

Society for Scientific Exploration

Consilience:

Developing the Foundations
of a New Scientific Paradigm

38th Annual Meeting | June 5-8, 2019
Omni Interlocken | Broomfield, Colorado



Society for Scientific Exploration 38th Annual Conference

5 – 8 June 2019 | Broomfield, Colorado

Consilience: *Developing the Foundation of a New Scientific Paradigm*

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38th Annual Meeting of the
Society for Scientific Exploration

Consilience:

Developing the Foundations of a New Scientific Paradigm

5–8 June, 2019 | Broomfield, Colorado

Wednesday – June 5th

09:30-17:00 Council Meeting – Pine Room

18:00-20:00 Registration and Welcoming Reception with Cash Bar – Lobby Court
and Terrace

Thursday – June 6th - Centennial Ballroom

8:30-9:00 Registration

9:00-9:15 Welcoming Remarks

Session 1: Consilience Overview

9:15-10:00 Larry Dossey
Overview of the Consilience Problem

10:00-10:25 Carsten Ohrmann
Convergence of Business, Science, and Wisdom Traditions

10:25-10:50 Harald Walach
*Towards a Postmaterialist Science – Report of the Galileo Commission of the Scientific and
Medical Network*

10:50-11:15 TEA/COFFEE BREAK

11:15-11:40 Imants Barušs
Beyond Consilience: Understanding a Theory with Good Goodness-of-Fit

11:40-12:05 Paul H. Smith
What Makes “Scientific” Evidence Scientific?

12:05-12:30 York Dobyns
Anomalous Consilience

12:30-14:00 LUNCH

Session 2: Consilience and Healing

- 14:00-14:25 Bill Bengston
Is There any Energy in "Energy Healing"? Healing Research and Problems Reaching Consilience
- 14:25-14:50 J. Kenneth Arnette
Death and the Great Consilience: The Theory of Essence unifies Death-Related Anomalous Experiences
- 14:50-15:15 David Nortman
Homeopathy's Contribution to the Advancement of Consilience

15:15-15:45 TEA/COFFEE BREAK

Session 3: Consilience and Consciousness

- 15:45-16:10 Robert M. Wood
The Secret Relations Between UFOs and Consciousness
- 16:10-16:35 Morris Freedman
The Brain and Psi: A New Paradigm for Consilience to Advance the Science of Anomalies into the Mainstream
- 16:35-17:00 John Valentino
Consilience in Mind-Matter Interaction(s)
- 17:00-17:30 SSE Business Meeting and Open Forum
- 17:30-19:30 DINNER**
- 19:30-21:00 PANEL DISCUSSION – DIGGING INTO CONSILIENCE

Friday June 7th – Centennial Ballroom

- 9:00-9:10 Welcoming Remarks
- 9:10-9:20 Founders' Lecture Award Presentation
- 9:20-10:00 Founders' Lecture
Peter A. Sturrock
Behind the Mask: The Hidden Content of the Dedication of Shakespeare's Sonnets

Session 4: Healing

- 10:00-10:25 John McMichael
Reversing Traumatic Brain Injury

Schedule *Continued*

- 10:25-10:50 Wagner Alegretti
Detecting and Understanding Bioenergy: the Bridge Between Consciousness, Brain and the Physical Universe
- 10:50-11:15 TEA/COFFEE BREAK**
- 11:15-11:40 Charles F. Emmons
Managing the Medically Mysterious: Scientific, Paranormal, and/or Spiritual?
- 11:40-12:05 Yury Kronn
Creating Effective Energy Patterns to Fight Stress
- 12:05-12:30 Igor Nazarov
Using Schumann Resonance Frequencies to Counteract Harmful Effects of the Electromagnetic Pollution
- 12:30-14:00 LUNCH**
Aspiring Explorer's Meeting - Open to students and teaching college/university professors

Session 5: Nonlocal Consciousness

- 14:00-14:25 Dale E. Graff
Interacting with the Future: Evidence for Consciousness Extending Outside of Space-Time
- 14:25-14:50 Stephan A. Schwartz
Nonlocal Consciousness and the Anthropology of Religions and Spiritual Practices
- 14:50-15:15 Nancy du Tertre
TSP - The Next Generation of Remote Viewing
- 15:15--15:40 Eric Wargo
From Oedipus to "Mr. Foresight": The Freudian Unconscious as Misrecognized Precognition
- 15:40-16:05 TEA/COFFEE BREAK**

Session 6: Psychology

- 16:05-16:30 Jennifer Lyke, Shannon Madgey, Angel Lopez & Roseanne Johnson
The Frequencies of Psi Experiences and Entity Encounters in Spontaneously Reported Self-Transcendent Experiences
- 16:30-16:55 Nanci Trivellato
Examining Non-Ordinary Phenomena Experienced During Childhood
- 16:55-17:20 Gabriel Felley
"Visualizing" Morphic Fields with the Yi Jing and Synchronicity
- 17:20-17:50 POSTER SESSION PREVIEW: 1 MINUTE PER PRESENTER
- 17:50-19:30 DINNER**

19:30-21:00 POSTER SESSION + Ice Cream Social

Keith Alexander

Further Extensions of the MegaREG

Peter Champoux

EarthRings: Integral Membrane Plutons

Jeff George

Awareness Logic, the Awareness Point, and Space-Time-Awareness

Grace Kadler

Pushing the Boundaries with the REG

Douglas Kinney

Case for Spiritual-Based Reality

Jordan Kritzinger

How Mathematicians Think

Christopher Laursen

Implementing Interdisciplinary Intermediatism: Emerging Methods to Bring Consilience

Victoria Li

Why do Fibonacci Numbers Occur In Pinecones

Rongwu Liu

Volume Field Model about Strong and Weak Interaction

Herb Metz

Top-Down Cosmology

Lori Morris

The Theory of Existence Within Quantum Fluidity

Glen Rein

Water as a Carrier of Frequency Information

Courtney Roberts

Consilience & the Astrological Universe

Daniela Rodriguez

Turiyatita: The Indian Nondual Cosmography of Psi

Nadir Shakir & Nelson Abreu

Evaluating the Effect of Intention on Wilting of Flowers

Dianne Trussell

Consilience and Direct Human Experience as Scientific Evidence

Paul J. van Leeuwen

Quantum Physics Meets Cosmic Consciousness

Harald Walach

Is the Matrix Experiment a Replicable Experimental Paradigm?

Saturday June 8th – Centennial Ballroom

9:00-9:05 Announcements

Session 7: Psi Methods

9:05-9:30 Dean Radin
Expanding the Scope of Mind-Matter Interaction Experiments

9:30-9:55 Mark Bocuzzi
Looking for Psi in All the Wrong Places: Task Optimization in Psi Research

9:55-10:20 Julia Mossbridge, Mark Bocuzzi, Marcia Nisam & Adam Crabtree
Screening for Precognition, Remote Viewing and Micro-Psychokinetic Skills: Results and Lessons from Online Psi-Testing Methods

10:20-10:50 **TEA/COFFEE BREAK**

Session 8: Psi Models

10:50-11:20 Roger D. Nelson
Are Evoked Potentials a Model for GCP Event Data?

11:20-11:45 Garret Moddel
Quantum Mechanics Does Not Explain Psi...So Far

11:45-12:10 David Scharf
Two Dogmas of Materialism: Toward a Realistic Framework for Understanding Mental Causation

12:10-13:40 **LUNCH**

Session 9: Models of Reality

13:40-14:05 John Streiff
The Nature of Deep Reality – Solving Chalmer’s Hard Problem

14:05-14:30 James L. Oschman
Structure and Properties of the Quantum Information Field

Session 10: Synthesis

14:30-15:00 D.P. Sheehan
It’s About Time

15:00-15:30 Jason Yotopoulos
Subtle Energy Research: Systems Mapping & Future Roadmap

15:30-16:00 **TEA/COFFEE/SOCIAL BREAK**

16:00-17:30 PANEL DISCUSSION: SYNTHESIS

17:30-18:30 **Break**

18:30 Cash Bar Opens

19:00-21:00 BANQUET DINNER

Speaker: Julie Beischel

You're Not Even in There Now: The Consilience of Survival of Consciousness, Body Ownership, and Cellular Turnover Research

Abstracts

(In Alphabetical Order by Presenter)

Detecting and Understanding Bioenergy: The Bridge Between Consciousness, Brain and the Physical Universe

Wagner Alegretti

Bioenergy (prana, chi, orgone, subtle energy or bio-field) has been known for millennia but has eluded science in respect to its detection, measurement and theoretical understanding. To help cover this serious gap in the comprehension of reality and consciousness manifestation, the author designed and conducted series of experiments using fMRI and other forms of NMR focused on the research and understanding of: 1. Neurological changes of the brain during execution of bioenergy techniques and vibrational state; 2. How to detect and measure bioenergy, based on its effects over matter; and 3. Mechanism of consciousness-matter interaction via bioenergy. This paper intends to present thought-provoking experimental and laboratorial findings and their preliminary analysis, including of bioenergy transmission to different types of substances and "objects", like a "fMRI reference phantom", a potato, an egg, and a person's brain. It will also discuss some of their consequences and possible uses, including the possible future development of a "bioenergy technology." In a consilience approach, it intends to bring more support to and evidence of subtle energy, summing up

to historical cases of spiritual healing and to the vast field of phenomena usually called psychic experiences. It aims also to motivate researchers to replicate and analyze his experiments.

Bio: Wagner Alegretti is an electronic engineer who has worked with electrical power generation, medical equipment and software development. He has been researching out-of-body experiences and developing means to detect life's subtle energy and to create a bioenergy technology since the 1980's. His most recent experiments use fMRI and other forms of nuclear magnetic resonance to detect, measure and understand bioenergy. Author of the book *Retrocognitions*, published in many languages, he is a co-founder of the International Academy of Consciousness (IAC), was its president from 2001 to 2014, and is its current scientific director. He presented at many events, including TEDx, the TSC (Tucson, USA), ICC (Miami, USA), and CSTS (Shanghai, China). He is also a founder and director of the Institute of Applied Consciousness Technologies.

Death and the Great Consilience: The Theory of Essence Unifies Death-Related Anomalous Experiences

J. Kenneth Arnette

Anomalous (paranormal) experiences contain a subset that is directly or indirectly related to death. There is a considerable amount of literature concerning each member of this subset, yet, to this author's knowledge, no one has proposed a way of conceptualizing all these experiences in a unified way that is related to an underlying, scientific (yet non-reductive) theory of the mind-body relationship. The author's mind-body theory, the Theory of Essence, is a dualistic interactionist theory that is based on the intersubjective data of the near-death experience and integrates those data with classical and modern physics in such a way as to explain what mind is without reducing it to the functioning of the brain. The theory holds that the mind is formed in the interaction between the non-material "essence" (the seat of consciousness, thought, memory, and personality that survives the death of the body) and the living human brain. The theory is capable of uniting death-related anomalies in a consistent way to form something of a continuum illustrating the connections among these anomalies. These include: (1) out-of-body experiences; (2) near-death experiences; (3) ghosts/orbs; (4) after-death communications; (5) mediumship; and (6) reincarnation. Theory

of Essence unites these six phenomena under the umbrella of temporary or permanent dissociation of the essence from the body; in the cases of permanent dissociation, the disembodied essence attempts to communicate with living persons in the physical world, or returns to the physical world to live another lifetime. Thus, there is a single conceptual framework tying a temporary, non-life-threatening experience (OBEs) with the beginning of a completely new life cycle (reincarnation) and several phenomena in-between. Death and related phenomena reach consilience through the Theory of Essence.

Bio: Kenny Arnette is a rogue consciousness researcher with a dualistic bent. His academic background includes Ph.D.'s in physical chemistry and counseling psychology. He is also licensed as a Professional Counselor in Colorado. He is currently an MA student in Philosophy. He has published three articles and a book chapter on his "Theory of Essence," a non-reductionist theory of mind-body interaction based on interactionist substance dualism. His interests also include religious studies and psychohistory.

Beyond Consilience: Understanding a Theory with Good Goodness-of-Fit Imants Barušs

For William Whewell, “proof of real success in our inductive processes” occurs when there is a consilience of inductions” whereby laws deduced from one set of observations surprisingly apply to a second set of observations that differ in kind from the first. However, the fact that the theories for both paradigmatic cases of consilience considered by Whewell have since been replaced should alert us to the hubris of accepting apparently self-evident heuristics as markers of truth.

Whewell’s consilience and its looser descendants, such as the version used by the Society for Scientific Exploration, are, after all, nothing but granulations of Jean-Paul Sartre’s dialectical reasoning, which functions to synthesize the fragments of knowledge. The end goal remains the same, namely, the development of a theory with good goodness-of-fit to the empirical observations on which it is based. There are three additional, interrelated, points to keep in mind. The first is the need to move past the naive notion that the truth is objectively “out there” waiting to be discovered. In light of that, second, rather than being proof of universal truths, consilience could be the result of the direct manipulation of physical manifestation, possibly through the mediation of meaning fields,

to create laws that mimic those that have already been ostensibly discovered. Third, given that there is no such thing as a view from nowhere, knowledge is always knowledge for someone, which is a dynamic process consisting of the confluence of memory, empirical observation, rational thinking, implicit cognition, precognition, remote viewing, intuition, and discarnate influence. The goal is to understand a theory, judged to have good goodness-of-fit, that forms the basis of a scientist’s authentic engagement with physical and nonphysical manifestation. In the domain of the scientific exploration of consciousness, the scientist is the instrument of observation, so that such engagement, if sufficiently open, can lead to a dialectical turn that reveals unimagined facets of reality well beyond the reach of consilience.

Bio: Dr. Imants Barušs is a professor of psychology at King’s University College where he teaches courses about consciousness. He has authored or co-authored 6 books and 50 papers, and given over 100 presentations. His most recent book, co-authored with Julia Mossbridge, is *Transcendent Mind: Rethinking the Science of Consciousness* (American Psychological Association, 2017).

You're Not Even in There Now: The Consilience of Survival of Consciousness, Body Ownership, and Cellular Turnover Research

Julie Beischel

The evidence for the non-materialist non-locality of consciousness continues to grow and gain more mainstream attention. This includes both studies demonstrating psi (telepathy, clairvoyance, precognition, and mind-matter interactions) and empirical evidence suggestive of the survival of consciousness after bodily and brain death (or simply: survival). The most evidential survival data come from reports of children with verifiable past life memories, veridical information acquired during near-death experiences involving brain death, and accurate and specific information about the deceased reported by psychic mediums under controlled laboratory conditions. In addition, non-psi-based research in the area of body ownership (the experience that this body is mine) using rubber hand and body swap illusions confirms a tenuous and easily disrupted tether between consciousness and the body throughout physical life. Furthermore, the variable turnover rates of tissues in the living body established using protocols such as the carbon-14 bomb-pulse method demonstrate a discontinuous body and thus an impermanence of the living physical self. These realities are further echoed in the common language used to describe the difference between the body and the self. Prevail-

ing research findings in these areas and their application for new paradigm development will be reviewed and the potential implications for everyday life will be discussed.

Bio: Dr. Julie Beischel is the co-founder and Director of Research at the Windbridge Research Center, a 501(c)(3) public charity dedicated to performing rigorous scientific research and creating free educational materials on the topics of dying, death, and what comes next. She received her PhD in Pharmacology and Toxicology with a minor in Microbiology and Immunology and uses her interdisciplinary training to apply the scientific method to controversial topics. Her primary research interests include the accuracy of the information reported under controlled laboratory conditions by mediums (people who report experiencing regular communication with the deceased); their unique experiences and physiological, psychological, and neurophysiological characteristics; and the socially beneficial applications of mediumship readings. Dr. Beischel is the author of the e-books *Among Mediums, Meaningful Messages* and *From the Mouths of Mediums* and the paperback book *Investigating Mediums*.

Is There any Energy in “Energy Healing”? Healing Research and Problems Reaching Consilience

Bill Bengston

It is becoming intellectually permissible to welcome “post-materialism” as an emerging model of how the world works. The materialist model upon which much of western science is based assumes that the physical world consists of matter and energy, and exists independently of any conscious awareness of it. Matter and energy have evolved through law-like processes to somehow (mysteriously) produce consciousness as an emergent property of that evolution.

In the materialist view of the world, physics begets chemistry, which begets biology, from which emerges mind and consciousness.

The relatively new “post-materialism” suggests that the old assumption of more complex emergent properties resulting from lower rungs in a hierarchy of organization is incomplete and of questionable order. Instead, “consciousness,” widely experienced but little understood, is the primary building block of nature. From this primacy of consciousness emerges the familiar hierarchy of knowledge.

It seems that looking at data from either a matter/energy materialist perspective or the post-materialist promotion of “consciousness” to primacy will not be sufficiently comprehensive to further consilience in understanding what we currently call anomalous healing. A more productive approach for consilience may be to emphasize “information” as the primary variable.

Consider:

- There is a dose response to healing
- Healing does not diminish with distance (non-locality)

- The more aggressive the cancer, the quicker it will be cured
- The more mice in an experiment, the faster they collectively are cured (group bonding)
- Only when mice have cancer and are treated by healing will anomalous output be obtained when running either REGs or geomagnetic probes in the room
- The brains of the healer and the healee separated by some distance, exhibit something analogous to “phase locking” (non-local group bonding)
- Healing is an autonomic response to the need of the healee, and occurs without conscious awareness on the part of either the healer or the healee (conscious attention is unnecessary)
- Control mice can become part of the larger “resonant collective” of the experiment and be healed without overt treatment
- Healing can be “stored” in living mice, and in both organic and inorganic materials
- Healing can be “recorded” by devices of various construction, and those recordings will essentially reproduce the healing without any human intervention

Bio: Bill Bengston is President of the Society for Scientific Exploration, and has been doing healing research for a zillion years.

Looking for Psi in All the Wrong Places: Task Optimization in Psi Research

Mark Boccuzzi

Experimental parapsychology has developed and relied around several standardized experimental protocols to test for the existence of psi in the general population: presentiment, ganzfeld, remote viewing, and anomalous retroactive influence. By using these protocols, evidence for psi continues to emerge. However, not every research participant who takes part in these standardized psi tests shows an effect. The consistency of research into differences in individual standardized non-psi test results, biological responses to medications and foods, cognitive and decision-making styles, personality types, chronotypes, and intrinsic and explicit beliefs demonstrates that one-size-fits-all options are rarely useful for humans. And while parapsychologists have made significant advances in understanding the factors that can impact laboratory psi experiments including target optimization, experimenter effects, participant selection, and experimental environment, the common practice continues to involve giving the same tests to all participants regardless of their individual differences. I propose that task optimization, that is, the customization of psi tasks based on the cognitive styles and other factors of the participant, may be an additional relevant factor impacting the results of laboratory psi experiments. A series of studies has

been designed examining this issue by developing customized testing activities (games) that meet the needs of participants' specific fundamental cognitive styles. Psi researchers may be leaving data and evidence on the table by not employing task optimization and this highly targeted approach may capture psi functioning in populations that do not typically perform well on standardized psi tests.

Bio: Mark Boccuzzi has spent much of his career at the intersection of science, technology, education, and interactive visual arts. For more than 10 years he has been working to apply these disciplines to the study of consciousness and psi (telepathy, clairvoyance, precognition, and mind-matter interactions). He is the co-founder of the Windbridge Institute, LLC, which is dedicated to the study of the non-local nature of consciousness as it applies to mindfulness, creativity, intuition, and intention. Mark's current work applies virtual reality, augmented reality, deep machine learning, and artificial intelligence to instrumental transcommunication and psi research. Mark is the author of *Visualizing Intention: Art Informed by Science*.

Anomalous Consilience

York Dobyns

The extensive consilience of evidence in mainstream science is often used as an argument against acceptance of observations inconsistent with the current consensus of reductionistic physicalism. Against that attitude, this presentation argues that existing research has already assembled multiple lines of mutually supporting, consilient evidence for an alternative explanatory framework that accounts for observations presently reckoned anomalous without losing the explanatory power of conventional models. One potential example of such a framework is described, with a summary of the observational genres that provide consilient evidence for its components. The framework discussed here is necessarily an incomplete outline. In some cases, this is an acknowledgment that incomplete knowledge leads to some freedom being retained in the structure. For example, at the deepest level of explanation, this framework takes consciousness to be a fundamental component of reality, rather than an emergent or derived property of complicated systems. This does not entail that consciousness is the only fundamental component from which everything else is derived. Theory-building at this stage can safely be agnostic between this purely idealistic stance and alternatives such as panpsychic physicalism in which consciousness is an aspect of the most fundamental entities in the theory without being the whole of them.

In deliberate analogy to the mainstream structure of reductionistic physicalism, this basic premise is shown to receive consilient support from multiple, less fundamental theoretical findings. These in turn are themselves supported by multiple consilient lines of evidence from independent genres of investigation. For example, the thesis that consciousness can directly affect physical events, without the mediation of any currently understood physical mechanism, is supported not only by laboratory investigations of "PK" phenomena, but by demonstrations of macro-PK training (as presented at the 2018 meeting), by well-documented reports of RSPK, by DMILS experiments, and other evidence. Several other topics are developed similarly. Finally, the concluding section of the presentation will point out areas where further investigation seems needed before a high level of consilience is reached.

Bio: York Dobyns was educated at Ohio University and Princeton University. From 1987 to 2007 he worked in the Princeton Engineering Anomalies Research program (PEAR), during which time he joined the SSE. After PEAR closed, Dobyns continued working in Princeton's Engineering School for some years before relocating to Lexington where he is currently employed by the University of Kentucky.

Consilience: The Problem

Larry Dossey

In 1998, Harvard biologist E. O. Wilson published *Consilience: The Unity of Knowledge*, suggesting that different avenues of evidence could link together to create a common groundwork of explanation in the search for human wisdom. He proposed that science could join hands with the humanities and religion in this task. In subsequent years, Wilson has walked back this claim by asserting that religions are “dragging us down” and should be “eliminated.” This discussion will examine precursors to the idea of consilience, how the idea has penetrated contemporary culture, and how eminent scientists have supported the interpenetration of science, religion, and spirituality. We will see how the profession of medicine has been periodically reshaped in profound ways through the consilience of several factors, including the evidence for the fundamental, causal nature of consciousness. We will examine *consilience interruptus*— the obstruction to a deeper process

of consilience in medical science: the materialistic dogma that the brain produces, confines, and limits the manifestations of consciousness. Actual clinical cases will illustrate these issues.

Bio: Dr. Larry Dossey is an internal medicine physician, former Chief of Staff of Medical City Dallas Hospital, and former co-chairman of the Panel on Mind/Body Interventions, National Center for Complementary and Alternative Medicine, National Institutes of Health. He is executive editor of the peer-reviewed journal *Explore: The Journal of Science and Healing*. He is the author of thirteen books on the role of consciousness and spirituality in health, which have been translated into languages around the world. His most recent book is *ONE MIND: How Our Individual Mind Is Part of a Greater Consciousness and Why It Matters*. He lectures around the world.

TSP- The Next Generation of Remote Viewing

Nancy du Tertre

The author has developed a new type of remote viewing called TSP. TSP utilizes very different concepts of targets, frontloads, client interaction and feedback, additional protocols such as synchronicities, scoring and judging variables, than other types of remote viewing. It therefore differs from “classical” Controlled Remote Viewing (CRV) that was first developed back in 1973 by the author’s mentor, Ingo Swann, and physicists Hal Puthoff and Russell Targ. It also differs from Associative Remote Viewing (ARV) and Extended Remote Viewing (ERV) the other two major types of remote viewing developed with the military’s Stargate Project.

The author will be speaking about the consilience of TSP remote viewing and the element of synchronicity. One of the protocols used in TSP, not used in any other type of remote viewing, is that of synchronicity. The term, first coined by Swiss psychoanalyst Carl Jung who spent much of his life developing and redefining the concept, is today generally considered to be a “meaningful coincidence” of events. The author demonstrates, using a sample group of all 70 TSP clients for the last two years, the relationship between

synchronistic events and her remote viewing data. The TSP sessions show a high correlation of synchronistic events that support the thematic content of the client’s target questions and the viewer’s data. This, in turn, suggests a possible causal relationship beyond Jung’s definition of synchronicities as being “acausal” or “random” events deemed to coincide solely by virtue of the percipient’s retroactive feeling of “meaningfulness.”

Bio: The author graduated *magna cum laude* from Princeton University and with honors from Pace Law School. She has owned several businesses, practiced securities litigation as an attorney in New York, published five books on various topics, teaches and lectures on remote viewing, psychic detective work, alien languages and mediumship. Additionally, she is a former CBS radio show host, environmentalist, and active in local politics. The author is not a “natural” psychic, but 100 percent trained in the psychic arts. She is also certified in Intuitive Gestalt Psychotherapy, works on paranormal investigations, and is a frequent media guest.

Managing the Medically Mysterious: Scientific, Paranormal, and/or Spiritual?

Charles F. Emmons

“Integrative medicine” (previously “alternative medicine” and “complementary medicine”) has become mainstreamed in the sense that it is taught in virtually all medical schools. Reasons given for this trend include rising costs of medical care, democratization of medical knowledge, and increasing health consumer demand. Nevertheless, there is still significant resistance to integrative medicine in the Western biomedical establishment, and integrative medical theories and practices continue to be controlled and marginalized. There are continuing boundary issues between the mainstream biomedical paradigm and a wide range of alternative beliefs and practices.

This particular research focuses on the orientations of practitioners and clients who are involved to varying degrees in integrative medicine (including spiritual/energy healing, meditation, massage, chiropractic, acupuncture, and yoga). Based primarily on 53 ethnographic interviews in the United Kingdom

and the United States (2016-2018), this presentation deals with how such practices are framed as scientific, paranormal, and/or spiritual. Very few practitioners and clients have a paranormal conceptualization. These frames are important to the processes of legitimation and acceptance of the practices.

Bio: Charles Emmons has an MA in Anthropology from the University of Illinois and a PhD in Sociology from the University of Illinois, Chicago. He is Prof. of Sociology at Gettysburg College, Pennsylvania. He authored or co-authored *Chinese Ghosts Revisited* (2017), *Science and Spirit: Exploring the Limits of Consciousness* (2012), *Guided by Spirit: A Journey into the Mind of the Medium* (2003, 2019), and *At the Threshold: UFOs, Science and the New Age* (1997). His current research is on integrative medicine and spiritual healing. He is active in Exploring the Extraordinary and Compassionate Wellbeing, and a member of The Society for Scientific Exploration.

“Visualizing” Morphic Fields with the Yi Jing and Synchronicity

Gabriel Felley

“Morphic fields include all types of organizational fields. The organizational fields of plant, animal, human behavior, cultural systems, and mental activity, all can be regarded as morphic fields containing an inherent memory.” (Rupert Sheldrake)

The Yi Jing is a cosmological and philosophical system, created in China more than three thousand years ago. The Yi Jing is used to improve the decision-making processes by integrating arational dimensions, which may be assimilated to a kind of precognition into evaluating various options.

Synchronicity, as a principle, stipulates that two events may be linked together not only by a causal chain but also because they create meaning.

The hypothesis to be tested is this: If several people are working on an issue of collective interest with the Yi Jing (i.e. a reflection that affects each of us on a super personal level) or has an archetypal dimension, do the obtained hexagrams reflect that collective concern? This would be considered an “impression” or “footprint” of morphic fields. It would also indicate some “out-of-body” extension of consciousness.

“Producing” a hexagram may be considered a “triggered” synchronicity, because the Yi Jing consultant

relates an inner psychic state with something in the physical world (the hexagram) using a non-causal process (coins or yarrow stalks method). Do individual drawings of the hexagrams indicate a significant deviation from what the laws of statistics provide for? This could also be interpreted as a “collective synchronicity”, because different persons create several individual synchronicity events each time a person draws a hexagram using a non-causal process. These events converge together into a set of privileged hexagrams. In fact, this deviation from the statistically expected distributions of the hexagrams is illustrated with a variety of experiments.

Bio: Dr. Gabriel Felley is a professor of Business Information Technology at the University of Applied Sciences and Arts Northwestern Switzerland (www.fhnw.ch). He studied Theoretical Physics at the Swiss Federal Institute of Technology Zurich. For decades, he has been dealing with the Yi Jing (I Ching) to rehabilitate it as a sophisticated, holistic methodology to understand the logic underlying the processes of change in a generic way and to promote it as a tool for the support of managerial decision-making processes. He has written numerous articles and lectured on topics related to Yi Jing in Switzerland as well as in Germany, China, Vietnam and the USA.

The Brain and Psi: A New Paradigm for Consilience to Advance the Science of Anomalies into the Mainstream

Morris Freedman

Despite a large literature supporting the existence of anomalous cognition (i.e., psi), this phenomenon remains largely dismissed by mainstream scientists. Reversing this trend will require a major paradigm shift involving a new approach to the study of anomalies. In other areas of cognition, such as memory, significant progress has followed advances in defining the underlying brain mechanisms. Similarly, a focus on the brain may serve as a common theme to advance knowledge about anomalous cognition across the spectrum of psi phenomena, including mind-matter interactions, telepathy, clairvoyance, and precognition. Moreover, this may lead to principles of consilience through discovery of neurobiological mechanisms that may be common across all anomalies and lead to a deeper understanding of consciousness and the basic foundations of reality.

In this regard, my colleagues and I developed a novel neurobiological model of psi based on the concept that the frontal lobes of the brain serve as a filter to inhibit this phenomenon. This implies that humans have innate psi abilities that are suppressed by the frontal lobes, and may explain why anomalous cognition is so hard to demonstrate and reproduce under well-controlled experimental conditions. In support of this concept, we reported significant psi effects as measured by mind-matter interactions in two participants with frontal brain damage (Freedman et al. *Explore*, 2018). Neuroanatomical analyses based

on magnetic resonance imaging (MRI) suggest that the psi-inhibitory brain filter includes the left medial middle frontal region of the brain. Further research is needed to replicate these findings and to determine whether the localization of the filter is common to all forms of psi.

In addition to providing insights into the mechanisms of psi, our model suggests that individuals with medial frontal brain lesions may comprise a psi-enriched population that may facilitate the detection of anomalous cognition in well-controlled research studies. In addition, identifying the anatomical site of the filter may facilitate use of new methodologies to study psi. Examples include repetitive transcranial magnetic stimulation (rTMS) and transcranial direct-current stimulation (tDCS) that can induce transient frontal lesions in normal individuals. This may in turn pave the way for widespread practical applications of psi such as distance healing. Thus a focus on the brain may open new avenues of research into psi that may significantly advance the state of this poorly understood field.

Bio: Morris Freedman, MD, FRCPC, FAAN is the head of the Division of Neurology, a scientist at Rotman Research Institute, Baycrest and Professor at the Department of Medicine (Neurology), University of Toronto.

Interacting with the Future: Evidence for Consciousness Extending Outside of Space-Time

Dale E. Graff

Experimental projects were performed for accessing information that only existed in the future. These experiments provided insight into the processes for information access and how various extraordinary experiences are similar or are related.

The primary experimental project was for perceiving photographs published seven days in the future on a specific newspaper page. This was follow-on to a previous future news project for photographs three days ahead. For both of these projects, the events and the corresponding photographs did not exist at the time of the perceptions that were sought during the conscious state and the dream state. Other projects were for target pictures randomly selected three days in the future and for picture selected in the future based on sporting events results or stock market levels, some for seven days ahead. Synchronistic experiences occurred and some dreams became lucid as extended forms of consciousness. Other dreams had images that symbolized the process involved in the perceptions.

A key finding from these experiments is that the future influences the present in a retrocausal sense and that the future interacts with cognitive process to provide information for action response. The responses can be through intuitions, dreams, spontaneous

actions or synchronicities. This suggests that an interactive process with the future based on a unity or holistic principle involving precognition, retrocausation and synchronicity is an on-going subconscious activity. The ability to interact with the future indicates that consciousness has an aspect that is not constrained to space-time parameters. The fundamental constructive principle involved is based on information correlation in the context of relevance, meaning, or goals, and may have connections at a biological level with evolution processes. An unusual synchronicity illustrates an accurate timing correlation.

The potential source of the perceptions and the meaning of "the future" are reviewed. Suggestions for research and applications are provided.

Bio: Dale E. Graff has degrees in Aerospace Engineering and Physics. He has been involved in various personal and professional forms of psi research for over 40 years, continues facilitating workshops with focus on dream state psi and performing investigations into precognition, retrocausation and synchronicity. His books, *Tracks in the Psychic Wilderness* and *RIVER DREAMS* describe his transition from scientific doubter to that of accepting the reality of anomalous experiences.

Vital Force Technology: Creating Effective Energy Pattern to Fight Stress

Yury Kronn

Currently, findings of the two-year-long “Open Field” test of energy pattern “Stress Relief”, created with the help of Vital Force Technology on mice’s stress level, is presented. Results of this work were published in June 2018 in the *Proceedings of the Latvian Academy of Sciences*, a peer-reviewed journal.

“Stress Relief” (SR) showed a reversal of stress-decreased locomotor activity in all stress models - distance walked increased almost twice, central zone crossings and time spent in it were 2–4 times greater than in the control group, and fast movement episodes and maximal speed increased by 50–200%. In addition, complete normalization of stress-induced elevation of blood glucose level was noted. These results demonstrate for the first time that the effect of SR formula (mineral water solution processed by VFT) can be observed in laboratory animals, and that the effects are significant and repeatable. SR pattern was also tested on humans (10-15 drops of the energy infused mineral solution in 2-4 oz. of water) using the heart rate variability (HRV) method. Positive shifts were observed in most of the HRV parameters, particularly in the relationship of the sympathetic to parasympathetic response. Shifts in heart rate, myocardial response, high frequency and low frequency neurological function, ‘total power’

and vascular compliance were observed repeatedly. Positive reactions in reserve power; vascular compliance, reserve capacity, and physical fitness measurements were seen consistently.

Presented results, along with other experiments conducted in collaboration with different scientific labs, clearly confirm that subtle energy deserves title “the Life Force” and opens numerous possibilities for the development of various tools for the energy medicine.

Bio: Dr. Yury Kronn, President and CEO at Energy Tools International, OR, was educated at Gorky University and earned his post-doctorate degree at Lebedev’s Institute of Physics. He developed the first four-photon tunable laser, headed up research on lasers and nonlinear optics, developed a comprehensive theory of quantum nonlinear interaction of the electro-magnetic field with matter, and unraveled a series of nonlinear optics phenomena that had puzzled scientists for years. He was also an Adjunct Professor at both Moscow University and the Moscow Institute of Physics and Technology. Dr. Kronn has invented a subtle energy generator and formulated energy patterns that address specific applications.

The Frequencies of Psi Experiences and Entity Encounters in Spontaneously Reported Self-Transcendent Experiences

Jennifer Lyke, Shannon Madgey, Angel Lopez & Roseanne Johnson

This presentation reports on an ongoing project analyzing a growing database of spontaneously reported self-transcendent experiences. This analysis used experiences ($N = 236$) that could be classified as mystical by James' (1902) definition (e.g., transiency, ineffability, passivity, noetic quality), or involved a dramatic change in the person's sense of self, time, or space (e.g., Stace, 1960; Yaden et al., 2017). They were retrieved from several websites that solicit and post visitors' descriptions of their transcendent experiences.

Experience descriptions were content analyzed using a 65-item rating scale designed to capture salient aspects, including psi experiences and encounters with a variety of entities (e.g., "Did the person encounter someone they knew who was dead?"). Descriptions were rated on each of the 65 items using a 5-point Likert scale ("definitely absent" to "definitely present") indicating whether the item appeared to be an element of the experience. Each description was rated at least twice, and inter-rater reliability for each pair of ratings was acceptable (Cronbach's $\alpha > .7$).

The experiences occurred during dreams, hypnogogic/hypnopompic states, hypnosis, out of body experiences, near death experiences, physical crises, prayer/meditation, psychotic episodes, and ordinary waking states. Demographic information on experiencers is limited, but the cases came from 16 countries, with 38.7% male and 61.3% female experiencers. The

average age at the time of the experience was 28.2 years ($SD = 15.08$). Thirty percent of the experiences included the presence of psi experiences and/or entity encounters. Approximately 14% of self-transcendent experiencers reported telepathy, clairvoyance, or precognition with no reported incidents of psychokinesis; 19.1% of experiencers described encountering entities, including apparitions, angels, other spiritual beings, dead relatives, and miscellaneous beings; and 3% experienced both psi phenomena and entity encounters. A detailed breakdown of frequencies will be presented along with qualitative data.

Results suggest psi experiences and entity encounters are elements of a substantial minority of self-transcendent experiences. These results are consistent with Thalbourne's (2006) filter theory, which suggests thin boundaries may act as a common denominator among a variety of altered states. They also conform to Marshall's (2011) suggestion that psi phenomena and mystical states need to be explained together, not separately. Limitations and suggestions for further research will be discussed.

Bios: Jennifer Lyke, Ph.D. is a Professor of Psychology at Stockton University. She is also a licensed psychologist and maintains a private practice. Shannon Madgey, Angel Lopez, and Roseanne Johnson are/were psychology majors at Stockton.

Reversing Traumatic Brain Injury

John McMichael

Chronic brain injury (cTBI) represents a significant unmet medical need in that there are some five million Americans suffering from the disorder for which no pharmaceutical agent has been approved. Current therapeutic approaches include neurophysiological exercises, dietary changes, nutritional supplements, hyperbaric oxygen, stem cell transplants and other modalities – none of which have proven overly effective.

Although there are recognized animal models for acute TBI, no models have been widely accepted for the chronic form of disease. Without models, and with no consistently positive outcomes from various treatments, the prevailing attitude among medical practitioners has often been that little can be done for cTBI patients.

Oxidized streptolysin O (oSLO) has shown efficacy in treating acute TBI in studies conducted at Harvard Medical School using a standard animal model.

In the absence of a cTBI animal model, and after completing initial safety studies, oSLO was evaluated with a small number of patients suffering from TBI-associated symptoms for two to twenty-five years after injury.

cTBI patients treated with oSLO showed consistent improvements as measured by a battery of neuropsychological tests, the neurobehavioral symptom inventory (NSI), and patients reporting that, “It gave me my life back.”

Bio: An immunologist/virologist with over 100 patients, John McMichael is CEO of Beech Tree Labs, Inc. (www.beechtreelabs.com), co-Chairman of Resolys Bio, Inc. (www.resolysbio.com), and President of the nonprofit Institute for Therapeutic Discovery (www.tiftd.org). Addressing unmet medical needs is the focus of each of these companies.

Quantum Mechanics Does Not Explain Psi... So Far

Garret Moddel

What makes us think that age-old questions can be explained best by the latest fashionable theory? In particular, is psi explained by quantum mechanics? Consilience of quantum concepts with those in various disciplines can have value, and careful invocations of quantum in psi research have used quantum as an analogy. Often, though, it has crept in as more than that.

The quantum observer effect has been used to explain psychokinesis. We act as if the Von Neumann-Wigner quantum observer interpretation that consciousness is required for wave function collapse is accepted quantum mechanics. It is not. Innovative work such as Cramer's transactional interpretation explicitly excludes the need for a conscious observer, and instead invokes advanced (retrograde) waves. We don't need a conscious observer effect for quantum mechanics (but we might need retrocausation).

Beautiful experiments that make use of participants focusing their attention on a double-slit apparatus to reduce fringe visibility might be interpreted to show that consciousness collapses the wavefunction. Do they indeed show that? No, they simply show that participants focusing their attention on a double-slit apparatus can reduce the fringe visibility. The influence can work on any randomness/noise in the system.

Similarly, quantum entanglement cannot explain telepathy. Quantum entanglement provides correla-

tion but not information. When a mother wakes up in the middle of the night and cries, "oh no, my son has been hurt," because she senses that her distant son has just gotten into an accident, information was obtained. That is not just correlation.

We don't even need quantum mechanics for some quantum concepts. Uncertainty is a principle of wave-like systems – no need here for quantum mechanics. Quantum mechanics doesn't explain quantum healing, or quantum consciousness, or even quantum mechanics itself.

What we know is that intention can influence a system having randomness, whether quantum or otherwise. Psi understanding will advance more effectively with well-defined models that are verifiable rather than with grand speculative theories.

Bio: Garret Moddel is a professor of Electrical, Computer, and Energy Engineering at the University of Colorado. Along with developing new energy conversion technologies, his research group investigates psi phenomena. Currently he is serving as SSE Vice President, and was the organizations previous president, and prior to that, president & CEO of Phiar Corporation, a high-tech start-up company. Garret earned a BSEE degree from Stanford and MS and PhD degrees in Applied Physics from Harvard.

Screening for Precognition, Remote Viewing and Micro-Psychokinetic Skills: Results and Lessons from Online Psi-Testing Methods

Julia Mossbridge, Mark Boccuzzi, Marcia Nisam & Adam Crabtree

Gathering data via psi experiments performed outside the laboratory seems to hold great promise for the future of psi research. Understanding individual differences in psi abilities as well as screening for excellence in these abilities both seem perfectly adaptable to an online environment, and there is the additional promise of a higher turnout of participants. In this presentation, results from three different online psi-testing methods are discussed. The first method discussed will be the Psi3 (was "PsiQ") app for the iPhone, which provides three games testing for conscious precognition, implicit precognition, and micro-psychokinesis. The second method discussed will be the training website for the book *The Premonition Code*, which tests precognitive remote viewing with a single photo target. Third will be a combined lab-and-online approach testing the results of in-lab hypnotic suggestions of improved precognitive ability and experiences of unconditional love on performance on conscious precognition (using Psi3), micro-psychokinesis (using Psi3) and precognitive remote viewing (using "TargetMonkey" targets at remoteviewed.com). An overview of results and lessons that can be applied to future, similar approaches will be discussed, based on data from consenting participants using each of the methods, available between the dates June 9, 2017-April 30, 2019 (estimated at approximately 5000 participants).

Bios: Dr. Mossbridge is the founder and research director of Mossbridge Institute, LLC, a Visiting Scholar

in the Psychology Department at Northwestern University, a Fellow at the Institute of Noetic Sciences, the Science Director at Focus@Will Labs, and an Associated Professor in Integral and Transpersonal Psychology at the California Institute of Integral Studies. jmossbridge@gmail.com

Mark Boccuzzi, Co-Founder, Windbridge Institute, LLC is a research scientist and innovator at the intersection of science, technology, education, and interactive visual arts. For more than a decade, he has worked to apply these disciplines to the study of consciousness and psi (telepathy, precognition, clairvoyance, and mind-matter interactions).

Marcia Nisam is a Research Assistant at the Institute of Noetic Sciences, an RN with a specialty in Critical Care and Emergency Medicine, COO of medical consulting company, and cofounder of a San Francisco-based dance company.

Adam Crabtree is a member of the Faculty, Centre for Training in Psychotherapy, Toronto. He has written many articles and books relating to the history of animal magnetism, the history of hypnosis, the history of psychotherapy, the origins of psychodynamic psychotherapy in the West, and the history of dissociative disorders.

Schumann Resonance Frequencies Help to Counteract Harmful Effects of the Electromagnetic Pollution

Igor Nazarov

A plasma-based generator is used to create a flow of subtle energy. Schumann resonance frequencies were used to create a specific subtle energy pattern corresponding to these frequencies. This pattern was embedded in the existing device, EMF Transformer, that already was used successfully to counteract harmful effects of the cell-phone EMF radiation. EMF Transformer was tested using QEEG by Dr. Jeffrey Fannin, Ph.D., at the Center Cognitive Enhancement in Glendale, Arizona. It was shown that this device, placed as a sticker on the back side of the phone, successfully harmonizes brainwaves overexcited by the cell-phone radiation during a call. The Schumann resonance subtle energy pattern embedded into the EMF Transformer made this device much more efficient helping EMF-sensitive people to improve their quality of life.

Bio: Igor Nazarov, Ph.D. graduated from the Moscow Institute of Physics and Technology in 1977 with honors, getting MS degree in Nuclear Physics. Three years later defended his Ph.D. dissertation in chemical physics at the same institution. He continued to work at Moscow Institute of Physics and Technology as the Assistant Dean of the Faculty of Molecular and Chemical Physics and as the Senior Researcher at the Molecular Physics Laboratory until his emigration to the USA in 1990. He collaborated with Dr. Yury Kronn in the area of subtle energy research and Vital Force Technology since 1983 in the USSR and since 2004 in the USA. Currently is the Chief Scientist at Energy Tools International, LLC, Oregon.

Are Evoked Potentials a Model for GCP Event Data?

Roger D. Nelson

Signal averaging can reveal patterns in noisy data from repeated-measures experimental designs. A widely known example is brain activity in response to either endogenous or exogenous stimuli such as decisions, visual patterns, or auditory bursts of sound. A commonly used technology is EEG or other monitoring of brain electrical potentials. Evoked potentials (EP) are measured in time-locked synchronization with repetitions of a stimulus. The electrical measure in raw form is extremely noisy, reflecting not only responses to the imposed stimulus but also a large amount of normal, but unrelated activity. In the raw data no structure related to the stimulus is apparent, so the measurement process is repeated many times, yielding multiple epochs that can be averaged. Such “signal averaging” reduces or washes out random fluctuations while structured variation linked to the stimulus builds up over multiple samples. A typical pattern may show a large excursion preceded and followed by smaller deviations with a typical time-course relative to the stimulus.

The Global Consciousness Project (GCP) network generates trials once per second at about 60 locations around the world, sending synchronized sequences of data to a central archive. Our standard analysis computes a network variance measure for each second across the parallel data streams. From

this a Z-score figure of merit is calculated for each formal test of the GCP hypothesis: *We predict non-random structure in data taken during “global events” that engage the attention of large numbers of people.* The data are typically displayed as a cumulative deviation trace, but for the present work, we treat the raw data in the same way measured electrical potentials from the brain are processed. Signal averaging is used to reveal temporal patterns or structure in what otherwise appears to be random data.

Applying this model to analyze GCP data from events that show significant departures from expectation, we find patterns that look like those found in EP work. While this assessment is limited to exploratory visual comparisons, the degree of similarity is striking. It suggests that human brain activity in response to stimuli may be a useful model to guide research designed to observe responses of a global consciousness to events in the world.

Bio: Roger Nelson, PhD, is an experimental psychologist and conceptual artist. He joined Princeton University’s PEAR lab in 1980, and in 1997 he founded the Global Consciousness Project (GCP) to study the active presence of consciousness in the world. An SSE member since its inception, he lives in Princeton, NJ, USA. His website is <http://noosphere.princeton.edu>.

Homeopathy's Contribution to the Advancement of Consilience

David Nortman

History has shown that the impetus for scientific progress can be traced to people's desire to allay their existential and material concerns through technological innovation. The main challenge faced by parapsychology and related disciplines is that the observed effects are subtle and stochastic, which stands in the way of making their findings technologically useful and creates as an obstacle to their acceptance. Homeopathy is a healing method that has practical import while sharing a theoretical foundation with these disciplines.

Homeopathy is based on the principle that each of the manifold substances in the universe possesses a distinct energetic signature. It is a medicine of consciousness that relies primarily on the experience and meaning of the patient's suffering rather than on the disease's material manifestations. Homeopathy's foundational principle, the 'law of similars', posits that energetic resonance between disease states and substances of animate, inanimate, or non-material (radiative) origin tends to produce curative effects in living organisms, improving the organism's overall state of being rather than isolated symptoms; in spiritually oriented individuals it also catalyzes accelerated spiritual evolution.

Homeopathy is a scientifically testable (and tested) technology that, like parapsychology and related disciplines, is in search of a new paradigm to make its findings explicable on their own terms and relatable

to materialist science. It cannot be interpreted within an atomistic framework but must be considered in the context of a field theory such as morphic field theory. Homeopathy thus provides explicit evidence for the interconnectedness of all of life and matter, lending direct empirical support to the premise of extended consciousness in general and to strong panpsychism in particular.

The ultramolecular dilutions used in homeopathy, which have been subject to increasing scientific scrutiny in recent years, offer an additional avenue for exploring consilience with other disciplines, since a given homeopathic remedy can be said to contain the immaterial essence of the substance from which it is derived through repeated dilution and vigorous shaking. This transition from matter to spirit is intriguing empirically – suggesting that a common physical mechanism underlies both the physical and energetic realms – and philosophically – demonstrating the possibility of transitioning between the Kantian sensible and intelligible realms and thereby coming to know things-in-themselves.

Bio: David Nortman, Hon.B.A., M.A., N.D. is a naturopathic doctor and specialist in homeopathic medicine. He is a graduate of the University of Toronto, Canadian College of Naturopathic Medicine, and Tel-Aviv University, where he obtained his Master's degree in philosophy. He is currently writing a textbook on homeopathy and philosophy of science.

Convergence of Business, Science, and Wisdom Traditions

Carsten Ohrmann

For many years, SSE members have produced an increasing amount of evidence indicating that our existing mainstream understanding of reality might be outdated. We seem to be at the beginning of a next scientific revolution, leading to a significant paradigm shift within our society in the future.

What will that shift look like? What are the implications for our life, our business and our world? What role could and should the SSE play in that context?

Carsten will address these topics from a global business leader's perspective, investigating how a conversion of science and wisdom traditions would change our thinking, feeling and acting. There seems to be a positive business case for running a due diligence on our model of reality. The resulting benefits of such an endeavor – the return on investment – seems to justify an attempt to accelerate the pending transformation processes in science, business and society.

We should start to break down the silos within science and create an interdisciplinary consent about our future model of reality soon.

Bio: Carsten Ohrmann is a German mechanical engineer, a seasoned global business leader, a professional executive coach, and an accredited healing practitioner for psychotherapy. In his role as transformation advisor, he's working with leading individuals and organizations worldwide. In his authentic, informative and thought-provoking key note speeches, seminars and coaching sessions, Carsten is building interdisciplinary bridges between the latest science, old wisdom traditions and current challenges in business and society. He's questioning fundamental assumptions and provides new impulses for holistic solutions to tackle personal, business and global problems. He encourages his audience to change perspectives and to explore new routes.

Structure and Properties of the Quantum Information Field

James L. Oschman

Explorations of so-called anomalies, often discouraged by conventional scientists, have enormous potential for providing us with new and exciting insights into unsolved problems about the nature of life and health. Many seemingly mysterious phenomena may be explainable by the existence of a pervasive quantum information field interacting with all matter, both living and non-living. This presentation will describe the conclusions of researchers who have modeled the fundamental mathematical and geometrical patterns that enable the fabric of space to be holographic, fractal, tensegrous, vortical, and informational.

One of the most important unsolved problems in science is the mechanism by which organisms develop from single cells into adults. In 1981 Rupert Sheldrake proposed an interesting model of development in which collective memories are stored in a “morphic field” that progeny tap into to regulate their development along the lines of their predecessors. The concept was quickly rejected because of weak arguments. Morphic resonance has the potential to enable clinical regeneration of limbs and organs. I will suggest that the morphic field resides in a quantum information field which is capable of being engineered.

Homeopathy provides another example. Remedies are diluted again and again until there is virtually

nothing left of the original substance. During this “potentizing” process, the therapeutic effectiveness increases rather than decreases. This of course makes absolutely no logical sense and provides skeptics ammunition for dismissing one of the world’s most popular and successful therapeutic modalities. However, what if the repeated dilutions, with agitation, (referred to as “succussion” in homeopathy) are systematically transferring vibrational information from the therapeutic molecules into a pervasive quantum information field?

Bio: Jim Oschman, Ph.D., is an internationally recognized expert on the biophysics of Energy and Informational Medicine. He has contributed scientific perspectives that clarify controversial issues such as the nature of biological energetics and energetic therapeutics. Jim has written several popular books on the scientific basis of energy medicine, including *Energy Medicine: the scientific basis* (Churchill Livingstone, 2000), *Energy Medicine in Therapeutics and Human Performance* (Butterworth Heinemann, 2003), and the second edition of *Energy Medicine: the scientific basis* (Elsevier, 2016). He has also written over 120 articles, forewords and chapters in books, including some in leading peer-reviewed scientific journals and journals on alternative medicine.

Expanding the Scope of Mind-Matter Interaction Experiments

Dean Radin

Many types of physical systems have been explored in mind-matter interaction experiments. But when considering the full range of physical targets that could be explored, research to date has just scratched the surface. Our current work is expanding the types of physical targets used in mind-matter experiments, focusing on photons and electrons. These studies include entanglement, polarization, and wave-particle properties of photons, and electrical plasma. This talk will review the design and results of these on-going experiments.

Bio: Dean Radin, PhD, is Chief Scientist at the Institute of Noetic Sciences and Associated Distinguished

Professor at the California Institute of Integral Studies. He earned an MS in electrical engineering and a PhD in psychology from the University of Illinois, Urbana-Champaign. Before joining the research staff at IONS in 2001, Radin held appointments at AT&T Bell Labs, Princeton University, University of Edinburgh, and SRI International. He has given over 500 talks and interviews, and he is author or coauthor of hundreds of technical and popular articles, four dozen book chapters, and four popular books: *The Conscious Universe* (1997), *Entangled Minds* (2006), *Supernormal* (2013), and *Real Magic* (2018).

Two Dogmas of Materialism: Toward a Realistic Framework for Understanding Mental Causation

David Scharf

Materialism, as a philosophy of mind, is the thesis that consciousness and mind are entirely dependent on the brain, they could not exist without the brain and, in its strongest form, consciousness and mind are held to be reducible to the brain and its electrochemical processes. But even its most steadfast proponents acknowledge that materialism cannot account for the fact of consciousness and that it involves extremely unpalatable consequences for our sense of autonomy and moral responsibility. Moreover, close analysis shows that the cognitive dissonance inherent in materialism makes it virtually untenable as a coherent theory of mind. How then should we account for its resilience as the default mainstream theory in contemporary neuroscience, cognitive psychology and the philosophy of mind?

This resilience stems from the seeming plausibility of two central dogmas. First, that impairment to critical brain regions causes a degradation of corresponding cognitive function and that this proves that mind is dependent on the brain. Second, the physical

domain is presumed to be causally closed, which is taken to imply that mind is either reducible to the brain or else epiphenomenal and irrelevant. In this paper, I propose to show that neither of these dogmas stands up to critical scrutiny, and that the result of this scrutiny can help delineate the outlines of a transmission model of the mind/brain interaction, in terms of quantum field theory.

In my concluding section, I discuss the consciousness-based paradigm as the proper framework for resolving the mind-body problem. This paradigm is preferable to neutral monism for a variety of reasons. Moreover, it provides a theoretical background for understanding mental causation, spatiotemporal anomalies uncovered by advanced physics, and for a variety of psi phenomena and instances of synchronicity.

Bio: David Scharf is a professor of physics, and chair of the physics department, at Maharishi University of Management. He has a Ph.D. in the philosophy of physics from Johns Hopkins University.

Nonlocal Consciousness and the Anthropology of Religions and Spiritual Practices

Stephan A. Schwartz

This paper presents an anthropological assessment of religions and spiritual practices stripped of their sectarian dogmas. It discusses them not on the basis of faith, but as systems of empirical observational science, developed over generations, for the purpose of allowing followers the opportunity to open to nonlocal consciousness. The paper describes how religions begin as the result of a single individual having a nonlocal, or a series of nonlocal, consciousness experiences, laying out the steps by which that single personal experience becomes a religion, and then examines and explains why the spiritual rituals and practices common to religions across time, geography, and culture grow from the experiences of the founder. It describes all of this using scientific experimental research from many different disciplines to show how the empirical sciences of religions, and the spiritual practices they engender are, in fact, sup-

ported by a myriad of studies, showing in the process: why water and wine are so often a part of religious rituals; why healing is so common across religions; why sacred spaces are significant, and how they are created; and why scriptures, and even the manner in which they are written, matter in these empirical systems.

Bio: Stephan A. Schwartz is a Distinguished Consulting Faculty of Saybrook University, a Fellow of the William James Center for Consciousness Studies, Sofia University, and a Research Associate of the Cognitive Sciences Laboratory of the Laboratories for Fundamental Research. He is the columnist for the journal *Explore*, and editor of the daily web publication Schwartzreport.net in both of which he covers trends that are affecting the future.

It's About Time

D.P. Sheehan

The phenomenon of time is one of the most familiar yet one of the most perplexing aspects of our existence. Questions surrounding it are legion and it now appears ripe for scientific revolution and redefinition. Perhaps its most vexing feature is that, whereas the central equations of physics are time-symmetric (that is, they admit both time-forward and time-reversed solutions), our everyday experience is time-asymmetric, unidirectionally toward the future [1-3].

The various forms of precognition (e.g., presentiment, premonition) stand as counter-examples to this temporal unidirectionality. Although there is no consensus scientific explanation for it, precognition likely does not involve new physics; rather it requires that currently accepted physics be interpreted in a more forthright manner.

In this talk, I will introduce the rudiments of time's symmetry and asymmetry, then propose an explanation for precognition in terms of currently-accepted

physics. New research directions will be suggested, including non-biologic systems that might demonstrate this phenomenon. Potential scientific, cultural and commercial ramifications will be discussed.

- 1) Sheehan, D.P. (Editor), *Frontiers of Time: Retrocausation - Experiment and Theory*, AIP Conference Volume 863, (AIP Press, Melville, NY, 2006).
- 2) Sheehan, D.P. (Editor), *Quantum Retrocausation: Theory and Experiment*, AIP Conference Volume 1408 (American Institute of Physics, Melville, NY, 2011).
- 3) Sheehan, D.P. (Editor), *Quantum Retrocausation III*, AIP Conference Volume 1841 (American Institute of Physics, Melville, NY, 2017).

Bio: Daniel Sheehan is a Professor of Physics at the University of San Diego. His interests include experimental plasma physics, the foundations of thermodynamics, planetary formation, nanotechnology, and the physics of time.

What Makes “Scientific” Evidence Scientific?

Paul H. Smith

Demarcating between science and pseudoscience often appeals to what is broadly called “scientific evidence.” Presumably, true science is justified by evidence that scientists widely agree counts as “scientific.” Pseudoscience, on the other hand, allegedly fails to meet those standards. “That particular discipline is clearly pseudoscience,” we might hear in objection to some claim outside the consensus view of science. “It doesn’t meet the standards of scientific evidence.” But this demarcation is notoriously hard to draw. Karl Popper famously considered both astrology and Freudian psychoanalysis to be pseudosciences, because both failed his falsifiability standard. Arguments can be made that certain “pseudosciences” meet or exceed the same expectations made of other, more accepted science. The fact that there seems no clear specification of what counts as scientific evidence fuels the ambiguity. When research is rejected as not producing evidence that is sufficiently “scientific,” we can challenge that judgment with questions. “What, then, constitutes scientific evidence?”, we might ask. Or, “How should we define scientific evidence?” A search of the literature turns up few hard and fast criteria. This presentation will attempt to fill the gap by offering seven qualities which could reasonably be expected of a body of evi-

dence to consider it “scientific,” along with discussion as to why these should count as defining characteristics of scientific evidence and how they may apply to examples of parapsychology evidence.

Bio: Paul H. Smith, Ph.D. (Major, US Army, ret), is an alumnus of seven years with the Department of Defense’s Star Gate remote viewing (RV) program. A Desert Storm veteran, he retired from the Army in 1996 and is an author, a frequent conference speaker and interview guest. President of Remote Viewing Instructional Services (a commercial RV training company), he is also a founding director and past president of the non-profit International Remote Viewing Association. His book *Reading the Enemy’s Mind* (Tor/Forge 2005) was a Readers Digest Book Bonus Feature and Editors Choice selection. He is also author of *The Essential Guide to Remote Viewing* (Intentional Press, 2015) and has co-produced two home study courses. His Ph.D. is from the University of Texas at Austin in philosophy, focusing on philosophy of mind, consciousness, philosophy of science and philosophy of parapsychology. He also has a BA from Brigham Young University and an MS from the National Defense University (both in Middle East studies). His website is <https://rvviewer.com>.

The Nature of Deep Reality – Solving Chalmer’s Hard Problem

John Streiff

Establishing consilience requires challenging established notions, such as the idea that Realism or Idealism are the sole suitable foundations from which Reality may be understood. Failures in both world-views suggests an alternative basis.

It is fashionable today to believe that consciousness collapses the quantum wave function and thus creates reality. But as developed in this paper, this idea is grounded in a faulty assumption. This paper examines the early history of quantum theories and in so doing reveals the flawed assumptions involved. Having isolated the issue in the mathematics of the Copenhagen interpretation, a new model is offered in line with the Bohmian interpretation. Further considerations are offered with respect to causation. A new model of reality is offered that is grounded in information which produces the universe and its contents, including subjective consciousness.

It is shown briefly that this new model begins to solve Chalmer’s “Hard Problem of Consciousness” by building the bridge called for by Chalmers in his original statement of the Hard Problem.

Fundamental features of the observed universe inform the new model; it is possible to develop a description of a Non-Material aspect that correlates well with the Bohmian and Transactional interpretations of quantum physics.

The resulting model proposed is claimed to explain all observations, measurements, experiments and experiences. In doing so, it is possible to understand how a deep reality produces all events and contents of the universe and thereby explains all phenomena, including phenomena identified with nonlocal consciousness.

Bio: John Streiff grew up with a front row seat to the 20th century technology revolution. Raised as an objective, rational, critical thinker with an interest in science and technology, he became fascinated with the psychology of deception and belief at a young age. His skepticism was challenged in the mid 1970s when he conducted successful controlled psi experiments including a highly successful real-time remote viewing simulation of an intelligence task involving both remote perception and influence.

After graduating from San Diego State University, John served in a variety of technology positions in global corporations. Throughout the period, parapsychology research remained a focus of interest. During this time, it became clear that understanding the meaning of psi required discovering the true nature of Reality. He has spent the last four decades answering that fundamental question.

Behind the Mask: The Hidden Content of the Dedication of Shakespeare's Sonnets

Peter A. Sturrock

The identity of the Great Author known as "William Shakespeare" has – until recently - been a mystery. His purported identity as a plebeian from Stratford-upon-Avon (William Shakspere, who could not even write his own name) has been a monumental - and incredibly successful - red herring. There appears to have been a state-sponsored imposition that the great author's identity should not be revealed - not only during his lifetime, but also on and after his death (for reasons that are yet to be adequately explored). However, the Dedication of Shake-Speares Sonnets has recently been found to contain cryptograms - composed one can infer by the great author – rather like a message in a bottle thrown into the ocean of time that has surfaced four hundred years later.

Bio: Peter Andrew Sturrock (b 1924) has had a long scientific career, and has published articles on elec-

tron physics, nuclear physics, plasma physics, solar physics, astrophysics, mathematics, statistics, scientific inference, parapsychology and UFO research. He was one of the founders of SSE and served as President from 1982 until 2000. He has received awards from the Gravity Foundation, NASA, the American Astronomical Society, the American Institute of Aeronautics and Astronautics, and the National Academy of Sciences. Sturrock received the Society's Dinsdale Award in 2006, and he received the *Vero Nihil Verius* award from Concordia University in 2014 for his research on the Shakespeare Authorship Question. His most recent books are *A Tale of Two Sciences – Memoirs of a Dissident Scientist* (2009), *AKA Shakespeare – A Scientific Approach to the Authorship Question* (2013) and *Late Night Thoughts About Science* (2015).

Examining Non-Ordinary Phenomena Experienced During Childhood

Nanci Trivellato

Despite the considerable research that exists about human non-ordinary abilities, little attention has been given to the understanding of psi phenomena when experienced during childhood. On the other hand, competing views on children's non-ordinary experiences often confuse and worry parents, receiving diagnosis ranging from mental disorders to theories of "advanced beings". Motivated by her personal experiences during childhood, and subsequent interest in the study of consciousness from a non-reductionist and multi-dimensional perspective, the author has promoted over the years a specific investigation on this subject, aimed at examining a population as diverse as possible to allow room for different descriptions and interpretations of the phenomena. In a first exploratory phase, in-depth interviews were conducted with children and adults from thirteen countries, belonging to different religions and cultural backgrounds, who claimed to have had non-ordinary experiences during the period of their childhood up to 14 years old. The professions of the adults interviewed included, among others: four medical doctors, five engineers, five musicians, and nine administrators and economists, of whom two were PhDs occupying high profile positions in a government department of their country. Using mixed methods methodology during this first phase of the study, a number of interesting phenomena were examined, including: night terrors, visions,

auditory perceptions, isolated sleep paralysis, invisible friends, out-of-body experiences, premonitions, and uncontrollable fears. This led the author to subsequently design appropriate psychometric scales to quantify fear and several of the subjective phenomena examined. In this work, the obtained data will be discussed and illustrated by describing some extremely significant real cases. The author's ultimate motivation with her analysis is to help parents and professionals distinguishing the signs of a sensitive child having non-ordinary perceptions, from those of other possible conditions or disorders.

Bio: Nanci Trivellato, MSc in Research Methods in Psychology, is a researcher, author, and educator. She is also a charter member of the International Academy of Consciousness (IAC) and the Institute of Applied Consciousness Technologies (I-ACT). She established the *Journal of Consciousness*, of which she was Chief-editor for 15 years, and is the author of the book *Vibrational State and Energy Resonance*. She is dedicated to consciousness and multidimensional studies since 1990 and has lectured in Australia, Brazil, Canada, Cyprus, Finland, Germany, Japan, Mexico, Netherlands, Portugal, Romania, Spain, Switzerland, the UK, and the USA. More recently, she presented her research approach in a TEDx Talk entitled "How out-of-body experiences could transform yourself and society", available at: <https://goo.gl/fRQ6c6>.

Consilience in Mind-Matter Interaction(s)

John Valentino

Experiments using Random Event Generators (REGs) have consistently shown an empirically observable interaction between “subjective” aspects of human consciousness (such as, e.g. intention, meaning, expectation, shared experience) and the measured outcome of physical processes (e.g. photon scattering, electron tunneling, thermal noise, radioactive decay, etc.) that conventional quantum mechanics describes as fundamentally random. The effects observed in these experiments and their applications tend to reveal a number of interesting properties not commonly observed elsewhere in the physical sciences:

- Non-locality in space and time (with apparent room for retrocausation)
- “Goal-Seeking” causality that acts agnostic to mechanism and physical substrate
- Response to experimenter and participant psychology and expectations
- Coordination of observed outcomes based on situational meaning

After a brief overview of some of these properties and their relevance, we will look for consilience between the so-called “PK” or “influence” effect in

REG applications and other consciousness-related anomalies such as remote viewing, healing, telepathy, and precognition. We will then explore the possibility that all such phenomena can be re-described in terms of a single effect and use clues from across disciplines and experimental outcomes to ascertain details about its structure and behavior.

We will share a short list of possible implications for other disciplines ranging from biology to entrepreneurship, experimental design with psi, and managing anomalies in one’s own life.

Bio: John Valentino worked for several years at the PEAR laboratory, where he conducted experiments in mind-matter interaction using Random Event Generators, and then was co-founder of Psyleron, a company that makes REG hardware devices and software available to researchers and members of the public. John has a graduate degree in engineering from Princeton University and an undergraduate degree in engineering from Lehigh University. He has been a board member of ICRL and a Council member and is the Chief Operating Officer of the SSE.

Towards a Postmaterialist Science – Report of the Galileo Commission of the Scientific and Medical Network

Harald Walach

The remit of the Galileo Commission of the Scientific and Medical Network (<https://www.galileocommission.org/>) is to review information that point towards an expansion of science beyond a materialist worldview. I have written such a report, which I will present. The argument starts with the insight that all human endeavours are necessarily founded on absolute presuppositions in the sense of Collingwood and that the current presuppositions of science are largely predicated on a materialist worldview. This has served us well up to a point. It seems that we have reached a stage in science and society at large, where an exclusive reliance on such a worldview could prove not only limiting, but dangerous. Evidence that points towards the necessity of broadening such a view comes from some areas of anomalous science: reports of veridical cases of non-local perception during near-death experiences, the cumulated data-base of experimental parapsychology, evidence of case reports from children with memories of previous lives, to name but three. This type of phenomenology cannot be incorporated into the current world model. This is why these phenomena are largely ignored. If we, however, take these phe-

nomena seriously, as the report suggests, we can broaden our view. The basic requirement for this is a twin acceptance of a world-model that provides for some non-locality and for consciousness to have some causal and possibly independent ontological status. A minimum consensus model would be a dual-aspect theory of consciousness. A model that can incorporate non-locality would either have to resort to a field, or to a generalized form of non-locality as derivable from a generalized quantum theoretical framework, as we have proposed. Such a broadened view would by necessity be inclusive and would lead to different types of research questions being pursued and would also propose an overall connectedness both of mankind, but also with nature and the planet at large. The ramifications for teaching and research are obvious and will be outlined.

Bio: Harald Walach has Ph.D. in Clinical Psychology and in History and Theory of Science. His research focuses on topics around consciousness and health and developing and testing a model for generalized nonlocality.

From Oedipus to “Mr. Foresight”: The Freudian Unconscious as Misrecognized Precognition

Eric Wargo

Experimental as well as anecdotal evidence suggest that precognition orients toward meaningful rewards ahead in an individual's life. Consequently, the study of precognitive dreams and other precognitive behaviors should not ignore highly personal meanings and associations that may be relatively inaccessible to strict laboratory methods. Clinical case studies of Sigmund Freud as well as others working in his tradition provide a rich trove of data on precognition, which has been largely overlooked both by psychoanalysts and, with a few exceptions, by parapsychologists. Indeed, reexamination of events in Freud's biography shows that he himself precognized significant upheavals in his later life in his dreams and parapraxes, even though he never acknowledged such a possibility.

The psychoanalytic construct of the unconscious offered turn-of-the-century science a way to admit otherwise supernormal-seeming human capabilities into scientific consideration, by framing them as the operation of a not-causally-outrageous (but still-paradoxical) off-stage agency forming judgments and directing our behavior without our direct awareness.

Yet in light of more recent research, ranging from laboratory precognition and presentiment evidence to new thinking about retrocausation in physics, it becomes more parsimonious to reframe many phenomena associated with the unconscious (dreams, parapraxes, creativity, and even neurotic symptomatology) as potentially precognitive in nature. Parapsychology more generally could gain much from a “return to Freud,” since his hermeneutic approach straddled the sciences and the humanities in a way that is necessary to make progress studying meaning-centered phenomena.

Bio: Eric Wargo is the author of the book *Time Loops: Precognition, Retrocausation, and the Unconscious* (2018, Anomalist Books). He has a PhD in cultural anthropology from Emory University (2000) and has worked as a science writer and editor for organizations including the Biblical Archaeology Society, the Association for Psychological Science, and the National Institutes of Health. In his spare time, he writes about consciousness, paranormal phenomena, and science fiction at his blog *The Nightshirt*.

The Secret Relations Between UFOs and Consciousness

Robert M. Wood

When the SSE began with Peter Sturrock and Robert Jahn there were two kinds of anomalies in focus: Bob Jahn's reputation for consciousness research results and Peter Sturrock's examination of several physical science fields, including evidence for anomalous objects often called UFOs. In the first few years, the SSE symposia and JSE often included topics of UFO report photo analysis or speculation on extraterrestrials, but in the last decade, there has been little to no apparent interest in the UFO topic.

When I served on the SSE Council for several years, I volunteered to attempt to stimulate some scientific examination of the UFO topic, but I insisted that it should include the evaluation of "leaked" classified material, which was not acceptable to the Council.

In 2009 William Tompkins was encouraged by a couple of SSE members to contact me because I had become involved in UFO document authentication and might be interested in his story. His credibility was very high with me because we worked for the same company at the same time. As I learned his story for an autobiography, I found not only that the questioned documents that I had been examining were essentially valid, but that the level of secrecy sophistication went far beyond what I had imagined. This talk will include a listing of the processes used to keep facts secret.

While it is true that although there are thousands of UFO reports and that some of them are mispercep-

tions of ordinary phenomena, the UFO reporting history includes a large number that are consistent with real craft and real occupants. Included in this number are various reports of consciousness and time-related reports. Examples would be numerous cases of "missing time" by abductees, recollection of living past lives, the ability to program craft direction and control by thought processes, as well as regular telepathic communication with alien species.

I believe that the propulsion procedures for traveling at "warp speed" between the stars has already been secretly accomplished and that the technology to do it well includes consciousness control, and that this has been kept secret with remarkable effectiveness, thereby preventing us ordinary "uncleared" scientists from learning those "new equations" that will represent a conciliation of ufology and consciousness.

Bio: Robert M. Wood, Ph.D. physics Cornell, 43 years engineering manager McDonnell Douglas on ballistic missile defense, research management, International Space Station, 25 years as author and TV producer relevant to the secret history of ufology. Two books, a dozen UFO-related articles including two in the JSE. (*The Extraterrestrial Hypothesis Is Not That Bad*, 1991 Vol 5 No. 1 and *Reanalysis of the 1965 Heflin UFO Photos*, Winter 2000 Vol 14, No. 4)

Subtle Energy Research: Systems Mapping & Future Roadmap

Jason Yotopoulos

Research executives, business executives, entrepreneurs, funders from other domains are investing in edge science research. In his talk, Jason will provide an overview as to the systematic approach the Emerald Gate Foundation and others are pursuing, give an overview of the research work that is currently being conducted, and provide a preview into some of the areas of interest going forward. He will shed some light into some of the foundational questions to be explored and the philosophy in terms of approach.

Bio: Jason Yotopoulos, a Stanford-educated engineer and multi-time entrepreneur, has spent a decade as a venture capitalist and a subsequent decade as an executive with one of the world's largest global multinational software companies. He has personally invested in subtle energy research with Stanford Emeritus Professor Dr. William Tiller and is most recently affiliated with the Emerald Gate Foundation to orchestrate and implement a multi-year, comprehensive subtle energy research agenda.

Posters

(In Alphabetical Order by Presenter)

Further Extension of the MegaREG Experiments

Keith Alexander

The MegaREG set of experiments run by the Princeton Engineering Anomalies Research (PEAR) group prior to 2004, found that the response to human intention was positive when the Random Event Generator (REG) bit-rate was 200 bits per trial, but increased in magnitude and was negative in direction when the bit-rate was two million bits per trial. This reversal of the influence could not be explained within the existing theories of psi influence, and for several reasons this avenue of investigation was terminated.

On the basis that bit-rate might be a window into the physics of the phenomenon, an independent replication was carried out with a new machine, leading to an SSE conference presentation in 2017. That replication extended the bit-rate up to 16 million bits per trial and explored a number of frequencies in between. The results apparently confirmed the MegaREG findings of a per-trial increase in effect magnitude with bit-rate, and were strongly suggestive that the relationship was log-like. Because the replication was spread over a number of frequencies, the data pool was not large enough to provide robust statistical significance. The replication was also inconclusive with respect to the reversal of effect direction with increase in bit-rate, though in line with the concept of consilience, it proposed that the reversal could be an experimenter effect, the result of conflict within the original MegaREG team.

The current study aims to give a more robust conclusion with respect to the increase of effect size with trial bit-rate, and whether or not the reversal can be replicated. It extends the capacity up to 800 million bits per trial, and intersperses trials of 200 bits per trial in a pseudo-random way that is invisible to the volunteers, but can be separated during analysis. This presentation reports on the results to date, and discusses the implications, including the case for the experimenter effect.

Bio: After starting out as a school teacher, Keith Alexander did an engineering degree and Ph.D. at University of Canterbury. He then worked in an engineering consultancy in Auckland for six years, married, then returned to Christchurch to manage the design section at Hamilton Jet. He moved over to the University in 1996. Currently a Professor in Mechanical Engineering, he teaches Mechanical Engineering Design and Product Innovation. He has become known as the inventor of the Springfree Trampoline, a product he commercialized through the University. He has a variety of patents and research interests including unconventional water craft and flying machines. He has been putting energy into the development of safety standards for trampolines in the USA, Australia, Europe and New Zealand.

EarthRings: Integral Membrane Plutons

Peter Champoux

Arcing like a cell's Integral Membrane Proteins (IMPs) in Earth's biospheric membrane, EarthRings emerge as a bubbling geographic phenomena ('the Champoux Effect') that are a coherent foundation for culture to nest symbiotically within our planet membrane.

Cellular biology informs that the cell's membrane has geometric IMPs that regulate cellular-stasis. Functioning as Earth's IMPs (Integral Membrane Plutons), it is theorized an earth ring transeives information maintaining the health of our living cell – Earth. The information coming to and from celestial and terrestrial sources, including the aggregate emotion of life.

Gearing like a clock works, EarthRings of all scales generate the patterned interrelationship of people, place, and purpose. For example, the circular North American geologic plate and the EarthRing, being the same diameter as Earth's outer core and Mars, hint at the dynamic multi-disciplinary conversations occurring between the three and human settlement

patterns. There are many EarthRings, and the Earth's cross section is a ring as well, reflected in the geometry of the human eye and enneagram.

Imprinted geo-flowers of sacred geometry, EarthRings reflect the geometry of its progenitor - water. Dimensionally reflective of Earth's inner and outer cores, the Moon, Pluto, Venus and Mars, EarthRings speak to an intelligent coherently-designed Earth and cosmos.

Bio: Peter Champoux has taken a simple observation of coherent geometry in circular biospheric patterns, or EarthRings, and developed it into a geographic art and science called 'gaiagraphy'—the study of our living earth. A Yankee stone mason from Massachusetts, Peter has been a lifelong (66 years) student of everything—and master at some. He is a peer-reviewed author, lecturer, bioneer and independent scholar on all things 'geo'. One can safely say, he is 'consilient'.

Awareness Logic, the Awareness Point, and Space-Time-Awareness

Jeffrey P. George

How do we get something from nothing? How do we routinely reconcile our finite perception with infinite potential in our day to day existence? How can we better define the essential role of the observer to any given observation in advanced physics when the most fundamental system of defining value, mathematics, does not even consider this relationship to begin with?

Awareness Logic sets out to simply and intuitively resolve these questions with the axioms of awareness which establish the awareness point ($\bar{1}$) as a universal reference for all numbers at the most fundamental level of numbers theory.

The first axiom of awareness postulates "All values simultaneously reference zero (0), infinity (∞), and one (1), the unique intersection of which is equal to the Awareness Point $\bar{1} = 1\infty 0 : (\bar{1})$."

The axioms of awareness connect the essential interrelationship of finite and infinite values to the necessity of mathematically establishing the relationship of the observer to any observed value in terms consistent with established numbers theory. The awareness point ($\bar{1}$) is essentially a new unique number that can be easily plotted and understood in relationship with all other numbers.

Awareness Logic is not a Theory of Everything, nor does it necessitate any additional physics to explore

the nature of awareness. The most practical and immediate applications of Awareness Logic are in the realm of advanced physics, as many of the seemingly counterintuitive relationships in relativity and quantum field mechanics are revealed to be basic features at the lowest level of numbers theory. This also brings with it certain potential metaphysical implications about the unitary nature of consciousness which, while not essential to understanding the mathematical or scientific terms, are useful to fully consider the deeper existential significance relevant to these fields.

Awareness Logic does not in itself introduce any new features to physics, but rather is a tool by which the already established science can be more intuitively expressed. Fully realized, a good analogy for the potential of awareness logic and the awareness point ($\bar{1}$) might end up being the renaissance introduction of the concept of "0" and the replacement of roman numerals with Arabic numerals.

Bio: Jeffrey P. George has worked as an electronic intelligence analyst, fielded prototype wireless telecommunications, and in medicine as a sleep technologist, and has the perspective of decades of study in Sufism.

Pushing the Boundaries with the REG

Grace Kadler, Tayzia Collesso, Maria Forrester, Akshya Vasudev, Emily Ionson, & Imants Barušs

Researchers at the Consciousness Laboratory at Western University ran a series of experiments, that go beyond conventional protocol, to try to determine the variables that allow for direct mental influence (DMI). Experiment One was a straightforward replication of some REG experiments that have been completed at the PEAR laboratory but found null results. Experiment Two introduced an instructed mode in which participants were led through a guided imagery exercise, which included the evocation of feelings of love in participants, to see if that made a difference. A significant difference was observed between experiment one ($M = -0.08$, $SD = 0.36$) and experiment two ($M = .15$, $SD = .31$), $z(58) = 2.69$, $p = .0036$ (one-tailed), $d = 0.70$. In other words, guided imagery that evokes feelings of love may increase one's ability to engage in DMI. Experiment Three recruited participants who had successfully deviated the REG in Experiment Two to try to determine the possible mechanisms that are responsible for DMI. Participants were asked to play with the REG and write down the techniques they used. One particularly successful participant reported deliberately asking discarnate entities to influence the REG during their data collecting session. Experiment Three Plus explored the influence that discarnate beings may have on manipulating the REG. The results were somewhat suggestive towards discarnate beings being able to influence the REG and replication runs of the experiment are pending. Experiment Four was divided into two parts: the first sampled a control group to investigate the impact of emotional state on one's ability to engage in DMI and the second will use a sample of psychiatric patients with clinical depression and anxiety to investigate the impact of pathological emotions on the ability to engage in DMI. There was no overall effect in the control group but feelings of love correlated with the ability

to influence the REG in the intended direction. This lends support to the idea that love was a contributing factor in Experiment Two. Experiment Four part two is in the early stages of completion. It is hypothesized that participants who score high on measures of clinical depression and anxiety will influence the REG in the unintended direction.

Bios: Grace Kadler has taken a particular interest in the study of consciousness and plans to complete a master's in the field of neuropsychology.

Tayzia Collesso's research interests include the study of consciousness and its impact on physical manifestation. She is using her psychology degree to attend law school in the fall.

Maria Forrester has a degree in psychology and is currently working at Mariposa Wellness Canada and Conscious Compassion Canada.

Dr. Akshya Vasudev is an Assistant Professor in the Department of Psychiatry, Division of Geriatric Psychiatry and Department of Medicine, Division of Clinical Pharmacology at Western University and a Geriatric Psychiatrist at the London Health Sciences Centre in London, Canada.

Emily Ionson is a research assistant at London Health Sciences Centre in London, Canada. She is currently involved in several research projects on treatments for psychopathological disorders.

Dr. Imants Barušs is a professor of psychology at King's University College where he teaches courses about consciousness. He has authored or co-authored six books and fifty papers, and given over 100 presentations.

Case for a Spiritual-Based Reality

Douglas Kinney

Over the last forty years, new discoveries by frontier scientific researchers are expanding and redefining our ideas on consciousness and the nature of reality. For example, out-of-body accounts in verified near-death experiences (NDEs) and the many examples of memories and personality traits being transferred in organ transplants indicate mind must be nonphysical.

Recent findings in three major scientific disciplines - quantum mechanics, cosmology and evolutionary biology - are “pushing” us into a “greater unknown” by their expanding sets of anomalies. For example, we are challenged to integrate the strong role of consciousness in quantum mechanics and discoveries of dark matter under gridding our physical universe. Evolutionary biology is challenged to understand and integrate the lack of evolutionary trails and the presence of system design-like practices in the evolution of complex animal forms.

Ian Stevenson, an SSE founder, took us deeper into the spiritual-related phenomena of reincarnation - nonphysical beings having reoccurring physical lives - with his many books and papers about children who remember (CWR) their past life in detail. Other SSE members have continued his work.

In my 2015 SSE annual meeting presentation, I showed how Stevenson’s CWR cases with birthmarks that corresponded to how these children died in a previous life could be explained through the distribution of

consciousness in our human subtle-energy-information fields identified by energy healers. Also, Dr. Semkiw’s findings on humans tending to have the same appearance, family members, and personality traits as in previous lives support the reincarnation concept.

Thousands of between-lives regression subjects and many NDErs describe experiencing themselves as nonphysical beings in nonphysical settings. Additional discoveries (for example, physical healings in past-life therapy) support the concept that non-physical intelligence/information is affecting human physical conditions—hypothesized to occur through subtle energy-information fields.

I interpret the above examples supporting to my hypothesis that spirituality is the underlying source of our physical reality. I believe that several prominent 20th-century physicists (e.g., John Wheeler) are hinting at this when they stated, “our universe came into being when it observed itself.”

Bio: Douglas Kinney is the author of *Frontiers of Knowledge, Scientific and Spiritual Sources for a New Era* and presenter at 2014, 2015, and 2016 SSE Annual Meetings. He holds a B.S. in Aero Engineering and an M.S. in Management Science. He is a retired defense system engineer, ordained New Thought Minister, and a certified hypnotherapist for past-life and between-lives regression.

How Mathematicians Think

Jordan Kritzinger & Imants Barušs

The question: “from where does mathematics originate?” has been discussed philosophically, theoretically, ontologically, and empirically in cognitive and neuropsychological studies. The main division in the argument has centered around whether mathematics arises as a byproduct of behaviorally-encoded neuro-cognitive primitives, such as primary metaphor-mapping onto neurological circuits, or is extracted from a transcendent realm of archetypal information, hinting at the (uniquely) human trait to access the transcendent domain, with few theories arguing a combination of both. To get around the theoretical assumptions of where mathematicians ‘think’ mathematics come from, a study was designed to analyze the phenomenological experience of mathematicians, specifically while they are engaged in mathematical research or teaching. Participants will be pooled from the American Mathematical Society and their associated colleagues and peers. All participants will complete a demographic questionnaire and a measure about ‘how mathematicians think’. The questions are divided into two sections, one dealing with the phenomenological experiences of the mathematicians while they are engaged in

mathematical research or teaching, and the other with their fundamental assumptions about the nature of mathematics. In total, the second measure contains 72 items, 66 of which are measured on a Likert scale from one-to-seven, and six of which require written responses. Ethics approval has been received and the study is underway. The results will be communicated at the SSE meeting. We are particularly interested in finding if there are any indications of modes of cognition that have not been captured in contemporary cognitive psychology.

Bios: Jordan Kritzinger is an honors Psychology student at King’s University College. This research constitutes his fourth-year honors psychology thesis project

Dr. Imants Barušs is a professor of psychology at King’s University College where he teaches courses about consciousness. He has authored or co-authored six books and fifty papers, and given over 100 presentations. His most recent book, co-authored with Julia Mossbridge, is *Transcendent Mind: Rethinking the Science of Consciousness* (American Psychological Association, 2017).

Implementing Interdisciplinary Intermediatism: Emerging Methods to Bring Consilience

Christopher Laursen

Where consilience brings together research processes and evidence with the goal of reaching unified conclusions, Dr. Christopher Laursen (Graduate Liberal Studies, University of North Carolina Wilmington) puts forth how interdisciplinary humanities helps illuminate complex and elusive experiences and phenomena through research methods, applied learning, and ongoing collaboration that can complement knowledge-building in edge sciences.

Dr. Laursen's poster presents a booklet (available for attendees to take away with them) that shows his consilience work in progress. It aims to open dialogue with SSE members. The booklet has three parts that examine the following questions:

1. How can academic interdisciplinary programs rooted in the humanities serve as the hub to build public understanding around edge sciences?
2. How can humanities scholars expand field work in ways that they can draw from or collaborate with scientific expertise and knowledge, bringing forth new data and perspectives, and therefore advancing how we understand things?
3. How can new forms of public education strengthen the bridge between curiosity, experience, and research?

In his graduate course *Frontier Sciences*, Laursen, his graduate students, and the Rhine Research Center collaborate to explore how to advance psi studies. In

opening these channels, the next step in future offerings of the course will be to actively collaborate with edge scientists to enhance research follow-through and foster public understanding. *Frontier Sciences* is a building block in a growing model through which interdisciplinary studies actively contribute to expanding the scope and public understanding of scientific exploration.

Laursen introduces a current collaborative research project, the first part of which will appear as a chapter in Jack Hunter's forthcoming interdisciplinary volume *Greening the Paranormal*. The project creates a methodology inspired by ecological studies and a concept put forth by Stephen E. Braude (2014), "psychic naturalism," along with an experience-centered methodology to study recurrent anomalous phenomena at Canadian fishing lodge. There, people report spontaneous lightforms, apparitional figures, and poltergeist-like physical manifestations on an ongoing basis. Laursen outlines his collaboration with a lodge staff member/experiencer and student of theology and indigenous studies Elorah Fangrad and the scholar of environmental and indigenous studies Rick Fehr.

Bio: Laursen's work has appeared (and will appear) in volumes edited by Jeffrey J. Kripal, Jack Hunter, D.W. Pasulka, and Simone Natale, as well as the magazine *Fortean Times*. His website is <https://christopher-laursen.com>.

Why do Fibonacci Numbers Occur in Pinecones?

Victoria Li

Many people know why the Golden Ratio appears in pinecones. Many people also know that the Fibonacci Numbers appear in pinecones. However, when I asked *why* the Fibonacci Numbers appear in pinecones, I couldn't find the answer anywhere until I proved it at <https://youtu.be/UZ4SN0tfrss>. The Golden Ratio maximizes the spacing of parts growing infinitely inward and outward. It can be proven that as a consequence of this, the ratio of counterclock-

wise to clockwise spirals (clockwise to counterclockwise spirals) will be approximately the Golden Ratio, or the ratio of consecutive Fibonacci numbers. This result has broader implications for the self-similar nature of our universe and how to study it, namely: The whole is contained in the part.

Bio: Victoria is a mathematician dedicated to understanding the way our world works.

The Volume Field Model about Strong Interaction and Weak Interaction

Rongwu Liu

In the particle model, any particle that carries mass possesses the property of inertia, which appears to resist the change of motion state (or attempts to keep the original motion state) when external force is exerted on it. Likewise, in the volume field model, when volume field experiences an external force, it always takes volume motion (that is, making shape change), which meanwhile gives rise to a force that attempts to restore the volume field to the original state (or original shape). This property is referred to as the restoration of volume field, the corresponding force is called the restoration force (or deformation force). By analyzing the work done by the restoration force of volume field of a quark, this article proposes that, the volume field of a quark has two kinds of equilibrium states, which includes a stable equilibrium state (the volume field of a quark in this state is in static state at equilibrium position r_0) and non-stable equilibrium state (the volume field of a quark in this state is in moving state or pulsating state at

equilibrium position $r-1$); they are all in the ground state of quark energy. Based on the discussion above, the author will define particle-like quarks and volume-field-like quarks, and ultimately establish the model of atom-like structure of hadrons.

Bio: Rongwu Liu graduated from the department of physics of Qufu Normal University in China, and publicly proposed *The Volume Field Model about Strong Interaction and Weak Interaction* in 2014. Since then, he has given total of ten presentations, which includes six talks and four posters at the Parapsychological Association, Society for Scientific Exploration, American Physical Society (APS), Far West Section of the APS, Division of Nuclear Physics of the APS, and Southeast Section of the APS, and one article (*The Model of Complex Structure of Atomic Nucleus and Living Body*) in Molecular Biophysics and Biochemistry.

Top-Down Cosmology

Herb Mertz

In 2006, Stephen Hawking and Thomas Hertog published a paper "Populating the Landscape: Top-Down Approach. This paper, referred to as Top-down Cosmology, holds that the precise initial conditions surrounding the big bang are unknowable because the big bang was infused with quantum uncertainty. This means our current approach to cosmology, wherein we attempt to calculate the original conditions of the universe and then roll the camera forward to the present, will always fail. Instead, Hawking and Hertog appeal to the quantum assertion that there was no actual framed historical path that the universe took from big bang to the present. Rather, we use the sum over histories approach, seeing the past as an array of possibilities leading to the present. The universe can take any and all those paths, including the one that produces conscious humans. In that possible path - present at the beginning of the universe - these "possible humans" are entities who look backwards (as part of the wave function of possibilities) and

interfere with all other paths to guide reality toward their preferred path, wherein they exist. We therefore created ourselves into existence! Further, as observers, we humans are relative newcomers, and we can only imagine the power of more intelligent future observers or a collective consciousness that is also part of this wave function, perhaps looking backwards from some distant time in the future.

Top down cosmology puts us into what I call a single "time bubble of meaning" where the end times or at least later times are connected to the origins of the universe.

Bio: Herb Mertz is a graduate of Princeton University's mechanical engineering department. He was an early intern and long-time associate of the PEAR lab in Princeton, and co-founder of Psyleron, Inc. He will be releasing his first book in September: *The Selection Effect: How the Mind Shapes Reality*.

The Theory of Existence Within Quantum Fluidity

Lori Morris

Consilience brings Science, Belief Systems, and the Humanities together in a sharing of common conclusions relative to the Theory of Existence Within Quantum Fluidity. Emerging from this Theory is a highly debated question regarding self-determination vs. predestination.

Science – Probability waves created at the big bang continue to radiate throughout our universe.

Quantum – Quantum field theory indicates that via entanglement, multiple realities present themselves into which we unknowingly pass when a decision is made. This appears to suggest that free will is an illusion. Quantum physics demonstrates that each moment can never be repeated.

Epigenetics - Individuals generally seek the easiest or most familiar path predicated upon how they were formed mentally, physically, and emotionally. Epigenetics studies regeneration and how the environment dramatically affects our overall state of health.

Humanities – Belief systems and other disciplines have non-scientifically offered what science is now affirming. That is, we live in the present moment.

Memories – Memories of the past and thoughts regarding the future become realized only when raised to the conscious level. They remain in this state until removal.

Methodologies – Methodologies that practice how to alter one's present state or decision making pro-

cess include behavioral cognitive therapy, grounding, visual image therapy, artistic expression, equine assisted learning and many others. Enacted decisions then result in the shaping of our mental, physical, and emotional state.

Immersion – Humans exist only in the present moment and are faced with an influx of reality splitting options; do we have control over this decision making process? How do we subconsciously or consciously self-determine among a sea of infinite possibilities? Conversely, if our lives are predestined, what is the role of free will? Finally, is our existence merely cause and effect without an ability to influence but only experience?

Conclusion – Many disciplines devote time and resources towards addressing these complex issues. By working harmoniously together and drawing upon established and emerging research we can begin to address fundamental questions raised by people of all backgrounds; these being, why are we here, how do we navigate life, where do we go, and why do we exist at all?

Bio: Lori Morris, Master of Divinity, Master of Theological Studies, Bachelor of Business Administration Degree in Human Resource Management, Human Resource Consultant, Equine Assisted Learning Founder/Executive Director, Business Owner, Spiritual Development Advisor.

Water as a Carrier of Frequency Information

Glen Rein

This presentation will review some technologies which claim to structure water and discuss scientific methods to measure the presence of clustered water with a focus on near Infrared Spectroscopy and NMR spectroscopy. Research with one such method involving the treatment of water with strong DC magnetic fields and light will be discussed in some detail with respect to the beneficial effects structured water has as compared with control spring water containing the same mineral content but unstructured.

In addition, research involving the treatment of structured water with AC electromagnetic fields to imprint water with frequency information will be discussed. Water memory of imprinted information is now recognized as a real scientific phenomena. Furthermore, the theoretical model proposed by DelGiudice predicts that information is stored in quantum domains in the subatomic level. This poster will present original research by the author demonstrating the effects of different types of energy fields to imprint water. Imprinting is monitored by measuring the electrical properties of water as a marker of successful imprinting. Specifically, the electrical conductivity was measured at 42kHz, a resonant frequency of water discovered by Keeley. Depending on the type of water and the type of energy used,

imprinted water can either increase or decrease the electrical conductivity. Furthermore, results indicate that classical (transverse) EM fields act synergistically with non-Hertzian (longitudinal) waves to increase electrical conductivity of water indicating both are required to strongly imprint water with frequency information. Finally, original research on the biological effects of imprinted water will be presented including experiments indicating that frequency-imprinted water stimulates the immune system.

Bio: After obtaining a PhD from London University and an Assistant Professorship at Mt.Sinai Medical School, Dr. Rein studied various biomedical disciplines at prestigious institutes like Harvard and Stanford Medical Schools. He has extensive corporate experience at a Fortune 100 company working on innovative product development and obtaining numerous patents. He is currently CEO of the QBRL conducting innovative basic and contract research (www.innobioTECK.com). Most recently Dr.Rein has co-founded an Aquaceutical research company (Glee Biologics) with Dr. Lee Lorenzen. Dr. Rein has numerous scientific publications (including Nature), is on numerous Boards, has lectured in eight countries and appeared on numerous radio, TV and documentary films.

Consilience and the Astrological Universe of Meaning

Courtney Roberts

Recent advances in information technology have sparked a renaissance in astrological research. This past decade has seen an increase in positive, peer-reviewed, published results in research journals like the *JSE & Correlation*; including over a dozen studies by Dr. Kyosti Tarvaninen alone. The latest issue of *Correlation* (Nov. 2018) boasts three separate quantitative studies, all showing statistically significant support for the signs/elements of the tropical zodiac, plus a literature review of similar results in studies on psychometrics, market segmentation & consumer buying behaviors. The publication of *The Lunar Effect Bibliography* (2017), a long-overdue compendium of a century's worth of evidence for lunar influence, marks yet another milestone. Meanwhile, artificial intelligence and self-taught predictive engines show great promise, even in their nascent phases.

Still, many continue to brand all astrology as 'pseudoscience'. While there's no denying that many of astrology's self-proclaimed proponents more than deserve that distinction, at the same time, too many of astrology's detractors may yet misunderstand the basic premise. In highlighting the larger questions raised by a growing body of evidence for astrological planetary influence, this presentation argues that astrology's 'universe of meaning' is integral to the emerging scientific paradigm, illuminating constructive principles and common themes linking together a range of anomalous findings into both productive theories and practical applications.

While the latest edge science keeps reaching towards a conscious, coherent and intimately connected cos-

mos, the 'astrological theory,' from time immemorial, has always posited a consciously-connected universe, enfolded with implicate order. The astrological universe of meaning implies some kind of harmonic, Akashic and/or morphogenetic field - a field conveying memory, heredity and nonphysical sources of personality through the vast expanses of time and space along a unique set of elemental connections.

The positive results in the quantitative research correlating the movements of our solar system with human behavior, demonstrate action at a distance and nonlocality across space and time, pointing to some inherent teleological effects of a long-term interaction of mind with matter. Astrological timing may play a role in 'coincidence' or synchronicity, on coherence in Global Consciousness or successes/failures in PK & remote viewing. These can all be quantitatively demonstrated, either way, with both practical & theoretical benefits.

Bio: Courtney Roberts, MA (Cultural Astronomy) is the director of Canaveral Research Center (www.canaveralresearchcenter.com), the Kepler Conference coordinator and current guest editor for *Correlation*, the British Astrological Association's peer-reviewed journal of research in astrology. She routinely collaborates with astrological researchers around the world on a range of projects, publications and educational initiatives. She also serves as an historian/compiler of the growing body of evidence for astrological planetary influence.

Turiyatita: The Indian Nondual Cosmography of Psi

Daniela Rodriguez

Scientists and scholars have been attempting to define and explain consciousness, yet the vague divergences in opinions surrounding the word are deeply entrenched across branches of science itself. Therefore, I propose that the discourse should be opened to ancient Eastern philosophy as a potentially rich source of information about consciousness. Ancient Indian cosmology is rooted in a deep contemplative tradition of phenomenologically outlining the rhythms of consciousness. For example, in tantric philosophy, the core of Consciousness is an eternal void subtly throbbing. The pulsation of the heart or spanda is the source of contraction and expansion in which all phenomena is born and withdrawn. At the junction between all emissions and absorptions, such as the inhale and exhale, is *turiya* - the pure undifferentiated state of equilibrium.

Classical Indian philosophical texts are rich in detailed articulations of and hypotheses about the order of nature, since this inquiry expands from the mundane to the subtlest aspects of the world. In the eyes of Indian philosophers, there is no category distinction between inquiry into the physical world and inquiry into the 'supernatural'. Therefore, these descriptions of reality, although pre-scientific, are holistic. On the other hand, trends in modern scholarship have divided knowledge into categories and consequently, one might argue, are bound to a fragmentary perception of the world. Nondualism,

another concept prevalent in Indian philosophy, is the notion that all of nature is the expression of a single underlying consciousness, and has the potential to inform contemporary discussions of how psi phenomena work by providing a tentative "how-it-is" and "why-it-is" to the "that-it-is" results of the scientific method. As the evidence has emerged, over decades of carefully conducted research, that anomalous phenomena are part and parcel of the natural order, it is useful to look to parallels in works of deeply thought-out literature talking about the same phenomena. I aim to analyze how an underlying consciousness behind all subjects and space could provide explanations for psi evidence.

Bio: Daniela Rodriguez is an assistant for the Center for Transformative Movement facilitating Freeform Dance as a wellness practice for the community. Daniela is a CU-Boulder student in Religious Studies and president of the CU InterConsciousness Club and the Freeform Dance Club. Daniela is also a youth researcher for CU Psychology's Mindfulness project. She is passionate about the fruits of mindfulness along with the parallels between ancient Eastern philosophy and psi phenomena. Daniela presented her research poster on Collective Intention on plants at the SSE 2018 conference and presented Freeform Dance as a wellness modality with CTM at the Global Wellness Summit 2018.

Evaluating Healing Energy on Wilting of Flowers

Nadir Shakir & Nelson Abreu

Our objective was to find a better way to measure reiki energy (or any other technique that is meant to transfer energy with the body). I used reiki, a Japanese technique for stress reduction and relaxation that also promotes healing, to prevent carnations from yellowing and wilting in a fifteen-day period. The location was in a mostly quiet living room, with the least number of electrical signals around, in South New Jersey. Reiki was performed on two plants (EG), meditation on two plants (EGI), and nothing on the last two plants (CONTG). Our results showed that the plants of EG yellowed the least and the plants of CONTG ran out of water the fastest, and yellowed & wilted the most. Our statistical significance, p -value, was below .05. The procedure is now being replicated to gain statistical value.

The basis of this project was derived from Nelson Abreu's paper *Quantifying bioenergy exteriorization strength using biological sensors and colorimetry*. The paper discussed the procedure, which we improved on and the measuring tools that were and can be used to measure the energy. This paper is a revised and upgraded version of the previous paper. We took into consideration flower preservation and how to include that into the procedure. A fresh cut flower

is still living even though it has been cut from the plant. It conducts the regular photosynthesis and respiration, in significantly lower rates. The life of cut flowers depends on: the inability of stems to absorb water due to xylem blockage, excessive water loss from the cut flower, short supply of carbohydrate to support respiration, diseases, and ethylene gas.

Bios: Nadir Shakir is a chemical engineering undergraduate at the University of Colorado, Boulder. He interned with I-ACT in the summer of 2018 to conduct an experiment on biofield and flowers. He was a contributor to a research poster on a related pilot study at the 2018 conference of the Society for Scientific Exploration.

Nelson Abreu, BSEE, PE is a power systems engineer and consciousness author, educator and technologist based in Los Angeles. He lectures at International Academy of Consciousness and is a member of the International Consciousness Research Laboratories (ICRL) consortium. He co-founded the Institute of Applied Consciousness Technologies, LLC and Neumascap Studios, Inc. He was recently admitted to University of Southern California's Master of Science in Integrated Design, Business and Technology.

Consilience and Direct Human Experience as Scientific Evidence

Dianne Trussell

This poster will present the results to date of cross-disciplinary literature research for upcoming doctoral work, and early experimental data (if acquired in time). Several major conventional assumptions are discussed with results from edge science and also mainstream experiments that violate these assumptions. A core example is: if energy is the basis and substance of everything, then consciousness is also a form of energy rather than merely a product of organic brain activity. Consciousness could exist at every point in space, possess quantum properties and be able to interact with any matter and energy regardless of physical separation. There may even be more than one kind of energy of consciousness.

Human thought and experience are products of consciousness. What if we have wrongly consigned human experience to anecdote, inadmissible as scientific evidence? What if we're "throwing out the baby with the bath water?"

We can look at it in the context of human-centred phenomena like the placebo and experimenter effects, the newly emerging theories of extended and distributed consciousness as a property of the universe, plus latest physics, quantum continuity, non-locality, etc. Is it possible that a well-conducted gathering of human experience and correlation

with objectively measured data, can be a far more valuable source of scientific evidence than we have appreciated so far?

Such anecdotal evidence, approached with a new holistic paradigm of science in mind, used beyond just psychology and sociology, could inform new methodologies, technologies and future directions for research. Let's use the human being as a scientific instrument and our experiences as part of the data output instead of a nuisance that gets in the way of real evidence!

Early indications from a limited number of experiments across the world link human anecdotal experience with physiological measures. We could expand upon this work to enhance consilience and initiate a new understanding and paradigm of enquiry into consciousness, human behaviour and the nature of reality.

Bio: In 1981 Dianne Trussell obtained a Bachelor of Science Honours degree from Flinders University of South Australia. After 17 years in neurobiological research at schools of medicine in two Australian universities, and a long journey in the school of life, Dianne is currently applying to do a consilience-themed Ph.D. at Southern Cross University, Australia.

Quantum Physics Meets Cosmic Consciousness

Paul J. van Leeuwen

Most popular interpretations of quantum physics are all trying to maintain the idea of an objective material only reality, seemingly existing outside an elusive mind emerging from our material brains. These are:

- The Copenhagen macro instrument interpretation,
- Decoherence
- Super selection,
- Hidden variables
- Multiverse
- Spontaneous quantum collapse

However, these interpretations do not survive a critical examination of their explanation of the so-called quantum collapse. Other interpretations that do accept the connection between the consciousness of the observer and quantum reality confer the problem of the nature of this connection to a 'Harry Potter'-like magical action on physical reality by a non-physical consciousness:

- The Matrix: reality is a virtual environment
- No quantum collapse whatever: mind chooses its experiences out of all the possibilities of the quantum wave of the universe
- Von Neumann Projection Postulate: mind manifests objective reality

These interpretations recognize the reality of the metaphysical quantum wave, its values presenting the time and location dependent possibility to find the quantum particle in a measurement. Because the mathematic expression for the quantum wave describes in essence a probability, which is nowhere exactly null, the wave should be regarded as just

as non-local and non-physical as a thought. These metaphysical interpretations do acknowledge the role of consciousness but do not solve the following questions:

- How does a non-physical consciousness work its 'Harry Potter'-like effect on the meta-physical quantum possibility wave?
- How it is possible you and I do manifest the same outcome? I'm surely not the only one who observes the moon, so how can I possibly manifest it?

In the huge amount of NDE reports available now we do encounter another, and far more acceptable vision already mentioned by mystics from all times. There exists only one consciousness indeed, of which our individual souls are fragments, unaware in their temporary incarnations of their oneness with cosmic consciousness. In this vision the universe and everything we experience within it, appears to be nothing less than one immensely great thought living within this cosmic consciousness.

Bio: Paul J. van Leeuwen got his MSc degree in applied physics in 1974 at Delft University of Technology – The Netherlands. He taught physics and mathematics until 1987, after which he became an ICT specialist. In 1993 he got his MSc Knowledge Technology degree. On retirement he developed and taught post-academic courses quantum physics for non-physicists and in 2018 he published a book on quantum physics and consciousness. Paul lives in The Hague, The Netherlands.

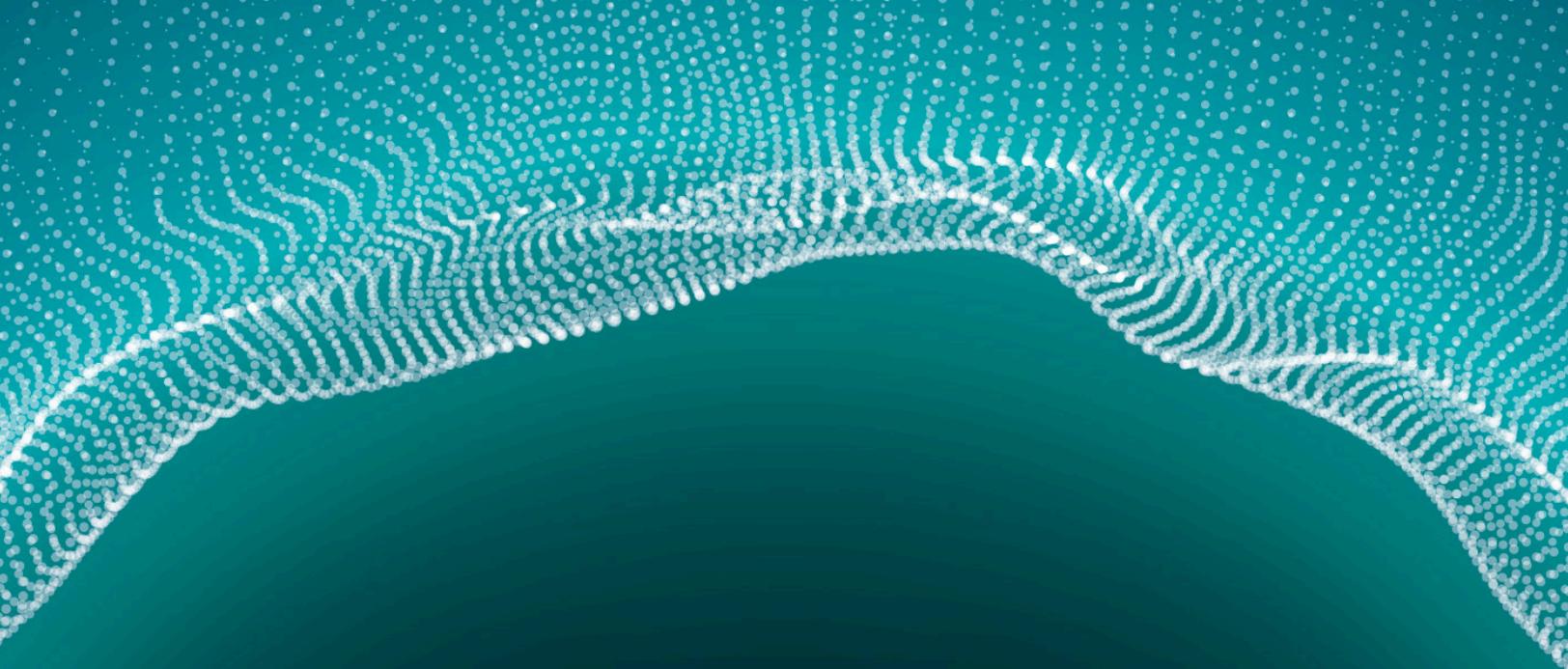
Is the Matrix Experiment a Replicable Experimental Paradigm?

Harald Walach

The matrix experiment, presented at the SSE Yale meeting in 2017, is a further development of the standard micro-psychokinesis experiment developed and conducted successfully three times by Walter von Lucadou. We have previously conducted a large replication that was positive and have convened a consensus expert meeting to develop a joint protocol. Now we and others have conducted experiments following this protocol. The difference of this experiment from other psychokinesis (PK) experiments consists in the fact that it does not test directly a deviation from randomness, but only indirectly. This is due to the belief derived from our generalized quantum theory that such PK and other anomalistic effects are not causal and not mediated by signals of any kinds or fields, but that they are non-local correlations set up by systemic variables. Hence attempts to “prove” that there are anomalistic signals are deemed to failure long term, at least in strict replications. We have approached this problem by setting up a large correlation matrix of 45 physical variables that are paired with 45 psychological variables, measured during the experiment. We test the number of significant correlations in this matrix

against chance and against a control matrix. While three experiments by Ana Borges in Edinburgh have been positive, our own replication has been negative. We will present the experiment and its result and discuss both the theoretical consequences and potential alternative statistical evaluation strategies for the future. One criticism that can be raised against this experiment is that the statistical procedure, which follows the logic of a randomization test, destroys the correlations, and hence a different strategy should be sought. A possible solution might be found in a kind of adaptation test that tests the joint distribution of correlations in both the experimental and control matrix against a theoretical expectation, thereby circumventing the potential transfer of information that is prohibited by the No-Transfer-of-Information Theorem of our model.

Bio: Harald Walach has a Ph.D. in Clinical Psychology and in History and Theory of Science. His research focuses on topics around consciousness and health and developing and testing a model for generalized nonlocality.



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