic effects, even in a non-confined environment, thus avoiding the drawbacks of the first approach. This technique to approach anomalous perturbation could be described as partial physical isolation of the target system, with the measurement system ensuring the control of the remaining known effects. This can be related to the two other techniques described in May et al. (1995).

From the beginning, the LAPDC has been fostering a Tkist (participants practicing telekinesis) volunteer team in order to do the experiments. From 2012 to 2016, we have been developing specific scientific methods to study telekinetic effect on spinning mobile with or without confinement. More specifically, we developed a protocol starting with PIV (Particle Image Velocimetry) to measure the air-flow speeds around the mobile. We also created a set of processes around MATLAB, which we named Scan Flow Mobile, which has enabled us to construct a global model integrating air flow movements and mobile movements, and scrutinize it. Using this procedure, we were able to compare different experiments and conducted a thorough analysis of the interaction between the mobile and the air flow, and cause-and-effect relations. A review of the “spinning mobiles” literature of the last century, either with the telekinesis hypothesis or aerodynamic/thermic explanation, has been done. We also studied other motion potential causes, such as electrostatic forces, magnetism, vibrations, and radiation impacts. Then, as a pilot study, we conducted 8 experiments (10 results cases) in non-confined environments, with 3 set-up categories: one where the mobile motion was driven by generated air-flows (A), one in which a motor drove the mobile (M), and the last one where Tkist drove the mobile (T). The ratio (mobile speed/mobile periphery air-flow speed) was used as a way to compare effects between each other and between categories.

With regard to this ratio, the category T and M experiments stayed above or equal to 2 while category A was below or equal to 0.5. This separated clearly pure aerodynamic effects (A) from the evidence of telekinetic effects (T). One T experiment even presented a 0.13 ratio, which means that the mobile speed was 7 times greater than the air-flow speed. The Tkist experiments were realized in different places, with different Tkists and different material set-ups with the same protocol.

We present a potential bias and errors analysis, moving from the difference between fluid and particle velocity, to the mean speed evaluation for the air flows and the mobile, to the final ratio, and show that the results above are not affected significantly. Indeed, we evaluated the potential error at more or less 8.9% of the ratio air-flow speed/mobile speed, which is marginal against the ratios seen above. So, in this pilot study, the experiments showed evidence of telekinetic effects on a spinning mobile and a scientific approach to separate these telekinetic effects from the pure aerodynamic effects in a non-confined environment. In order to confirm these results, we will improve our protocols and try to reproduce T experiments with significant ratios. We will also try to improve the total measurement process documentation in order to give the possibility for other labs to reproduce these experiments. We have chosen until now to use a kind of mobile not too sensitive to air flows, so it was easier to develop in our protocols. For example, its weight is 2.4g, heavier than light objects such as aluminum paper psi-wheels and Egely-Wheels (The Egely Wheel is marketed as an instrument to measure life energy, chi, or vitality, Egely, 2017), whose weights are 0.1 to 0.2 g and 0.5 g respectively. We are studying these mobiles currently, trying to reproduce the same phenomenon using some thermic or/and aerodynamic artifacts instead of a human presence, and with PIV measurements.

Implicit Psi in a Stimulus Detection Task: Can uPK and Precognition Affect Perceptual Performance?

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Over the past years, it has become increasingly apparent that perception is not a passive process: how stimuli appear is not just a function of stimulus properties, but also of the memory and expectancies of the observer. In an experiment testing the effects of stimulus randomization on these expectancy processes, we have reported an anomalous effect of apparent precognition. Here we show that there may be another anomalous effect in play in stimulus detection tasks, namely psychokinesis. In a simple stimulus detection experiment, we used quantum-random versus pseudo-random generated stimulus sequences. If pseudo-generated sequences contain implicit structure, we would expect better performance for these sequences. Contrary to this prediction, we found participants performed better and faster in the quantum-random generated sequences. We explain this result in terms of the observation theory-framework, which postulates that psi-effects are closely related to the radical subjective solution of the measurement problem in quantum mechanics. Our results can be explained by assuming a combination of PK and precognitive priming effects for quantum-random generated sequences. We describe a replication experiment to formally test this hypothesis.

The Selfield: A Precognition Study Using an Immersive Display System

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In a previous project, we presented a telepathy study which we hoped would be both psi-conducive and efficient in terms of data-collection; it involved coupling a multiple trial forced-choice protocol with participant optimization procedures involving immersive hardware and software. Overall results were not significant, though they did show significant variability, possibly suggesting a combination of psi hitting and psi missing.

The current exploratory study is broadly inspired by the previous one, but introduces several improvements in the optimization procedures, as well as a shift from a dyadic-participant approach, to a single participant protocol focused on precognition. This shift was motivated in large part by the rather positive track record of recent precognition research – as witnessed by physiologically based presentiment studies, and by the reverse-causality social psychology studies recently introduced by Daryl Bem. We thus decided to opt for a single-participant precognition protocol, both because it is comparatively easier to implement than telepathy protocols and because it seems promising in terms of replicability.

A second, more process-oriented objective for this study, was to better grasp the role of feedback in multiple-trial psi tasks. Both theoretical and psychological reasoning would suggest that trial-by-trial feedback should contribute to scoring, either by injecting outcome information into earlier choices (according to a retro-causal model), or by helping individuals to zero in on productive mental strategies as they proceed through an experimental session. On the other hand, as some participants in our previous study indicated, it may be that trial-by-trial outcome information induces stressful, performance-oriented mindset, offsetting the learning gains that might come with feedback. Thus, as part of our objective of producing a multi-trial psi-conducive protocol, we sought to assess feedback vs. non-feedback scoring under motivationally equivalent conditions.

Finally, this study was also intended to provide us with an empirical effect size estimate, which in turn would allow us to specify power requirements for future replications. A pre-set total of 3,000 binary choice trials were collected from 82 volunteers over a 7-week testing period, each individual contributing either 20 or 40 trials, in accordance with pre-set criteria; 26 participants were regular meditation practitioners, invited by one of us (PAB) who is affiliated with a local Buddhist center. All volunteers were tested either by MV or PAB at the Institut Métapsychique in Paris, using a specially constructed immersive environment and audio-visual sequences used for the psi task. The task consisted of selecting and opening spherical image containers that emerged out of a hypnotic animated starfield. Following the participant's choice, a binary random decision would decide whether s/he would obtain a miss or a hit, and whether the hit-miss feedback would be shown. A hit resulted in the emergence of the portrait of an animal or an interesting or famous personality staring directly at the participant and growing in size. Misses were associated with a noisy withdrawal of the sphere back into the starfield and no-feedback produced a simple fadeout of the sphere container.

The results for the 3,000 trials were non-significant. The overall hit rate came in at null expectation (50.1%), and although feedback trials did have a higher hit rate than no-feedback trials

(51% vs. 48.6%), the t -score for the difference was only 1.29 ($p = 0.10$, ot). Nevertheless, these results, as well as several exploratory analyses, suggest directions for further study. First, the difference between feedback and no-feedback hit rates indicates that a 0.05-level replication at 80% power could be achieved with only a modest increase in the number of trials. A positive replication would encourage the idea that feedback may be useful to individuals, provided it does not disrupt the “flow” state or induce a performance mindset. Second, hit rates tended to increase over the course of a 20-trial series. A regression of trial-ordered hit rates found higher hit rates for later trials ($p = 0.04$, tt). In other words, subjects may have progressively found a mental strategy or a state that produced better scoring, which would accord with responses in a post-session questionnaire, where 89% agreed that “scores would improve with continued training”.

Finally, the 26 Buddhist meditators had a group hit rate of 52.1% ($p = 0.09$, ot) and the subgroup judged to be the most experienced had a hit rate of 54.7% ($p = 0.01$, ot). This finding contributes to the growing literature that suggests that experienced meditators are particularly good subjects for psi research. We are thus planning to follow up with our protocol this year, focusing more specifically on an experienced-mediator population. We would like to express our deep gratitude to the Bial Foundation for its support of the Selfield project.

Descriptive Analyses of Various Anomalous Experiences of Nurses and Carers: Personality, Perceptual, and Cognitive Factors Associated with Anomalous/Paranormal Experiences Reported by Nurses

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A number of anomalous/paranormal experiences (APE) have been reported by nurses (Barbato, Blunden, Reid, Irwin, & Rodriguez 1999, Fenwick, Lovelace, & Brayne 2007, O'Connor 2003) and doctors (Osis & Haraldsson 1977, 1997) consisting of apparitions, “coincidences”, death-bed visions, and other phenomena, sometimes in relation to patients, and other times to nurses, carers, and doctors themselves in hospital settings (Barret, 1926, Kübler-Ross, 1971; Osis & Haraldsson 1997). Nursing provides a wide range of potential workplace stressors (potentially causing hallucinatory/imaginative experiences), as it is a profession requiring a high level of skill, teamwork in a variety of situations, provision of 24-hour delivery of care, and input of what is often referred to as emotional labor. The importance of empathy in the nursing context is related to a core of common aims and purposes, and there is general understanding that nurses' empathic attitude is important for patients' adherence to treatment. A capacity for absorption, by itself, may not be a sufficient trigger for paranormal/anomalous experiences. It could be postulated that people must also have a motivation or need to experience absorption, as well as a situation suitable for inducing workplace stressors and empathy with patients, such as a hospital setting.

The aim of this study was to determine the degree of occurrence of certain unusual perceptual experiences in hospital settings, so called Anomalous/Paranormal Experiences (APE). We hypothesized that nurses who report APEs will tend to score higher on (H1) work stress; (H2) schizotypy proneness, (H3) absorption, and (H4) empathy than those who do not report such experiences. Three hundred and forty-four nurses were recruited from 36 hospitals and health care centers in Buenos Aires, Argentina, with a total of 235 experiencers (78% female and 22% male) and 109

non-experiencers (81% female and 18% male). The most common experiences were sense of presence and/or apparitions, hearing noises, voices or dialogues, crying or complaining, intuitions and ESP experiences and, as listeners of experiences of their patients, near-death experiences, religious interventions, and many anomalous experiences in relation to children. Inspired by accounts of nurses in our interviews and the literature (Fenwick, Lovelace, & Brayne 2007, 2010, Fenwick & Fenwick 2008, Osis & Haraldsson 1977, O'Connor 2003) a self-report with 13 yes/no items was designed, and four scales were used: Maslach Burnout Inventory, Tellegen Absorption Scale, Interpersonal Reactivity Index, and Oxford–Liverpool Inventory of Feelings and Experiences – Revised.

Although H1 was not confirmed, APES experiencers scored higher on Depersonalization absorption, proneness to schizotypy, and cognitive empathy and emotional comprehension. However, H4 was not confirmed. Additional results included a tendency to report APES by nurses with higher length of service (although it was not related with age), and that the best predictor was absorption in experiencers compared with non-experiencers.. It may be that cognitive style is more important than capacity or skill, as in the case of absorption, which refers to the extent to which a person can be so engrossed in a mental experience at a given moment that reality monitoring is temporarily inhibited. However, neither of these variables (absorption or hallucination proneness) was found to be related to work stress, although it could be argued that the psychological pressure of the working conditions of nurses triggers such anomalous perceptual experiences. Nor were there indicators of psychosis proneness found, even in the experiencers with hallucinatory experiences.

The Bélmez Faces: An Investigation of a Supposedly Strong Case

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The so-called Bélmez faces attracted considerable attention in the public and the media, as well as in the mostly European parapsychological community, in the early 1970s. In 1971, phenomena of supposedly paranormal origin occurred in the Spanish village Bélmez de la Moraleda. Discolorations appeared on the concrete floor of the house's kitchen, interpreted as images of faces of paranormal origin. The events were strongly connected with the physical presence of the 52-year-old María Gómez who was living in that house. Several investigation commissions and individual researchers visited the place and tried to solve the puzzling origin of the faces. Due to sensational press coverage, a lot of tourists visited the "house of faces". As a reaction to this, and in particular to a series of articles in the evening newspaper *Pueblo*, the (provincial) government, among others, tried to suppress the news and the national press started a campaign against Bélmez, apparently based on fake news and false accusations by a journalist. Unfortunately, these fake news were taken over by the international press and had a considerable negative effect on the following developments.

Relatively little has been published on the Bélmez faces by scientists. One of the first extensive investigations of the case was conducted by Professor Hans Bender (1907–1991), founder of the Institut für Grenzgebiete der Psychologie und Psychohygiene (IGPP) in Freiburg, together

with a Spanish scholar interested in paranormal phenomena, Germán de Argumosa (1921–2007), who had informed himself about the phenomena. Between 1972 and 1973, Bender visited the location three times to get first-hand impressions of the phenomena as well as of the persons directly involved in the case. Furthermore, he conducted interviews and gave lectures on parapsychology in Jaén and Madrid on May 21 and 23, 1972. He made several methodological suggestions to get more convincing evidence for paranormal events, by means of a documentation made quite immune to fraud. Thus, he suggested covering the whole kitchen floor with a plastic sheet and sealing it so that nobody would be able to manipulate the floor in order to create new faces by normal means. Several reasons can be found to explain such an enormous effort: In Bender's opinion, the case – at least in its initial phase – could become very important for parapsychology. In this respect, the specific nature of the phenomena played an important role in the sense that the appearances were not elusive to the extent as is typically the case with RSPK phenomena. They seemed to have the character of permanent paranormal objects (PPOs). A further reason for addressing the faces of Bélmez was added in 1973: a German TV channel, with Bender as its scientific advisor, conceived of a 6-episode series on parapsychological topics under the title *Psi* for which exciting documentary material, preferably filmed under “live conditions”, should be collected under Bender's supervision. Thus, parts of the on-site examinations took place in front of television cameras. They also planned to get spectacular recordings connected with a replication of an experiment conducted about one year earlier: the opening of the sealed room, the removal of the floor coverings, and verifying whether new faces had appeared under these controlled conditions.

However, the results did not meet expectations, although some changes of the already existing faces could be detected, and one small face seemed to have disappeared in comparison with the photographs made before covering and sealing the floor. But given the very small changes of faces this observation cannot be taken as strong evidence because the quality of the photograph taken before sealing the floor was too bad to make a reliable assessment. Regarding the first experiment of this kind in October 1972, the results seemed to be of better quality but methodological shortcomings (premature unsealing of the floor without presence of a notary due to the occurrence of considerable amounts of water, not taking documentary photos of new developed faces due to a faulty developer) reduced the evidence to eyewitness testimonies. Although Bender seemed personally impressed regarding the genuineness of the phenomena, he stated later in a telegram: “Technical obstacles prevented reaching intended highest level of documentary evidence”.

Given Bender's reputation as an internationally renowned researcher, the public opinion (media) switched again in favor of the paranormal origin of the faces. The intention of my presentation was to give an impression of how Bender approached the investigation of spontaneous cases. It should demonstrate his personal motivation as a researcher as well as illustrate the somewhat complicated interplay between an alleged RSPK case in its public sphere, the social role of so-called skeptics, and of mass media looking for a “good story.” It is based on archival material mostly kept at the IGPP, including extensive correspondence between Bender and Argumosa, investigation reports, unpublished manuscripts of lectures, transcripts of telephone conversations, and newspaper articles. In contrast with these primary sources, several statements found in books and articles dealing with Bélmez are based on secondary sources and must be dealt with great caution because they often perpetuate false beliefs and unverified facts. At least, we are able to get a somewhat less biased picture. Far from being solved, the Bélmez case shows the ingredients of a typical RSPK case as well as typical reactions by scientific colleagues, skeptics, and the public.

“Logic is only Half the Equation”: Exploring Psychedelic Drug Usage and Transformation of Identity, Spiritual Awakening, the Transcending of Ordinary States of Consciousness and Enlightenment Experiences Following LSD Consumption

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In 21st century academia, we are witnessing the re-emergence of scientific interest in psychedelic compounds despite the obvious challenges posed by ethics committees. This is otherwise known as the *psychedelic renaissance* (Sessa, 2012). The experiences of taking psychedelic drugs (often referred to as taking a “trip”) may be difficult to articulate for a number of reasons that defy conventional scientific reasoning. Reports (often anecdotal) include anomalous accounts such as out of body experiences, intense hallucinations, increased sensuality to the immediate environment and other people, experiencing spiritual awakening, the death of the ego, and brief glimpses of spiritual and ecological enlightenment resulting in changes in one’s ego structures and sense of self (Luke, 2012).

Content Analysis of Spontaneous Cases of Psi Included in the Alister Hardy Religious Experience Research Centre Database

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In this paper, we argue that research should be grounded in the experience of real people to ensure that findings have ecological validity and avoid the kind of artefacts that can result from experiments that derive from — and produce data that only really bear on the interpretation of — other similarly conducted experiments, giving a circularity that has no real-world point of contact. An important source of phenomena as they are experienced in the real world is case collection analysis. Unfortunately, this approach has fallen out of favour with researchers, such data as we have tends to be derived from earlier classic studies (e.g., Rhine, 1962a, 1962b; Sannwald, 1963; Schouten, 1981) or from collections of cases that are not subject to systematic analysis (e.g., Feather & Schmicker, 2005; Fenwick & Fenwick, 1997; Haraldsson, 2012; but see also Cook, Greyson & Stevenson, 1998; Lucadou & Wald, 2014). To address this shortcoming, in this study we proposed to conduct a content analysis of cases held in the archive of the Alister Hardy Religious Experience Research Centre (RERC), which contains over 6,000 first-hand accounts from people across the world who have reported a spiritual or religious experience.

Initially each case was read in its entirety to determine whether it referred to any experience that could be described as parapsychological. Excluded cases involved: descriptions of personal philosophies or metaphysics; reflections on and analysis of (mainly Christian) scripture; biographical accounts of hardships for which religious faith had been a support; experiences of immanence or nature mysticism; experiences of deep peace and serenity; visions of religious persons or be-

ings, such as Jesus or the Virgin Mary; and cases where psychic phenomena were alluded to but not described in any detail. Our original intention was to review all 6,000+ cases in the database, but while some of the accounts were quite brief (from 50-150 words), many were very substantial (5,000-8,000 words) and took much longer than expected to read and appraise. It quickly became apparent that we could not review all cases in the time available, so we decided to divide the project into two phases: phase 1 would be restricted to the analysis of half of the cases and treated as an exploratory study, while phase 2 would consist of the remaining cases and would be treated as a confirmatory study to see if patterns identified in phase 1 could be replicated. To avoid selection bias (especially shifts in content or circumstances over time) we included in phase 1 cases 1-500, 1001-1500, 2001-2500, 3001-3500, 4001-4500, and 5001-5500. All cases were read initially by either CR or RL, and all selected cases were checked by the other researcher. Any disagreements were discussed and resolved, with 478 of 3,000 cases (16%) retained for further analysis.

A coding scheme was developed that included the main categories of phenomena and their variations: General ESP, Telepathy, Clairvoyance, Precognition, Ineffable foreboding, Déjà vu, Apparition experiences (in dreams, sense of presence, visual, auditory, olfactory, tactile), Deathbed experiences (lights, shadow/fog, interaction with invisibles, sudden lucidity, extrasensory knowledge), Near-death experiences (peace and wellbeing, separation from body, darkness/tunnels, seeing light, encounters with others), and Mediumship. We also coded the circumstances of the experiences (while quiet/restful, while wide awake, while alone, while with others) and details of the subject of the experience (spouse, relative). These were tested against a sample of 100 cases and adjustments made to reflect any ambiguities or omissions. Once the coding scheme was agreed it was applied to all cases. CR analysed RL's cases and vice versa. Cases were scored for the presence or absence of content categories.

Unfortunately, respondents usually gave only meagre descriptions of circumstances of events so that there were too few data points to look for covariates in any systematic way. However, it was still possible to look at the incidence and types of phenomena reported and to include details of exemplary cases. Of the 478 cases retained for coding, 296 (62%) included reference to apparitional experiences. These were further coded according to the modality of the experience: Visual (65%), Auditory (41%), Sense of presence (23%), Tactile (19%), Dream (9%), and Olfactory (4%). Examples of cases of these types are presented for illustration. The second most commonly reported parapsychological phenomenon was extrasensory perception, with 227 cases (47%) including reference to ESP, which could be further subdivided: Telepathy (51%), Precognition (39%), 'Foreboding' (32%), General ESP (10%), and Clairvoyance (6%). Instances of extrasensory perception often involved some form of "cry for help" relating to negative events. Some reported experiences did not include perceptual components but instead involved a more ineffable sense of foreboding. More rarely respondents reported experiences of the clairvoyance type, usually involving the location of objects or places.

The RERC scheme did not include a near death experience category. In our analysis, we found 46 cases (10% of the total sample) that included features of the NDE. Reported features included: Encounters with other beings (50%), Separation from the body (46%), Told to return (39%), Peace and wellbeing (33%), Darkness / tunnel (26%), Extrasensory knowledge (13%), and Life review (4%). Another phenomenon type not included in the RERC classification involved out-of-body experiences, yet these were quite frequently reported, occurring in 72 cases (15%). Deathbed experiences were described in 23 cases (5% of the sample). Features described in those cases included Interaction with invisibles (50%), Lights (46%), Sudden lucidity (39%), and Shad-

ow / fog (33%). Similarly, experiences with mediumship were quite common (48 cases, 10% of the sample), and were typically interpreted as providing evidence of survival of bodily death

Reflecting on the study design, we note that quantitative content analysis is limited by the data available. Krippendorff (2013, p. 36) defines content analysis as “a method for analysing textual material that was meant to be read and understood by people other than the analyst”, and, as a consequence, the accounts may not be well suited to the analyst’s needs. The letters sent to Alister Hardy and colleagues in response to appeals for information about experiences in their lives from which they have derived a sense of “something other” are often rich in detail concerning the writer’s life history or their reflections on their faith, but can be frustratingly cursory when describing incidents of interest to us. It would have been useful to have prompts or cues that could have encouraged respondents to report their parapsychological experiences more fully. Content analysis also allows for the inclusion of more qualitative elements in recognition of the idiosyncratic and contextual aspects of individual cases. They also give an indication of the personal impact of experiences —often having profound, long-lasting effects (e.g., Cooper, Roe & Mitchell, 2015) — that are overlooked by more nomothetic approaches. There is a great deal of scope to conduct a more in-depth thematic analysis of the material collected during this project, and our intention is to interrogate this material more fully in the future. We would like to thank the Perrott-Warrick Fund for their kind support of this project and the SPR Research Grants Committee for a grant to enable Rebecca Linnett to work on the study.

The Relation of Psi and Alterations of Consciousness in Ganzfeld and Hypnosis Contexts

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In a previous experiment with high (Highs) and low (Lows) hypnotizables, psi z scores (calculated by subtracting the mean score of all four ratings from the target score and then dividing that value by the SD for all four ratings) related significantly to percipients’ belief of their success and their previous ostensible psi experiences. There were also moderate to strong correlations between z scores and experiencing an Altered State of Consciousness and other alterations of consciousness, but only among the Highs (Marcusson-Clavertz & Cardeña, 2011).

The current pre-registered study had a larger N with only Highs, compared in ganzfeld and hypnosis procedures. Participants ($N = 35$) underwent two sessions of 10-minute induction and 10-minute reporting each, in counterbalanced order. One session used an automated ganzfeld procedure, the other a recorded relaxing hypnosis session. The authors served as “sender” and “experimenter” in different buildings. Participants filled out the Phenomenology of Consciousness Inventory (PCI) at the beginning and end of the sessions, and gave a rating of 0-100 to 4 film clips (one of them the target), from which the psi z scores were derived.

Overall, participants did not score better than chance and there was no significant difference between hypnosis and ganzfeld. However, for the ganzfeld sessions z scores correlated significantly with the PCI Altered State shift scores (baseline – ganzfeld scores). PCI end of the session scores for attentional focus and low arousal during ganzfeld also correlated significantly with psi z

scores. Although the overall psi hit rate was not significant, a positive relation between psi scoring and experiencing an Altered State in ganzfeld was replicated, and there was also exploratory support for the noise reduction hypothesis. Obrigado to the Bial Foundation for its support.

Spiritual Experiences in Epilepsy: An Autoethnography

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This paper uses qualitative methodology to explore spiritual experiences in Temporal Lobe Epilepsy from a non-medical, non-judgemental perspective. Focus is placed on the meaning that these experiences have for the experient. Some individuals with Temporal Lobe Epilepsy may experience seizure events, otherwise known as auras. *Aura* is a specific term used in epileptology, identifying the experience and behaviour that an individual with epilepsy has just prior to the development of a full seizure. Some people experience auras as a warning sign that a seizure is imminent, although technically they are regarded as part of a seizure. These auras have a phenomenology that is described by experients in terms that are mystical, religious, spiritual or transpersonal in nature. They are termed here Epileptiform Events (EFEs) as a more neutral term than the usual medical labels that imply certain aetiologies and pre-determined diagnostic criteria. The nature of these EFEs is of interest in the field of parapsychology, because they share features with other exceptional experiences and occur under similar circumstances, for example as the result of an altered state of consciousness. Some experients describe EFEs as being transformative, possessing a noetic quality. Individuals with Temporal Lobe Epilepsy rarely discuss EFEs with their physician as they fear judgement, medicalisation, and pathologizing of their experiences.

The temporal lobe has been previously explored by parapsychologists because the descriptions that individuals with epilepsy have given of their EFEs and epilepsy-related experiences include parapsychological occurrences associated with the wider population of those without epilepsy, including: déjà-vu, sensed presence, out-of-body experiences, and mystical experiences. Links have been made between EFEs in Temporal Lobe Epilepsy and the activation of the temporal lobe using transcranial magnetic stimulation in non-epileptic populations resulting in a sensed presence. It has been suggested that there is a continuum of lability of the Temporal Lobe that may hold interest to parapsychology as a possible explanation of psi abilities and a potential area for the development of psi. We question the prudence of understanding these experiences in a strictly biomedical pathologizing manner. A materialist understanding of these spiritual experiences is problematized in the current study, which uses an autoethnographic narrative.

The result is to understand EFEs as a valuable ability, rather than a pathologized symptom. We conclude by suggesting that experiences of EFEs may contribute in a fundamental way to understanding the human condition. The adaptability of the autoethnographic method demonstrates that it may prove valuable for use by parapsychologists and transpersonal psychologists who are interested in researching exceptional human experiences, because it provides data that would not be accessible using other data collection and analysis methods. Recommendations for future research may include understanding how widespread these experiences are and in-depth interviews with individuals who experience EFEs, to understand similarities and differences in phenomenology and the meaning that they may have outside a strictly medical understanding.

Transformative Features of the Psychedelic Drug Experience: An Interpretative Phenomenological Analysis of Ayahuasca Users in Britain

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Psychedelic consciousness has been linked with deeper awareness into one's psyche and connection to the transpersonal (Metzner, 1998). Recently, academia has witnessed the growth of psychedelic research (Sessa, 2012). Specifically, qualitative analyses into these states, including ayahuasca. Anecdotal reports of ayahuasca include profound transformations in one's psycho-spiritual nature (Shanon, 2002). Research has also been directed towards exploring the parapsychological nature of ayahuasca experiences. Topics of interest include; out-of-body experiences, telepathy, precognition and entity encounters (Luke, 2008), to name a few. Nevertheless, the data are sparse on the phenomenology and there is a shortage of face-to-face interviews on ayahuasca users from western civilizations (Luke, 2011). The aim of the present study was to examine the phenomenological accounts of ayahuasca users from Britain. Three participants (1 male, 2 females) completed semi-structured interviews. Interpretative Phenomenological Analysis was used to interpret ayahuasca users' experiences. Research found evidence for 3 super-themes: psychotherapeutic healing, spiritual re-birth, and materialistic society anti-spiritual. Research findings promote the future exploration of the therapeutic applications of ayahuasca and their parapsychological features. Additionally, there is an opportunity to explore the psycho-social features of ayahuasca discursively.

The Star Gate Archives: Reports of the US Government Sponsored Psi Program 1972-1995: An Overview

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The year 1972 saw the beginnings of the SRI program in psi research under the stewardship of Harold Puthoff and Russell Targ. As a result of Army counterintelligence interest, what started as funding for a single research project by a government agency went on to become the largest sustained research program in the history of psi research, spanning a period of 22 years, eventually closing in 1995. Best known by its last codename Star Gate, the program was funded by a variety of executive branches, agencies, and the military and intelligence communities of the US Government, for a total of \$19,443 Millions. The program focused on the application of, and investigation into psi phenomena, both informational, that is passively gathering information (precognition and real-time remote viewing) and causal (psychokinesis), that is, interacting with the physical world by mental means alone. About 11067 documents—approximately 82518 pages—related to this formerly classified program have been declassified since 2000 and are available for review by researchers and the general public. In the professional psi literature, generally, the Star Gate program is sometimes passed off in a couple of sentences. Beginning in 2012, we started the task of putting together the SRI/SAIC research effort, which has been recently released as *The Star Gate Archives: Reports of the US Government Sponsored Psi Program –1972-1995* (McFarland). It comprises four volumes titled:

Volume 1: Remote Viewing, 1972-1984 (2017)

Volume 2: Remote Viewing, 1985-1995 (2017)

Volume 3: Psychokinesis (2017)

Volume 4: Government Memorandums and Reports (release date to be determined)

In this article, we present an overview of the Star Gate program, focusing on what has been learned from the massive exercise of looking into these archives. Needless to add, this four-volume series is *the final word* on Star Gate, as it is (1) based entirely on the complete set of documents released, including some unclassified documents not available in the government released archives, (2) prepared under the supervision of Edwin May, who joined the SRI program in 1976 and was the director of the program since late 1985, to its closure in 1995 at SAIC, (3) has the stamp of approval by Hal Puthoff and Russ Targ – the originators of the program, and some of the government remote viewers, and (4), the former Secretary of Defense, William S. Cohen has written a foreword for the series.

Open Data in Parapsychology: Introducing Open Data

Adrian Ryan

Driven by the explosion in use of the internet and world wide web, the open access movement has been gaining momentum since the early 1990s. Initially focusing on removing access restrictions to articles in scholarly journals, the concept of openness has broadened to encompass data and code. Various organizations have set out statements in support of openness in science, encouraging open access to original scientific research results and promoting a culture of openness and sharing of research data among research communities. The UK Government has stated that it is committed to ensuring that published publicly-funded research findings should be freely accessible.

The paper discusses the benefits of open data and also considers concerns that some researchers may have about the approach. Publishing strategies, copyright, and database right considerations, confidentiality, the preparation of data for publication, and the citation of datasets are discussed. The second part of the paper presents *Psi Open Data*, an open data repository for storage of parapsychological and psychical research data. This project, undertaken by the Society for Psychical Research and funded by a legacy from Nigel Buckmaster, is intended for use by the international community. The repository is constructed using DKAN, an open source open data platform with a full suite of cataloging, publishing and visualization features. It allows administrator users to upload research datasets, and any visitor to search for and download datasets. Various aspects of the repository are described: data structures, metadata, data classification and retrieval, and preview and download facilities. The initiative to bring open data to parapsychology is an evolving process. The first step is bringing the open data repository into existence. Over time the community can consider how to incorporate data publication within research and publication practices, and how to encourage researchers to make full use of the facility. In the immediate future, I would encourage researchers who agree with the aims of the initiative to contribute data to the repository. Interested researchers should email me at: adrian.ryan@greyheron1.plus.com

Panel Discussion**A Tribute to Gerd Hövelmann (1956-2017)**

The Parapsychological Association recently lost one of its Board Members and former Vice-President. Gerd Hövelmann contributed to the field with many scholarly articles over a long career. His erudition will be missed as much as his human qualities. This panel discussion is an opportunity to review his contributions to the fields of parapsychology and anomalistics, and to share memories with people who did – and did not – have the opportunity to meet him.

Gerd H. Hövelmann or the “Amicus Curiae” of Parapsychology: A Personal Appreciation

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The untimely death of our friend and colleague Gerd H. Hövelmann on February 5 at the age of almost 61 years is a major blow to parapsychology and anomalistics, especially in Germany. It means a great loss in its international visibility, connections, and exchanges, especially when it comes to the PA community. Back in 1978, Gerd had approached the IGPP in Freiburg, Germany, as an ambitious 22-year-old student of linguistics and philosophy at the University of Marburg. Within a few years, he had developed a wide-reaching network of personal contacts, mainly by correspondences, within the international community of psychical research and parapsychology, which included not only well-known researchers like Hans Bender, John Beloff, Rhea White, and many others, but also persons like James Randi and Paul Kurtz. Given the never-ending controversy connected with claims of the paranormal, Gerd adopted quite early on the pragmatic attitude of an “*amicus curiae*”, very much influenced by his great model, the American sociologist Marcello Truzzi. For Gerd, parapsychological data were primarily an intellectual and methodological challenge, not so much an ideological one. In my presentation, I will try to describe the different facets of Gerd’s position.

Gerd H. Hövelmann: Some Personal Recollections

Peter Mulacz

Sigmund Freud University, Vienna, Austria

My first (then only literary, not personal) contact with Gerd Hövelmann dates back to 1976 when he, in a book review, praised the chapter I had authored, but criticized one aspect (on Popperian philosophy) in rather derogatory terms. Now, in hindsight since he has passed away, I regret that we never discussed that issue face to face. For many years, we met irregularly on various congresses, (e.g., the PA conventions) yet without much contact with one another. It was only during the past decade that this changed and eventually we became good friends. Still there were items on which we had different opinions – be it Piet Hein Hoeben’s Tenhaeff-bashing, be it the positioning of parapsychology vis-à-vis “anomalistics” – yet we had arrived at a very friendly way of agreeing

that we disagreed on these points. I was very impressed by the historical research Gerd carried out within the field, particularly on Max Dessoir, the stunning details he found out, and I hope that this material will be published in its entirety. Continuing on the issue of historical matters in parapsychology, Gerd asked me for permission to reprint two book reviews (on von Schrenck-Notzing) that I had published in the Newsletter of the Austrian Society for Parapsychology, in the *Zeitschrift für Anomalistik*, the journal of which he was the chief editor. Later I submitted to that journal an article on “burnt-in” hands, a rare and possibly paranormal phenomenon occurring only within catholic Christian believers; Gerd replied that he had been longing for an article on this very specific phenomenon for years. He accepted my draft eagerly but wanted me to expand my article. He gave me some suggestions for analogous cases in literature or poetry to dig out, but I did not find the time, which is the reason that this article regrettably was not published during his life time. Lately we had another interaction when our Berlin colleague Wilfried Kugel wrote an article on the “Vienna Circle” – actually a review of a book on it published on the 650th anniversary of the University of Vienna, and the accompanying exhibition on the “Vienna Circle” – so I decided to write a few amendments on that topic. Co-operation with Gerd on articles to be published in “his” journal always went very smoothly. Besides his erudition as a scholar Gerd displayed a good sense of humor.

From Responsible Skepticism to Reflexive Anomalistics: A Selection of Quotes from Gerd Hövelmann

Renaud Evrard

University of Lorraine, Nancy, France

I never had the opportunity to meet the well-known sociologist Marcello Truzzi, but Gerd Hövelmann was the one who best enabled me to understand the importance of his approach. Are skeptics and parapsychologists really in competition, or can we be both at once? In this talk, I will select quotations from the epistemological works of Gerd Hövelmann in order to generate comments. From his stimulating paper “Seven recommendations for the future practice of parapsychology” (1983) in Truzzi’s *Zetetic Scholar* to the newly published *Legitimacy of Unbelief* (Collected Papers of Dutch skeptic Piet Hein Hoebens), through to his contributions of “Escape from Wonderland” (2009), “Manifesto for a reflexive UFO-research” (2013, with Anton & Schetsche), to the German *Handbook of scientific anomalistics* (2015), I will try to specify what epistemological attitude Gerd Hövelmann tried to promote in order to prepare the future of parapsychology and anomalistics.

Posters

An Interpretative Phenomenological Analysis of After-Death Communication in the Bereavement Process of Professed Sceptics

Miruna M. Bara and Callum E. Cooper

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A heightened interest in research concerning after-death communication (ADC) has been recorded in recent years, which could be attributed to an increased recognition of the continuing bonds model of bereavement proposed by Klass, Silverman, and Nickman (1996). Research to date has shown that ADC is in fact, a widespread phenomenon (Klugman, 2006; Rees, 1971; Sanger, 2009). Such research has depicted a large spectrum of outcomes of ADCs in the bereavement process. These include providing comfort and reassurance to the bereaved that the deceased has not abandoned them (Daggett, 2005; Parker, 2005; Rees, 1971), improving the relationship with the deceased (Beischel et al., 2015; Drewry, 2003), promoting spiritual growth (Cooper, 2016a; Wright et al, 2014), and positive emotional drives (Cooper, 2016b). However, there is a lack of representation in previous literature of individuals that were sceptical of ADC and an afterlife before their experiences. It is possible that because of a conflict between ADC and their belief systems, ADC would have a more challenging impact on the bereavement process.

This paper/poster presents the findings of an interpretative phenomenological exploration of these issues. The research questions of interest were: (a) how sceptics interpret ADCs; (b) the meaning they attribute to them; and (c) their impact on the grieving process. Semi-structured interviews were conducted with 6 female students at the University of Northampton, between the ages of 19 and 35. These were conducted in a quiet room on the university campus with each interview lasting no more than an hour. Interpretative phenomenological analysis resulted in the identification of 5 super-ordinate themes: (1) *experiencing ADC through a sceptical lens*; (2) *changes in belief systems*; (3) *the influence of ADC in bereavement*; (4) *a new way of living*; (5) *resolving complicated relationships with the deceased*.

In summary, an inability to find conventional explanations for the ADC influenced participants to see it as evidence of an afterlife, while maintaining *some* level of scepticism. Furthermore, experiencing ADC challenged their sceptical beliefs and in doing so, promoted an exploration of spirituality. Participants discussed becoming more open to spiritual beliefs and phenomena, as well as having a more positive view of death after interpreting ADC as reassurance that death is a gateway to another level of existence. Their experience also shaped a new view of the afterlife, which was seen as a realm of happiness and peace, and had a similar effect of decreasing death anxiety. In terms of how the ADC impacted on their bereavement process, comfort was taken from continuing bonds in offering support in times of need and knowing the deceased was at peace. ADC also helped in the acknowledgement of death and moving forward in life. However, while all participants reflected on the positive effects of ADC, some also conceptualised the experience as a reminder of the loss they had suffered, which is a lesser explored aspect of ADC literature and warrants further research. In making sense of ADC experiences, sceptics tried to reach a common ground between two contradictory belief systems. While maintaining some of their previous views, the participants' developed a new view of spirituality, an afterlife, and death, which decreased their death anxiety and supported them in their grieving process. Most importantly, despite the experience being conflictual to their beliefs, participants found it helpful in reaching a healthy grief outcome and decreasing distress about their loss. The findings may be useful to practitioners in the field of bereavement by providing an insight into the complex dynamics of ADC and different belief systems.

Spontaneous Post-Death Phenomena and their Positive Impact on Experiencers

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Following the death of a loved one, people may report unusual experiences that they interpret as evidence of the continuing existence of the deceased in some form. Such experiences can include: a *sense of presence* of the dead (Steffen & Coyle, 2011); dreaming of the dead (Barrett, 1991-92); visual, auditory, and tactile apparitions; electrical disturbances; and movements of objects/psychokinetic phenomena (Cooper, Roe, & Mitchell, 2015). Spontaneous anomalous experiences are widely experienced by the bereaved, with up to 60% of those who suffer a loss reporting them (Castelnovo et al., 2015). The potential therapeutic role of such experiences in bereavement achieved some prominence when Rees (1971) focused on the sense of presence in his *British Medical Journal* paper. Given their frequency, it is important to ask what impact these phenomena have on the experiencers. Although mental health professionals have concerns that such experiences might be associated with pathology, and media portrayals suggest that they are likely to be scary or harmful to experiencers, research has found that they can bring comfort and therapeutic gain to the majority of those who experience them (Cooper, 2016; Krippner, 2006).

This study intended to explore these experiences in much greater depth, focusing on how they might engender hope (Snyder, 1994), as suggested by several previous researchers (e.g., Devers, 1997; Drewry, 2003; Guggenheim & Guggenheim, 1995). Using a mixed-method approach, a questionnaire battery was designed and distributed, including measures of personal beliefs and a hope scale (Nowotny, 1989) to 50 people who *did* report anomalous experiences during bereavement (experiencers), and 50 who *did not* (control). Additionally, short answer questions were provided and a free response section for participants to write about their experiences (experiential group). Following this, in-depth semi-structured interviews were conducted with selected experiencers based on their hope scores ($n = 9$). In brief, quantitative findings demonstrated a significant difference in levels of hope between the bereaved who *did* report such experiences and those who *did not* ($p = .04$, t). Although hope decreased for the experiencers, this drop was not significant ($p = .125$), and a significant drop in hope was found for those who *did not* report such experiences ($p = .008$). This was also reflected in qualitative feedback from the short answer questions, where a significant shift was found in negative states of mind following loss to positive states of mind following the first reported anomalous experiences ($p < .001$). Qualitative findings produced several themes from the results of a thematic analysis on written accounts of experiences, and an interpretative phenomenological analysis of interview feedback. Continued bonds with the deceased were expressed, personal beliefs being challenged by the experiences, therapeutic gains and coping with grief, and aspects of hope, among others. Post-death experiences were reported by a wide variety of people, regardless of personal and religious beliefs in anomalous phenomena. Where experiences contradicted beliefs, personal transitions of outlook on life were expressed. Anomalous experiences during bereavement present a natural aid to coping and recovery, facilitating the gap after a loss. The findings of this and related studies within clinical parapsychology must be understood and integrated into the work of relevant therapists and professionals – especially within thanatology, palliative care, and bereavement counselling – to support the bereaved with their exceptional encounters. This study was supported by the Society for Psychical Research and the Alex Tanous Foundation.

A Pilot Study of Floatation Tanks and Sensory Isolation in Producing Psi Conductive Imagery

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The late John Lilly (1972, 1977) began employing floatation techniques in isolated environments in the 1950s, at the National Institute of Mental Health. This technique in more recent times has become known as Restricted Environmental Stimulation Therapy, or REST for short (Suedfeld et al. 1990). Floatation – or REST – involves lying in water (usually naked) in a purpose-built tank that is filtered and regulated to body temperature. The individual is immersed in complete darkness, with Epsom salt diluted into the water to allow any person to float without effort. A single session normally lasts for about one hour of continual exposure to this environment. The use of this method has been found to have a number of psychotherapeutic benefits, including enhanced personal creativity, an enhanced sense of well-being, meditative qualities, decreased stress and anxiety, and improved physiological ailments – to name but a few (Bood et al., 2005; Kjellgren, Lyden, & Norlander, 2008). However, due to the types of imagery that people experience in the tanks (Lilly & Gold, 2001), Lilly encouraged parapsychologists to use this technique in much the same way as the ganzfeld to induce psi. His thoughts on this matter were expressed during his guest speech at the dinner of the 1969 Parapsychological Association Annual Convention, held in New York City (Lilly, 1969). It appears that few acted on Lilly's suggestion in employing floatation tanks, with some of the main reasons being the cost of the tanks and the time and effort it takes to maintain them (Schwartz, 2015, 5th September – *personal communication*). Even so, Rogo (1980) attempted a pilot study using the tanks following a similar protocol as the ganzfeld studies of the time; an agent trying to send an image they were viewing to a person floating in the tank. Although Rogo's study did not produce findings suggestive of psi taking place, it did produce several methodological concerns regarding the use of the tanks (e.g., participants not having had experience in floatation tanks before taking part, and tank maintenance), which explains perhaps why no further studies employing the tanks were published within parapsychology.

This present study aims to: (a) revisit the single pilot study that was conducted (Rogo, 1980) while adding more rigorous and advanced methods, and (b) act on Lilly's (1969) recommendations, and those of Tart (1975; 2015 3rd September – *personal communication*; also see Roe, 2009), to provide a fair evaluation of the use of the floatation tank method in facilitating a psi-conductive state. This pilot study employs the experimenters as sole participants, in order to examine the methods used and explore potential ethical considerations in greater depth before recruiting participants to engage in floatation sessions.

In this initial run, the sender (Saunders) begins watching a randomly selected clip from the Dalton series, a collection of 100 different video clips, each a minute in length, carefully sourced from cartoons, films, and television shows. These videos are divided into 25 groups of four, organised to be distinct from one another in the content and emotionality of the clip. This pool was originally developed for autoganzfeld research at the University of Edinburgh and has been utilised in a range of ESP research studies (e.g., Dalton, Steinkamp, & Sherwood, 1999; Dalton et al., 2000; Saunders, 2014; Sherwood, Dalton, Steinkamp, & Watt, 2001). While the clip is being watched, the receiver (Cooper) attempts to perceive the content of the clip through imagery witnessed while engaged in a floatation session. All of the receiver's impressions are written down following a

floatation session and sealed in an envelope to be scored by an independent judge against the target pool watched by the sender. A total of 10-12 sessions are to be completed within this first study. This presentation reports on the initial aims and structure of the study, currently in progress.

Medical Diagnosis and Death Detection: A Replication of Reading Faces through Photographs

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A replication of two previous experiments by Parra and Argibay (2013) was performed in this study with ordinary people (i. e., non-psychics) using photographs of the faces of people. The aim was to use images of dead and diseased people as targets, specifically to determine if the participants scored above mean chance expectation (MCE) with the two kinds of stimuli. Fifty participants, with experiences of ESP in general, took part. In the first experiment, using photographs of healthy and diseased persons, there was support for the claim that iconic representation through a mental procedure (psychometry) – implying mental representation of the person target – is psi conducive. A significant difference on the two person targets was found, as well as for the total scores for the healthy/disease condition. Although there was no significant result under the living/dead condition, in the second experiment, males scored significantly higher than females. This result corroborates the Parra and Argibay (2009) findings in terms of the gender difference, where males scored higher as well. A few participants pointed out that there were different symbolizations for the dead target persons.

How do RNGs Detect Psychokinesis? The Proposed CAW Model (Coupling, Analog Signal Anomaly, and Wave-like Field Model) as a Mechanism for Detecting PK

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The author has been carrying out a 3-year measurement at a fixed place using field RNGs (Orion), in which he has found a characteristic curve of field consciousness. This finding suggests a possibility that Z and Converted Z (calculated from the accumulation of (Z^2-1) per second) are connected by a linear equation. This phenomenon requires quantitative discussion of the physical mechanisms of PK. In the present study, the author develops a theoretical model to explain how RNGs detect psychokinesis, based on a direct influence hypothesis. Patterns of anomalous outputs of RNGs affected by PK can be categorized into three types: (A) output signals are clock signals such as 1, 0, 1, 0, 1, 0, ...; (B) output signals consist of 0 only; and (C) output signals consist of 1 only. The author proposes that PK influences the analog circuit in a RNG directly. At first, original analog signals are generated by an analog circuit. The analog signals are converted to original digital signals. Next, the original signals are processed by XOR using a reference clock signal,

and then RNGs output them as random numbers. The author proposes ideas for possible physical mechanisms through considerations of previous studies on poltergeists, macro PK, and ki. Type (A) pattern can be explained by an analog signal anomaly caused by PK. For the type (B) pattern, the original signals should be synchronized to the reference clock signal. The author introduced an idea, an electric coupling as a mechanism that can cause synchronization between the analog and reference signals naturally. For the type (C) pattern, the original signals should be clock signals with a reverse phase of the reference clock signal. The author introduced another idea, a wave-like field as a mechanism that causes synchronization with a reverse phase.

Anomalous outputs of RNGs can be explained using the CAW model in which the PK field is assumed to have the properties of an electric coupling, an analog signal anomaly, and a wave-like field. Based on the CAW model, persons can cause an anomaly of outputs of RNGs relatively easily even if they do not know the details of the RNG circuits. Also, it is expected that persons can control outputs of RNGs by their PK if they change the way of generating PK, just as they are able to change the pitch or loudness of their voice. The probabilities of types (A), (B), and (C) patterns are defined as α , β , and γ ($1 \geq \alpha + \beta + \gamma \geq 0$). For them, lengths of bits per second are defined as m_A , m_B , and m_C . The author derives equations of MCE Z-scores; Z (Stouffer's Z), and Z^2 , Z^3 , Z^4 , Z^5 , and Z^6 per second for a typical condition that random numbers are generated at 200 bits/s. These equations can be applied for discussions of all RNG experiments.

What About Parapsychology and Anomalistics? Results of a WGFP and GfA Member Survey

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Harvey Irwin published in 2014 the results of an online survey of members of the Parapsychological Association concerning the views of parapsychologists about paranormal phenomena and parapsychological research. The current study is a conceptual replication with a German version of the questionnaire partly adapted to the special demands of the two particular survey groups, members of the Wissenschaftliche Gesellschaft zur Förderung der Parapsychologie (WGFP) [Scientific Society for the Advancement of Parapsychology] and the Gesellschaft für Anomalistik (GfA) [Society for Anomalistics].

The PA, established as an international academic professional association of parapsychologists, has relatively high entrance barriers for membership aspirants. The entrance barriers of the WGFP (established in 1981) are similarly high as well as the degree of scientific professionalism. The situation is different with the GfA. Its foundation in 1999 did not pursue the objective of an exclusive professional association, but a platform for “an informed and respectful dialogue between proponents and opponents of controversial scientific claims and seemingly incompatible epistemic positions”. Everybody who likes to support this objective can become a member. Accordingly, the proportion of professional scientists is much lower than in the WGFP and PA.

Another significant difference consists in a greater heterogeneity of the main areas of interest because the focus of the GfA is not limited to the field of classical parapsychology but covers also topics such as ufology, cryptozoology, astrology, etc. Although members of the WGFP and PA

have a positive attitude towards parapsychology as an open-ended scientific project, and consider unconventional theories and explanations (i.e., consider the existence of psi possible), this is not necessarily the case with the members of the GfA. Although a strong interest in anomalistic issues can be assumed, the mere fact of the foundation by former members of the GWUP suggests that non-open-ended approaches such as the so-called anomalistic psychology get their place.

Twenty-five WGFP members and 57 GfA members took part in the survey. The results are compared between the groups as well as with the data of the survey conducted by Irwin. Despite many parallels, some remarkable differences were found. The items concerning the evidence for the reality of psi, together with its specific facets, brought interesting results. With regard to the general assessment, the average of the GfA sample is lower (73%) than the WGFP (84%) and PA (79%) sample because some GfA respondents were extremely critical about the evidence. However, with regard to the indications of the assessment of evidence for specific facets of psi (clairvoyance, telepathy, precognition, psychokinesis), the WGFP respondents were slightly more critical on average than the respondents of GfA. Overall, this specific experimental evidence was much more conservatively assessed by the German groups than the (international, with a majority of American members) PA respondents. A salient difference between the PA sample and the two German samples concerns the survival hypothesis. The percentage of those disagreeing to the statement *After the physical body dies some part of the person survives* was much lower in the PA sample (14%) than in the GfA (36.4%) and WGFP (44%) ones. In general, it became apparent that parapsychologists and interested persons in anomalistics do not form a homogenous group with regard to the assessment of the evidence and the opinions on research-specific issues. Thus, they are not credulous “sheeps” who adopt, without thinking, every paranormal claim or evidence, but rather a group of individuals whose assessments often demonstrate a high degree of variance.

Therapeutic Approaches towards Integrating Near-Death Experiences

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This poster exhibits a current study underway on the topic of how and why some near-death experiences (NDEs) are not successfully integrated by experiencers. An NDE is often a powerful and subjectively anomalous event that can permanently alter an individual's beliefs, values, and the way in which he or she engages, operates, and moves within the world. As with any experience, it is one that needs to be integrated into the experiencers' self-narrative or personal story for the individual to psychologically adjust and make sense of his/her experience. Individuals report both positive and negative NDEs. Typically, positive NDEs are integrated easily into the experiencer's personal narrative and s/he is able to adjust mentally, emotionally, spiritually, and socially; however, there are some individuals, despite experiencing a positive NDE, who struggle to make sense of and adapt to it. Additionally, negative NDEs are commonly correlated with negative adjustment. This demographic of NDErs who may struggle to integrate their NDEs may experience anxiety or PTSD-like symptoms related to terrifying features of their NDEs (e.g., bleak or even hellish dimensions), have trouble reconciling prior spiritual views with what they experienced during their NDE, and may be unable to relate to their friends/family due to existential or spiritual shifts that often occur after an NDE. Friends and family may also have a difficult time relating to the NDEr and accepting these changes. This research study first utilizes questionnaires to elucidate themes of

poor integration of NDEs, and to begin to elicit how/why it manifests. One questionnaire will be oriented to NDErs themselves and another to close friends and family. Second, eight NDErs and a close friend or family member of each NDEr will be chosen to participate in interviews/case studies that will be analyzed using interpretative phenomenological analysis (IPA). IPA in this instance will be used to carefully examine the long-term negative after-effects experienced by people who have NDEs, identify what exactly those negative after-effects are, and what factors impede the integration process. This research is undertaken with the goal to elucidate clinical and therapeutic applications counsellors and psychotherapists may use when working with clients struggling to integrate NDEs. Thank you to the Parapsychological Association for funding this research through the PARE Grant.

Exploring the Parapsychological and Transpersonal Dimensions of the Psychedelic Drug Experience? A Mixed-Methods Analysis

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Many scholars have argued for more research to be carried out on the noetic elements of the ayahuasca experience (Kjellgren, Eriksson, & Norlander, 2009; Trichter, Klimo, & Krippner, 2009). Móró, Simon, Bárd, and Rácz (2011) believe that hallucinogenic drugs offer powerful spiritual transformations for users. Ayahuasca (yagé) is a plant hallucinogen traditionally consumed in tribal communities across South America. Pharmacologically, the plant medicine is typically brewed by combining *Banisteriopsis Caapi* (which contains alkaloids, harmine, harmaline and tetrahydroharmine) and *Psychotria Viridis* (N, N-dimethyltryptamine) (Barbosa, Giglio, & Dalgalarrondo, 2005).

Ayahuasca experiences are similar to those reported by individuals who experience parapsychological/anomalous phenomena, such as precognition and telepathy, as well as psychokinesis (Luke, 2010). Ayahuasca experiences are also linked to other purported psi phenomena such as mediumship. Anthropologist Kensinger (1973) reported on a Peruvian ayahuasca retreat where the ayahuasquero gave the researcher specific information on his deceased grandfather. This was an example of mediumship demonstrated in an environment where ayahuasca was consumed. Ayahuasca was referred to by many parapsychologists as “telepathine” for its alleged capability to allow users to read the minds of others in close proximity (Luke, 2011). In addition to telepathy, ayahuasca users report clairvoyance (both auditory and visual), precognition, and a small section have reported being abducted by alien entities (Nelson, 2008). It is evident that psychedelic drugs have great research potential, with potential applications for advancing theory in transpersonal psychology, parapsychology, and clinical psychology. This is evident because research has indicated that hallucinogenic drug experiences are linked to a range of transpersonal, therapeutic and parapsychological phenomena (Luke, 2010; Lukoff, Zanger, & Lu, 1990; Thomas et al., 2013). Nevertheless, recent research into these links is in its infancy. From 1960-2000 psychedelic research was banned by governments globally. Now, however, after a loosening of political rigidity, researchers in the field are once again beginning to explore these links with psychedelics and its ties with these fields.

However, as Luke (2011) suggests, there is a shortage of qualitative data in this field. More

so, there is a lack of qualitative data on ayahuasca users' experiences from Western culture (seeking authentic experiences outside of the West). Thus, the aim of this project is to collect both quantitative and qualitative data on hallucinogenic drug users, with a focus on ayahuasca users in Britain, as this does appear to be an area in need of further empirical investigation. This project is an extension of a master's thesis that explored ayahuasca users' motivations; the data were analysed using interpretative phenomenological analysis. Similarly, this project will focus on analysing qualitative data, however, the research team aims to include wider systematic analyses for the data. Data will be collected via one-to-one semi-structured/unstructured interviews both in person and through online social communication formats. We anticipate that we will develop a greater understanding of ayahuasca experiences within the wider systemic/postmodern world. Also, we believe that this project will build on prior transpersonal psychological and parapsychological theories on psychedelic drug use. The data collected will provide further evidence for the notion that psychedelic research requires a multidisciplinary approach, and provide evidence that each individual psychedelic "trip" is qualitatively different than another.

Individual Difference Correlates of Psi Performance in Forced-Choice Precognition Experiments: A Meta-Analysis (1945-2016)

Marco Zdrenka and Marc S. Wilson

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Previous research in parapsychology has not been particularly persuasive, in large part due to what many *assume to be* a lack of replication (Alcock, 2003; Hyman 2010; Galak, LeBoeuf, Nelson, & Simmons, 2012). To address these concerns and better understand which factors may be associated with stronger and more consistent effect sizes, all forced-choice precognition experiments analysing individual differences (e.g., personality traits) were aggregated to determine which factors might reliably predict psi performance. Overall, 56 studies published between 1945 and 2016, including 35 individual difference measures, were subject to meta-analysis.

A small but significant relationship was found between the following individual difference measures and psi performance: luck belief or the belief that luck is primarily controllable ($r = .131$), belief in psi ($r = .125$), perceptual defensiveness ($r = .125$), openness to experience ($r = .124$), extraversion ($r = .080$), and time belief as dynamic ($r = -.017$). However, with the number of meta-analyses conducted in this paper, there is an increased risk of family-wise error, so one or more of these significant findings may be the result of multiple analyses (e.g., represent a false positive). Retrospective meta-analyses also have several limitations, so it is not appropriate to make any definitive statements about the results without first conducting confirmatory studies. For example, retrospective meta-analyses are often affected by publication bias or the file-drawer effect, whereby only significant results are reported or published. Although parapsychological journals generally publish more non-significant results than most mainstream scientific journals (Mousseau, 2003), no field is entirely immune, especially when there may be tens or even hundreds of secondary analyses conducted (e.g., analyses of various individual difference measures). At the same time, there is no indication to argue strongly that publication bias is a problem when taking into account Egger's test results—all of which were non-significant—which should be reassuring for parapsychologists given Mousseau's (2003) findings.

Ultimately, we hope that this meta-analysis can be used as a springboard for future research, allowing the findings to be used in a productive way and perhaps aiding in the development of research programmes that are specific and structured. As Watt (2005) comments, “Parapsychologists need to be far more systematic in how they tackle these questions.... Systematic follow-up is an essential prerequisite for demonstrating a replicable effect” (p. 222). Given the particularly straightforward nature of forced-choice precognition experiments, a promising future avenue would be to explore these factors in confirmatory studies. We hope that researchers can model their future experiments off these findings in conjunction with preregistration techniques, to ultimately create a more systematic and robust database.

Presidential Address

Withering Skepticism: Inclusive Criticism, or Hackneyed Mantras and Extraordinary Standards?

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In his influential article “Rhetoric over substance: The impoverished state of skepticism”, Charles Honorton (1993) provided an astute and damning response to critiques of parapsychology produced by the principal counter-advocates of the day, James Alcock, Ray Hyman, and James Randi, for a special issue of the Italian Skeptics’ journal, *Scienza & Paranormale*. Rather than take issue with particular points these commentators had made, Honorton took a more holistic perspective that focused on the rhetorical strategies they had adopted, comparing them with previous objections to parapsychology so as to see how (or indeed if) those arguments had moved on to keep pace with developments in empirical work. This usefully allowed him to identify ways in which the skeptical position had shifted; for example, in no longer claiming that the results of the major lines of experimental psi research could be explained in terms of the null hypothesis. “This concession is important”, he noted (p. 191), “because it shifts the focus of the debate from the *existence* of effects to their *interpretation*” (emphasis in the original). He also drew attention to the exceptional situation in parapsychology in which most counter-advocates were not empirical researchers engaged in psi research, so that their counter-explanations tended to be evaluated on the basis of plausibility rather than on the basis of evidence derived from direct empirical tests. According to Honorton, this produced a cycle of criticism in response to new claims that begins with *statistical criticisms* intended to demonstrate that the claimed effects are not really significant, *methodological criticisms* that are intended to account for observed effects in terms of procedural flaws, and finally *speculative criticisms* based on a priori and *ad hominem* arguments. Ironically, in showing how this cycle could be applied to both the ESP card guessing studies of the 1930s to 1950s and also to the ganzfeld studies of the 1970s and 1980s, Honorton was able to demonstrate a stagnation in parapsychological criticism akin to the “lack of cumulativeness” that has been regarded by counter-advocates as a principal weakness in the case for parapsychology.

It is now 25 years since Charles Honorton’s untimely death, and in marking that anniversary it seems appropriate to review modern criticism of parapsychology to see to what extent his characterisation of skepticism still holds true. During this period, parapsychology has witnessed quite a dramatic transformation in its preferred methodologies and the particular expressions of psi they elicit, and has benefited from the availability of more standardised approaches to making sense of

accumulated evidence, such that one might expect to see similar advances in the nature and focus of skepticism. In testing this expectation I shall draw on a number of sources, but will rely especially on Krippner and Friedman's (2010) *Debating Psychic Experience*, Cardeña, Palmer, and Marcusson-Clavertz's (2015) *Parapsychology: A Handbook for the 21st Century*, and the controversy surrounding Bem's "Feeling the future" publications.

Invited Address (J. B. Rhine Banquet Address)

Invisible World and Modern Astrophysics

Efstratios Theodosiou

President of the Hellenic Physicists Society, Greece

The problem of the co-existence with the so-called "visible world" of a non-visible one, inconceivable to human senses, was a point of disagreement and dispute between theology, philosophy, and the exact sciences. The evolution of this view from Pre-Socratic philosophers to Modern Astrophysics is discussed. Arguments that are important for theologians in order to follow the achievements of modern science are also given. This is particularly important for Antiretic-Objectible Theology making an effort to refute the metaphysical views of Christian theology through ideas mainly based on the findings of the exact sciences.

Exhibitions and Live Performance

Pythia: An Ancient Musical Instrument Exhibition and Live Performance

Nikolaos Koumartzis,¹ Iordanis Koumartzis², Theodore Koumartzis²,
and George Saratsis²

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² *Luthieros Music Instruments Ltd., Thessaloniki, Greece*

A rare ancient music instrument exhibition and live performance was held during the Presidential Reception in the Hypatia Mansion titled "Pythia," after the artistic competition that took place during ancient times at Delphi. Both the exhibition and the live performance revolved around the Greek god Pan, the one who – according to ancient Greek mythology - invented the art of precognition and taught it to Apollo, who then passed it over to the oracle Pythia.

During the first part of the live performance, the attendees heard Delphic and Homeric hymns with recitation and accompanied by ancient lyre and kitharis. During the second part, modern and well-known musical pieces were played, adapted for ancient music instruments. At the same time, a small exhibition was held where the attendees could see, touch, and play with the lyre of Pan, the lyre of Apollo, the barbiton lyre of Sappho, the mysterious instrument of sambuca, the phorminx, the Kitharis of the Golden Age, and other instruments.

The Greek History of Psychical Research: A Photo Exhibition

Nikolaos Koumartzis

Journalism Department, Aristotle University of Thessaloniki, Greece

A photo exhibition about the history of Greek parapsychology, the Greek Society for Psychical Research (GSPR), the legendary figure of Dr. Angelos Tanagras, and the “telepathic network” between Athens, Vienna, London, Paris, Warsaw, and New York, was available for viewing throughout the PA convention. The goal was to present the Greece of the early 20th century when psychical research was widely accepted, Greek mediums were part of police investigations, parapsychology lectures were given at the National University of Athens, and field research was taking place all over the country. Furthermore, photographs from the very first international conferences in the field were displayed, from the 3rd Conference in Paris (1927), the 4th Conference in Athens (1930), and the 5th Conference in Oslo (1935). The exhibition included rare photographs, sketches, news clips and authentic documents from the Tanagras’ Archives in the Garrett Library of the Parapsychology Foundation, Greek newspapers, the GSPR’s monthly magazine *Psychic Researches* (ελλ. Ψυχικά Έρευνα), and Tanagras’s literary publications.