



June 19 – 24, 2016, Millennium Hotel, Boulder, Colorado, USA

Accessing the
Exceptional,
Experiencing the
Extraordinary

The First Combined
Convention of the
Parapsychological
Association (59th)
and the Society for
Scientific Exploration
(35th)

Abstracts of Presented Papers

Accessing the Exceptional, Experiencing the Extraordinary

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An Integration of the
59th Annual Convention of the Parapsychological Association
and 35th Annual Conference of the Society for Scientific Exploration
Millenium Hotel, Boulder, Colorado, USA, June 20-24, 2016



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Introduction to the Program

Welcome to the first joint meeting of the Parapsychological Association and the Society for Scientific Exploration. This gathering, June 19 to 24, 2016, is the 59th annual meeting of the PA, and the 35th annual meeting of the SSE, and recognizes the shared interests and mission of these two organizations. Both encourage scientific work at the edges of what is known, and both provide a forum for scientists investigating questions and phenomena that push the boundaries of mainstream science. Membership in the two societies overlaps to some degree, but this meeting will give many of the attendees a chance to share new perspectives and a broader range of interests. It is correct to say that, by bringing the PA and the SSE together, this meeting is well designed to express its theme: *Accessing the Exceptional, Experiencing the Extraordinary*.

The Program Committee has received an abundance of quality submissions, and the program will be packed. We have several invited talks by leaders in their fields, including acclaimed author Larry Dossey, the Dinsdale Prize recipient, Jeff Meldrum, and the JB Rhine awardee, Ian Wickramasekera, as well as presentations by the presidents of both the PA and the SSE. We will hear from recipients of awards for special contributions to the science that each society fosters. There will be a panel on “Trickster Theory” which looks at what seems to be a defining characteristic of the challenging questions our leading-edge researchers ask.

The main body of the program is contributions from members, and they will be presented in three formats. We will have 30 minute floor talks where we are asking the presenter to use 20 minutes for the talk, leaving 5 or 10 minutes for questions and discussion. Similarly, our 15 minute research briefs will have 10 minutes for the presentation and 5 minutes for comments. The third category is a large selection of poster presentations, in hour-long sessions on Tuesday and Wednesday when the presenters will be available for one-on one discussion. The posters will be accessible during breaks as well. We expect this part of the program to be interesting and rewarding for both presenters and attendees.

We have many people to thank for making this a successful and enriching meeting, from the officers and staff of the PA and SSE, to the local members, led by Dominique Surel, who put together the arrangements, both formal and informal, including an easy environment for the special interactions we call “hallway conversations”. It has been a special pleasure to work with my two co-chairs on the Program Committee, Chantal Toporow for the SSE and Renaud Everard for the PA. Together with the other members of the Committee, they have mastered the challenges of melding the two societies’ overlapping but distinct mandates into an integrated program. And finally, we are grateful to all of you who have made the journey to Boulder to join in this celebration of science at the frontiers.

Please enjoy this unique opportunity to meet old and new friends, and to gather insights and information presented by remarkable people who are working to test and ultimately to expand the limits of our understanding.

Roger Nelson
Executive Chairman
PA/SSE Program Committee

SCHEDULE

An Integration of the
59th Annual Convention of the Parapsychological Association and
35th Annual Conference of the Society for Scientific Exploration
June 20—24, 2016,
Millennium Hotel in Boulder, Colorado, USA

Sunday 19th June

18:00- 20:00 Registration begins
Welcoming Reception with hors d'oeuvres and cash bar

Monday 20th June

08:30 Registration Opens
08:55 - 09:00 Welcoming Remarks

Session 1: Soul, Consciousness, and Psi

09:00 - 09:45 **INVITED ADDRESS – Larry Dossey**
Is the Soul Obsolete? [SSE]
09:45 - 10:00 James Beichler & C. Sperry Andrews
Neurocosmology, Unity Consciousness and Mysphyts: Realizing the True Nature of Space-Time as a Factor in Both the Evolution of Consciousness and Physics [SSE]
10:00 - 10:30 Marilyn Schlitz, Daryl J. Bem, Eva Lobach, Thomas Rabeyron, William Bengston, Sky Nelson, Serena Roney-Dougal, Garret Moddel, Patrizio E. Tressoldi & Arnaud Delorme
Experimenter Effect and Replication in Psi Research [PA]

10.30 - 11.00 **TEA/COFFEE BREAK**

Session 2: Experimental Parapsychology

11:00 - 11:15 Bruno A. Silva & Gabrielle Poeschl
Bem's "Feeling the Future" (2011), Five Years Later: Its Impact on Scientific Literature [PA]
11:15 - 11:45 Julia A. Mossbridge
Predictive Anticipatory Activity (PAA or Presentiment) Measured in a Single Trial Remote Task [SSE]
11:45 - 12:00 Göran Brusewitz, Adrian Parker, David Luke, Annekatriin Puhle & Ross Friday
Exploratory Study of Physiological Connectedness Among Twins in Relation to Attachment [PA]
12:00 - 12:30 Jacob Jolij & Dick Bierman
Explorations into Using Brain Signals to Predict Random Future Conditions [PA]

12:30 - 14:00 **LUNCH**

Session 3: Biological Exceptions and Psychedelics

14:00 - 14:45 **DINSDALE AWARD – Jeff Meldrum**
Sasquatch and Other Wild Men: The Search for Relict Hominoids [SSE]

Schedule Continued

- 14:45 - 15:00 Dennis D. Eberl & Lynda B. Williams
Antibacterial Clays [SSE]
- 15:00 - 15:15 Juan Acosta-Urquidi
EEG Studies of the Effect of the Visionary Tryptamine DMT [SSE]
- 15:15 - 15:30 Jennifer A. Lyke
Not Everyone Gets Machine Elves: The Nature of Discarnate Entities and Their Interactions with DMT Users [SSE]

15:30 - 16:00 TEA/COFFEE BREAK

Session 4: Mediumship and Seance Phenomena

- 16:00 - 16:30 Juan Gimeno, Darío Burgo & Alejandro Parra
Anomalous Mechanical Effect on an Experimental Table-Tipping Séance: A Multimodal Approach [PA]
- 16:30 - 16:45 Willem van den Berg
Was It an Illusion? Quantitative Analysis of an Instance of Spoon Bending [SSE]
- 16:45 - 17:15 William G. Everist
Spiritually Transformative Experiences of Claimant Mediums [PA]
- 17:15 - 17:30 Julie Beischel
Development of a Comprehensive Survey of Secular American Mediums [SSE]

17:30 - 19:00 DINNER

Session 5: Accessing the Exceptional

- 19:00 - 21:30 Russ Targ
Third Eye Spies, Documentary Film [SSE]
- 21:30 - 2 2:30 Dale E. Graff
Dream Workshop Preparation - All conference attendees welcome

Tuesday 21st June

- 08:30 Registration Opens
- 08:55 - 09:00 Welcoming Remarks

Session 6: Extraordinary Experiences

- 09:00 - 09:30 **PA AWARD – Dean Radin**
Consciousness and the Double Slit [PA]
- 09:30 - 09:45 York H. Dobyns
Using Parapsychology to Test Physical Hypotheses [SSE]
- 09:45 - 10:15 Hartmut Grote
Multiple-Analysis Correlation Study between Human Psychological Variables and Binary Random Events [PA]
- 10:15 - 10:30 Roger Nelson
GCP Effects: Global Consciousness or Goal Orientation? [SSE]

10:30-11:00 TEA/COFFEE BREAK

Session 7: Clinical and Experiential Approaches

- 11:00 - 11:30 Renaud Evrard, Chloé Toutain & Jacob W. Glazier
Fight AND Flight: Toward a Psychodynamic Model of Near-Death Experiences [PA]
- 11:30 - 11:45 Margaret Moga
Exceptional Experiences of Healers: A Survey of Healing Touch Practitioners and Students [SSE]
- 11:45 - 12:15 Ingo Lambrecht
Wairua: Clinical Parapsychology at Manawanui [SSE]
- 12:15 - 12:30 Alejandro Parra
Personality and Perceptual Variables Associated with Mediumistic Experiences: Examining Two Samples [PA]
- 12:30 - 14:00 **LUNCH**

Session 8: Dream Time

- 14:00 - 14:30 **PA AWARD 2014 – Chris A. Roe**
The Case for Dream ESP Research: A Contextualised Review of Study Outcomes from the University of Northampton [PA]

14:30 - 15:30 POSTER SESSION #1

- Juan Carlos Argibay & Alejandro Parra – *Psychic Detection of the Sacred Objects: An Experimental Test* [SSE]
- Daniella J. Caputi – *Mental Weather Influence: A Pilot Test Using Atmospheric Turbulence* [SSE]
- Ross Davis – *Making UFO Data Useful for Scientific Research* [SSE]
- Dennis D. Eberl & Lynda B. Williams – *Antibacterial Clays* [SSE]
- Renaud Evrard – *The Dialogued Capture: Analysis and Application of Roe & Roxburgh's Hierarchical Model of Cold Reading Strategies During Psychic Readings* [PA]
- Dale E. Graff & Patricia S. Cyrus – *Future News Photographs as Psi Targets: A Precognition Methodology* [SSE]
- John Kruth – *Developing an Experimental Methodology for Apparent Exceptional PK Participants* [PA]
- Alejandro Parra – *Anomalous/Paranormal Experiences Reported by Nurses Themselves and in Relation with Their Patients in Hospitals* [SSE]
- Paula Rayo & Imants Barušs – *Surrendering to the Vine of the Soul: Ayahuasca Shamanism as a Logotherapy* [SSE]
- Courtney Roberts & Renay Oshop – *Astrology: The Queen of all Pseudosciences* [SSE]

15:30 - 16:00 TEA/COFFEE BREAK**Session 9: Physics Theory**

- 16:00 - 16:30 Bernard Haisch
A Radically Different Theory of Everything [SSE]
- 16:30 - 16:45 Simeon Hein
Many Worlds' Interpretation, Wave Collapse, and Paranormal Phenomena: Towards Explaining the Unexplainable [SSE]
- 16:45 - 17:15 George Williams
Quantum Mechanics, Metaphysics, and Bohm's Implicate Order [SSE]
- 17:15 - 19:00 **DINNER**

Schedule Continued

Session 10: Things That Go Bump in the Night

- 19:00 - 19:30 Thomas Goodey & Rene Verreault
Review of Anomalous Physical Effects During Solar Eclipses, and a Proposal for Coordinated Experiments During the Great American Solar Eclipse of 21 August 2017 [SSE]
- 19:30 - 19:45 Ross A. Davis
Making UFO Data Useful for Scientific Research [SSE]
- 19:45 - 20:15 Joseph Buchman
An Academic in UFOland: The Search for the Mysterious Dr. Morin [SSE]
- 20:15 - 22:00 EVENING GARDEN GATHERING** — Star Gazing, Weather Permitting, All are welcome!

Wednesday 22nd June

- 08:30 Registration Opens
08:55 - 09:00 Welcoming Remarks

Session 11: Dreaming of Progress

- 09:00 - 09:45 **PA PRESIDENTIAL TALK – Chris A. Roe**
As It Occurred to Me: Lessons Learned in Researching Parapsychological Claims [PA]
- 09:45 - 10:00 Stanley Krippner
Dreams from Another Dimension? [SSE]
- 10:00 - 10:30 Caroline Watt & James E. Kennedy
Stimulating Progress in Parapsychology: Prospective Meta-Analysis [PA]

10:30 - 11:00 TEA/COFFEE BREAK

Session 12: Anomalous Neurosciences

- 11:00-11:30 Morris Freedman, Malcolm Binns, Stephen Strother, Fuqiang Gao, Antonino Vallesi, Stanley Jeffers, Claude Alain, Peter Whitehouse, Austyn Roseborough, Melissa Holmes, Jennifer Ryan, Robert Chen, Michael Cusimano & Sandra Black
Mind and Matter Interactions and the Frontal Lobes of the Brain [SSE]
- 11:30 - 11:45 J. Kenneth Arnette
The Optimal Data for a Science of Consciousness: A Reply to Charles Tart [SSE]
- 11:45 - 12:15 Samuel H. Sandweiss, Sthaneshwar Timalsina & Jonathan Lieff
A Western Psychiatric Patient Produces Sanskrit Messages that She Could Not Know by Natural Means [SSE]
- 12:15 - 12:30 Herb Mertz
REG Project and the Web Model of Mind [SSE]

12:30 - 14:00 LUNCH

Session 13: Toward a Reflexive Anomalistics

- 14:00 - 14:30 Gerhard A. Mayer & Michael T. Schetsche
On Anomalistic Research - The Paradigm of Reflexive Anomalistics [PA]

14:30-15:30 POSTER SESSION #2

- Dick Bierman & Jacob Jolij – *Large Scale Collaborative and Adversarial Replication Projects of Controversial Scientific Findings* [SSE]
- Arnaud Delorme, Alan Pierce, Leena Michel & Dean Radin – *Visual Categorization of Images of Facial Photographs by Intuitive Individuals* [PA]
- Thomas Goodey & Rene Verreault – *Review of Anomalous Physical Effects during Solar Eclipses, and a Proposal for Coordinated Experiments during the Great American Solar Eclipse of 21 August 2017* [SSE]
- Douglas Kinney – *Explaining Unusual Conscious Phenomena* [SSE]
- Roger Nelson – *GCP Effects: Global Consciousness or Goal Orientation?* [SSE]
- Alejandro Parra & Juan Carlos Argibay – *Exploratory Study of the Temperament Theory and Paranormal Experiences* [PA]
- Samuel H. Sandweiss, Sthaneshwar Timalina & Jonathan Loeff – *A Western Psychiatric Patient Produces Sanskrit Messages that She Could Not Know by Natural Means* [SSE]
- Yung-Jong Shiah, Hsu-Liang Hsieh & Dean Radin – *Effect of Intentionally Influenced Water on Germination of Arabidopsis Seeds* [SSE]
- Tyler W. Stevens – *TheAstral.com - Exploring the Astral Dimension; A Website of Open Experience* [SSE]
- Takeshi Shimizu, Kitaro Yamamoto & Masato Ishikawa – *Reliability of RNG Outputs During Movie-Viewing Field Experiments* [SSE]

15:30 - 16:00 TEA/COFFEE BREAK**Session 14: Nature and Nurture in Parapsychology**

16:00 - 16:30 Bradley Y. Bartholomew

A Review of Psi Activity in the DNA [PA]

16:30 - 17:00 James McClenon

Seeking Genes Governing Anomalous Experience: Correlational Mapping of Community Survey Data [PA]17:00 - 17:30 **PA AWARD: Nancy L. Zingrone***Finding Your Teacher: Putting Together a Shared Educational Experience in Parapsychology* [PA]**17:30 - 19:00 PRESIDENTIAL RECEPTION****Session 15:**

19:00 - 21:00 BANQUET DINNER

PA AWARDS

JB RHINE LECTURE – Ian Wickramasekera, *The Secrets of the Heart: Empathy & Anomalous/ Transpersonal Experiences* [PA]**Thursday 23rd June**

08:30 Registration Opens

08:55 - 09:00 Welcoming Remarks

Session 16: Pragmatic Applications and Technologies09:00 - 09:45 **SSE PRESIDENTIAL TALK – William Bengston***Leaving the Critics Behind: Transitioning to Pragmatic Applications of Scientific Anomalies* [SSE]

- 09:45 - 10:00 Dean Radin
Toward an Energy Medicine Technology [SSE]
- 10:00 - 10:15 Mark Boccuzzi
Applying Machine Learning to Psi Research: An Example of Using a Deep Machine Learning Image Classifier to Analyze Seemingly Random Visualized FieldREG Data Collected During Sessions with Meditators [SSE]
- 10:15 - 10:30 Takeshi Shimizu, Kitaro Yamamoto & Masato Ishikawa
Reliability of RNG Outputs during Movie-Viewing Field Experiments [SSE]

10:30 - 11:00 TEA/COFFEE BREAK

Session 17: Trickster Panel

- 11:00 - 12:30 **TRICKSTER THEORY PANEL – Renaud Evrard (Chair), George P. Hansen, James E. Kennedy & Jeffrey J. Kripal**
The Trickster Companion of Parapsychology and Anomalistics [PA]

12:30 - 14:00 LUNCH

Session 18: So What Is Consciousness?

- 14:00 - 14:30 John McMichael
Traumatic Brain Injury (TBI) Is a Reversible Disease [SSE]
- 14:30 - 15:00 Yolanda Ferreras Garza & Helen Bowman
NAET - Reprogramming the Body to Eliminate Sensitivities - NAET's Effectiveness in the Treatment of Autism [SSE]
- 15:00 - 15:30 Dean Radin
A Disturbance in the Force: Exploring Collective Consciousness at Burning Man [SSE]

15:30 - 16:00 TEA/COFFEE BREAK

Session 19: Final Session

- 16:00 - 16:15 Annalisa Ventola
There is No Gate: On the PA and the AAAS [PA]
- 16:15 - 16:30 Program Chairs: Closing Remarks
- 16:30 - 17:30 **PA AND SSE ANNUAL GENERAL BUSINESS MEETINGS** (Two separate rooms)

Friday 24st June - Workshop

- 08:30 Registration Opens
- 09:30 - 16:30 **ALL DAY WORKSHOP** (Separate Registration)
Dale E. Graff
Activating Psi Dreaming - Research Methods and Application Potential [SSE]

Abstracts (In Alphabetical Order)

Note: * denotes presenter in multiple author presentations

EEG Studies of the Acute Effects of the Visionary Tryptamine DMT [SSE]

Juan Acosta-Urquidi

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Psychedelics are useful precision tools to explore consciousness. This is evidenced by the resurgence of research in what is maturing to be the field of Psychedelic Brain Science. Also, the rich therapeutic potential of these drugs to treat a wide range of mental disorders and spiritual thirst is being explored in a new renaissance of research and preclinical trials. In parallel, a renewed interest in plant derived entheogens is attracting western seekers, heading to the Amazon and elsewhere, eager to experience soul reconnection to weather the social and economic turmoil of our times. The favored DMT containing Ayahuasca brew from the Amazon has now spread across borders. Recently, fMRI neuroimaging has revealed that psychoactive tryptamines induce altered brainstates that correlate with a reduction of neural activity in the ego- embedded default mode network (DMN) in our brain. Contemplative Neuroscience studies of meditation are converging on similar findings. It appears that suppression of DMN activity is one of the key brain mechanisms that correlates with the non-dual subjective experience of self- dissolution and distortions of space and time perception and cognition . The objective of this exploratory research was to examine the QEEG correlates of the smoked inhalation of exogenous psychoactive DMT molecular action. The rapid onset (10-20 sec), short acting (5-15 min.), and the reversible nature of the effects made such a study feasible and avoided the problem of variability in the Ayahuasca brew constituents. Known as a potent visionary tryptamine, DMT is ubiquitous in nature and has also been localized in the brain and peripheral tissues of mammals, including humans. The exact function of this endogenous DMT is the subject of ongoing neuropharmacological research. Two sources of DMT were tested: *N, N*-DMT from a natural extract of the *Acacia Mimosa hostilis* root bark and 5-MeO-DMT an extract from the Sonoran Desert Toad venom, *Bufo alvarius*. DMT dosage was adjusted to elicit an effective "trip" (ca. 20-30 mg for *N, N*-DMT and 40mg for 5-MeO-DMT). Healthy volunteers (age 25-60; *N*=15 men, *N*=8 women) were tested. A Mitsar 201 amplifier, 10-20 system electrocap, 19 channels referential linked ears montage, 0.5-40 Hz bandwidth, 256 Hz sampling rate was employed. Artifacted raw data was analysed with Neuroguide software (www.appliedneuroscience.com). Protocol consisted of: 5-10 min. baseline control (resting eyes closed) was first obtained, followed by the DMT test condition, lasting 5-15 min. When subjects recovered, a video recording of their subjective experience was made. A recovery post-DMT reading was made at 10-20 min. A statistical comparison (Paired t-tests, correlated samples) of absolute power values for all EEG bands between baseline vs. DMT tests and post recovery conditions was computed for all subjects. This study is also neurophenomenological in character, as the DMT induced profound alterations in consciousness were correlated with shifts in the QEEG metrics analysed. Furthermore, the time course and intensity of the subjective experience correlated with the magnitude of the observed QEEG effects.

Results. A Statistical comparison of absolute power for all bands (mean +- SEM, *P* values two-tailed) yielded, for *N, N*-DMT: Delta (22.19 +-3.46 vs 18.48 +-3.6, *N*=18, N.S); Theta (17.97 +-3.54 vs 10.06 +-1.05 , *P*<.018, *N*=17); Alpha (133.65 +-27.06 vs 17.18 +-4.37, *P*<.0012, *N*=17); Beta1 (16.23+-4.16 vs 5.63+-1.9, *P*<.002, *N*=17); Beta2 (5.26+-0.66 vs 2.73 +- 0.4, *P*<.0001, *N*=16); Beta3 (2.63 +- 0.48 vs 2.21 +-0.33, *P*<.013, *N*=6). For HighBeta increase (2.74+-0.8 vs 4.53+-1.13, *P*<.05, *N*=10). The most consistent effect was a robust suppression of Alpha, obtained for both *N, N*-DMT and 5-MeO-DMT (Alpha decreased ave. 72%, *N*=11). During recovery, some subjects showed Alpha rebound as increased power post DMT (ave. 43% incr., *P*<.0107, *N*=9). A DMT induced reversible shift in FFT spectra from Alpha to Theta was recorded in some subjects. Also, very significant hypercoherence in all bands (especially Beta) was measured in most subjects. Gamma power (38-40 Hz) was also significantly increased during *N, N*-DMT (*N* = 16/20 subjects) and also for 5-MeO-DMT (*N*=10/11 subjects). Full to partial reversibility of the effects was measured typically at 15-20 min. post DMT. At this time, rebound Alpha increase was correlated with a report of "being in peace, a calmed state of wellbeing." A partial report appeared in Acosta-Urquidi, J. *Cosmos and History* 11(2), 2015. The significance of these findings is discussed with reference to DMT receptor pharmacology mechanisms involving serotonergic and Sigma-1 receptors. Current research is reporting promising anti-inflammatory, neuroprotective and effectiveness in the treatment of addiction disorders.

The Optimal Data for a Science of Consciousness: A Reply to Charles Tart [SSE]

J. Kenneth Arnette

Department of Philosophy, University of Memphis, Memphis, TN, Email: jkrnette@memphis.edu

An ever-increasing amount of empirical data from multiple lines of investigation is converging to demonstrate that the philosophy of materialism is inadequate and wrong. Parapsychologist Charles Tart (in *The End of Materialism*, 2009) has identified ten such lines, or phenomena, that form this convergence. He has divided these lines into a “Big Five” (including telepathy, clairvoyance, and other psi phenomena) and a “Little Five” (including the near-death experience, after-death communications, and other subjective phenomena). He favors the Big Five because they are amenable to laboratory research that conforms to standard science and thus are “objective.” He considers the Little Five to be “the many maybes” because of their subjectivity. I hold that Tart has wrongly reversed the importance of these two types of phenomenon. I argue that: (1) the ultimate proof that materialism is wrong is the survival of human consciousness after physical death; (2) consciousness is inherently subjective, so the optimal data regarding consciousness are experiential—or subjective—data, and especially data from anomalous experiences; (3) subjective data may be made more objective through intersubjective agreement; (4) the most relevant subjective data are death-related; (5) application of simple symbolic logic demonstrates that only this last kind of data can clearly demonstrate the falsity of materialism; (6) the existence of veridical (independently verifiable) information gained by experiencers of the Little Five serves to verify the reality of their experiences; and therefore (7) death-related anomalous subjective experiences that demonstrate intersubjective agreement and veridical information are the best source of data that disprove materialism. Tart’s approach retains the classical scientific methods of investigation, and thus supports the status-quo methodology and its concomitant limitations and problems. I hold instead that the “Big Three”—the near-death experience, after-death communications, and reincarnation—are the most important phenomena, and that most of these experiences occur outside a laboratory environment. I am therefore calling for a revolution in science—led by the investigation of consciousness and its survival—that will release science from its self-imposed relegation to the laboratory and instead will fully embrace human experience as valid data in the war against materialism.

A Review of PSI Activity in the DNA [PA]

Bradley Y. Bartholomew

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This paper presents a general summary of psi experiments conducted with the DNA in the latter decades of the 20th Century particularly at the HeartMath Institute (HMI) in Boulder Creek, CA, by Dr. Glen Rein, relating to the ability of “healers” to affect the conformation of the DNA molecule simply by concentrating their mental and emotional powers of the brain and heart. In particular it was found that the intentional states of healers could change the molecular structure of water which in turn could alter the conformation of the DNA. Further to these findings about the relationship between water and DNA, this paper discusses a journal article by a team led by 2008 Nobel Prize for Medicine recipient Dr. Luc Montagnier, which describes an electromagnetic field in the DNA that is capable of being projected into water and which contains all the information of its sequence of bases in memory, and is capable of reconstructing itself into the identical chemical molecule; provided the ambient electromagnetic environment in the water is maintained at a frequency of 7Hz which is in the same frequency window as Alpha rhythm brainwaves and the natural Schumann resonance of the Earth. This paper goes on to discuss new research in optogenetics where human beings have been able to modify gene expression with their Alpha rhythm and Mu rhythm brainwaves in the same frequency window as the Schumann resonance, simply by adopting different mental states, and takes note of the fact that these same Alpha and mu rhythms are the main conduit frequency for Brain Computer Interfaces (BCIs). The paper presents a general summary of earlier research relating to psi phenomena resulting from interference of brainwaves with the Schumann resonance, and proposes a novel explanation for the recently discovered “mirror neurons” phenomena where the Mu rhythm brainwaves emanating from the motor cortex are able to interfere constructively or destructively with the Schumann resonance of same frequency and thus bring about mental telepathic as well as psychokinesis happenings.

Neurocosmology, Unity Consciousness and Mysphyts: Realizing the True Nature of Space-time as a Factor in Both the Evolution of Consciousness and Physics [SSE]

James E. Beichler*¹ & C. Sperry Andrews²

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2. Human Connection Institute, Berkeley, CA

Over the past few decades, neuroscience and physics have become more sophisticated. A newly developed theoretical model shows how awareness of consciousness is related to the inner workings of a simple neural net. It predicts changes in evolution theory that prove important for the human species as a whole. Our normal five senses evolved from our common experiences within a four-dimensional space-time, so it only stands to reason that we would be evolving a sixth sense if a still higher embedding dimension of space-time existed. Now, there is sufficient evidence that this sixth sense does exist. Yet, no one has adequately determined exactly what it is and how it works. As scientists begin to understand the physics of this higher-dimensional embedding space, we will become directly aware of our actions within that higher dimension just as NDE experiencers and mystically enlightened individuals directly experience the higher embedding dimension without knowing that it is a higher embedding dimension of space. This would cause new neural pathways to form within the human brain for just that purpose. These neural pathways would contrast with older stored thought patterns, creating mental chaos in the brain. So a physical change in our neural nets of this magnitude should create a new Homo species as well as a third scientific revolution, both based upon a species-wide change in level of consciousness comparable to that which distinguished *Homo sapiens* from its predecessors. When *Homo sapiens* emerged over 100,000 years ago, it did so with a new capacity to develop individual human consciousnesses and completely utilize our commonly perceived four-dimensional space-time environment. At that time, we started to recognize that our reality stretched beyond the limits of our sight and then we began to conceptualize the flow of time, at first within (the Greek Natural Philosophers) and then relative to (Einstein in 1905) the external material world. For the last century, we have been fulfilling our mental destiny of realizing the potentials of a four-dimensional space-time and we are now beginning to realize a higher-dimensional embedding space and an even grander universe than we have ever suspected—wherein there is no difference between mind and matter. So the evolutionary leap that we will soon experience is consciousness (top-down) driven, rather than (bottom-up) Darwinian or genetically driven, resulting in the eventual replacement of *Homo sapiens* by what we choose to call *Homo paradoxus*. A “neurocosmology” appears to be emerging as the bridge between mind and matter.

Sperry Andrews and I are choosing to support the emergence of this next level of complexity by being what I, Jim, am calling MYSPHYTs (pronounced misfit, from mystical physicist). A mysphyt is a theoretical scientist who has realized how to utilize his or her Buddha nature, as well as his or her advanced scientific knowledge, to discover fresh new ways of viewing reality. Just as a simple neural net rewrites or reorganizes its structure, depending on new learning or new experience (called plasticity), we submit that it's come time to train ourselves as mysphyts, to comprehend and even experience a higher dimensional reality (via NDEs, group enlightenment and other means). We can prepare as many people as possible for this eventuality by realizing our “Collective Self” through the practice of “unity consciousness” (Sperry's path). Our strategy is to popularly prepare as many people as possible, and maybe even everyone, to increase the probability that this leap occurs before we destroy ourselves completely.

Development of a Comprehensive Survey of Secular American Mediums [SSE]

Julie Beischel

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Mediumship research at the Windbridge Institute includes a three-tiered approach to investigations of secular, American mediums. The Information, Operation, and Application research programs examine (i) the accuracy of the information mediums report; (ii) the mediums' phenomenology, physiology, and psychology, and (iii) the potential social applications of mediumship readings, respectively. As part of the Operation research program, the current study develops and employs web-based surveys in order to gather novel data potentially identifying of unique demographic, cognitive, psychological, physiological, familial, cultural, and phenomenological characteristics of self-identifying

mediums in the US. Surveys regarding anomalous experiences and beliefs have regularly been an important research methodology in parapsychology and associated psychological, sociological, etc., fields. The findings from previous survey research with mediums can only be generalized to the specific, organized, belief system- and geographically-associated populations under examination. The subset of American mediums not associated with any formal national organization and who hold no organized belief system may potentially serve as the majority in the US but have not, to our knowledge, been specifically assessed using instruments designed to gather information about their general demographics and other characteristics. The study consists of two parts. In Part 1, responses to standardized questionnaires are collected from both medium and non-medium US Internet users. Basic sociodemographic data as well as information about respondents' major personality characteristics; psychological well-being; compassion; spiritual experiences; fear of death; and childhood abuse and trauma is collected using previously published standardized surveys. In addition, questionnaires were created to assess physical health; end-of-life and after death communication experiences; and awareness and experience of psi-related phenomena. In Part 2, the mediums who participated in Part 1 are invited to complete additional survey materials requesting specific information about their mediumistic experiences. That survey includes open-ended and forced choice elements assessing aspects of the respondents' history, practices, and experiences. Part 2 also includes open-ended items inquiring about experiences during communication with the deceased. This text collected describing the mediums' phenomenology in their own words will be analyzed using Linguistic Inquiry and Word Count (LIWC) text analysis software which calculates the degree to which 80 different psychologically meaningful categories of words including positive/negative emotions, self-references, causal words, attentional focus, emotionality, social relationships including honesty and deception, and thinking styles are used in a given text. Findings from this study will elucidate potentially unique characteristics of secular American mediums not heretofore examined. The study will also provide the groundwork for more detailed hypotheses and further studies of more specific aspects of mediumship in this growing population; this may include future studies of the potential psychological, biological, and/or neurophysiological correlates of the mediumistic experience. This research is made possible by Bial Foundation Bursary 372/14.

Leaving the Critics Behind: Transitioning to Pragmatic Applications of Scientific Anomalies [SSE]

William Bengston (SSE PRESIDENTIAL ADDRESS)

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Institutionalized scientific resistance to novel ideas has been thoroughly discussed and documented. This has been most parsimoniously illustrated by Plank's infamous dictum that "A new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die, and a new generation grows up that is familiar with it." In more sociological terms, the untested "background assumptions" (Gouldner) of a culture change to more resonantly accommodate the new ideas.

Anecdotally, it appears as if a generational shift may be in progress, whereby the intractable knee jerk hostile reactions to their subject matter that so many in the SSE and PA have experienced are softening in the general culture. And while the academy may indeed remain the most conservative, lay persons and industry may have taken the lead in openness to innovative exploration.

Of course, it's possible that the academy may also finally be poised to shift by "advancing one funeral at a time" (Planck). Intellectual capital, though, is not just limited to abstract ideas, but also has practical applications. This can be illustrated in the area of anomalous healing.

In many in vivo and in vitro experiments over the course of 35 years, I have demonstrated robust and reliable data that demonstrates beyond reasonable doubt that "healing" can happen, that dose is a factor, that healing proceeds non-linearly, that it is not fundamentally "energy" but "information" that is at work, that it is not correlated to a particular state of mind but functions more as an autonomic response to the need of the healee, to name but a few findings. I'm also working on the non-psychological components of placebo explained as an actual resonant bond between physically separated groups.

And while the list of basic research questions regarding anomalous healing remains inexhaustible, my current research also includes the question of whether the healing effect can be "captured" and "reproduced" without the healer. In other words, can we store and independently deliver healing in a practical fashion? Selected current research on whether biological systems can recognize "stored" healing will be presented, along with work designed to test whether "recordings" of healing potential can bring about healing outcomes.

Large Scale Collaborative and Adversarial Replication Projects of Controversial Scientific Findings [SSE]

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Only about 30% of “well-established” findings in psychology appear to be replicable. This result and earlier findings that suggest that a substantial fraction of psychological researchers use “questionable research practices” (QRPs) has resulted in a crisis in experimental psychology.

Where “replication” was generally seen as less “creative” and less “informative,” the crisis has upgraded the status of replication studies. Rather than running a single replication study, many efforts in psychology are under way to run a number of identical replications more or less simultaneously. These joint projects assess the replication rate of the original study and challenge findings. In some sense a considerable fraction of the findings in experimental psychology and especially in social psychology and neuropsychology might now be labeled as “controversial.”

In spite of meta-analytic results, the controversial findings in experimental parapsychology are generally also considered to have insufficient replication rates. Recent simulations of QRPs that potentially could have contributed to the meta-analytic results of Ganzfeld-telepathy experiments show that indeed the reported mean effect size might be questioned.

Could large scale replication efforts like those that are currently becoming popular in psychology also be used to settle the dispute around the findings in the more controversial fields like parapsychology? We discuss a number of conditions that have to be fulfilled. One condition is that such a project should only consist of direct (identical) replications with a simple formal hypothesis where the protocol is such that QRPs are less probable.

Further, such a project should culminate in an adversarial collaboration where some of the participating labs and supervisors are skeptical toward the controversial result that is tested. Preferably, a few skeptics should also be part of the project’s oversight committee.

Four large scale replication efforts planned for the next 4-5 years will be presented. Three of these are organized by the University of Groningen and will have between 5 and 10 participating academic laboratories in Europe. The last of these three large scale replication efforts will be the crucial adversarial replication project. Another other large scale replication will be organized by the University of Freiburg.

Details of these projects, like for instance subject and experimenter selection, the role of preregistration, the software that prevents QRPs, the core task and the psi theories that are at stake, will be presented.

Applying Machine Learning to Psi Research: An Example of Using a Deep Machine Learning Image Classifier to Analyze Seemingly Random Visualized FieldREG Data Collected during Sessions with Meditators [SSE]

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With the advent of Big Data (data sets so large or complex that they render traditional information technology tools and techniques ineffective), data analysts have turned to Artificial Intelligence and machine learning in order to find meaning in and make predictions from data. Machine learning algorithms iteratively learn from data, allowing computers to find connections in data without the need for them to be explicitly programmed. The past few years have brought major advancements to the field of machine learning, including new developments in deep learning (the implementation of complex, multilayered neural networks) and advanced applications such as natural language processing, computer vision, medical diagnosis, user preferences, and image recognition and feature extraction. In addition, many of the companies and universities that are driving this development effort have started to release their machine learning tools as either low cost or open source software. Google, Inc.’s TensorFlow, IBM’s Watson, and Microsoft’s Computational Network Toolkit along with a wide range of powerful APIs (application program interfaces) now make machine learning highly accessible. With these new tools come new potential methods for examining psi-related data sets. In a recent exploratory study, machine vision recognition software was used to classify and extract details from a set of images that were created from random event generator (REG) data that were collected from 10 sessions in which meditators focused on feelings of “Love” (five sessions) and “Hate” (five sessions). The data, collected using FieldREG software (Psyleron, Inc.), were then processed through Windbridge Institute custom visualization software that converted them into complex 3D images. Traditionally, FieldREG data are analyzed by looking for deviations from

randomness; however, the current exploratory study employed image concept recognition software (Clarifai, Inc.) to classify the images based on their visual attributes. While there was considerable overlap in the resulting classifications, the software successfully grouped four of the five "Hate" images together with a unique descriptor not found in any of the other images, nor previously considered by the investigator. What is notable here is that the software made this test possible with just a few hours of investigator time in contrast to previous image classification approaches which would have required a specifically defined classification scale and a large number of research participants. The results of this exploratory study demonstrate the potential value in the application of machine learning to visual data sets both in terms of time/cost efficiency but also in potential hypothesis generation. As machine learning systems can quickly find connections in data that humans cannot, applying them to psi datasets may produce new, testable hypotheses which could profoundly move the field forward.

Exploratory Study of Physiological Connectedness among Twins in Relation to Attachment [PA]

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Parapsychological research into distant interactions between individuals seems to indicate that the bond between sender and receiver is important. The present study was designed to investigate the ostensible relationship between telepathy and attachment between twins. By applying the concept of attachment from developmental psychology, this becomes the second in our series of studies in parapsychology to explore the degree of attachment between twins as a potential dependent variable relating to their apparent telepathic connection. At the current stage of evaluating a new methodology, we report the design and findings of this exploratory study. From an initial pool of forty pairs of twins, six pairs of identical and one pair of non-identical twins were selected on the basis of their responses to the Exceptional Experiences Questionnaire and on the availability of both twins to take part in the study. The test procedure required each of them to alternate in the role of sender in which they were exposed to a shock or surprise stimuli and in the role of receiver in which they were physiologically monitored for their electrodermal responses (EDR). Senders were presented with altogether five stimuli, one stimulus during each of the five trials per twin run. For each trial, the stimulus was presented during a 30 second period randomly chosen from eight possible such epochs within a four-minute trial. With a further 30 seconds added to establish baselines before and after each trial, this meant each trial would last five minutes. Graphs from 53 of the useable trials belonging to 7 pairs of twins were analyzed by the lead researcher (GB), who was blind to the time epochs in which the stimuli had been presented by the researcher working with the senders (AP). The task for the lead researcher was to identify a peak of the graph in the receiver's reaction that might approximately correspond to the midpoint in the period that the stimulus had been presented to the sender. In 12 trials out of 53, these identifications corresponded to the actual exposure period for the shock or surprise stimulus – constituting so-called "hits", compared to the $MCE = 6.625$ and was significant, $p = .043$ (one-tailed). Three out of these twelve correct placements were contributed by just one of the twins. The attachment data that twins contributed via the EEQ questionnaire indicated that all the twins in the current study seemed to experience similar high levels of attachment. This consistency in strong and close relationships meant of course there was a lack of variance as concerns the hypothesis that attachment would predict the scores. The results of the Experiences in Close Relationships – Revised (ECR) indicated that all the twins had very low scores on attachment-related anxiety and avoidance in their relationships. The profiles of twins having many hits in the telepathy experiment as regards any aspects of attachment were not significantly different from those of the others. The data provides justification for a major study using this methodology with selected pairs of twins. Some major improvements in the design were suggested. The synchronous monitoring of the electrodermal activity for the sender will later be carried out, giving possibilities to give a precise record of the timing and the effect of the shock stimuli.

An Academic in UFOland: The Search for the Mysterious Dr. Morin [SSE]

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An Academic in UFOland: The Search for the Mysterious Dr. Morin and other facts, fictions, fabrications, and fantasies found during a two-year long critical contextual analysis of, and attempt to provide citations to and references for, 30 hours of testimony given under oath to six former Members of the United States Congress during the five-day 2013 Washington DC-based Citizen Hearing on Disclosure.

In late April and early May 2013 five former United States Representatives and one former United States Senator, heard the testimony of 43 witnesses from ten different nations regarding human contact with apparent non-human created, extraterrestrial technology. Witnesses included officials from the Federal Aviation Administration, a former Canadian Minister of Defence, pilots, military radar operators, Roswell's Dr. Edgar Mitchell, Dr. Jesse Marcel, MD, Jesse Marcel III, Denice Marcel, Don Schmitt, Stan Friedman, Kevin Randle, and various other researchers. Approximately 250,000 words of testimony were recorded.

Following the production of a verbatim "Congressional-Record-like" transcript of the Hearing, each statement of fact presented by each witness was either verified with citation to an original source and/or an annotated explication of the attempts to verify the fact was created. Testimony was subjected to verifying analysis, including corrections of understandable misstatements of fact, as well as citations to sources which either corroborate evidence presented and/or explicate apparent fraudulent, fabricated or otherwise unverifiable statements provided witnesses whose testimony, given under oath, is then of questionable credibility.

Dr. Buchman's presentation will provide video highlights from the Hearing, a critical analysis of the relative veracity of select portions of the testimony given and the inside story of how the Hearings came to be.

"The person who was chiefly responsible for this Citizen Hearing Committee coming together, which I can assure you in my wildest dreams I did not think possible . . . was Dr. Joseph Buchman." --- Stephen Bassett, Executive Director, Paradigm Research Group, Washington DC. 3 May 2013.

Mental Weather Influence: A Pilot Test Using Atmospheric Turbulence [SSE]

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This presentation will introduce a new method for testing psychokinetic effects from human intention using weather observations, and will discuss preliminary results of an ongoing pilot test using this approach with atmospheric turbulence. The idea of humans attempting to influence weather using solely mental intentions has hardly been studied scientifically despite the practice being prominent in many cultures over thousands of years. Since atmospheric phenomena consists of complex interaction between a wide array of spatial scales, learning about if and how mental intentions can interact with the atmosphere may shed light on numerous questions about the full capabilities of consciousness, which in turn may lead us closer to answers to the source of psi problem and other challenging mind-body questions.

An experiment has been set up in August 2015 with aim to help the California Drought, which remains ongoing. A Campbell 3D Sonic Anemometer (to measure wind in all 3 spatial components) is installed on a 10 meter tower over bare ground in Davis, CA. Participation is done remotely over the internet, where subjects are cued to invite an increase in vertical wind at the measurement site, since rising air is a critical precursor to precipitation. An experimental session consists of several 5-minute epochs, alternating between the participant inviting rising air (during which experimental data is collected) and the participant relaxing (during which control data is collected). Participants have the choice of completing a 5, 15, or 25 minute session, which would contribute 1, 2, and 3 experimental epochs, respectively (a final "control" epoch is randomly placed either before or after each session so that the amount of control data matches the amount of experimental data). It is hypothesized that vertical wind measurements will be larger in magnitude during the experimental epochs. It was also speculated that if the primary hypothesis were not supported, vertical winds may be larger in magnitude during a 30 minute period before and after each session as well as the sessions themselves, compared to a long-term average vertical wind measurement.

As of March 2016, 39 participants contributed a total of 110 sessions. The primary hypothesis that 5-minute experimental epochs would produce larger vertical wind measurements than control epochs was not supported ($z=-$

0.063, $p=0.525$, one-tailed), though a detailed analysis to scan for potentially talented individuals remains to be performed. The speculation that mental influence may occur on longer timescales was supported when comparing data within 30 minutes of each session to all 5-minute vertical wind averages collected since August 2015 ($z=3.259$, $p=5.6 \times 10^{-4}$, one-tailed). This effect size corresponds to approximately 1 centimeter per second of rising air, which is above the long-term average of zero vertical wind. However, caution should be exercised as this speculation was not part of the primary hypothesis, and it is also possible that 5-minute average vertical wind samples are not truly independent. Overall, more data needs to be collected to draw thorough conclusions, but our hope is to have shed light on a new and unexplored area of psi research.

Making UFO Data Useful for Scientific Research [SSE]

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Unidentified flying objects (UFOs) have been of considerable interest throughout the world for over half a century, especially with the prospect that UFOs defying worldly explanation would most likely be associated with highly advanced extraterrestrials (ETs), which, if confirmed, would undoubtedly have major implications on society. Yet, in order to confirm or deny this ET hypothesis, or a non-ET hypothesis involving a highly strange physical phenomenon, UFO data needs to be useful for scientific research. The usefulness of such data has been criticized by some scientists, such as Jacques Vallee, PhD, who has done prominent work on unidentified aerial phenomena and computer science. And this relates to the increasing prominence of “big data,” since various UFO databases exhibit the key characteristics of big data: high volume, variety, and velocity. The main purpose of this paper is to help make UFO data useful for scientific research through an approach that considers a layered data model by Jacques Vallee and Eric Davis in studying anomalous phenomenon, in conjunction with networked storage and analytical processes associated with big data. A background on UFO data is provided beforehand to foster an introductory understanding of the matter, along with cases of existing UFO data and its limitations.

Visual Categorization of Images of Facial Photographs by Intuitive Individuals [PA]

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Some individuals claim to be adept at gauging mortality based on a glance at a person's photograph. To test this claim, we invited 12 such individuals to see if they could determine if a person was alive or dead based solely on a brief examination of photos of faces. All photos used in the experiment were transformed into a uniform gray scale and then counterbalanced across eight categories: gender, age, gaze direction, glasses, head position, smile, hair color, and image resolution. Participants examined 404 photographs displayed on a computer monitor, one photo at a time, each shown for a maximum of 8 seconds. Half of the individuals in the photos were deceased, and half were alive at the time the experiment was conducted. Participants were asked to press a button if they thought the person in a photo was alive or deceased. Overall mean accuracy on this task was 53.8%, where 50% was expected by chance ($p < 0.004$, two-tail). Statistically significant accuracy was independently obtained in 5 of the 12 participants. We also collected 32-channel electrophysiological recordings and observed a robust difference between images of deceased individuals correctly vs. incorrectly classified in the early event related potential at 100 ms post-stimulus onset. Our results support claims of individuals who report that some as-yet unknown features of the face predict mortality. The results are also compatible with claims about clairvoyance.

Using Parapsychology to Test Physical Hypotheses [SSE]

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A frequently invoked objection to parapsychological observations of presentiment or precognition is the alleged impossibility of causality violation. The strongest objection of this sort points out that if information can flow from the future to the past, it seems to be possible to set up a sequence of events that is inconsistent with itself, i.e., a “time paradox” in which one or more events happen if and only if they do not happen. In the 1990s groundbreaking work by Echeverria, Klinkhammer, and Thorne, analyzing ballistic trajectories in the presence of time-traversing wormholes, demonstrated that even granted the ability not merely to signal but to physically enter the past, it is not possible to create a self-contradictory sequence of events; one of several closely related but non-contradictory sequences will happen instead.

Earlier work (2011) by the current author pointed to the experiments of Bem (also published 2011) as a possible direct test of the EKT mechanism for the avoidance of paradox in the presence of retrocausal information. A weakness of that analysis was that it addressed only one of Bem’s experimental genres (precognitive approach and avoidance). With the recent (2016) publication of a meta-analysis including 81 independent replications of Bem’s original nine experiments, it seems worthwhile to expand the previous work to include methods of making an EKT test with Bem’s other genres as well.

The precognitive approach and avoidance experiment, as the name implies, involves precognition; it may be unconscious, but to be detected it must be manifested in the experiment as conscious choices of targets. Bem’s other experiments, on the other hand, use time-reversed versions of completely unconscious psychological processes (priming, habituation, and facilitation of recall). These remove the complication of the study participant’s conscious decisions from the analysis.

A test of the EKT mechanism in a paradigm involving retrocausal information flow requires that the standard presentiment experiment be clandestinely interrupted, in a randomly-chosen subset of trials, by an attempted paradoxical setup in which accurate transmission of retrocausal information becomes self-contradictory. If the EKT mechanism is real, the signature of its operation will be a characteristic distortion of the experimental statistics. Reversed priming and reversed habituation experiments can both be modified to provide an experimental test of this prediction. While retroactive facilitation of recall can in principle be modified in a similar way, its structure necessarily limits the rate at which data points can be accumulated on the EKT hypothesis, to such an extent that collecting enough data for an EKT test would require an impractically large experiment.

The ability to test a physical hypothesis of profound importance with a relatively simple parapsychological experiment would seem to provide an incentive for physicists to pursue or support such experiments.

Is the Soul Obsolete? [SSE]

Larry Dossey (SSE INVITED ADDRESS)

Ian Stevenson, one of the founders of the Society for Scientific Exploration, observed, “It has been wisely said that the question of a life after death is the most important question that a scientist — or anyone — can ask.” In spite of the fact that this question has indeed been asked for millennia and is still unresolved, Stevenson was not deterred, stating, “I believe it is better to learn what is probable about important matters than to be certain about trivial ones.”

Concern about the possible survival of bodily death has been a fascination of parapsychology researchers in the US since the founding of the American Society for Psychical Research in 1885, and an interest of the Society for Scientific Exploration since its founding in 1982. Research has involved approaches such as near-death and out-of-body experiences, mediumistic investigations, children who report previous lives, evidence of global consciousness, and apparently nonlocal manifestations of consciousness such as telepathy, clairvoyance, psychokinesis and precognition.

In this presentation, physician Larry Dossey will explore the possibility of survival by examining the inadequacy of a materialist approach to consciousness, which forbids the possibility of survival of mind. He will show that a nonlocal model of consciousness implies infinitude in space (omnipresence) and time (eternity and immortality) for some aspect of who we are; and, if unbounded in space and time, that consciousness must in some sense be unitary and collective — the ancient vision of the Universal or One Mind.

An omnipresent, eternal, and unitary feature of consciousness resembles the concept of the soul in many spiritual traditions throughout human history. Generally considered a religious and faith-based idea, it is ironic that empirical science is producing evidence that is favorable toward such a view. Thus, the concept of soul is decidedly /not/ obsolete, but may be more grounded than ever.

Dr. Dossey will discuss the ethical implications of a unitary, collective aspect of consciousness for the many global challenges that currently confront humanity, and why parapsychology may be poised to make a crucial contribution to human survival.

Antibacterial Clays [SSE]

Dennis D. Eberl*¹ & Lynda B. Williams²

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In 2002, Line Brunet de Courssou, a philanthropist working in Cote d'Ivoire, Africa, observed that French Green clays killed Buruli ulcer. This infection, by *Mycobacterium ulcerans*, is a flesh-eating disease that attacks the subcutaneous lipids causing flesh removal over large areas of the body. Courssou had presented to the World Health Organization (WHO), photo-documentation of her treatment of over a hundred people with the disease. Using daily applications of the green clay poultice (mud), she healed infections that did not respond to any known antibiotic, and normally required excision or amputation.

Our decade of research on clays that kill human pathogens, including antibiotic resistant strains such as methicillin resistant *S. aureus* (MRSA), has since documented their common characteristics. Having tested dozens of clays worldwide, similar to the French green clay, about 10% have shown antibacterial effects on model Gram positive and Gram negative pathogens. Common among the antibacterial clays are that they each contain phases with reduced iron (e.g., pyrite, magnetite, jarosite) and phyllosilicates including dominantly illite-smectite. However, the mineralogy alone does not define antibacterial clay. Another common characteristic is the dominance of nanometric particle sizes. Testing various size fractions of clay has shown that the finest fraction (<0.1µm) is antibacterial, whereas the coarser fractions are not. Furthermore, oxidation of the clay removes the antibacterial effect.

Critically important is the role of the clay mineral surface in buffering the water pH to conditions <4 or >10, where Al and Fe dissolve from various minerals in the clay. Because of the enormous surface area of expandable clays (smectites), metals adsorb to their interlayer surfaces. When the clays are taken out of their natural environment and mixed with de-ionized water for a medicinal poultice, cation exchange and mineral dissolution releases reduced metals that become oxidized, generating hydroxyl radicals that damage organic compounds in the bacterial cell and cause metabolic malfunction in the bacteria. Different modes of action have been documented for different clay mineralogies, but in each case the role of the clay is either to flood pathogens with toxic metals (e.g., Fe, Al), or to rob bacteria of essential nutrients (Ca, Mg, P). Lessons learned will drive the design of new treatments for antibiotic resistant bacteria.

Free samples of one of the experimental clays will be available at the meeting. If you decide to experiment with the clay, please send a detailed description of (1) the medical problem, (2) the method of clay use, and (3) the results of the treatment to: antibacterialclay@gmail.com .

Spiritually Transformative Experiences of Claimant Mediums [PA]

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This qualitative study was designed to establish a comprehensive understanding of the initial experience associated with the spiritual transformation process of inexperienced claimant mediums, commonly described as individuals who allegedly have regular communications with the deceased. Spiritually Transformative Experiences are commonly thought to be a type of transformation and expansion of consciousness. Often referred to as psychic openings, these experiences have occasionally been described as being startling or traumatic, sometimes creating a loss of contact with consensual reality that may possibly lead to psychiatric misdiagnosis in the individual's search for an understanding of the experience. Consequently, the desired outcome of this study was to establish a better understanding of the initial psychic opening and propose a more reasoned approach to its acknowledgement and development by the scientific community. A five-part review of the background literature in the field of study focused on a history of the practice of mediumship, the proposed psycho-spiritual emergence process, the child's perspective of his or her spiritual development process via an archival biographical analysis of the psychic opening, the subsequent development of the medium's purported abilities, and a review of recent process-oriented mediumship studies. Six participants for this study were selected from a group of certified research mediums pre-screened for their abilities by the Windbridge Institute for Applied Research in Human Potential in Tucson, Arizona. A semi-structured questionnaire in compliance with Saybrook Institutional Review Board oral history specifications was utilized as the primary research instrument to provide biographical accountability. However, additional written documentation of the experience was included when appropriate to further clarify the psychological impact of the psychic opening. A thematic analysis of the data revealed that the participants' transformative experiences consist of a sequence of developmental experiences that include an encounter with a single or multiple spiritual entities that one may or may not consider as spirit guides. Depending upon the age of the participant and the existing social support system at the time of the initial experience, the spiritual encounter can be either fearfully traumatic or merely an anomalistic variation of the individual's concept of reality.

The Dialogued Capture: Analysis and Application of Roe & Roxburgh's Hierarchical Model of Cold Reading Strategies during Psychic Readings [PA]

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A surprisingly high proportion of the population have attended readings by professional "psychics" or "mediums," but this situation has received little attention from psychologists (Wooffitt, 2006; Roe, 1995). Some authors have considered parallels between the psychic reading and more orthodox forms of psychotherapy, even calling it a "poor man's psychoanalysis" (Miller, 1995). What could these situations have in common? An implicit consensus reduced the dialogue between the pseudopsychic and its client to a "cold reading" or a "dialogued capture" as coined by the French sociologist Bertrand Méheust (2004), which didn't involve any paranormal process of information acquisition. But these allusions to "cold reading" tend to be vague and inconsistent, and such an application of the term will cause it to lose any explanatory power it has. According to psychologist Ray Hyman (1981): "The cold reading employs the dynamics of the dyadic relationship between psychic and client to develop a sketch that is tailored to the client. The reader employs shrewd observation, nonverbal and verbal feedback from the client, and the client's active cooperation to create a description that the client is sure penetrates to the core of his or her psyche." There are also clear indications that the cold reading "process" actually consists of a number of discrete and independent strategies. Psychologists Chris Roe and Elizabeth Roxburgh (2013) have developed a hierarchical model of all reading strategies based on the amount of interaction between the psychic and the sitter and the generality of the information. Their model gathers both declarative (barnum statements, specific trivia, specific generalizations, pigeon holing, warm reading, fishings, "true" cold reading) and manipulative strategies (setting the stage, try-ons, Procrustean effect reinforcements, hot reading, misrecall induced by diversion, back-channel behaviors). The aim of our paper is to describe this model and its limits, to suggest some refinements, and to apply it through the dialogue analysis of a psychic reading. Hyman (1981) notes that although

it is unlikely that the pseudopsychic reading will generate information that is truly new to the client, it may still have utility for him or her as a therapeutic, quasi-counseling event. As such, its analysis can help us better understand the development of an alliance in verbal psychotherapies.

Fight AND Flight: Toward a Psychodynamic Model of Near-death Experiences [PA]

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Historically, NDEs have been the subject of several psychological or psychoanalytic interpretations. However, they are now in competition with neuroscientific and medical approaches. Since Heim's first observations, NDEs were discussed in the general framework of clinical practice and trauma by philosophers such as Victor Egger and by psychoanalysts such as Oskar Pfister and Sandor Ferenczi. Surprisingly, until the work of Russell Noyes and his collaborators in the 1970s, the findings focused on elements that were no longer phenomenologically in line with Moody's work. OBE, panoramic memory, elation, and transcendental elements were in fact narrated by a portion of the experiments; yet, a majority claimed to have first felt a form of hyper-alertness and automatism and to have been capable of acrobatic and intellectual performances thereby facilitating their own life-saving rescue efforts. Heim's own testimony describes such efforts. In an attempt to build a psychodynamic model to reconcile these different aspects without falling into a form of reductionism, we begin with a diachronic exploration of the literature regarding the rescue actions during NDE. This process indicates both the traditional description of passing into a disembodied consciousness while, simultaneously, encountering a new concept we call hyper-embodied consciousness. Noyes et al. interpreted this process as an almost universal reaction to life-threatening danger and a basic adaptive pattern of the nervous system akin to Cannon's fight-or-flight reactions. To integrate their ideas in a new psychodynamic model, the second part of this article discusses in a synchronic axis both old and new literature on NDEs, focusing on several conceptual issues: the psychological versus biological triggers of NDEs, the notion of "Fear-Death Experiences"; the description of the disjunction between a disembodied and a hyper-embodied consciousness; the complementarity of the processes of focalization ("fight") and "distanciation" ("flight") through the contribution of the Bergsonian theory of the body-mind relationship; and the psychodynamic functions and nature of the survival scenario experienced through the "distanciation". We propose to reconsider the NDEs as part of a more general process: an adaptive psychosomatic response to the perception of imminent death, while discussing a case of drowning.

NAET - Reprogramming the Body to Eliminate Sensitivities NAET's Effectiveness in the Treatment of Autism [SSE]

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NAET (Nambudripad's Allergy Elimination Technique), developed in 1983 by Dr. Devi Nambudripad M.D., D.C., L.Ac, Ph.D has demonstrated its effectiveness in the elimination of allergies, intolerances and a long list of conditions related to an abnormal reaction of sensitivity of the body in front of specific substances. Hundreds of thousands of people have been treated since then and have claimed that their allergy to pollens or animal hair is gone: no more runny noses, sneezing, asthma, or anaphylactic reactions to peanuts, rashes or hives.

NAET is a holistic method, based upon the principles of traditional Chinese medicine, that combines acupuncture, kinesiology, allopathy, chiropractic and nutrition.

The NAET hypothesis is that the presence of an opposing electromagnetic field from a substance may adversely affect the energy of the human body. This disturbance in the energy pathways leads to the symptoms associated with diseases or allergic processes. When the person is in the presence of the allergen, stimulation of areas on the back is thought to reprogram the energy pathways to tolerate the allergen and prevent allergic reactions.

Expressing it in different terms, the presence of information perceived as a threat by the system (human body) produces blockages in its energy flow. These disturbances will start different physiologic defense responses like: allergies, intolerances, pain, inflammation and self-immune disorders. When blockages are removed from the system, in the presence of the information that is causing them, and when some simple rules are followed, the result is that information is no longer perceived as a threat by the body. Consequently its presence will no longer produce blockages and then the system will not start physiological defense. By adding information to the system, we reduce its tendency to chaos.

Autism is a neurological disorder that is sweeping through the world at an alarming rate, currently affecting as many as 1 in every 68 children, according to 2010 statistics. In 2000, the ratio was 1 in 150. That's a 45% increase in 10 years. At this rate, in the next 10 years, the statistics will rise to 1 in every 30 children, and 10 years after that, 1 in every 14.

There is no medication that can cure autism, and the medications that are currently in force to curb some of the symptoms have side effects such as seizures, addiction, anxiety, hallucinations, depression, infections and high blood pressure.

In 2005 NAET research has shown in a study to improve symptoms and autism behaviors . Approximately 88% of the children treated with NAET had their autism diagnosis removed by their own individual doctors and neurologist. The NAR (Nambudripad Allergy Research) Foundation is conducting a global study on NAET's effectiveness in the treatment of autism on 1000-1200 autistic patients.

The goal of this presentation is to describe the methods and nature of the study.

Mind-Matter Interactions and the Frontal Lobes of the Brain [SSE]

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Introduction: Our work is based on a novel neurobiological model of psi suggesting that frontal brain systems related to self-awareness may inhibit this phenomenon. Evolutionary benefits for inhibiting psi may be to prevent constant bombardment with irrelevant stimuli that divert attention away from environmental events critical for survival. Thus humans may have innate psi abilities that are suppressed by the frontal lobes.

In support of this concept, we previously reported significant mind-matter interactions in a participant with left frontal damage that may have released psi abilities. The task was to influence output of a Random Event Generator (REG) translated into movement of an arrow on a computer screen to right or left. The participant showed a significant effect in moving the arrow to the right, i.e., opposite to the side of his brain damage, but not to the left or in the baseline condition in which he was instructed not to concentrate on moving a bar on the screen. His damage was most extensive in the left medial middle frontal region, an area prominently related to self-awareness.

Methods: To expand previous findings, we studied mind-matter interactions using the same methodology in a participant with frontotemporal dementia, a disorder associated with bilateral frontal lobe damage and reduced self-awareness. Control REG data was collected immediately after each experimental run. Brain MRI was analyzed to determine frontal volume loss.

We also examined mind-matter interactions in healthy volunteers with low ($n=2$) vs high ($n=2$) self-awareness based on the Self-Consciousness Scale-Revised.

Results: Frontal Brain Disorder Planned comparisons showed a significant effect for intention to move the arrow to the right compared to control data ($p=0.03$) but not to the left ($p=0.22$). There was no significant effect on the baseline condition ($p=0.95$).

On volumetric brain MRI analysis, regions showing significant volume loss compared to a normative sample included left ($p=0.0006$) and right ($p=0.007$) medial middle frontal areas after a Benjamini-Hochberg procedure for multiple comparisons. Effect sizes (z_{cc}) for brain volume loss were 3.8 in left and 2.9 in right medial middle frontal regions, suggesting that right-sided damage may have been insufficiently extensive to significantly influence arrow movement to the left.

Healthy Participants: For low self-awareness participants, effect sizes for influencing REG output were larger, although not statistically significant, for left intention in both cases and right intention in one. Effects were in direction of intention for right intention in both cases and left intention in one. Effect sizes (right, left) were (0.004, 0.012), (0.02, -0.01) (positive=direction of intention). Effect sizes for high self-awareness participants were (0.006, 0.003), (0.002, -0.005).

Conclusions: Our findings support the concept that the frontal lobes inhibit mind-matter interactions, perhaps better termed “brain-matter interactions” and that the inhibitory mechanisms may relate to self-awareness. Critical psi-inhibitory brain regions may include the left medial middle frontal lobe.

Studying patients with medial middle frontal brain lesions, and normal volunteers with relatively reduced self-awareness, may facilitate psi research through selection of psi-enriched populations, and may maximize likelihood of detecting psi effects under well-controlled experimental conditions.

Anomalous Mechanical Effect on an Experimental Table-Tipping Seance: A Multimodal Approach [PA]

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Between June 2014 to December 2015, a number of table-tipping seances were organized. Up to five video cameras were installed to record the events. Various devices were assembled to measure physical, physiological, psychological, and environmental variables. Twenty-three meetings were held with a subject about whom anomalous movements (vertical and horizontal) with a table incidentally were discovered in previous observations. The subject (AF) was presumed capable of moving a table at will through an alleged “PK force.” The phenomena was documented and recorded on several occasions. The muscle effort was ruled out as the cause of the movements (unconscious or conscious fraud). A multimodal approach was performed, including EEGs, anomalous effects on the RNG, and other data analyses with the subject at rest and also during an experimental table-tipping seance. The normal curve of a RNG deviated significantly ($p = 0.008$). No variations of electric and magnetic fields were found to be associated with the phenomena. Contactless movement of the table or other objects could not be achieved.

Review of Anomalous Physical Effects During Solar Eclipses and a Proposal for Coordinated Experiments During the Great American Solar Eclipse of 21 August 2017 [SSE]

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The theme of this conference is "Accessing the Exceptional, Experiencing the Extraordinary." These words might have been drafted specifically for the awesome experience of viewing a total solar eclipse and for the search for anomalous physics during solar eclipses. And a great such opportunity for the USA SSE audience is coming up – The Great American Eclipse of 21 August 2017.

Previous experimental results: There is a significant history of anomalistic results obtained by the use of sensitive physical equipment during solar eclipses. Sensitive 2D pendulums (such as paraconical pendulums), long pendulums, torsion pendulums, Lacoste-Romberg gravimeters, and atomic clocks have been employed.

- Allais – 1954. He recorded a surge in the precession rate of his paraconical pendulum reaching four times the Foucault rate, together with a change in the orientation of the pendulum anisotropy axes.
- Saxl & Allen – 1970. Anomalies were seen in the motion of a heavy torsion pendulum.
- Duval – 1994, Mishra – 1995, and Wang – 1997. Interesting variations in gravimeter readings were observed during eclipses.
- Zhou obtained interesting results in 1987, 1988, 1990, 1992 using atomic clocks.
- Goodey, Olenici, Pugach – 2008. Correlated anomalies of the movement of two paraconical pendulums, one long pendulum, and several small torsion balances were observed at three locations.
- Verreault – 2009. Using a long pendulum, a smooth surge in precession rate reaching 30% of the Foucault rate was observed.

Proposition for coordinated experiments during the 2017 Solar Eclipse: For the 2017 eclipse, which passes across the USA, our group wants to urge institutions and individuals in North America to set up and perform experiments of the general types that have yielded apparently positive results in the past, and to give them the guidance of our experience. There is no particular requirement for an experimental station to be upon the central line of totality: based upon past experience, any observational location in Canada, the USA, or Mexico may be capable of yielding interesting results.

We consider that gravimeter experiments during the eclipse will be of great importance, and we urge any group in possession of a Lacoste-Romberg gravimeter to contact us for suggestions, and to operate attentively during the eclipse at a suitable orientation. However, the field in which we have most experience is the field of sensitive pendulums. We hope that multiple well-organized and standardized experiments may have a chance to settle this long-standing question once and for all. Therefore we propose participation in a program of experiments with medium-length pendulums. We appeal for SSE members to consider setting up such pendulums in their base locations, and we are ready to supply standardized equipment for such experiments.

A group may already have a pendulum – either a long Foucault pendulum or some other type – which is suitable. In that case, they will only need to obtain from us standardized monitoring equipment which we have designed and prototyped. Alternatively, if a group wishes us to provide one or more suitable pendulums, we can do that. We hope to have one of our pendulums operating for demonstration at the conference.

Future News Photographs as PSI Targets: A Precognition Methodology [SSE]

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In this presentation we provide a feasible procedure to demonstrate precognition when there is no existing pictorial target pool from which to later select the psi targets. Between February and April, 2016 we performed 33 exploratory psi

sessions using Conscious State Psi (CSP) / Remote Viewing (RV) and Dream State Psi (DSP) protocols. Our objective was to determine if *Associated Press* news photographs that did not exist at the time of the psi sessions are feasible psi targets. The target photograph was taken at least one day after the psi session and published three days later on the bottom of page A6 in the *Around the World* section of an area newspaper. A secondary objective was to determine if the session's data provided insight into the precognitive process and if differences between the CSP/RV and DSP data could be noted.

Phase I was an investigation by the principle author to evaluate project feasibility. Phase II was an investigation with a colleague 1,000 miles from the principle author and the newspaper location. Following each psi session and prior to the photograph's existence, the data were recorded in project records and email transmissions for date and time validations.

The session data evaluations were done by individuals familiar with art and graphics design. Twenty one of the 33 sessions (64%) had sketches and narratives with "Medium" and "High" degrees of correlation with the future news photographs. The sketches had unique details and complex shapes that matched the configurational patterns in the photographs. Dominant colors were perceived. Twelve of the sessions (36%) had either a "Low" or no apparent correlation to the intended news photographs and were counted as misses. There was always one other news photograph on the top of this specific page in the *Across the Nation* section. Although data from five of the psi sessions correlated with news photographs in that section, they were counted as misses. This displacement and the other misses are discussed.

The results of this exploratory study indicate that future news photographs are a feasible and convenient source for precognition targets. We noted differences between the data from CSP/RV and DSP sessions. DSP data had more detailed and integrated presentations of the photographs content, especially for faces. Data from the DSP sessions provided insight into the image creation process. A progression from basic shapes or forms into complex configurations seems to occur sequentially, suggesting that an adaptive pattern recognition process is involved that searches for the best memory match with the photographs imagery.

This presentation concludes by considering the implications of precognition. Retrocausation of the future influencing the present or past is an alternative concept for our results. Issues related to data interpretation, biases in the photographs content and possible applications for precognition such as binary choice tasks are reviewed. Follow-on precognition investigations include extending the future news time period to 5 or 7 days and the use of quantitative evaluation procedures. We wonder if all psi projects are precognitive.

Multiple-Analysis Correlation Study between Human Psychological Variables and Binary Random Events [PA]

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Mind-matter interaction experiments have been progressing from targeting simple bias of random number generators to correlation studies between psychological and physical variables, carried out over multiple combinations of these.

This paper reports on a new correlation study between human intention and the output of a binary random number generator. The study comprises a total of 720000 bits from 20 equal sessions each on a different human participant. Each participant spent 1 hour of time attempting to "influence" the outcome of the random number generator according to a pre-selected intention. During this time the participant was provided feedback on his/her performance by an analog mechanical display, with the needle of a galvanometric instrument moving to the left or right hand side of its current position, according to the instantaneous output of the random number generator. Psychological variables were obtained from the participants by a hardware dial ahead of each individual run and by a questionnaire before the participants' first experimental session.

Three types of data analysis were defined and tested before looking at the data. The first analysis looks at the distribution of results from the participants. A former study of this kind had found a significant result for this type of analysis. The second analysis tests for correlations between psychological variables obtained before each run and physical variables of the corresponding subsequent run. The third analysis is a conceptual replication of von Lucadous correlation matrix method. It consists of multiple correlation tests between psychological and physical variables arranged in a matrix, which also can be interpreted as a multiple-analysis technique.

The results of these analyses will be presented, putting this study into context with other experiments of this kind.

A Radically Different Theory of Everything [SSE]

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Digital Physics is a collection of theoretical concepts based on the premise that the universe can be thought of as consisting of information, rather than matter and energy. This naturally sounds absurd since it is obvious (or so it seems) that we live on a planet that is part of a universe that is made of real, solid stuff. Information, per se, has no physical existence. The structure of a cat, a car or a calculator may be the result of information put to use, but the bare information itself is nowhere to be found. So what is the motivation for entertaining such an odd hypothesis as digital physics operating in an unreal world? It lies in the possibility of thereby being able to treat the universe as a vast computer. In a recent published paper — “Is The Universe a Vast, Consciousness-Created Virtual Reality Simulation?” which was also presented at the 2014 SSE Meeting — I made a case for this. The foundational idea is that one and only one thing exists: some vast — or perhaps even unbounded — transcendent consciousness having the attendant capability of thought. This consciousness can serve as the hardware for computation while its thoughts can be the software: algorithms and data, organized in such a way as to foster computer-like capabilities. In this way some or all of the transcendent consciousness takes on the attributes and abilities of a computer capable of creating an entire universe of the imagination. The transcendent consciousness would have the ability to chose its laws of physics and would be able to dream up and keep track of the roughly 1080 protons and electrons we have in the universe, along with other particles.

Wading into deep philosophical waters, it has been proposed that the transcendent consciousness projects itself into the virtual lifeforms that Darwinian-like evolution would bring about on the virtual planets of this virtual universe. Some of the transcendent consciousness becomes the billions upon billions of avatars living in the greatest of simulations. The objective of this entire scheme would be for the transcendent consciousness to give itself the means of having experience through the actions of its avatar selves. And the ultimate objective could be to provide a means for evolution and self-perfection. In this ultimate simulation of physical reality the transcendent consciousness could experience the thrill of racing down a mountain... but also the grief of a loved one's death. (In my view death in such a reality is merely a transition from being an active avatar inhabited by consciousness to returning to a higher level immaterial state, and back and forth... likely many times.)

If true, this would be the basis of a Theory of Everything on the grandest possible scale. Is there any evidence for this?

My introduction to these ideas is due to Tom Campbell, a physicist and author of the book: “My Big TOE”(Theory of Everything). Campbell was recruited by Robert Monroe in the early 1970s to devise and carry out scientific studies of the altered consciousness experiences, and Out of Body Experiences (OBEs) in particular, that Monroe was investigating; see Monroe's seminal 1971 “Journeys out of the Body.” Since that time Campbell has been able to induce scores of OBEs which he has used to explore and map the landscape of realities adjacent to our own which will be presented at this meeting.

Many World's Interpretation, Wave Collapse, and Paranormal Phenomena: Towards Explaining the Unexplainable [SSE]

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In the 1950's, Hugh Everett III developed a new interpretation of Quantum Mechanics, known as the Many Worlds view, that removed the external observer from any quantum description and instead is based on the idea of continuously branching realities that interact with a “universal wave function.” This view is opposed to the observer-driven wave-function collapse suggested by Von Neumann which Everett accused of being too metaphysical and lacking any basis in quantum theory. The Copenhagen Interpretation, based on the dual-reality complementary paradigm of Bohr and Heisenberg, asserts that no quantum reality exists, only quantum measurement through classical apparatus. Measurement collapses the wave-function to the values observed by conscious observers. For Everett, the Copenhagen interpretation is too heavily based on classical physics: it was not a truly independent scientific theory nor an answer to the measurement problem of how quantum microscopic and macroscopic phenomena interact. Specifically, Copenha-

gen doesn't adequately answer the question of how classical phenomena arise from quantum processes. Why does the world appear a particular way to each unique observer who himself is also a quantum system that obeys the laws of the Schrodinger equation? Why doesn't the world look completely "smeared out" instead of definitive and exact?

For Everett, quantum entanglement is happening continuously everywhere. It does not need any special treatment or observation by external observers. What appears to be collapse is, in fact, the subjective loss of information to the observer. Instead, our awareness multiplies with each successive observation creating a continuously, infinitely branching tree-like structure of observers in separate worlds which never interact. Though shunned by most physicists at the time, the Many Worlds viewpoint, as developed later by Bryce Seligman DeWitt and others, has become an increasingly popular view in recent decades as expounded by Deutsch, Tegmark, Carroll, and others. In this talk, I will look at the implications of the Many Worlds view for so-called "paranormal phenomena" such as clairvoyance and remote viewing, PK, ghosts, and UFOs and show why these phenomena could be seen as quite "ordinary" from a many-worlds perspective. Specifically, I will look at a new incarnation of the Many Worlds paradigm, the Many Interacting Worlds (MIW) idea as espoused by Wiseman and Deckert. MIW theory claims that classical forces in atomic structures create subtle repulsive interactions: what appear to be quantum wave functions are merely the resonant epiphenomenon of the classical interference patterns between parallel dimensions. Specifically, MIW claims that exactly 41 parallel realities could explain the wave function of a single photon and hence, the double-slit experiment. Critics contend that both MWI and MIW are unfalsifiable, yet perhaps the abundance of paranormal phenomena may illustrate that near-parallel realities do indeed exist and interact with our own.

Explorations into Using Brain Signals to Predict Random Future Conditions [PA]

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Three studies are reported using a face-detection task where faces are presented (or not) with a dynamic noise mask, while the participant's EEG was measured. Each participant was exposed to 240 stimuli either "a face buried in noise" or "just noise, no face".

Four templates were created by averaging the EEG before and after stimulus presentation for face and no-face conditions. These templates we called anticipatory-before-face template (AF), anticipatory-before-noface template (ANF) and similarly response-to-face (RF) and response-to-noface (RNF) template. These templates were used to classify a specific EEG signal as being associated with the face or no-face (random) condition.

When using the templates constructed from the EEG signals measured after stimulus presentation (RF and RNF) this classification had an accuracy of 80%. While using the EEG patterns before the stimulus condition (AF and ANF) resulted in an accuracy of ~53%, where 50% is expected by chance ($p < 0.001$).

In order to explain this apparent anomalous effect where we can use anticipatory signals to predict the random future stimulus condition, randomness tests were performed on the sequence of conditions that the subject had been exposed to. Only one subject had been exposed to a significantly non-random condition sequence. Also the digital filter that had been used, was excluded to be the source of the anomaly. When using the trial number as a factor in the analyses there are no interactions with that factor and hence there are no significant inclines in accuracy within a subject. This suggests that no learning (of patterns) occurred.

In all three studies there is a positive correlation between the anticipatory accuracy and the response accuracy suggesting that there is some form of symmetry. Further analyses of these symmetries are in progress in order to differentiate between retrocausal and forward causal triggered correlations.

Explaining Unusual Human Consciousness Phenomena [SSE]

Douglas Kinney

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Frontier scientific researchers are providing strong documented evidence for the reality of a wide variety of unusual phenomena and experiences (e.g., see *Irreducible Mind* by Kelly, et al.). Key examples are psi, NDEs, and unexplained mind-body experiences such as miraculous healings and the “transplant” of donor memories in organ transplant surgeries. Currently, we don’t have good explanations for their causative factors or source. As Henry Bauer recently wrote, “Science seeks explanations, theories . . . Evidence without an explanation means little.”¹ Here, I propose explanations for these phenomena.

Using “normal” scientific approaches to study these phenomena is difficult because they are typically unsystematic—only occurring in a very small percent of the human population and/or in special circumstances. Let me start my discussion with the strong psi experiences found in NDEs where the physical human brain and senses are not present. Over the last 50 years, researchers have created a large body of documented findings on the reality of NDEs, different NDE types, key experiences in each type, etc. Following are examples from the IANDS website of strong psi capabilities NDErs experience: Out-of-body experiences (OBE) in earthly settings that include seeing [remote viewing] and traveling through physical walls.

A supernatural phase occurring in a nonphysical setting where non-physical entities [souls] communicate “mind-to-mind” (telepathically) and display very strong telekinetic abilities.

I next consider some unusual human mind-body phenomena where the physical human senses and consciousness are clearly present: (1) stigmata—individual periodically bleeding from the palms and feet for a few days, (2) children who remember their past life in detail and have birthmarks that correspond to the wounds that contributed to their death in their previous life, and (3) the miraculous healing of serious physical diseases. Research indicates these occur in only in a very small percent of the population, and no significant explanations have been provided for them.

I hypothesize that these phenomena represent an attenuated “bleed-through” of the human soul’s strong non-physical consciousness and psi capabilities (seen in NDEs); and that the attenuation is produced by our human physical senses that “lock” human consciousness into the physical world so that the soul can experience physical life. For most humans, strong psi and consciousness capabilities occur only in nonphysical conscious states (dreams, meditations, OBEs) or in unusual group dynamics that support altered states of consciousness.²

The best explanation for the transplant of human memories and some other strange mind-body phenomena is that the human mind is a nonphysical holographic structure. I also bring in some highlights from my 2014 SSE Conference presentation in which I described how stigmata and the children’s birthmarks can be explained using the human subtle-energy body model that is based on the downward progression of soul consciousness into the human physical body. The detailed supporting evidence for my explanations and hypotheses is summarized in *Frontiers of Knowledge*.³

1. Henry Bauer, *Edge Magazine*, March 2016.

2. Lawrence LeShan, *Alternate Realities: The Search for the Full Human Being*, M. Evans and Company, 1976.

3. Douglas Kinney, *Frontiers of Knowledge: Scientific and Spiritual Sources for a New Era*, Kinney, 2014.

Dreams from Another Dimension? [SSE]

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In 2015, I began communicating with an events planner for the US army who shared with me a series of anomalous dreams. They were anomalous in the sense that the dreams usually contained specific names of deceased servicemen known to an assistant chaplain with whom she works. The goal of my ensuing research was to collect these dreams, search for commonalities, and propose explanations for their anomalous aspects. Alternative explanations included fraud, faulty memory, coincidence, and telepathy or some other form of remote perception. None of these alternatives explained these anomalies as well as what the experient herself proposed, that the deceased themselves had successfully communicated with her during her nighttime dreams.

Developing an Experimental Methodology for Apparent Exceptional PK Participants [PA]

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Two PK study participants have been studied at the Rhine Research Center at different times over the past four years. Both participants had demonstrated effects in other research situations, and they were invited to the Rhine to explore the apparent effects in a controlled situation. In tightly controlled environments, these participants apparently demonstrated consistent PK activity. The methods used to examine these phenomena are described as well as some new observations about PK activity.

One participant was examined using an Egely Wheel in a very controlled situation. The Egely Wheel was tested in detail to determine the effects of physical forces including heat, magnetism, static, light, and air flow, and with the necessary shielding, the Egely Wheel was determined to be a valid instrument for PK testing.

Using the Egely Wheel, an apparent consistent effect was observed in sessions where the participant was less than 12 inches from the wheel, but no effect was measured from a greater distance. This distance limitation may be a limitation of the effect, but it is also possible that the limits are due to the beliefs and expectations of this specific participant. The discovery of a Rebound Effect in these sessions appears to be an extension of the Linger Effect observed in earlier healing studies.

Participant number two apparently produced large effects on electronic devices from a distance. These effects were verified in a number of sessions with different devices. One series involving the Psyleron Random Event Generator showed inconsistent results. Another series using a customized electronic device designed to detect electrical fields showed a clear effect on the device from distances of up to 4 meters. A third series utilized a photomultiplier tube that is a very sensitive instrument used to detect low level light, and when the light shutter was closed, the instrument continued to register large variations indicating an electronic disturbance in the equipment or the recording devices.

Some attempts were made to explore the mechanisms behind these effects including integrating into the process: electrical shielding, distance, visual cues, electrical grounding, and location changes. The results of these process-oriented sessions show that the effects are not affected by wooden barriers, but diminishing effects observed due to distance and electrical shielding may be more the result of the beliefs and expectations of the participants than an actual limitation of the observed effect. Further research is necessary to explore the mechanisms behind the PK process in more detail and to mitigate the influence of the participants' beliefs on the measured effects.

Wairua: Clinical Parapsychology at Manawanui [SSE]

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This presentation will consider clinical parapsychological approaches within indigenous health practices, be it amongst tohungas, shamans in New Zealand or amongst sangomas, shamans in South Africa. Clinical parapsychology will first be considered in regards to the author's clinical psychological work where "the paranormal is normal", namely at Manawanui, a Māori Mental Health Service in Auckland. The official health model of Manawanui is based on the sacred building called the Marae. The model is called in Māori Te Whare Tapa Wha, namely the house of wellbeing, which is represented by the four sides of tinana (body), whanau (family), hinengaro (mind), wairua (spirit). For wellbeing to be achieved, all four principles of this model for the client (tangata whai i te ora) needs to be addressed.

After highlighting the importance of wairua in this indigenous mental health model, specific Mate Māori (specific Māori illnesses) recognized by tohungas will be discussed, such as matakite, makutu, mauri, etc. This will be related to a model of voice hearing when working with psychosis and ancestors (tupuna), as well as considering differential diagnosis of mental health and spiritual emergency.

The author's own shamanic training as a sangoma in South Africa becomes relevant at this point. In regards to the tradition of becoming a sangoma, the ukuthwasa, the apprenticeship is often defined by complex relation between psi effects, altered states of consciousness, exceptional experiences, and mental health. A dialectical approach to the complex relationship between spirituality and mental health distress will be presented.

Specific and integrative psychotherapeutic and shamanic clinical vignettes with clients will be outlined to highlight interventions such as mentalization in terms of paranoia and witchcraft, seeing the ancestors and emotional regulation, or determining the cultural trauma of exceptional experiences in regards to psychosis or voice hearing. Some psychoanalytic considerations will be considered in regards to wairua, or 'spiritual holding'.

Not Everyone Gets Machine Elves:

The Nature of Discarnate Entities and Their Interactions with DMT Users [SSE]

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Encounters with entities are one of the defining characteristics of the DMT "breakthrough" experience. Several authors have described general categories of entities that are frequently encountered under the influence of hallucinogens (e.g., Luke, 2011; Shanon, 2002) and Terence McKenna popularized the "self-transforming machine elves" as one of the hallmarks specifically associated with DMT (McKenna, 1982). However, to date there are few empirical investigations of the characteristics of DMT entities or their interactions with DMT users. Accordingly, this study investigated the frequency with which DMT users experience various categories of entities and the nature of the interactions users have with these entities during the drug experience.

Content analysis was performed on 149 trip reports posted from 2006 through 2015 on Erowid.com by DMT users (90% male, average age 24.6) in order to characterize users' descriptions of the entities as well as the nature of their interactions with them. Entities were defined as elements of the experience that appeared to the DMT user to possess independent awareness. Seventy-five percent of reports included a description of at least one form of entity and 37 % described more than one entity. There were a total of 180 experiences of entities reported. The general categories of entities that emerged were poorly defined or formless beings (29%); humanoid beings (22%); divine beings (10%); aliens (8%), elves and fairies (7%); animals (6%); geometric objects or machines (6%); voices (4%); faces (4%); and miscellaneous entities that did not fit into the other categories (3%).

The gender of the entities also emerged as an important characteristic as it was specifically mentioned in 24% of the descriptions of entities. Male participants were significantly more likely to report the gender of entities than were female participants ($C2(1, N = 43) = 4.94, p < .05$), and entities whose gender was specified were significantly more likely to be female than male ($C2(1, N = 44) = 17.82, p < .001$).

The general nature of the participants' interactions with the entities was also explored. The categories of interactions that emerged were showing/teaching/guidance (25%), no interaction (10%), hostility (10%), warmth or love (9%), welcome/excitement (9%), reassurance or encouragement (8%), neutrality or observation (7%), play or entertainment (4%), power or control

(3%), sexuality (3%), unclear interactions (3%), questioning (3%), reminding (2%), and miscellaneous interactions that did not fit into the other categories (2%).

To investigate whether there were any systematic relationships between entity categories and the nature of interactions, the five most common entity categories were evaluated in terms of their association with the five most common categories of interaction. No systematic relationship emerged for any category of entity (Undefined beings: $C2(4, N = 58) = 4.31, p > .05$; humanoid beings: $C2(4, N = 46) = .71, p > .05$; divine beings: $C2(4, N = 27) = 1.60, p > .05$; aliens: $C2(4, N = 28) = 3.60, p > .05$; elves and fairies $C2(4, N = 24) = 6.95, p > .05$). Similarly, there was no significant pattern of interaction category for entities that were specifically identified as female $C2(4, N = 25) = 2.41, p > .05$).

These results indicate that the most commonly experienced, well-defined entities are humanoid and that the most frequent category of interaction involves showing, teaching, or guidance. However, there is no significant relationship between entity category and the nature of the interaction. The results will be compared to previous research on DMT entities, entities encountered using other psychedelic drugs, and entities experienced in alien abduction experiences, near death experiences, and mental mediumship. Limitations of the research design will be discussed along with psychological and psychophysiological interpretations of the results.

The Paradigm of Reflexive Anomalistics [PA]

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Scientific anomalistics is a content-determined, and delimited, area of science committed to the application of appropriate scientific methodology as well as generally accepted, and necessary, scientific control mechanisms. The specification of research subjects is not the result of assignment to groups of phenomena of specific scientific (sub-) disciplines but of the ascription of an anomalistic nature (at first), which makes these phenomena, or experiences, a subject of anomalistic research. Accordingly, anomalistics is not characterized by its own specific methodology but it is oriented by the requirements of the respectively concerned discipline(s) (physics, chemistry, biology, psychology, sociology, science of history, etc.). For a long time, (natural) science approaches have been considered as paradigmatic for anomalistic research, and for parapsychological research in particular, but during the last decades, social scientific approaches and qualitative research methods have increasingly gained in importance as supplementary and alternative methods. With that, single case studies and the investigation of ostensible spontaneous psi phenomena lost its often premature reputation of being unscientific. Qualitative research methodology, which is predominantly used in social and cultural sciences as well as in anthropology, represents a useful supplement to quantitative approaches; in some cases, and for several research questions it proves to be ultimately superior because one can go without a considerable reduction of complexity which is obligatory for quantitative methods and, therefore, the research as well as the researchers can come much closer to living-worldly manifestations of anomalistic phenomena and experiences than it is the case with the relatively artificial context situation in laboratory experiments. With this paper we present an analysis of the specific conditions of anomalistic research that we systematize under the paradigm of "reflexive anomalistics". The term signifies a social scientific informed approach to anomalistic phenomena that is aware of: (a) the epistemic particularities of the phenomena under research, (b) the precarious cultural (media, science policy) framework conditions of this research, and (c) the areas of tension between subjective evidence, scientific proof and social discourse. These factors have systematically to be taken into consideration in developing the scientific research questions as well as the methodological approaches.

Seeking Genes Governing Anomalous Experience: Correlational Mapping of Community Survey Data [SSE]

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A pilot study was designed to locate genes governing anomalous experience. The study uses a variation of Pearlson and Folley's (2008) strategy for locating alleles (alternative forms of a gene governing hereditary variation) based on evolutionary theory. The pilot study was guided by two theories: (1) A sheep theory hypothesizes that ESP alleles provide sufficient benefits to overcome the costs of schizophrenia. (2) A ritual healing theory argues that genes governing absorption and dissociation provided evolutionary benefits to archaic humans exposed to childhood trauma and shamanic healing. The ritual healing theory hypothesizes that shamanic healing, practiced by Paleolithic hunter-gatherers over many millennia, selected for alleles shaping anomalous experience, hypnotic suggestion, shamanism, and spirituality (McClenon, 1997, 2002a). Pearlson and Folley (2008) propose correlational mapping (multidimensional analysis) of community survey data to analyze hypothesized allele markers. The pilot study discusses the sheep theory and ritual healing theory with regard to allele markers. These theories predict existence of alleles governing ESP, absorption, dissociation, transliminality, boundary scales, and other anomalous experiences. A questionnaire was designed to measure frequency of anomalous experience, psychological symptoms, shamanic variables, childhood and adolescent difficulty, and other variables thought correlated with psychological symptoms (McClenon, 2012, 2013). Between 2001 and 2006, the questionnaire was administered to a non-random community sample in northeastern North Carolina ($N = 965$). The hypothesized allele markers were evaluated through correlational mapping of the survey data. Findings are based on five correlational maps (previously unpublished): (1) Anomalous experience variables were highly correlated with each other. (2) Particular correlational clusters, which suggest possible underlying alleles, include "waking ESP, OBE, apparitions," "waking ESP, apparitions," and "waking ESP, paranormal dreams, apparitions." (3) Waking ESP and apparitions were highly correlated with shamanic variables but were generally not within shamanic variable correlational clouds. (4) Although waking ESP is highly correlated with schizophrenia symptoms, researchers have not uncovered major schizophrenia alleles. Failure to locate these alleles calls into question the sheep theory. (5) Cluster patterns suggest that the search for alleles associated with shamanic ritual will be fruitful. (6) Correlational mapping provides no evidence of a psi allele (waking ESP, paranormal dreams, PK). (7) Analysis provides a list of 16 variables most correlated with a "waking ESP, paranormal dreams, apparition" cluster. Although correlational mapping does not provide clear evidence for an ESP allele, these variables are possible allele markers. Pilot study results suggest theoretical revisions. A revised ritual healing theory hypothesizes that random genetic mutations are the source of anomalous experiences.

Traumatic Brain Injury (TBI) Is a Reversible Disease [SSE]

John McMichael

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Of the 1.5 million cases of TBI in the US annually, about 80,000 result in some degree of disability. And although most of the current interest in the disease is associated with sports and athletics, much greater numbers of cases stem from accidents (auto, bicycle, falls) and assaults.

The majority of funding for TBI research is directed towards understanding the pathophysiology of disease and developing methods or equipment to decrease the likelihood of traumatic brain injury occurring as a consequence of violent or repeated insults to the head.

Our goal is to successfully treat both the acute and chronic forms of TBI with the same therapeutic agent even though the two are generally considered to be distinct entities. The product we are developing to accomplish that end is an oxidized form of *streptolysin O*, the exotoxin of group A *streptococci* that causes the pain of a sore throat. We call it SLO.

After over ten years of in vitro experiments, in vivo evaluation in both laboratory and domestic animals, and human anecdotal experience, we have shown SLO to be a potent agent for preventing scars and for ameliorating scars present for as long as six decades. The question has been one of whether the same SLO that has such a profound effect on both internal and external scars could likewise influence brain "scars" where little or no collagen is present.

A small number of ex-NFL players, professional boxers, and accident victims were treated with sublingual drops of

SLO for periods ranging from two months to nearly a year. Patients included some football players with an estimated quarter million hits to their head and a woman in a severe auto accident 30 years prior to initiating SLO therapy. All showed significant improvement.

To better understand the in vivo mechanism(s) of action of SLO, the molecule was evaluated in an accepted mouse model for the acute form of TBI. Injured mice treated with SLO showed a statistically significant improvement in the Morris Water Maze Test for memory versus injured and untreated animals. To a slightly lesser degree the treated mice also demonstrated improved balance. And as with humans, there were no adverse effects.

Histopathologic examination of the brains of treated vs untreated animals shows that the former group had considerably less microglial infiltrations in the area of the hippocampus than did the injured and untreated group. This, combined with genomic data, strongly suggests that in the acute disease there is a decided inhibition of inflammation induced by SLO, and consequently there would be a decrease in gliosis and thus in what would be considered brain scarring.

In these early studies it would appear that SLO can prevent scarring in the acute phase of TBI and decrease scars in the brain that is chronically compromised – in both cases permitting improved function and consequent improved health.

Sasquatch and Other Wildmen: the Search for Relict Hominoids [SSE]

Jeff Meldrum (SSE DINSDALE AWARD)

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The sasquatch/Bigfoot phenomenon in North America is not the singular spawn of unfulfilled white working class men of the mid-twentieth century. Traditions of a wildman have ancient roots in various cultures around the world. However, post-Linnaean biology and anthropology afforded no accommodation for such entities. Without a context, a theoretical place in the prevailing paradigm, evidence for wildmen received little objective consideration. That paradigm is slowly undergoing a shift with the recognition of the bushiness of the hominoid phylogenetic tree and the persistence of a number of its branches into the recent past, if not the very present. This point was driven home by the discovery of the "hobbit," *Homo floresiensis*. Now the question of other hominoids possibly alive today ranks among the top questions facing human evolution at present. What is the status of the search for relict hominoids, the nature of the evidence that motivates it, and its future directions?

REG Project and the Web Model of Mind [SSE]

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This presentation describes a long-term research project to personally “access the exceptional and experience the extraordinary” using a random event generator (REG). The REG outputs a stream of random one and zero bits, and the goal is to use the mind to produce a skewed distribution of bits coming out of the device (e.g. more ones than zeros). The project was a single study design with me as both subject and experimenter. The objectives were 1) to succeed in affecting the output of the device using PK to a highly significant level, and in the process 2) begin to understand how the effect might work.

While engaged in the REG process, which took over 10 years, I logged on the order of 10,000 hours of “training time” and I wrote over 2200 pages of notes cataloging experiences and mental states. The project focused on states of mind that were correlated with moments of greater REG output success, as well as those correlated with greater negative results. The data set included the four formal studies which taken together included over 5.5 million trials. The final Z-score of the combined studies was 4.86, or odds of 1.7 million to one of being chance. As in previous REG studies, however, this significance was achieved with many trials giving a small absolute percentage deviation from the chance expectation of 50%.

The presentation will explain some of the experiences that involve very clear and distinct states of mind in relation to REG output. It puts forward a general model of consciousness, which accounts for “beginners luck” and the decline effect, as well as a theory-based analysis of why the process seems to be easy at certain times and hard at others. An argument is put forward that in the future anomalies research should be focused on how the structure of the mind seeks to minimize direct outside influence rather than accentuate it. The mind creates a barrier or membrane of “meaning” to keep itself from diffusion into a collective space. The model proposed is nominally called the “associative web model of mind” and has elements of both Tononi’s Integrated Information Theory and Wheeler’s concept of meaning in the quantum measurement process.

Exceptional Experiences of Healers: A Survey of Healing Touch Practitioners and Students [SSE]

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Exceptional and non-ordinary experiences, also termed anomalous experiences, have long been associated with healing, occurring in both healers and healees. Exceptional experiences of healers include unusual sensate phenomena, such as images, bodily feelings and sounds, as well as contact with nonphysical beings and other dimensions. In this pilot study, a cross-sectional design was used to determine the types and prevalence of sensory and extrasensory experiences among Healing Touch practitioners and students. Healing Touch (HT) is an energy healing, biofield therapy developed by holistic nurses. Data was obtained with an online survey using a new instrument, the Healer Experience Scale (HES). The HES contains both semi-quantitative, Likert scale (e.g., “have you seen...chakras/meridians” “never, a few times, sometimes, often”) and qualitative (e.g., describe “unusual visual experiences”) questions. The HES was administered to a convenience sample ($n=183$) of HT practitioners ($n=110$) and students ($n=73$). Pearson’s product-moment correlation and student’s t-test were used to test any significant associations/differences between item average scores and demographic characteristics. The major finding was that HT practitioners and students feel unusual tactile sensations more often than other sensations, such as visual or auditory, during healing sessions. Respondents “often” feel areas of heaviness or congestion, prickly sensations, and/or warmth or heat while touching the client or moving their hands through the client’s biofield. Other tactile sensations included “electrical current” and static charge, “bubbles” and effervesce like a can of soda pop, “cool air leaks”, pressing/pulling sensations, stickiness, and vibrations. The most common visual experience was of “light filling” the client’s body or “light dissolving” something within the client’s biofield. Other common visual experiences included seeing, “images related to the client’s life” and “different colors”. The most common auditory experience was a telepathic conversation with a “guide” or deceased relatives of the client. A great variety of unusual sounds were reported by the healers, including, “crackling energy sounds”, humming

and buzzing, music, singing, birds, bells/chimes, mumbling/whispers, and “tonal frequencies”. Unusual smells and tastes during Healing Touch were reported as rare or infrequent. Unpleasant odors, such as “the smell of something rotten” or “stale”, were noted when healers were clearing “very dense energies” from the client’s biofield. Pleasant odors such as flower smells and perfumes were also reported. Healers “often” observe visible changes in their client indicating an energetic release, including facial changes, a change in the client’s breathing pattern, and movement of the client’s body (e.g., twitching/jerking). As preliminary validation of the HES, the responses of the two groups (students and practitioners) were similar (Pearson’s coefficient = 0.9118), but the frequency of reported experiences was significantly lower among students as compared to practitioners ($p < 0.05$). The prevalence of tactile experiences suggests that practitioners may possibly be responding to subtle physical stimuli caused by fields associated with the client’s body. The HES may be useful in assessing the training and effectiveness of healers, but more importantly, studies of exceptional experiences of healers may lead to new insights into the putative energies and mechanisms involved in biofield therapies and other anomalous phenomena.

Predictive Anticipatory Activity (PAA or Presentiment) Measured in a Single-Trial Remote Task [SSE]

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Human nonconscious processing seems to be able to access information about events in time that conscious processing does not seem to access as readily. For instance, we have known for decades that nonconscious processes often have more access to information about past events than conscious processes do. However, in the past few years it has become clear that nonconscious processes also have better access to future events that, due to our bias towards conscious experience, we generally call “unpredictable.” Specifically, multiple laboratories have reported physiological changes associated with future events that are designed to be unpredictable by normal sensory means; these effects have been called presentiment effects or predictive anticipatory activity (PAA). One of the problems with interpreting presentiment experiments has been that physiological responses to trial order effects could potentially produce presentiment-like effects that result simply from human bias towards predicting particular stimulus orders (e.g., expectation bias). One way to handle this interpretive dilemma is to conduct presentiment experiments in which many participants perform only one trial. That way, no order effects of previous trials need be examined, as there are no previous trials to create such effects.

In this talk I will first set the context by presenting the methods and results of a previous in-laboratory single-trial experiment, then report on single-trial smartphone experiments testing the idea that physiological processes can predict future events that should be unpredictable in a statistically reliable way. One such experiment has been completed to date, with significant results matching those found in my previous work. The results of the second experiment, which is currently partially complete, will be described as well (to the extent that is made possible by funding expected prior to the conference).

Finally, I will discuss why it might be useful for conscious awareness to have a different sense of time than nonconscious processing, and how probing the relationship between conscious awareness, nonconscious processing, and time may be key to understanding the hard problem of consciousness.

GCP Effects: Global Consciousness or Goal Orientation? [SSE]

Roger D. Nelson

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Cumulative results of an experiment spanning 17 years and 500 events supports the proposal of global consciousness (GC), which can be envisioned as a field-like effect. But there is an alternate interpretation recently advocated by Peter Bancel (2014, 2016), namely that the GCP result is due to a goal-oriented (GO) effect similar to the DAT model of May, et al. (1995), which says precognized feedback from future experimental results can influence choices made in the experiment. Earlier, Bancel (2011) compared these models and concluded: “the GCP data reject the DAT model with moderately high confidence. [And] one can show that a similar procedure which tests the alternate hypothesis of a physical effect accepts that hypothesis as being consistent with the data.”

Bancel's new perspective assumes the XOR that conditions RNG data would also remove any effect of consciousness because that would require physically changing a bit from 0 to 1 or vice versa. This would demand virtually impossible microsecond synchronization of effects and XOR timing. In contrast DAT or GO requires no physical effect, only psi-enhanced decisions for event and analysis parameters that will produce future results aligned with experimenter goals.

We expand the picture to include secondary analyses addressing questions that had not been asked in the experimental design, and were not considered in event selection. These show data structure which is incompatible with GO.

1. In addition to the primary correlation of RNG means across the network, there is a substantial second order correlation of the variances.
2. On average, it takes about half an hour for the cumulative deviation to peak, followed by an hour or two of steady state and then a decline.
3. Correlation strength decreases as the separation between RNG pairs increases, but only during small, relatively local events.
4. The effect size is a function of time-of-day. It is largest in the local afternoon, and smallest in the middle of the night. It depends on whether we are awake or asleep.
5. Post facto analysis shows the trial data are autocorrelated. This was not a “goal” of the experiment, but it is a natural expectation for a field-like model.
6. There is evidence for true negative outcomes in an estimated 17% of GCP events. This is not compatible with the GO model, being actively contrary to the experimenters' hypothesis and expectations. (Bancel and Nelson, 2008)

Such indicators of structure fit the GC model naturally, but they require a tremendous stretch for GO. Postulating that everything one finds in the data is only there because of experimenter intention is tantamount to giving up on experimental design, and giving in to unfalsifiability. The data demand more generous models, which accommodate multiple sources of effects.

Anomalous/Paranormal Experiences Reported by Nurses Themselves and in Relation with Their Patients in Hospitals [SSE]

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Reports exist of anomalous/paranormal experiences (APE) by nurses in hospital/health center settings. The aim of this research project is to carry out a descriptive analysis and quantitative/qualitative study of near-death and out of body experiences, experiences sensing a “presence,” seeing an apparition, floating lights, luminescence, or unexplained object movements, hearing strange noises, voices or dialogues, crying or moaning, seeing energy fields, lights or “electric shock” around an patient have had an extrasensory experience, malfunction of equipment or medical instrumental in certain patients, and/or spiritual/paranormal form of intervention. Visions involving the appearance of dead relatives who have come to help patients and residents through the dying process, providing comfort to them and their relatives have been reported. Coincidences are experienced by someone emotionally close but physically to the dying person and who is somehow aware of

their moment of death; others describe seeing a light. Other phenomena also include a change of room temperature; clocks stopping synchronistically; accounts of vapors, mists, and shapes around the body at death; and birds or animals appearing and then disappearing. The structure of the nursing study closely follows concurrent research that took place with three of eight hospitals. The main aims are to determine the extent of occurrences of certain types of APEs in hospitals and their relationship to job stress and psychological absorption, to assess the frequency of certain unusual APEs in hospital, to assess the level of psychological absorption of people experiencing these perceptions, and to compare experiences nurses without experience in their degree of job stress and absorption. The hypotheses are (H1) nurses who report these experiences tend to score higher job stress, (H2) tend to score higher greater absorption, and (H3) nurses who report a combination of perceptual experiences and absorption (higher scores) tend to score higher also on job stress than those who do not report such experiences. The nurse experiencers consisted of 39 participants (72% female and 28% male); age range was 22 to 64 years (Mean = 40 years; SD = 11.31 years), 24 (39%) of them work the afternoon shift and 32 (53%) work the night shift. The nurses non-experiencers consisted of 61 participants (82% female and 18% male); age range was 24 to 59 years (Mean = 39.6 years; SD = 11.31 years), from which 21 (54%) of them work the afternoon shift and 17 (43%) work the night shift. All of them filled four instruments: The Anomalous/Paranormal Experiences in Nurse & Health Workers (which measures frequency of paranormal/anomalous experiences), the Maslach Burnout Inventory which is the leading measure of burnout, the Hallucinations Experiences Questionnaire, and the Tellegen Absorption Scale. An open, non-structured interview based on questions of the first instrument was also conducted. The results showed that of the 100 nurses surveyed, 30 of them (30%) reported having had at least one anomalous experience in the hospital setting, in fact the most common experiences are often the feeling of "presences;" hearing strange noises, voices or dialogues, tears or groans of patients; and "knowing" intuitively the disease of patients. It is not confirmed if nurses reporting these experiences tended to experience greater job stress. However, nurses who reported a combination of perceptual experiences and psychological absorption (high level), tended to score higher work stress compared to those who did not report such experiences. Nurses who reported these experiences tended to report greater psychological absorption, and also tended to report greater proneness to hallucinate. The best model was the best predictor absorption in individuals with experience [$\beta = 0.33$, $df = 3$, $p = 0.005$; $R^2 = 0.12$] compared to the group without experiences. This suggests that absorption is below the difference between the two groups.

Personality and Perceptual Variables Associated with Mediumistic Experiences: Examining Two Samples [PA]

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Spontaneous mediumistic experiences have not previously been tested in the general population or in specific groups. The aim of this study, therefore, was to evaluate two samples: paranormal believers ($N = 239$, 74% females and 26% males) and undergraduate students ($N = 554$, 77% females and 22% males) in terms of psychological variables related to mediumistic experiences such as a sense of presence, an apparitional experience, and spirit possession. A number of scales were used in both studies. For the S1, the results showed that a sense of presence is the most frequent experience (75%), followed by an apparitional experience (24%) and spirit possession (19%). Only 41% had a type of mediumistic experience, of which 31% had two and 6% had at least three types of experience. Individuals with a higher frequency of mediumistic experiences tended to be more extroverted, have a propensity for schizotypy (with an emphasis on the positive dimension rather than "negative" schizotypy), have more intense visual vividness, and score higher on "thin" boundary and transliminality compared to others within the same group that had psychic experiences but not mediumistic experiences. For the S2, the results showed that a sense of presence was the most frequent experience (33%), followed by apparitional experience (5%) and spirit possession (4.7%). Individuals with a higher frequency of mediumistic experiences tended to be emotionally unstable, were prone to schizotypy (both positive and negative), and had a greater capacity to dissociate, compared to others within the same group who had psychic experiences but not mediumistic experiences.

Psychic Detection of the Sacred Objects: An Experimental Test [SSE]

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According to some traditions, there are holy places in countries such as India, Egypt, Nepal, Tibet and Bhutan, that represent sacred sites or power-filled energy centres to which many people pilgrimage. At such sites one may experience a sense of unification with nature, a feeling of bliss, interspecies communication, waking visions, unusual sounds, synchronicities, key memories, or ecstasies. It has been claimed that psychics are capable of distinguishing by ESP the “sacred” nature of these sites. In the present study we sought to extend this approach by identifying another psychometry task that might distinguish between psychics and nonpsychics, and chose to focus on a task in which participants had to decide which of two token objects was originally from a sacred site. The aims of the study were to determine if the participants of the “ESP workshops” could distinguish between the sacred and the control objects by psychic means. Specifically, we wanted to (1) determine if the number of hits differed significantly from the mean chance expectation (MCE), (2) determine if the participants will be capable of distinguishing between the “sacred” versus “control” objects, and (3) test whether there was a significant difference between the scores of the two groups. Our study consisted of a number of sessions with groups of psychics and control (non-psychic, divided according to a specific categorization procedure) in which the participants conveyed their impressions from pairs of samples of water and sand. The sample consisted of 147 participants (77% females and 23% males) who were all well-educated and believed in psi. A number of sand samples were taken from Cheops Pyramid in Egypt and water samples from a source of water (i.e. “blessed” water). The little containers were matched with control samples of sand and water from non-sacred sites. Although overall scores were slightly above chance, they were not statistically significant (for water, $t(152) = 1.18, p = .12$; for sand, $t(152) = .54, p = .29$; for both combined, $t(152) = 1.07, p = .14$). We analyzed whether there were differences in the number of hits overall for psychics ($N = 25$) and control, non-psychics ($N = 122$), but no significant difference was found. We also examined whether scores differed when sand or water was being used as the target, but also no significant difference was obtained ($F(1, 152) = .26; p = .61$). The variability of the obtained scores turned out significantly greater than expected by chance ($F(1, 153) = 1.51; p < .01$). The difference between the two groups could be due to “psychics” being better at interpreting available psi information than control. One interpretation is that members of the psychics group achieved better overall results by consistently interpreting the “psi signal” while only some members of the experience group decoded the signal adequately, perhaps due to a lack of proper psi-training with their clients.

Exploratory Study of the Temperament Theory and Paranormal Experiences [PA]

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Studies that have explored traits of personality to explain paranormal experiences are scarce, so it’s not surprising that a connection has yet to be made between such experiences and a person’s temperament. The aim is to compare four groups of temperaments in terms of a frequency of paranormal experiences. From the usable questionnaires (1860, 21%), 403 undergraduate students (Psychology Department) were used for the categorization procedure, based on mean score to split the sample, combined to produce four groups, Phlegmatic ($n = 30$), Sanguine ($n = 54$), Melancholic ($n = 159$) and Choleric ($n = 160$), using the standardized Spanish version of the Eysenck Personality Inventory (Form A). The sample filled a second 10-item self-report inventory designed to collect spontaneous paranormal/anomalous experiences. Choleric scored higher on frequency of out-of-body experiences (OBE), ESP dreams, aura, déjà-vu, and a count of experiences. Sanguines scored higher on telepathy, and melancholics scored higher on frequency of sense of presence. Certain anomalous experiences, such as OBE, dream recall and seeing auras, could be facilitated using extravert subjects characterized for being touchy, restless, excitable, changeable, and impulsive.

A Disturbance in the Force: Exploring Collective Consciousness at Burning Man [SSE]

Dean Radin

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Collective behavior in insects and animals is easily observed in bee hives, schools of fish and flocks of birds. Collective behavior also occurs in humans, manifesting as vigilante mobs, consumer fads, stock market booms and busts, political movements, and etc. These collective, contagious effects in humans can push individual behavior into destructive violence, collective delusions, or in a more positive form, remarkable altruism. Theories of crowd behavior note that as social animals, humans are exquisitely sensitive to the herd instinct and are hardwired to imitate.

Here we consider a more subtle form of collective human behavior – collective consciousness. A fictional form of the proposed phenomenon was portrayed in the movie *Star Wars*. At one point in the movie a planet is destroyed by the evil Empire. At that moment, the Jedi Knight Obi-Wan Kenobe suddenly staggers as if in pain, and then he says, "I felt a great disturbance in the Force, as if millions of voices suddenly cried out in terror and were suddenly silenced." The Force was described by Obi-Wan as "an energy field created by all living things. It surrounds us and penetrates us; it binds the galaxy together."

To empirically study this fanciful phenomenon without destroying a planet, we conducted experiments in 2012, 2013, 2014 and 2015 at the Burning Man festival in the northern Nevada desert. Two ceremonies at Burning Man attract especially high focused attention by tens of thousands of people; these are known the Man Burn and the Temple Burn. The experiences reported during these events are variously described as an "energetic shift," or as a feeling of "electricity in the air." These experiences are reminiscent of a "disturbance in the Force" because they appear to be evoked by groups of people focusing intently on the same event, creating unusual periods of mental coherence. If the Force is a metaphorical description of a real field-like phenomenon that permeates the physical world and is intimately correlated with all living systems, then during periods of collective mental coherence we might predict that the rest of the physical world would also exhibit periods of coherence. Those periods could be detected as unexpected appearances of physical negentropy.

To explore this idea, we monitored physical systems designed to produce maximum entropy (in the form of truly random number generators) before, during, and after the main Burning Man ceremonies. The combined results of four experiments, involving different numbers and kinds of random number generators, including novel generators of our own design, showed that the random outputs deviated from chance expectation during both the Man Burn ($p = 0.0005$) and the Temple Burn ($p = 0.022$) events. This outcome was consistent with previously reported results studying proposed "consciousness fields;" it suggests that the Field may be more than an entertaining metaphor.

Consciousness and the Double-Slit [PA]

Dean Radin (PA AWARD TALK)

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If the path that photons take through a double-slit interferometer is known by any means, then the photons will behave like particles, otherwise they will behave like waves. There are numerous interpretations of this effect, known as the “quantum measurement problem.” One of the earliest proposed solutions, by John von Neumann, was based on characterization of the measurement process as a chain of interactions between physical entities - e.g., physical system, detector, eye, brain - with the process ending only when knowledge of the measurement is registered by what von Neumann called an “extra-physical” factor, i.e., the observer’s mind. In a series of 17 experiments with various optical systems, we put von Neumann’s proposal to the test. Participants focused their attention toward or away from an optical system while interference patterns were measured. The hypothesis was that the act of conscious observation would cause a change in interference. Some experiments were conducted in the lab, others over the Internet to rigorously isolate the observers from the optical apparatus. Overall the evidence strongly supported the hypothesis, but with a surprise. Observation did not always “collapse” the wavefunction, as we had expected. Rather, the interference pattern became sharper or more diffuse depending on the observers’ intentions, where intention was operationally defined by the nature of the feedback used to link the observers to the optical system. This outcome is consistent with consciousness as an active “steering force” rather than as a passive observer. It is also consistent with a half-century of prior research using other targets of mental intention. These studies therefore suggest that the observer is an active participant in the formation of physical reality. I will suggest a framework for understanding these effects as predictable rather than anomalous. That framework requires no changes to existing scientific models, just a modification to the metaphysical assumptions underlying science itself.

Toward an Energy Medicine Technology [SSE]

Dean Radin

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An experiment was conducted to see if it was possible to capture energetic signals associated with the act of energy healing and then use those signals to promote healing outcomes. To do this, we built a sensor system consisting of 38 transducers: eleven 3-axis magnetometers, a one-axis geomagnetometer, two electromagnetic sensors, and two Caduceus antennas designed to detect longitudinal or so-called scalar electromagnetic waves. Each signal was digitized at a sampling rate of 44.1K Hz with 24 bits of resolution. This sensor array was used to record healing and control (non-healing) activities in some 50 recording sessions, all of which were held inside a solid steel, double-walled electromagnetically shielded chamber.

Spectral, cross-correlation, and other analytical methods were used to evaluate the resulting data. Occasional small-magnitude deviations were observed during healing periods as compared to control periods, but the deviations did not appear in a systematic way. Surprisingly, when some of the 38-channel recordings were converted into stereo audio files, persons sensitive to healing energies subjectively reported that the sounds produced by those audio files felt similar to the effects produced by healers. The primary component of these signals that seemed to capture the healing effects were traced to the two Caduceus antennas.

The next phase of this experiment will be to expose cell cultures, including human stem cells, to these audio files to see if they objectively encourage healing outcomes.

Surrendering to the Vine of the Soul: Ayahuasca Shamanism as a Logotherapy [SSE]

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The existential vacuum is a form of spiritual distress wherein the afflicted individual is unable to perceive the meaning and purpose of one's life. If the existential vacuum goes untreated, it could lead to forms of psychological distress including depression, anxiety, and suicide ideation. Since the current healthcare system overlooks spiritual issues as a real health concern, more and more Westerners are turning to alternative therapies to treat their spiritual needs, including ayahuasca shamanism. Ayahuasca shamanism is a traditional spiritual practice of the indigenous Amazonian people, which uses a psychoactive brew called ayahuasca to treat a variety of ailments. Given the spiritual nature of ayahuasca shamanism, it was predicted that participating in traditional ayahuasca ceremonies could help people increase in perceived existential meaning. It was also predicted that depth of alterations of consciousness would be a predictor for change in meaning. Additionally, it was predicted that participants who were more likely to seek meaning would have a greater change in meaning from the experience. The sample of this study included 29 participants with a mean age of 37.6 years ($SD=12.0$; age range: 24-69) who attended the ayahuasca centre Nihue Rao Centro Espiritual near Iquitos, Peru throughout the time frame of December 6th 2015 and January 2nd 2016. Participants were asked to complete a set of questionnaires before and after their ayahuasca experiences, which included measures of demographic information, attitudes towards life, psychological well-being, depth of alterations of consciousness, as well as profundity and mysticism of experience. In addition, participants were interviewed after participating in the ayahuasca ceremonies. A paired samples t-test revealed an overall significant difference of existential meaning before ($M=208.78$; $SD=25.64$) and after ($M=225.44$; $SD=18.02$) the ayahuasca experience with $t(26)=3.67$, $p=.001$ (two-tailed). The results revealed that although there was a significant correlation between altered experience and mysticism as well as profundity, the altered experience alone was not a predictor for change in overall meaning. There were significant regressions of phenomenology of the ayahuasca experience on subcategories of existential meaning, namely that low volitional control predicted for life purpose, high memory predicted for future meaning to fulfill, and less internal dialogue predicted for death acceptance. The results did not support the last hypothesis, as there was no significant difference between those who have a higher tendency to seek meaning and those who have a lower tendency to seek meaning. What was found instead was that low goal-seeking and low life control predicted for overall change in meaning. Patterns of the data were interpreted to conclude that having a surrendering attitude throughout the ayahuasca experience was the main predictor for change in meaning. These findings suggest the need for further investigations on surrendering as a potential therapy for treating existential issues concerning the meaning and purpose of one's life. The author will also report the occurrence of several anomalous phenomena in altered states of consciousness that she observed during the data-gathering process.

Astrology: The Queen of all Pseudosciences [SSE]

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In the struggle for freedom of scientific inquiry, astrology plays a recurring, even 'starring' role. The social/political factors which unnecessarily limit the scope of scientific inquiry have cast a long shadow over this queen of all the pseudosciences, deliberately obstructing research for decades. Now, Big Data and the latest information technologies are breathing new life and urgency into the growing evidence for planetary influence, concurrent with recent revelations that some of astrology's chief detractors may have been hoist upon the petard of their own sloppy pseudoscience.

We examine first how the skeptical movement coalesced in opposition to astrological research. Gauquelin's results spurred Kurtz to publish his infamous 1975 "Objections Against Astrology," and CSICOP was founded soon after. The genuinely scientific objections to the "Objections" by Carl Sagan, Freeman Dyson and P. Feyerabend never received the same public acclaim, and are generally not included in public collections. We continue with a brief overview of the relevant published research the "Objectors" ignored before dispatching press releases to major news organs, thereby receiving fame without ever really publishing, compared to those who published without fame. Astrology even landed

what should have been a knockout blow in the first round with Dennis Rawlings defection, revealing CSICOP's outright falsification in their efforts to debunk Gauquelin's work.

We gratefully acknowledge the Society for Scientific Exploration's longtime support and publication of Ertel's work, etc. in clarifying Gauquelin's findings. Meanwhile, after 40 years of censorship & non-publication, we are happy to report some encouraging chinks in the Great Wall of Denial. Particularly relevant is the work of Robert Currey & Ken McRitchie, et al, and the journal, *Correlation*, in successfully exposing cases where sloppy pseudoscience was employed to debunk positive astrological results, thereby resurrecting some valuable groundwork.

Currently, even with longstanding challenges in funding and publication, Big Data has been very good for astrology. Let's consider the recent (2015) Columbia University Medical School Study on birth months. New and promising results arise from the work of stellar researchers like Dr. Kyosti Tarvainen, Dr. Suzel Fuzeau-Braesch, Franco Minatel and of course, Oshop-Foss, who were published in the *Journal of Scientific Exploration*, (March 2015.) Their work applied an ancient astrological signature for followers to owners of the top 1000 Twitter accounts; revealing a high incidence of the signature and how the likelihood of the signature increases as the number of followers goes up.

The latest information technologies, e.g. Artificial Intelligence and Neural Networks, as well as the massive data samples now available have sparked research initiatives like the Kepler Conference: the first annual, evidence-based astrological research conference, bringing the astrological community together to deliberately compile and compound the body of evidence. The potential social benefits, e.g. in medicine, psychology, counselling, education, business, sports, etc. highlight the applicability of research results.

Again, we gratefully acknowledge the role of the SSE & JSE in helping to bring these new research initiatives about and are happy to report that the future of astrological research looks very bright indeed.

As It Occurred to Me: Lessons Learned in Researching Parapsychological Claims [PA]

Chris A. Roe (PA PRESIDENTIAL ADDRESS)

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Deciding what to discuss in a presidential address provides a welcome opportunity for reflection —after being actively involved in parapsychological research for 25 years, how has my perspective changed? What do I know now that I didn't know when I began? I do not mean simply in terms of which experimental outcomes proved statistically significant or which themes emerged from qualitative data analysis, but what did I discover about the phenomena, my participants, and also about myself as a consequence of my active participation as a student, researcher, collaborator, and mentor? What painful lessons could I share with those at the start of their career that might save them some time, effort and trouble? What insights presented themselves to me in the margins of research, from conversations with participants during debrief, from encounters with psychic practitioners in situ, and from interactions with researcher colleagues both within and without parapsychology? My presentation will inevitably have a biographical flavour, but will use that structure to provide a foundation for considering wider issues, such as the tension between the need for clarity & control and for authenticity & ecological validity when designing studies, the relative merits of qualitative and quantitative approaches and the value of a transpersonal orientation to understanding psi, the dynamic interpersonal nature of research with a sentient subject and the effect this has on outcome consistency, the negative impact of our funding model upon the way in which parapsychology is organised, and the need to invest in professional development at undergraduate and postgraduate level to ensure the long term viability of the discipline.

**The Case for Dream ESP Research:
A Contextualised Review of Study Outcomes from the University of Northampton [PA]**

Chris A. Roe (PA AWARD)

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Much recent work in parapsychology has concentrated on measuring unconscious responses to target stimuli or involve implicit psi tasks masked by conventional cognitive tasks. While these approaches are certainly worthwhile, they have little to say about the kinds of macroscopic spontaneous experience that prompted the foundation of the Society for Psychical Research or which preoccupy the general public today—if parapsychologists aspire to be employed in the university sector and paid from the public purse then it can reasonably be argued that their research must reflect that public's concerns. Many spontaneous psychic experiences involve altered states of consciousness (ASCs) in one form or another, and I will argue that this should again become a primary focus for parapsychology. Ganzfeld and dream ESP research seem to have fallen out of favour but continue to produce significant results (Storm, Sherwood, Roe, Tressoldi, Rock, & Di Risio, submitted). Indeed, it could be argued that these studies have been much more successful than we have any right to expect (cf. Roe, 2009), given a general presumption that “one-size-fits-all” when it comes to ASC induction (Rex Stanford refers to this as the “delusion of operational omnipotence”), which is exacerbated by the tendency for researchers not to monitor whether participants have actually experienced an altered state at all. It is therefore surprising that the number of studies utilising ASCs has dwindled in recent times when they seem to provide the most reliable method of capturing psi effects. In this presentation I will argue for a renewed interest in dream ESP research by summarizing those studies (published and unpublished) that have been undertaken at the University of Northampton, with a particular emphasis on process research that was intended to explore underlying patterns or mechanisms.

**A Western Psychiatric Patient Produces Sanskrit Messages that
She Could Not Know by Natural Means [SSE]**

Samuel H. Sandweiss*¹, Sthaneshwar Timalina² & Jonathan Lief³

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In June – July, 1983, in San Diego, CA, I observed and video captured 11 hours of remarkable phenomena in the course of treating a 32-year-old Western spiritually naïve and physically disabled Caucasian female patient, Jackie, who suffered from a severe headache and seizure disorder. She had no connection to India or Sanskrit, yet spontaneously spoke, wrote down phonetically and translated messages containing a variety of Sanskrit related languages from different traditions and time periods into unique, coherent declarations about how creation arises from consciousness. Two Sanskrit scholars, professors of religious study from well-respected universities, have analyzed the text. They found that Jackie's productions were not simply lifted from spiritual texts but were, indeed, a unique combination of diverse languages from various traditions, and something she could not have known by natural means. Can limited human consciousness expand to the degree of knowing languages and concepts beyond one's life experience?

Evidence has been accumulating about the capability of human consciousness to expand to a degree not explainable by modern science. Evidence from OBE, NDE, reincarnation studies, past life regression experiences, mediumship experience, as well as scientific studies of mind's remote effects on RNGs (Random Number Generators) are causing many to question science's basic assumption that consciousness arises solely from matter – the physical brain. Data of Jackie knowing and skillfully expressing complicated foreign languages and concepts that she had no way of knowing by natural means, significantly adds to this growing body of evidence.

I provided psychiatric treatment for Jackie for six years before the remote communication occurred, and the appearance of the phenomena was a complete surprise to me. I knew that Jackie had no interest in India or Sanskrit and in fact had difficulty dealing with activities of daily living. In addition, the patient describes on video, her lack of prior

knowledge of India and Sanskrit corroborated by video interviews with her husband. Dr. Sthaneshwar Timalisina, Professor of Religious Studies at San Diego State University meticulously analyzed the Sanskrit messages. He discusses some of his findings on video and opines that the productions are unique, novel, and quite beyond Jackie's ability to know by natural means. Frederick M. Smith, Professor, Sanskrit and Classical Indian Religions – Joint Appointment in the Departments of Religious Studies and Asian and Slavic Languages and Literatures, University of Iowa, and author of the book *The Self Possessed* (Columbia University Press, 2006) agrees with, and supports Dr. Timalisina's findings.

I will show video clips of the phenomena and amplify on the findings as well as describe the large amount of material that still has not been evaluated. We will see that the drama took place over two months – including productions of messages while Jackie is under close supervision in a psychiatric hospital. Jackie reports that she received these messages from an Indian holy man, Sathya Sai Baba, who was physically located 12,000 miles away in India, while she saw and communicated with him in an inner dimension while she was in San Diego California.

Experimenter Effect and Replication in Psi Research [PA]

Marilyn Schlitz^{*3}, Daryl J. Bem⁴, Eva Lobach⁸, Thomas Rabeyron⁷, William Bengston⁹, Sky Nelson³,
Serena Roney-Dougal⁵, Garret Moddel¹⁰, Patrizio E. Tressoldi⁶ & Arnaud Delorme^{1,2,3}

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This study addressed the replication problem in parapsychology through the examination of experimenter and participant belief in psi and their impact on the outcome of a psi task. The meta-study involved an international collaboration of teachers, student experimenters, and experimental volunteers, who made use of a standardized psi protocol that has been the focus of a number of replication attempts and that allows for a systematic collection of data under well-controlled conditions (Bem, 2011). It included 12 different laboratories across 32 experimenters and 512 participants. While the preregistered hypothesis that was assessed on a participant basis did not show a significant psi effect, when the statistical power was increased by using a single trial analysis, the primary hypothesis was highly significant. The results did not support a correlation between study outcome and experimenter expectancy. Overall, these results support the feasibility of a multi-laboratory collaboration and show that single trial analysis might be more appropriate and powerful to process these types of data.

Bem's "Feeling the Future" (2011), Five Years Later: Its Impact on Scientific Literature [PA]

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The study analyzes the impact on scientific literature of the controversial article by Bem, "Feeling the Future" (2011). Texts ($n=162$) that cite Bem's article were identified from the Elsevier Scopus database for the years 2011 to 2015. Aiming to complement more in-depth approaches to the controversies in parapsychology, we analyzed the summaries of these texts using the Iramuteq program for textual data. The analysis extracted four classes of vocabulary suggesting that the impact can be grouped in four different areas: 1) The role of replication in psychology research; 2) Bayesian statistical inference; 3) Experimental studies in anomalous experiences and 4) The quantum phenomena and theories. The replication vocabulary class is characterized by a vocabulary that addresses the role of replication in psychology research. The lack

of replication of some studies, along with questionable research practices, may have contributed to a crisis of credibility regarding psychological science. The Bayesian class points mainly to concepts related with the Bayesian approach. The text segments mainly reflected the perceived merits of this approach when compared with more traditional inferential statistics, namely statistics relying on p -values. The experimental studies in anomalous experiences class includes frequent terms related to experimental studies and psi phenomena (e.g., remote viewing, precognition, prestimulus), but also terms related to specific methodologies (e.g., non-intentional precognition task, Go/NoGo task) and theory (PMIR – psi-mediated instrumental response). The citation of Bem's article (2011) is applied in a context of process-oriented research on anomalous experiences (experimental work, designed to find evidence about the characteristics of processes that underlie anomalous experiences), by opposition to a proof-oriented research. Finally, The quantum phenomena and theories set of terms suggests that quantum theories of brain/consciousness function may leave the door open to the possibility of the existence of psi phenomena. The fact that replication and Bayesian classes were more represented in psychology literature confirms our hypothesis that psychology sources would have a more critical position. Data still suggest that the replication path is currently the one which is mainly followed in the attempt to reach closure for this controversy.

Effect of Intentionally Influenced Water on Germination of Arabidopsis Seeds [SSE]

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Arabidopsis is a small flowering plant in the mustard family. Its genome has been fully mapped and as such it has become a model system for plant genetics and molecular biology. *Arabidopsis* contains a flavoprotein called cryptochrome, a blue light receptor found in all plants and animals (including humans). There is evidence that cryptochrome also has quantum biological properties, used for example in avian magnetonavigation. As such, cryptochrome may be a candidate biological receptor for quantum phenomena such as entanglement and observational effects.

To explore possible quantum-mind-mediated effects of cryptochrome, under double-blind conditions we studied whether *Arabidopsis* seeds would show differences in the length of the stem of a germinating seedling (called the hypocotyl, short for hypocotyledonous stem) when watered with intentionally "treated" vs. identical but untreated water.

A single source of water was divided into two parts; one half was "imprinted" with intention for improved growth by three experienced senior Buddhist monks, and the other half was used as untreated control water. *Arabidopsis* seeds with three types of cryptochrome mutations were used: normal, gain-of-function and loss-of-function. Gain and loss-of-function mutations refer to reduced or enhanced functioning of cryptochrome. The normal seed is known as Columbia (abbreviated Col-4), the loss-of-function seed contains a mutated gene called cry1/2, and the gain-of-function seed contains a mutated gene called His-CRY2. Seeds were placed in dishes inside a temperature-controlled incubator, the seeds were germinated under conditions of blue or blue and red light, and then the hypocotyl length was measured (blind to the treated vs. untreated condition). Three replications of the germination process were conducted in each of three experiments, each replication using new seeds.

When comparing treated vs. untreated water conditions, the gain-of-function His-CRY2 seeds in both the blue and blue and red light conditions resulted in a highly significant decrease in hypocotyl length, which is associated with enhanced growth in the treated water ($p < 0.0001$, two-tailed). The same statistically significant outcome was observed in three repeated experiments.

Results strongly support the hypothesis that intentionally imprinted water enhanced growth in an *Arabidopsis* mutation containing the cryptochrome gene His-CRY2. This suggests that cryptochrome may be a component of living systems that is particularly sensitive to intentional influence; it also provides a clue about potential links between *qualia* (subjective intention) and *quanta* (behavior of the elementary physical world).

Reliability of RNG Outputs during Movie-Viewing Field Experiments [SSE]

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It has been reported that random number generator (RNG) outputs during coherent events are influenced by field consciousness and that this is reflected in anomalous statistical biases. Despite this finding, little is known about their reliability. A generalization study (G study) would be expected to show the ability to measure micro-psychokinesis (micro-PK) during field RNG studies on the assumption that RNG outputs can sense field consciousness. To explore the issue, the current study calculated intra-class correlation (ICC), using data from our previously published studies that had been obtained during the screening, in theaters. Results found the Psyleron RNG produced relatively high ICCs during 1,024-second intervals of both K-ON! and Zang-e, whereas no positive ICCs were associated with the other RNGs. Additionally, higher ICCs seemed to be correlated with repeated viewings. Psyleron might have detected audience consciousness, as it relied on longer spans of outputs. This issue warrants further examination.

TheAstral.com – Exploring the Astral Dimension, a Website of Open Experience [SSE]

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Purpose – Theastral.com is an open platform of investigation into parapsychological subjects and scientific exploration. The site creates an open forum to discuss, design, and develop research projects. The usability is designed for the general public in its simplicity as well as for parapsychologists with new hypothesis, theories, and projects to submit. Theastral.com provides a forum so users can communicate interdisciplinary methods in conducting research for controlled lab experiments and field research projects.

Methods – The website includes both research projects and experiments with an interactive online interface. Each project contains background information, experiment details, and related articles. Field research projects contain a digital journal of experiences and theories. Media including video logs, live broadcasts, and summary downloads are included in each project. Projects can also be submitted by outside researchers to be posted on the website. This gives researchers an ability to reach new audiences and create progress for their project. Theastral.com was created by WordPress and is a moderated site.

Project Development – Each project provides variable settings and an execution list for experiments. Information is available to download and visitors can provide immediate feedback through the website. The ability to create revisions, additions, and response theories gives an interactive approach to the projects. It gives users the ability to participate in the experiment and provide qualitative research in a meaningful format. Users become a co-researcher and develop new research methodologies in exploring the projects. A moderator of the website will update the projects periodically.

The main content includes information about parapsychology, exploring the psi phenomena, and indexing the projects media and data. The website consists of informative pages such as History, Contact Methods, and Project Science. Theastral.com also contains interactive pages such as Astral Projects, Creative Intuition, and Search for Psi, where researchers can submit their projects to be posted. A Blog page gives multiple perspectives on topics including: extra-terrestrials, remote viewing, healing, and mediumship.

Projects submitted to the theastral.com will be monitored and developed with the Rhine Research Center in Durham, NC to include authentic scientific testing and viewpoints. Theastral.com looks to investigate and discover new paranormal methodologies and promote the research to the general public. The website provides an informative and interactive forum for explorers in parapsychology. Topics of interest include: astral projection, ESP, lucid dreams, healing, PK, and survival.

Goals and Deliverables - The goal of Theastral.com is to create a source of information and projects on parapsychology. The site posts authentic & repeatable experiments, while providing an open forum for the participants. By providing research with an open platform of communication the possibility of discovering new information on each project will increase. The next steps are revealing the website, starting the projects, and tracking the website activity and results.

Was It an Illusion? Quantitative Analysis of an Instance of Spoon Bending [SSE]

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There are many entertainers who use sleight of hand or specially prepared trick cutlery to give the appearance of psychokinetic metal bending. However, there are some who seem to have a genuine psychic ability in this regard, and furthermore there are reports of many inexperienced people acquiring this ability when appropriately coached.

In an effort to determine with certainty whether metal bending by intention alone is possible, one instance of spoon bending was analyzed quantitatively. A stainless steel spoon purchased from a restaurant supply company was marked to guard against substitution and given to a professional “mentalist” for bending. A close range video recording was made of the spoon during the entire time it was handled by the mentalist.

At first the spoon was bent in half about an axis perpendicular to the long axis of the spoon. This was accompanied by several flourishes of the mentalist’s hands, during which one might argue that extremely deft sleight of hand had caused the bending.

Next the mentalist used obvious muscular force to re-straighten the spoon. Then he wrapped the fingers of one hand around the handle of the spoon and held the other hand about 3—5 cm away from the protruding bowl of the spoon. When the bowl had rotated 180° about the long axis of the spoon (without the handle rotating), he relinquished the spoon thus permanently deformed.

Although it appeared that this twisting occurred without the application of any mechanical torque, it must be asked whether the mentalist had surreptitiously caused the 180° rotation while straightening the spoon. Furthermore, it is possible that the prior bending and re-straightening of the spoon might have weakened the metal. To investigate these possibilities, the following experiment¹ was conducted on an identical spoon to which a bolt was welded so that a torque wrench could be applied. After bending in half and then re-straightening the spoon, it was found that a torque of over 20 inch-pounds (2.26 newton-meters) was required to rotate the bowl of the spoon as described above. However, the maximum torque that could be exerted by this author (an adult man) using both hands was less than 4 inch-pounds (0.45 newton-meters). When this bare-hands torque was applied, the spoon bent a few degrees but then snapped back to its original conformation. In fact, nearly 20 inch-pounds could be exerted without permanently deforming the metal.

These results strongly suggest that human intention is sometimes capable of permanently deforming steel without application of mechanical force or heat.

There is No Gate: On the PA and the AAAS [PA]

Annalisa Ventola

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The 1979 national meeting of the American Association for the Advancement of Science (AAAS) played host to one of the most retold stories in the history of field of parapsychology - when John Archibald Wheeler, a theoretical physicist, veered off the stated program of his symposia and used part of his presentation time to launch an attack on the Parapsychological Association (PA), calling for its dismissal from the AAAS. His inappropriate outburst did not succeed in achieving this aim; it only strengthened the PA’s affiliation with the AAAS. However, it did succeed in obscuring the successes of the dozens of other parapsychology papers presented at AAAS national meetings for years prior, the encouraging interactions that they stimulated, and the positive trajectory of the field up until that point.

This paper summarizes the history of parapsychological topics presented in *Science* magazine and AAAS meeting symposia from the first mention of the word ‘parapsychology’ in *Science* (1937) to last psi-related symposia to take place at a national meeting (1993). Looking through these materials, the integration of parapsychology into the wider scientific community appears to have proceeded – at least for a time - in a linear and continuous way. In the decades prior the PA’s formal affiliation with the AAAS, *Science* magazine was already serving as a mouthpiece for the developing field of parapsychology by reprinting its most important announcements, such as the start of the *Journal of Parapsychology* and the formation of the PA. This was followed by a decade of symposia, which launched with an orientation to the very basics of psi research and increased in complexity year-by-year. The majority of these presentations

were followed by question-and-answer periods that conveyed the interest of a curious and open-minded audience.

Examining the AAAS' mission and criteria for disaffiliation, the author concludes that the PA's affiliation with the AAAS is likely to remain untested. A member-facing association organized very similarly to the PA, the AAAS is more occupied by its mission of service than the gate-keeping image that some have put upon it. On occasions where they were thrust into the role of gate-keeper, the governance of the AAAS behaved fairly and dispassionately, which in most cases worked out in favor of parapsychology as a science. Rather than asking if parapsychology is inside or outside the gates of science, it may be more productive to question the very metaphor, and look at how we can support the AAAS' mission of service.

Stimulating Progress in Parapsychology: Prospective Meta-Analysis [PA]

Caroline A. Watt*¹ & James E. Kennedy²

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In 2012, the authors launched the Koestler Parapsychology Unit (KPU) Registry for Parapsychological Experiments. Study registration is a valuable tool that helps to eliminate or identify many questionable research practices in individual studies and thereby enhances the methodological quality of an area of research. Researchers employ meta-analysis to quantitatively combine methodologically similar studies. When conducting a meta-analysis, they must make decisions about what data to include and what statistical methods to use. If researchers do this after knowing the outcomes of the studies, the decisions may be biased. Pre-registration of individual studies does not eliminate potential biases that emerge from decisions during a meta-analysis. Retrospective meta-analyses are similar to exploratory research because methodological decisions are made after the study outcomes are known. Prospective meta-analyses are a form of preregistered confirmatory research because the analyses and the data that will be included are specified and ideally publicly registered before the studies are conducted.

The present paper uses ganzfeld ESP research to illustrate the limitations of retrospective meta-analysis, and to highlight how registration-based prospective meta-analysis can help to resolve debates over the evidence for psi and stimulate progress in parapsychology. For the first time, we present a summary of the KPU ganzfeld ESP studies, and note the decisions facing anyone seeking to evaluate their combined outcome. We then discuss the wider ganzfeld ESP database, which has been evaluated in a series of meta-analyses from 1985 to 2010. In each case, discussion has ensued over how to interpret the findings, as occurred for example following the 1999 meta-analysis by Milton and Wiseman. Here, discussion included the definition of standard ganzfeld, statistical methods, and the meta-analysis cutoff date. The discussion of the Milton and Wiseman meta-analysis demonstrates the latitude in making decisions for a retrospective meta-analysis and, most importantly, the potential for bias either pro or con the psi hypothesis.

We then introduce a prospective meta-analysis of ganzfeld ESP studies that will be placed on the KPU Study Registry following review by parapsychologists and critics. The ganzfeld prospective meta-analysis protocol is preregistered and will make use of future study registrations to prospectively decide which studies will be included and what statistical test will be employed to assess the combined outcome. Any qualifications or modifications for the use of a study will also be specified prospectively on the list of included studies. This approach to meta-analysis does not limit process oriented research or innovation, but simply specifies what studies will be included in a subsequent meta-analysis before the results of the studies are known.

Finally, we consider how prospective meta-analysis could be applied to other lines of parapsychological research, and summarize the many benefits of prospective meta-analysis for parapsychology, and displays excitement when he describes these aspects of himself, particularly with regard to music.

The Secrets of the Heart: Empathy & Anomalous/Transpersonal Experiences [PA]

Ian Wickramasekera (PA JB RHINE AWARD)

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Dr. Ian Wickramasekera II will discuss the powerful transpersonal nature of empathy that sometimes gives rise to anomalous experiences. The Keynote address will discuss how anomalous and transpersonal experiences have often been reported to arise from deep experiences of empathy through practicing techniques such as hypnosis and compassion related meditation practices (Chod and Tonglen). The presentation will cover perspectives and practices from ancient spiritual traditions, classic psychological theorists, as well as modern psychological and psychophysiological research conducted by Dr. Wickramasekera and others. The presentation will end with a consideration of what might be gained through studying empathy and compassion to further understand “The Secrets of the Heart.”

Quantum Mechanics, Metaphysics, and Bohm’s Implicate Order [SSE]

George R. Williams

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Quantum mechanics has provided a successful framework for describing the behavior of the subatomic world. However its ontological interpretation remains mysterious. Alternative interpretations include aspects of our reality existing in quantum superposition prior to measurement (Copenhagen) or splitting into multiple separate realities (Everett). Quantum mechanics also challenges our metaphysical notions or underlying assumptions about reality. The best-known example, perhaps, is the nonlocality between subatomic particles that has been experimentally confirmed. Einstein and his colleagues vigorously argued that quantum mechanics violates locality and therefore had to be incomplete. However, nonlocality was confirmed to be an intrinsic aspect of quantum mechanics.

This historical debate on nonlocality raises the question of what role metaphysical assumptions play among competing interpretations. Another class of quantum mechanical interpretations seeks description of reality more congruent with our experience, yet via sharper deviations in our underlying metaphysical assumptions. Bohm introduced his guidance equation to provide an interpretation for quantum mechanics that allowed particles to have definite location and trajectory. However Bohm achieved this by positing that the movement of particles depended on the configuration space, whose dimensionality is three times the number of particles in the universe. Bohm’s approach suggests that we can perhaps achieve an ontology that is congruent with classical physics through a quantum potential function that is inherently nonlocal and holistic. While most physicists have not followed Bohm’s approach, some find its ontology more appealing than the alternatives. A key question arises, however, is what are the implications of the fact that the quantum waveform operates in a high dimensional (configuration) space. What is this high-dimensional space about? Some have argued that this high dimensional space is real and represents a more fundamental level of reality.

Bohm’s later work proposed that this high-dimensional space of the waveform represents a more fundamental level of reality, an implicate order, which is the foundation for both consciousness and matter. Few physicists or philosophers have been willing to take this step, primarily because of the generally accepted assumption that consciousness supervenes on matter. However the arguments of Chalmers and other philosophers of mind imply that consciousness probably does not emerge from matter. Also the work of Tonini has illustrated that subjective experience seems to require an extraordinary amount of information and dimensions. Thus a framework that takes the high dimensionality of the waveform as real and foundational for both matter and consciousness appears to be a viable alternative, not just a solution for the measurement problem in quantum mechanics, but the hard problem of consciousness as well.

Another important advantage of this approach is that it provides a framework that is consistent with the psi literature. Bohm’s implicate order, existing as a proto-conscious, nonlocal potentia, can provide promising explanations for such psi categories as clairvoyance, precognition, and mind-matter interaction. Thus Bohm’s implicate order, while radical in some respects, distinguishes itself from other interpretations of quantum mechanics through its implications for empirical testing.

Finding Your Teacher: Putting Together a Shared Educational Experience in Parapsychology [PA]

Nancy L. Zingrone [PA AWARD TALK]

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The presentation, given as a result of the 2015 “PA Outstanding Contribution Award,” focuses on the need for a shared educational experience in parapsychology at the graduate level, and the importance of professional development for active researchers in the field. The talk will introduce the history of higher education and professional development in virtual environments, discuss the affordances of online education, and provide examples of such efforts in our field from Dick J. Bierman’s first online parapsychology course in 1994, and the Asociación Ibero-Americana de Parapsicología blended course — that is, offered both online and onsite — in 1998 to the various informal sources of higher order education available now through association websites, online libraries such as Lexscien.org and The AZIRE Library and Learning Center in the virtual world Second Life, and through various YouTube channels. It is argued strongly that online conferences and MOOCs (massively open online courses) have the potential not only to provide unique and sustained access to scientists and academics and their work for a broad spectrum of students of all types from around the world, but also that such offerings are particularly important for current researchers, especially those with PhDs from other disciplines, from programs in which the teaching of the field’s history and research is minimal, or who have decided that an advanced degree is not needed or not possible. Furthermore, the proliferation of high quality, high level materials online has the potential to make visible the best research in the field and counteract not only claims that are made from unexamined or unverifiable personal experience but also from the uncomplex notions of the work promulgated by hardened skeptics and well-meaning but uninformed informal and formal science educators.

The Trickster Companion of Parapsychology and Anomalistics [PA]

Renaud Evrard¹ (Chair), George P. Hansen², James E. Kennedy³ & Jeffrey J. Kripal⁴

1. University of Lorraine, Nancy, France
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3. Colorado, USA
4. Rice University, Houston, USA

The relationship between paranormal phenomena and the trickster figure of mythology has been long recognized (e.g., Radin 1956; Combs & Holland 1990). *The Trickster and the Paranormal* (2001) by Hansen gave an extended overview of applications of the concept to the fields of parapsychology and anomalistic psychology. It addressed their institutions, history, research, theories, paradoxes, and personnel. The paranormal seems to have affinities with certain social characteristics (e.g., liminality, anti-structure, marginality, communitas, transgressiveness, reflexivity, reversibility) and aversions to others (e.g., centrality, structure, hierarchy, bureaucratic power). In sum, trickster theory describes a recurrent socio-anthropological pattern that makes some ordinary observations in our fields intelligible, when taken in hindsight. But does this fruitful theory make specific predictions that would make it testable? What is its empirical basis? And what are its limits?

With this panel discussion, we offer an opportunity to address an often neglected theory that illustrates how the humanities may shed light on paranormal research.

Combs, A., & Holland, M. (1990). *Synchronicity: Science, Myth, and the Trickster*. New York: Paragon House.

Hansen, G.P. (2001). *The Trickster and the Paranormal*. Philadelphia: Xlibris.

Radin, P., with commentaries by Kerenyi, K., Jung, C.G. (1956). *The Trickster: A Study in Native American Mythology*. New York: Schocken Books.

1 — The Paranormal, the Trickster, and Structuralist Concepts [PA]

George P. Hansen, East Windsor, New Jersey, U.S.A.

For thousands of years, humans have used religious rituals to influence, channel, and hedge off paranormal/supernatural forces. They have used myths to describe, explain, and understand those forces. Half a century ago, ritual and myth were illuminated by anthropologists (e.g., Claude Lévi-Strauss, Edmund Leach, Victor Turner, Rodney Needham) using structuralist ideas. Concepts developed by them and later post-structuralists (e.g., Jacques Derrida) apply to the paranormal. Structuralist approaches often used comparative analyses, which are commonly employed in the humanities but less often in the sciences. They facilitate development of non-reductionistic theoretical perspectives.

The trickster is a character type found worldwide in myth. He embodies a collection of abstract qualities, including disruption, deception, marginality, supernatural powers, transgression, boundary crossing, and violation of sexual taboos. These qualities may manifest in individuals, small groups, even entire cultures. Structuralism's ideas gave insight into the trickster; the works of Barbara Babcock and Laura Makarius are noteworthy in this regard.

Pertinent concepts include binary oppositions, liminality, anti-structure, communitas, betwixt and between, interstitiality, and status reversal—all are directly related to classification. These ideas illumine marginality, outsiderhood, stigma, and magic. All help explain the nature of psi as well as the position of the paranormal in Western culture.

Psi subverts commonly accepted categories. It blurs the boundaries between the binaries of self and other (telepathy), present and future (precognition), present and absent (clairvoyance), mind and matter (PK). But psi categories themselves break down; clear distinctions among them cannot be made. The labels can designate experimental procedures, but they do not identify different psi mechanisms. Likewise, the century-long debates on super psi vs. spirit communication reflect similar problems of classification.

Earlier cultures used rituals to mark transitions such as child to adult or living to dead; the rituals typically included an in-between (or liminal) period that highlighted transitional conditions. The liminal realm is an area of indetermi-

nacy and ambiguity (and is sometimes sacred); within it, customary rules and social roles are suspended. Characteristics of liminality include social instability, change, flux, transition, fluidity; it thus has parallels with William Braud's model of lability and inertia in psi processes.

Liminality and its governing archetype, the trickster, tend to subvert or dissolve hierarchical social structures. The term anti-structure expresses that quality. Psi is frequently accompanied by anti-structural effects. Ghost research groups rarely achieve long-term existence and almost never own buildings or employ fulltime staff. Parapsychology laboratories never became securely integrated into mainstream bureaucratic institutions of government, industry, or academe.

Social marginality is a type of liminality. Parapsychology is marginalized and stigmatized. Marilyn Schlitz, in her Parapsychological Association presidential address in year 2000, explicitly disavowed the use of the word parapsychology. There may be no better illustration of the stigma and marginality of the field. For more than a century, parapsychologists have striven for respectability and general acceptance by cultural elites. They failed. Any comprehensive theory of psi must explain this plight.

2 — Coming to Terms with the Trickster [PA]

James E. Kennedy, Email: jek@jeksite.org

The failure to produce convincingly reliable psi effects after 80 years of experimental research indicates that fundamental factors are not yet understood for the operation of psi. George Hansen's characterization of the paranormal as a trickster includes the property that psi effects can be striking and reliable for a period of time, but then seem to actively avoid sustained or useful effects.

The working assumptions for most parapsychologists are that psi is an unconscious process that is directed by human motivation and generally operates without conscious awareness and without conscious intention. The trickster properties of psi indicate that more is involved than just the motivations of the participants and experimenters. Anyone who has motivation about the existence or occurrence of psi could unconsciously use psi to influence the world to conform to their motivations. The outcome of psi experiments may be influenced by the social and cultural background of motivations and associated psi. Competition among different motivations could produce unreliable psi effects.

Another hypothesis for the trickster nature of psi is that psi effects are due to influences from people in the future acting backwards in time or from entities in additional dimensions such as spirits of deceased persons, angels, God(s), karma, or some type of dualistic higher consciousness. These ideas are not scientifically parsimonious, but they reflect the fact that people often experience psychic phenomena as a higher power guiding them. Psychic experiences tend to inspire a more spiritual worldview, similar to mystical and near-death experiences.

The ultimate goal of experimental research is to convert the paranormal into technology. If psi is converted to technology, the mysterious, mystical, spiritual aspects will be lost. The message from the trickster is that converting psi to technology is not going to happen.

Experimental research with good methodological standards should in the next few years resolve the debates about the validity of the trickster ideas. The weaker methodological practices in the past may have obscured the trickster characteristics of psi. If the trickster ideas prove to be correct, those whose interest in psi is based on control and application—the masculine approach as described by Rhea White—will probably abandon psi research.

The striking differences among people in the occurrence of and attitudes toward paranormal phenomena need to be recognized and investigated. People appear to be living in different worlds with regard to the paranormal and often seem to have little ability to comprehend and accept other worldviews. Psi as technology versus psi as a spiritual experience is one of many distinctions that are needed. Psychological, sociological, religious, cultural, and life-event factors all need to be considered in understanding the differences in worldviews about the paranormal.

I also think that it is important to distinguish between experiences that appear to be truly paranormal versus experiences that are likely wishful thinking or other mistaken interpretations. Based on my experiences, actual paranormal experiences may be a component of a larger supernatural factor that creates a destiny for a person to have certain opportunities, experiences, and challenges in life.

3 — Why You Are So Scary: Understanding the Demonization of Parapsychology among Evangelical and Fundamentalist Communities [PA]

Jeffrey J. Kripal, Rice University, Houston, U.S.A.

The present paper is a development of the last section of my J. B. Rhine Lecture in 2014 entitled “Authors of the Impossible: What the Humanities Have to Offer Parapsychology.” I want to pick up here where I left off there and address some of the contemporary Evangelical and fundamentalist readings of parapsychology as “demonic.” More specifically, I want to read these as a distorted insight into the Trickster, transgressive or anti-structural nature of paranormal phenomena. I will engage the work of George Hansen on the anti-structural nature of psi phenomena and put this in conversation with the work of the historian of religions Rudolf Otto on the left-handed sacred, the philosopher Georges Bataille on the mystical dimensions of transgression, some recent work on the mythical figure of Satan as a Trickster figure, and the scholarly literature on the paranormal in Roman Catholic hagiography and theology (where it tends to be much more appreciated).

My paper will engage the question of why parapsychology is still the object of various marginalizing, misinformation, and maligning strategies from both cultural elites and religious leaders. As these strange bedfellows suggest, parapsychology occupies a most interesting liminal or both-and position in the broader culture, somehow managing to offend both ends of the ideological spectrum.

On the secular side, I think the primary reason parapsychology is rejected is because its basic theoretical impulses around the nature of mind represent an implicit challenge to the base metaphysics of modernity and its instrumental reason, namely, materialism and mechanism. This is hardly news to you. So let me proceed immediately to the religious reasons, which I think are much deeper historically, trickier to understand, and so much more difficult to get a handle on and answer.

I think there are at least three religious reasons that parapsychology is rejected and psi is feared. None of these are necessarily conscious reasons. Indeed, I suspect they are usually operating partly or even entirely unconsciously.

The first is what I will call the “Problem of Deification.” It is a direct function or result of Christian theology and is particularly prominent in American culture. I would not universalize this problem and suspect that the dynamics are very different in other theological contexts, say, in Jewish or Islamic contexts, and I know they are very different in Hindu, Buddhist, and Daoist ones. The second reason is what I will call the “Problem of Religious Authority.” This problem can be found in different theological contexts and in different degrees. Again, I would not universalize it. The third is what I will call the “Problem of Black Magic.” Historically speaking, it is the deepest of the three. It is also, I think, the one most resistant to an adequate response or resolution. Alas, it can probably be universalized.

I fully realize that none of these theological, institutional, and deep historical backgrounds easily translates into a conscious strategy of response or defense in our present. Indeed, I think some of it, if made fully conscious and public, might well make the backlash worse. Still, there is also a part of me that thinks that this deep religious background to the resistance does indeed help. For one thing, it makes sense of the otherwise senseless. For another, it makes the unconscious conscious. For still another, it can help us to better understand and appreciate our own intellectual radicalism.

Third Eye Spies [SSE]

Russ Targ, Email: russtarg@gmail.com

Third Eye Spies is a new documentary feature film by award winning director Lance Mungia. It chronicles the lifelong journey of physicist Russell Targ, co-founder of the Stanford Research Institute's CIA supported ESP research program. Targ's quest has been to reveal to the world the reality of ESP and the fact every intelligence agency of the U.S. government has used "psi" or what came to be known as "remote viewing" operationally for intelligence gathering against the Soviets and others. This 23-year program had oversight at the very highest levels.

On the verge of his life's work being lost to a relentless misinformation campaign and while facing both his own mortality and the recent death of one of the most talented "Third Eye Spies", Russell determines to head out on the road one last time to do battle with the skeptics and seek out confirmation from the remaining "Third Eye Spies". This opportunity for disclosure is something he has been seeking since he left the intelligence community in 1982 and announced to a stunned audience at the Soviet Academy of Sciences, "There can be no secrets anymore."

The 110 minute theatrical documentary film consists of compellingly cinematic re-enactments of actual remote viewings done at Stanford Research Institute for intelligence agencies, amazing new data retrieved via Freedom of Information Act and over 20 interviews with every top player involved, all gathered in the same place for the first time.

Our journey takes us around the world to find never before heard details and compelling scientific evidence from an Apollo astronaut, a Nobel Prize Laureate, and the top intelligence operatives, military commanders and even the remote viewers themselves, some of whom have never been interviewed before.

Whether psi is used to find your house keys, make money on Wall Street or read codewords at a secret NSA site, spy on foreign embassies, find a kidnapped general or a downed bomber, Russell Targ's understated mantra that "the evidence for extra sensory perception is overwhelming and shows a talent we all share and deserve to know about, leaves us not just with a greater understanding of this unique chapter in U.S. history, but perhaps most importantly a greater understanding of who we are and our larger connection to the world.

The CIA, NSA and DIA used it, your tax dollars paid for it, and now you deserve to know about it.
www.thirdeyespies.com

The workshop will begin at 9:30 AM and end at 4:30 PM with two breaks.

Activating Psi Dreaming – Research Methods and Application Potential [SSE]

Dale E. Graff

Psi-Seminars-Initiatives, Hamburg, PA USA, Email: mtnviewer@dalegraff.com

What is psi dreaming? How can individuals experience psi dreams? How can psi dreaming be researched and evaluated scientifically? What can we do with psi dreaming? How can psi dreaming be understood relative to other forms of psi, such as remote viewing and some types of intuition?

This workshop is an opportunity to discover the application potential of psi dreaming. Guidelines for performing psi dream research and strategies that facilitate psi dreaming are provided with methods for evaluating psi dreams from a scientific perspective. A variety of psi dream research results show evidence for the reality of psi dreaming. Independent psi dream investigations and validated spontaneous psi dreams illustrate the utility and limitations of psi dreaming. Potential concepts on how psi dreaming occurs and how psi dream imagery is constructed and interpreted will be explored. Exercises to assist in dream recall are practiced during the workshop. A psi dreaming experiment for a designated picture will be available during the conference with results reviewed during the Friday workshop. Recommendations on how to achieve a psi dream for the target picture will be provided during the first day of the conference on June 20.

Facilitator:

Dale E. Graff, M.S. Physics, has been conducting psi and psi dreaming workshops for the past 25 years at conferences and organizations, including the Rhine Research Center (RRC) in Durham, NC. He is an active member of the International Association for the Study of Dreams (IASD) and facilitator for IASD's psi dreaming events. He was a former Director of Stargate, the US Department of Defense Program for research and applications of remote viewing (RV), an aspect of extrasensory perception (ESP). Currently he pursues independent research in precognitive dreaming and explores connections with Associative Remote Viewing (ARV).



The [Parapsychological Association](#) is the international professional organization of scientists and scholars engaged in the study of consciousness-related experiences and phenomena known as ‘psi’ (or ‘psychic’) experiences. The PA was first established in 1957, and has been an affiliated organization of the American Association for the Advancement of Science (AAAS) since 1969. It provides an international forum for scholarly exchange through annual conferences, generally held in North America or in Europe, and through the publication of its *Mindfield* bulletin.



Since 1982, the [Society for Scientific Exploration \(SSE\)](#) has provided a critical forum for sharing original research into conventional and unconventional topics. Members conduct research on consciousness, physics, alternative energy, healing, and more. Subjects often cross mainstream boundaries, yet may have profound implications for human knowledge and technology. We publish a peer-reviewed journal and the popular *EdgeScience* magazine, host conferences, and connect scholars.