



Society for Scientific Exploration

28th Annual Meeting
May 27–30, 2009
University of Virginia
Charlottesville, Virginia

THE PRAGMATICS OF ANOMALIES

Program and Abstracts

Bill Bengston, Program
Charles Tolbert, Arrangements

www.scientificexploration.org

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28th Annual Meeting

May 27 – 30, 2009

**University of Virginia
Charlottesville, Virginia**

Program Committee:

**Bill Bengston, Chair; York Dobyns; Dean Radin;
Chantal Toporow**

Local Arrangements:

Charles Tolbert

PROGRAM AND ABSTRACTS
Society for Scientific Exploration – 28th Annual Meeting
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WEDNESDAY EVENING, MAY 27 (Jefferson Room, Cavalier Inn)

6:00 p.m. Opening Reception and Registration

THURSDAY MORNING, MAY 28 (Clark Hall, Room 107 – all meetings)

9:00 Welcome and Introductions

THEME I: HEALING

9:15 Karen Lesniak, *The Effect of Intercessory Prayer on Wound Healing in Nonhuman Primates*

10:00 Dick Blasband, *The Orgone Energy Accumulator and Healing Intention in the Treatment of Cancer in Mice*

10:25 Gary E. Schwartz* and Mark Boccuzzi, *Effects of Spiritual Energy Healing Intentions on Patterns of Cosmic Rays*

10:50 BREAK

11:10 Colin Campbell, *The China Study*

11:55 Carlo Monsanto (sponsored by Brenda Dunne), *Healing From the Subjective*

12:20 LUNCH BREAK

THURSDAY AFTERNOON

THEME II: SOME APPLICATIONS OF HEALING

1:45 Alastair Cunningham, *Teaching Self-healing to Cancer Patients: Relieving Suffering and Prolonging Life*

2:30 Garret Yount, *Infrasonic Component of Qigong: Potential for Integration with Oncology*

3:15 BREAK

3:35 Bill Bengston, *Problems and Prospects of Transitioning from Experimental Data to Clinical Application*

4:20 Dominique Surel, *Intuitive Intelligence[®] - An Alchemical Process*

4:45 BUSINESS MEETING

THURSDAY EVENING PANEL

7:30 TRANSITIONING FROM ANOMALIES TO MAINSTREAM

Henry Bauer, moderator. Panelists: Bob Jahn, Glen Rein, Garret Yount

FRIDAY MORNING, MAY 29

9:00 Announcements

THEME III: CONSCIOUSNESS STUDIES

9:15 Jay Gunkelman, *Consciousness: an Emergent Property of Mind-Brain Interaction*

10:00 Luke Hendricks (sponsored by Bill Bengston), *The Puzzle of 8 Hertz Resonance: Is it Schumann?*

10:25 BREAK

10:45 Robert Waggoner (sponsored by Dick Blasband), *Lucid Dreaming's Potential for the Science of Parapsychology*

11:10 John Alexander, *Shamanism, Near-Death Experiences, and Remote Viewing*

11:35 Ed Sarath, *Improvisation and Anomalies in Music and Science*

12:00 Lindsay Morris and Imants Baruss, *Psychological Correlates of Anomalous Human/Machine Interactions*

12:25 YOUNG INVESTIGATORS MEETING

LUNCH BREAK

FRIDAY AFTERNOON

THEME IV: APPLICATIONS AND INTERPRETATIONS

2:10 York Dobyns, *Making ARV Work*

2:35 John Valentino, *SyncTXT: An Ongoing Experiment in Synchronicity and Subconscious Psi using Remote Random Event Generator Devices and Cell Phones*

3:00 Stephen Parker (sponsored by John Valentino), *The Patent Hurdles Faced By Companies Seeking To Protect Inventions In Emerging and/or Not Widely Accepted Sciences*

3:25 BREAK

3:45 John Kineman, *Relational Science: A Theoretical Framework for PSI Phenomena*

4:10 Douglas Richards, *Intelligent Agency and Anomalies*

4:35 Our Pal Asija, *A Novel Perspective on Anomalies*

5:00 BREAK

FRIDAY EVENING

6:15 Banquet – The Rotunda

6:15 Cocktails

7:00 Dinner

8:00 Banquet Panel: **The Future of the SSE**

(Garret Moddel moderator. Panelists to be announced.)

SATURDAY MORNING, MAY 30

9:00 Announcements

THEME V: PHYSICAL ANOMALIES

9:15 Mahadeva Srinivasan, *Do Elemental Transmutations Occur in Simple Experimental Configurations? Could Alchemy After All Be True?*

9:40 Peter Sturrock, *Enigmatic Periodicities in Nuclear Processes*

10:05 Garret Moddel, *Something from Nothing: An Evaluation of Vacuum Energy Extraction Methods*

10:30 BREAK

10:50 Tom Dykstra, *Disproving the Current Theory of Insect Olfaction: Temporal Evidence*

11:15 Glen Rein, *Homeopathy: Energetic Mechanism for Information Storage*

11:40 Courtney Brown, *Theory and Data in Support of Multiple Universes and the Implications of this to the Physical and Social Sciences*

12:05 LUNCH BREAK

SATURDAY AFTERNOON

THEME VI: INTERPRETATIONS

1:30 Charles Emmons, *Framing the Scientific Search for Spirit*

1:55 James Beichler (sponsored by Bernard Carr), *A Cosmology with Consciousness: Building a pragmatic model of anomalies from scratch*

2:20 Maria Syldona, *Perspectives on anomalies research and human evolutionary development: Toward a hybrid science*

2:45 BREAK

THEME VII: SURVIVAL

3:00 Julie Beischel, *Mediumship under the Microscope: Science and the Afterlife*

3:45 Jane Kutra, *After-Death Communications Involving Two Bonded Parapsychologists that Challenge the Super-Psi Explanation*

4:10 Bruce Greyson, *Is Postmortem Survival a Scientific Hypothesis?*

4:55 **CLOSING RECEPTION** and Tour of the Division of Perceptual Studies, including the Ian Stevenson Memorial Library and the Ray Westphal Neuroimaging Laboratory, Department of Psychiatry & Neurobehavioral Sciences, University of Virginia

Bruce Greyson, host; sponsored by the SSE

THE EFFECT OF INTERCESSORY PRAYER ON WOUND HEALING IN NONHUMAN PRIMATES

Karen Lesniak

Intercessory Prayer (IP) has been examined as a healing modality in various medical conditions. Though the findings across conditions are equivocal, several studies have shown positive health effects of IP on a variety of outcome measures. The study of IP remains controversial. Little is known about the physiologic mechanisms underlying these potentially IP-induced health improvements. Multiple methodologic concerns have also been noted regarding these studies related to social, cognitive and other psychological factors of the human participants, attributing positive health effects to these confounders rather than a direct result of the IP intervention. To avoid the confounding effects inherent in IP studies with human subjects, this study examined hematologic, immunologic, neuroendocrine, and behavioral mechanisms that may be related to improved wound healing in nonhuman primates (Garnett's greater bushbabies) that were receiving oral L-Tryptophan for treatment of chronic self-injurious behaviors. IP initiation, conducted in a double-blind, randomized manner and on a daily basis for four weeks by experienced prayer intercessors, was coincident with onset of L-Tryptophan administration. Following IP/L-Tryptophan treatment, prayer group animals had greater reduction in wound size than non-prayer animals. Changes were found in several physiological and behavioral variables. Prayer group animals had greater increase of red blood cells, hemoglobin, and hematocrit, greater reduction of both mean corpuscular hemoglobin and corpuscular volume, as well as reduction in wound grooming and total grooming behaviors than non-prayer group animals. These results are consistent with prior findings of IP effectiveness and may provide direction for further study of IP-induced health improvements in both human and animal models

About the Author:

Karen Lesniak is an Assistant Professor in the Psychology department at Loma Linda University in Loma Linda, CA. Dr. Lesniak has life-long interest in the relationship of the body, mind, and spirit to health, first pursuing graduate studies during the 1980s in exercise science, health promotion, and psychology. Following many years of working with medical patients, and in the areas of health promotion and health behavior change, she then received her Ph.D. in Health Psychology and Behavioral Medicine from the University of North Texas in 2000. Though Dr. Lesniak's research is in several areas, she has particular interest in the role of spirituality and religious practices on health outcomes. In addition to her academic career, Dr. Lesniak has worked in major medical centers in Mississippi, Texas, Wisconsin, and southern California where she has engaged in biopsychosocial-spiritually based patient care, clinical training, and clinical program development.

THE ORGONE ENERGY ACCUMULATOR AND HEALING INTENTION IN THE TREATMENT OF CANCER IN MICE

Dick Blasband

It has been experimentally demonstrated that cancer mice treated with an orgone energy accumulator (W. Reich and students) lived significantly longer than untreated controls. Recently Bill Bengston experimentally demonstrated that the same strain of cancer mice treated by local healing intention also lived significantly longer than the controls. An examination of the pathophysiology of the mice in both experiments indicates that the treated mice compared to the controls showed marked inflammatory changes at the tumor site. It is postulated that this is the mechanism whereby both the accumulator and intentional healing exert their healing influence and that in some way there is a functional identity in healing and the use of the accumulator.

About the Author:

Richard A. Blasband, M.D., is a psychiatrist in Sausalito, CA who practices psychiatric orgone therapy and healing by mental intention. He is also Research Director of the Center for Functional Research which is devoted to the experimental investigation of the interface between life energy and consciousness. His professional memberships include SSE and the International Consciousness Research Laboratories. He has published over 60 papers on his areas of interest.

EFFECTS OF SPIRITUAL ENERGY HEALING INTENTIONS ON PATTERNS OF COSMIC RAYS¹

Gary E. Schwartz* and Mark Boccuzzi

As reviewed in *The Energy Healing Experiments* (Schwartz, 2007) and *The Intention Experiment* (McTaggart, 2007), a large body of evidence exists suggesting that human intention – both individual and collective – can have local and distal effects on living systems. Numerous spiritual energy healing traditions posit that some sort of Universal Energy is invited to enter the consciousness and body of the healer; the healer is taught to use his or her intentions to direct this energy for “the best and highest good” of the patient or client. It is typically assumed that this energy or “higher power” is of a “high frequency”; however, to the best of our knowledge, no laboratory research has been conducted to address this assumption. Using a computer controlled low light CCD camera system cooled to -77 degrees centigrade, our laboratory has documented that it is possible to detect super-low intensity biophoton emissions from plants and humans, including “auras” surrounding and interconnecting living systems (reviewed in Creath and Schwartz, *Journal of Scientific Exploration*, Vol. 19, No. 4, pp. 531–550, 2005). The CCD chip detects sporadic bursts of high energy, high frequency cosmic / gamma rays; these gamma bursts are typically treated as “noise” and removed prior to statistical analysis. However, we theorized that patterns of cosmic ray activity, analyzed using fast Fourier transform (FFT) images generated by ImageJ analysis software (available from the National Institutes of Health), might reflect the presence of high frequency energies purportedly generated during spiritual energy healing practices. After pilot studies suggested that FFT’s of cosmic ray patterns changed during the practice of spiritual energy healing, a carefully controlled experiment was conducted. The camera’s lens was focused on a stage containing white graph paper in a completely dark, light-tight metal chamber. The light-tight chamber was housed in a temperature controlled light-tight room. The computer and research assistant were housed in a separate room. Each run consisted of a 30 minute baseline 512 x 512 pixel image that was subtracted from four 30 minute data image trials. Eight runs involved a spiritual energy healing practitioner intending that the Universal Energy enter the “distant” light-tight chamber housed in the separate room; 4 of the runs involved the third 30 minute data trial and 4 runs involved the fourth 30 minute data trial. Eight matching runs had the same practitioner perform an intention meditation control where he focused his attention on imaging the stage in the chamber, but without inviting the Universal Energy to participate. Sixteen runs were conducted as “blank” trials to control for possible order and time effects. Cosmic ray images were generated for each of the 128 data trials. FFT images were calculated, and Plot Profile statistics provided by ImageJ software were performed. Analyses of variance revealed a highly significant ($p < .0000001$) condition by averaged pixel interaction for the Universal Energy compared to the Meditation Intention and Blank Controls. Alternative interpretations of the findings, including experimenter belief, are considered.

About the author:

Gary E. Schwartz is a Professor of Psychology, Medicine, Neurology, Psychiatry, and Surgery, and Director of the Laboratory for Advances in Consciousness and Health, at The University of Arizona in Tucson. He is also Corporate Director of Development of Energy Healing at Canyon Ranch.

THE CHINA STUDY

Colin Campbell

Even though Plato—and before him, Pythagoras—briefly wrote, as a Socratic dialogue, about the health value of plant-based diets, we still today don't really 'get it'. Ever since that time, when the idea re-emerges it has been repeatedly maligned and oftentimes with considerable hostility. Now we have extraordinarily impressive 'high tech' modern scientific evidence that a whole foods, plant-based diet not only prevents future degenerative diseases (e.g., coronary, neoplastic, autoimmune), but also reverses these diseases after they are diagnosed. The evidence also is unusually comprehensive and profound, and exists all the way from sub-cellular levels up through whole bodied individuals and their societies and environments. A remarkable unity of purpose emerges within a remarkable complexity of form.

Personally, for more than a half century, I have watched and participated in the development of this information all the way from hypotheses generation, data interpretation and publication in the experimental laboratory to the formulation of national and international policies for public health programs. Regretfully, I have also watched the emergence of fads and mythologies that become part of an intransigent status quo. Remarkably, the resistance and hostility against the eventual idea may be just as strong today as it was centuries ago, except now it is catalyzed by exceptional amounts of money.

We now have an environment that simultaneously harbors two sharply contrasting paradigms. One is a health-giving paradigm that is without parallel in medical practice and public health communities. The other is a self-serving paradigm that vigorously resists at every opportunity legitimization of the first. Unfortunately, the proponents of this latter paradigm has the funding to do whatever they want in their own self-serving interests, all the way from determination of biomedical research funding priorities to the development of public policy and information programs. The public, although somewhat suspicious of these shenanigans, has a very limited view of how serious is this difficulty, primarily because, like slaves, they feed on the filtered information that they are given. Such is (was?) the price of a financially unbalanced free market system that has led to the wealth of a few at the expense of the health of the many. Is it possible that we might see a meltdown of the contemporary health care system like that of the recent meltdown of the financial system?

About the author:

T. Colin Campbell, who was trained at Cornell (M.S., Ph.D.) and MIT (Research Associate) in nutrition, biochemistry and toxicology, spent 10 years on the faculty of Virginia Tech's Department of Biochemistry and Nutrition before returning to the Division of Nutritional Sciences at Cornell in 1975 where he presently holds his Endowed Chair (now Emeritus). His principal scientific interests, which began with his graduate training in the late 1950's, has been on the effects of nutritional status on long term health, particularly on the causation of cancer. He has conducted original research investigation both in experimental animal and human studies, and has actively participated in the development of national and international nutrition policy.

TEACHING SELF-HEALING TO CANCER PATIENTS: RELIEVING SUFFERING AND PROLONGING LIFE

Alastair Cunningham

It is obvious that the mind influences virtually everything that happens in the body, both through behaviours and through internal neuro-endocrine mechanisms. In spite of this, the scientific community interested in the “mind-cancer” relationship seems to have concluded that mental state or change cannot affect survival duration in cancer patients. This is a “type II error”, arrived at by drawing sweeping negative conclusions from results of randomised controlled trials, a method fashionable in medical research but unsuited to investigating this problem.

I will describe a multistage program of self-healing for cancer patients and family members which has been conducted for some 30 years, with many thousands of patients, at the Ontario Cancer Institute, Canada. The effects of taking this program depend, unsurprisingly, on how intensely it is pursued, something that varies tremendously between individuals. At a very basic level (4 - 12 weekly group sessions) it alleviates distress by teaching concrete coping skills, such as deep relaxation, use of mental imagery, meditation, self-reflection and goal-setting. For those who pursue it further, through analysis of their psychological habits and towards understanding and practising spiritual ideas, profound changes are often experienced, including a peaceful acceptance of mortality. I will present results using correlative analysis of mixed qualitative/quantitative data to show that substantial prolongation of life occurs in many of those (relatively few) patients who become involved in self-healing in a dedicated way. Psycho-physiological mechanisms for this are unclear, although likely to involve such conventional processes as decreasing local inflammation and blood supply to tumors. Of more interest is to speculate on how the observed impact of spiritual “connectedness” may promote healing in the physical body.

About the Author:

Now retired, Dr. Cunningham was for 28 years a senior scientist at the Ontario Cancer Institute, and Professor of Medical Biophysics (and more recently also of Psychiatry) at the University of Toronto. He has Ph.D. degrees in both Immunology and Clinical Psychology, and is a registered psychologist. He has written 5 books and is first author on over 100 research papers.

Dr Cunningham’s research for the last 25 years has been largely devoted to investigating psychological self-healing. For this purpose, a program called the Healing Journey has been developed and extensively tested. A recent study also showed that those patients with medically incurable metastatic cancers who pursued their healing work to an advanced level lived significantly longer than was predicted by experts. Long-term survivors had a characteristic style of adaptation, displaying greater authenticity and autonomy in their lives, and a more tolerant acceptance of themselves and others. Dr Cunningham continues to run the Healing Journey program at PMH, and elements of it are also conducted at the various Wellspring centres, and elsewhere. More information on the program and the research can be found on www.healingjourney.ca.

INFRASONIC COMPONENT OF QIGONG: POTENTIAL FOR INTEGRATION WITH ONCOLOGY

Garret Yount

The development of nontoxic agents that can selectively enhance the cytotoxicity of chemotherapy is an important aim in oncology. This presentation summarizes unpublished findings indicating that an infrasound generator designed to mimic external Qigong treatment can function as a potent chemosensitizer. Human glioblastoma cell lines harboring wild-type p53 or mutant p53 were treated in culture with cisplatin, infrasound emissions or the combination of the two agents and induction of apoptosis was quantified. Infrasound delivered at moderate levels (~80 dB) with dynamic frequency content (7-13 Hz) did not induce significant changes in glioblastoma cell viability or morphology yet combining infrasound with cisplatin augmented the induction of apoptosis by the chemotherapy ($p < 0.05$). Increased cellular uptake of the fluorophore calcein following infrasound exposure was revealed, indicating that increased cell membrane permeability underlies the ability of infrasound to sensitize glioblastoma cells to the cytotoxic effects of cisplatin. Similar to ultrasound and shock-wave techniques, local application of infrasound in clinical settings would combine the enhancement of drug transfer with the capability of restricting this effect to the desired area. Specifically in the case of treating intracranial tumors, infrasound may prove superior to ultrasound as its relatively longer wavelength can penetrate solids more easily (i.e., delivery through the skull bone) as well as being less disruptive to the brain than shock-waves. Thus, localized augmentation of chemotherapy protocols by infrasound may qualify as a promising strategy to ultimately improve the clinical outcome of glioblastoma and perhaps other cancers.

About the Author:

Garret Yount directs a molecular and cellular biology laboratory at the California Pacific Medical Center Research Institute in San Francisco, California, focusing primarily on helping people with cancers. His interest in integrating Traditional Chinese Medicine with Western treatments for cancer has led to collaborations with scientists and practitioners from China, Japan, Canada. Recently, he has collaborated with an interdisciplinary team to develop one of the first proposals calling for an international project integrating modern genomics with the perspectives emerging within the neurosciences regarding the mind-body connection. Dr. Yount is also founder of Conscious Genes Inc., a company dedicated to awakening the public to their ability to consciously influence gene expression within the body and promote health.

PROBLEMS AND PROSPECTS OF TRANSITIONING FROM EXPERIMENTAL DATA TO CLINICAL APPLICATION

Bill Bengston

The orientation of those interested in the experimental data on healing is oftentimes different than those whose chief interest is in clinical application. The experimentalists generally take the traditional empirical approach of the basic sciences, emphasizing the demonstration of valid and reliable data and seeking some theoretical understanding. Clinicians have often been trained in a particular healing modality, and then more eclectically rely on their experience and intuitive sense about how healing works. The public, meanwhile, has increasingly turned to “alternative and complementary” medicine, and is rarely concerned about the issues deemed important by either experimentalists or clinicians.

I have experience in both the experimental and clinical sides of healing. To date, for example, I have conducted 10 experiments on mice in five separate labs, including two medical schools. These experiments, five of which have been published to date, have demonstrated reliable cures on mice infected with cancers that are normally fatal. These cancer cures have been replicated using skeptical volunteers. Clinically, I have also applied the same healing techniques to selected individuals with positive results, and others that have been trained by me have done likewise. These clinical applications have not yet been done in a controlled setting, and so remain only anecdotal.

This talk will concern itself with some of the issues involved in transitioning from experimental to clinical work. That is, I will summarize “what I think I know” from the experimental data, and “what I still need to know” to open the door to clinical application. The latter involves questions of dose response and whether healing can indeed be taught. In addition, there are some methodological complications involving the “resonant bonding” of experimental and control group animals resulting in the possibility of type II errors in research that have not been sufficiently addressed.

About the Author: Bill Bengston is Professor of Sociology at St. Joseph’s College in New York. In addition to his “day job” teaching a variety of courses, including research methods, statistics, and supervising theses, he has been involved in researching various aspects of healing for several decades. To date this research has included ten hands on healing experiments on cancerous mice at five different institutions, including two medical schools. Five of these experiments have been published in JSE, JACM, and Explore. wbengston@sjcnyc.edu

INTUITIVE INTELLIGENCE[®] - AN ALCHEMICAL PROCESS

Dominique Surel

Intuitive Intelligence Training[®] has been developed to teach decision-makers in the business world how to use the brain differently in order to enhance intuitive insights and creative thinking. The objective is to develop human intelligence to a higher level beyond the basic analytical, rational, and logical deductive functions. The integration of these basic functions with the wide scope of under-utilized intuitive cognitive processes, to include the use of the unconscious, not only takes our human intellectual potential to a higher level but it also triggers a transformational process as well as the evolution of consciousness. The methodology has been created and developed based upon scientific findings in the fields of quantum physics, controlled remote viewing, neuroscience, neurocardiology, and radiesthesia.

Radiesthesia is based on the premise that all things, thoughts, living entities, information, and objects, emit vibrational frequencies. A human, by using the unconscious functions of the brain, and the neural sensories, can tune into specific frequencies to access information from a distance, and to send information at a distance (remote healing). The various applications of radiesthesia include, for example, the study of DNA by professor Etienne Guillé at the University of Paris. Controlled or Coordinate Remote Viewing (CRV) is a method that uses mental functions to access information that transcends time and distance. The protocol teaches how to silence the voice that will criticize and potentially undermine or pollute the reception and quality of information. CRV has been developed by psychologists, psychics, and other scientific disciplines.

Meanwhile neurocardiology findings point out that the heart has over 40,000 neurons with an electromagnetic field that is 5,000 times more powerful than the brain, and can be measured up to 10 feet away with a magnetometer. The findings imply that the heart plays an important role in receiving or accessing crv and radiesthesia information and then sending the impulses to the brain. Furthermore, in the field of brain plasticity, evidence demonstrates that the brain can restructure neural pathways when it is used in a new way, in order to accommodate the needs of that function. Research in the field of quantum physics such as the Twin Photons experiment demonstrates the reality of non-locality while the concept of quantum entanglement offers an explanation of the rapport between time and space, and the concept of a holographic universe offers the structural background. By taking the development of Intuitive Intelligence Training[®] as an example, this presentation will demonstrate how these scientific findings can be transmuted into a mainstream application that offers a potential solution to using our brain more effectively. The presentation will explore the implications to the scientific research world and the need to deconstruct our paradigms to think outside of models.

About the author:

Dominique Surel is a *radiesthésiste* and operational Controlled Remote Viewer and has been a consultant in global marketing strategy in Europe for major corporations. She holds an MBA and her doctoral dissertation research addressed the role of intuition in the decision making process. She has created and developed Intuitive Intelligence Training[®] by integrating her experience and knowledge from the fields of anomalies and business. Her goal is to contribute to the evolution of human consciousness by bridging the gap between yet-unexplained phenomena, scientific research, and the mainstream world.

CONSCIOUSNESS: AN EMERGENT PROPERTY OF MIND-BRAIN INTERACTION

Jay Gunkelman

A model of consciousness will be illustrated with physiological data from EEG and Event related potentials. Using millisecond level time resolution, a working model of the interaction between the mind and the brain will be constructed. The Slow Cortical Potentials generated by Glial activity and the faster gamma activity reflecting activity of bound neural networks will be used to illustrate this model. The physiological correlates of concepts like intention, attention, memory, perception, awareness, sensory differentiation and conscious awareness will all be discussed within the framework of this model. Advanced concepts like neural network binding, nested rhythms, cross-spectral correlation, and the bispectrum will be discussed. The DC potentials cause an instantaneous phase resetting and binding of a neural network, which can initiate synchronous activity within these neural networks. Current work using this model in clinical work on severe disorders of consciousness, including work by the International Brain Research Foundation on recovery of consciousness in coma cases will be reviewed. The simplest expression of the model: when the DC potentials reflecting activity of the mind interact with gamma activity reflecting neural activity in the brain, the emergent property of this interaction is consciousness.

About the Author:

Jay Gunkelman entered the biofeedback field in 1972, starting the first State Hospital based biofeedback lab. He is a registered EEG technologist, having processed well over 500,000 EEGs, and more recently became a certified QEEG technologist (certificate #1A, 1996), and a QEEG-Diplomate in 2002. He is one of the owners of Q-pro Worldwide, a commercial group that provides EEG/qEEG/EP/ERP recording and analysis, as well as providing clinical services at 12 centers in the USA. Jay has been on various Boards in the field of NF, including AAPB Treasurer, President and past president of the Biofeedback Society of California, as well as being a Past-President, Secretary and Treasurer of ISNR. He is well published in the field's literature, authoring the seminal work on EEG phenotypes in 2005. Jay is a Scientific Advisor with the International Brain Research Foundation.

THE PUZZLE OF 8 HERTZ RESONANCE: IS IT SCHUMANN?

Luke Hendricks (sponsored by Bill Bengston)

An experiment was conducted to explore the EEG patterns of energy healing, measuring both healer and subject. After baseline sessions were taken, the each of three subjects individually received a session of distant healing, then a session of hands on healing with Bill Bengston. The setup was engineered to synchronize the time of the subject and healer datasets to within 2 milliseconds (1/500 second).

In the analysis of distant healing sessions, the healer was found to show high amplitudes at about 8 hertz. To explore this relationship further, a method was devised to extract only the highest midrange amplitude bursts, timed in units of 250 milliseconds. Patching these fractions of seconds together, dispersed throughout a 10+ minute session, spectral analysis showed an even stronger relationship between amplitude and frequencies near 8 hertz. Additionally, these amplitude bursts often revealed harmonic frequency peaks from the dominant frequency. This harmonic pattern was especially present in the first of the three distant sessions and data there suggests a sharing of the peak frequency during or following sustained high amplitudes.

The unusual harmonics, the sharing of frequency, and the closeness of the healer's dominant burst frequency to the Schumann resonant frequency, which also varies near 8 hertz, raises an interesting question: Could this ever-present standing wave be a mechanism for distant healing?

About the Author: Luke Hendricks is the principal of mMatter LLC, founded to develop and provide alternative healthcare solutions. He can be reached at luke@mmatter.com

LUCID DREAMING'S POTENTIAL FOR THE SCIENCE OF PARAPSYCHOLOGY

Robert Waggoner (sponsored by Dick Blasband)

Scientific evidence for lucid dreaming, or the ability to become consciously aware while in the dream state, has been shown through conscious signaling of pre-determined eye movements while dreaming in a sleep lab (Hearne 1978, LaBerge 1980). Since that time, lucid dreaming has been largely used to study the dream state *in situ* and its relation to physically oriented phenomenon (counting time in a dream, physiological correlation of dreamt and waking activities, etc.).

Among experienced lucid dreamers, anecdotal evidence has suggested that conscious awareness in dreaming could be used as a platform to explore parapsychological activities commonly associated with dreaming, i.e., precognition, clairvoyance, telepathy, interaction with the deceased, interaction with numinous awareness. Consciously aware in the subconscious, the lucid dreamer appears to have a unique vantage point to explore these areas and perform pre-conceived scientific experiments.

For example, a lucid dreamer could become consciously aware in the dream state and then seek out precognitive information desired by an experimenter, receive the information, and then provide that 'forward looking' information to the experimenter upon waking and *before* the event. Such a simple demonstration would overcome many of the scientific concerns about precognitive dream reports; namely, they appear to be retro-cognitive or can be explained by subtle environmental hints, clues, etc.

As an experienced lucid dreamer, the presenter will discuss a number of these lucid dreaming anecdotes which suggest psi abilities. While certain challenges exist to procuring information consciously in the dream state and waking with it, the considerable knowledge of experienced lucid dreamers could assist with the development of appropriate experimental designs.

About the Author: Robert Waggoner is President-elect of the International Association for the Study of Dreams, and author of the new book, *Lucid Dreaming: Gateway to the Inner Self*. He graduated summa cum laude from Drake University, BA, in psychology (1981), and has logged approximately 1,000 lucid dreams.

www.lucidadvice.com robwaggoner@aol.com

Hearne, K.M.T. (1978). Lucid dreams: an electrophysiological and psychological study. University of Liverpool: Doctoral dissertation.

LaBerge, S.P. (1980). Lucid dreaming: an exploratory study of consciousness during sleep. Stanford University: Doctoral dissertation.

SHAMANISM, NEAR-DEATH EXPERIENCES, AND REMOTE VIEWING

John Alexander

This presentation will address commonalities found in shamans around the world with the phenomenology of both near-death experiences (NDEs) and remote viewing practices. In particular, it will address the ingestion of ayahuaska in shamanic ceremonies in the Peruvian Amazon region, and elsewhere, and the states that are induced. This presentation builds on similar talks given at the International Shamanic Conference in Iquitos, Peru in 2008, and at the annual conference of the International Association for Near-Death Studies that same year.

My personal observation of shamans extends far beyond the Western hemisphere and includes every continent on earth excluding the uninhabited Antarctic. Of importance is the underlying philosophy and world views of indigenous peoples that seem to easily accommodate human experiences that remain controversial, and even befuddle Western scientists. The root of these experiences often have evoked social constraints by religions and governments alike, while pharmaceutical companies have engaged in what has become known as biopiracy to obtain the organic secrets vested in uneducated, yet biochemically sophisticated healers. Explored will be the similarities, and differences, between states induced in shamanic rituals and those of spontaneous NDEs and willful remote viewing.

About the Author: John B. Alexander, Ph.D. is a retired Army Officer, and a retiree from Los Alamos National Laboratory. Having traveled to every continent, he has long standing interests in phenomenology of many facets. Currently he is a councilor of the SSE.

IMPROVISATION AND ANOMALIES IN MUSIC AND SCIENCE

Ed Sarath

This talk explores two areas related to the conference theme. First is the improvisatory awareness that is at the core of peak creativity in music and science and the basis for receptivity to anomalous possibilities and subsequent innovation. This can be understood in terms of resolving a paradox that is inherent in acquiring the skills necessary for competent musical and scientific functioning. On one hand is the need for practitioners in both areas to engage in rigorous study over many years to gain necessary skills; on the other are inherent tendencies in that training toward conditioned perceptions and behavior that preclude the openness to new and challenging ideas that are essential for innovation and progress. The paradox is resolved in the heightened, moment-to-moment, improvisatory awareness—characterized by optimal access to acquired knowledge yet simultaneous freedom, fluidity, and openness—that is commonly glimpsed by many musicians and scientists. This awareness not only represents the key to innovation in any given creative episode, it also provides a basis—were it to be harnessed and cultivated—for new levels of collective critical analysis of both normative activity and anomalous possibilities. While there is no dearth of testimonies regarding fleeting glimpses of this awareness, lingering conservative tendencies in both music (e.g. neo-conservative movement in jazz despite the music’s innovative thrust since its inception) and science (materialist tendencies amidst mounting research) indicate that expansion of a collective vision remains elusive.

The second part of the talk explores a particular kind of anomalous finding that is common to both jazz and science and suggests important practical ramifications in both areas. Improvising musicians commonly report a kind of collective entrainment among performers and listeners in peak performances, whereby, as Stephen Nachmanovitch puts it, “players, listeners, and environment merge into a self-organizing whole”. This invites direct parallels with the idea of a non-local, inter-subjective field aspect of consciousness that has begun to attract the attention of scientific researchers. In *SSE Journal* 21/2, 2007, Masson, Patterson, and Radin report on studies involving collective meditation and random number generator measurements that suggest enlivened field coherence. New angles in music research and pedagogy that might extend from this research as well as sociological implications are discussed.

About the Author: Ed Sarath is Professor of Music in the Department in Jazz and Contemporary Improvisation at The University of Michigan School of Music, Theatre and Dance. He is also Director of UM’s Program in Creativity and Consciousness Studies, which is an interdisciplinary network of colleagues interested in the interior/transpersonal dimensions of the creative process. He founded and serves as President of the International Society for Improvised Music (www.isimprov.org), an organization devoted to promoting awareness of the importance of improvisational studies in musical training and improvised music in today’s diverse world.

PSYCHOLOGICAL CORRELATES OF ANOMALOUS HUMAN/MACHINE INTERACTIONS

Lindsay Morris and Imants Baruss

A study was conducted to determine whether any psychological correlates of anomalous influence on a random event generator could be found. Ten individuals participated by themselves and an additional ten participated both by themselves and as part of bonded opposite-sex couples. The study was carried out in the Psychology Laboratory at King's University College. Participants completed a Demographic Questionnaire, Scales of Psychological Well-Being, Beliefs About Consciousness and Reality Questionnaire, Transliminality Scale, and, if they were part of a couple, the Quality of Relationships Inventory. Each participant interacted either with a Psyleron REG-1 or PseudoREG selecting high and low intentions in a balanced manner for a total of 3,000 trials. Couples' runs followed the same protocol as individuals' runs. The mean difference between the high intention and low intention trials was the criterion variable. For individuals, no statistically significant overall effect of intention was found, nor were there any statistically significant differences between the use of the REG and the PseudoREG, nor did any of the psychological measures predict the criterion. However, a comparison of individuals' criterion scores ($M=0.31$, $SD=0.66$) with couples' criterion scores ($M=-0.37$, $SD=0.51$) revealed a statistically significant difference ($t=2.46$, $df=18$, paired-samples, $p<.05$, two-tailed) but in the opposite direction to the hypothesized effect. This could perhaps be explained by the finding of a negative linear correlation between the amount of conflict in a relationship and couples' criterion scores ($r=-0.70$, $df=18$, $p<.10$, one-tailed). Less conflict in a relationship corresponded with no effect on the REG whereas more conflict was associated with deviations opposite to intention. Thus, differences between individuals' and couples' criterion scores could be due to damping effects of conflict on the effectiveness of intention, consistent with previous research in which group resonance appears to contribute to anomalous deviations of a FieldREG. Clearly a greater number of participants is required to ascertain the robustness of these results.

About the Authors: Lindsay Morris is a fourth year student in the Honours Specialization program in Psychology at King's University College at The University of Western Ontario. She is interested in anomalous psychological phenomena and hopes to pursue graduate studies in psychology.

Imants Baruss is a Professor of Psychology at King's University College at The University of Western Ontario where he lectures on consciousness. He is the author of four academic books including "Alterations of Consciousness" and "Science as a Spiritual Practice."

MAKING ARV WORK

York Dobyms

It is widely held that ARV is an immature predictive technology in that accuracy rates (for binary alternatives) are commonly in the range of 55% to 60%. A specific issue cited is the problem of displacement, in which the percipient gives a clear description of the decoy image. The occurrence of displacement means that the clarity or precision of an image match does not provide a useful guide to the reliability of the prediction. Multiple ARV researchers hold that solving the displacement problem, or at least developing some measure for the confidence that a clear viewing is not displaced, is a prerequisite for practical development. In fact, current accuracy is more than adequate for practical application, as shown by three examples.

1. A reanalysis of an RV experiment published by C.Brown shows that, contrary to the experimenter's stated opinion, had the experiment been used as an ARV application a simple error-correcting algorithm would have allowed the experimenters substantial profits from correctly predicting the target, which was a lottery drawing.
2. Statistics from several different futures trading markets indicate that using ARV at 55% to 60% accuracy to predict the direction of short-term fluctuations will produce substantial long-term profits, although a short-term "gambler's ruin" risk applies to any process with such a small advantage over a pure random walk.
3. The explicit goal of increasing ARV accuracy by applying a filtering process to screen out displacements risks a diminishing-returns effect, depending on how many potential predictions must be discarded in order to attain higher accuracy.

About the Author: York Dobyms is a physicist (Ph.D. Princeton 1987) who spent 19 years as part of the Princeton Engineering Anomalies Research program.

SYNC TXT: AN ONGOING EXPERIMENT IN SYNCHRONICITY AND SUBCONSCIOUS PSI USING REMOTE RANDOM EVENT GENERATOR DEVICES AND CELL PHONES

John Valentino

SyncTXT is a web-based online service that allocates a stream of data from a remote random event generator (REG) to each of its users, and then sends messages to user phones when extra-chance deviations are detected. Under the null hypothesis of no effect due to consciousness, these messages should be randomly selected and arrive on the users' phones at random times. Preliminary research exploration at Psyleron suggested that this was not the case, and the system has since been made available to the general for data collection and personal exploration purposes.

The talk will discuss the theory behind the system, its data collection process, the types of experimental questions that it can answer, user reports, as well as its practical and theoretical implications for psi research.

About the Author: John Valentino is the CEO of Psyleron, a company and research organization that he co-founded after working for a number of years at the Princeton Engineering Anomalies Research laboratory. The purpose of Psyleron is to continue to conduct research into mind-matter interaction, and to provide tools and technology that make it easier for researchers and members of the public to do the same.

THE PATENT HURDLES FACED BY COMPANIES SEEKING TO PROTECT INVENTIONS IN EMERGING AND/OR NOT WIDELY ACCEPTED SCIENCES

Stephen Parker (sponsored by John Valentino)

In emerging sciences and/or not widely accepted sciences related to, e.g., mental states such as, e.g., OBEs, etc., and/or related to systems, methods or devices related to such “new sciences,” inventors face hurdles well beyond most other areas of technology. And, the Patent Office has recently raised the cross-bars on a number of these hurdles. For example, historically protection for inventions in areas related to a) medical devices and/or processes, b) inventions closely related to natural phenomenon, c) computer software related inventions, and d) business method inventions are already well understood by patent practitioners to be areas of difficulty for seeking protection. However, many inventions in these new sciences touch on a plurality of these areas concurrently. And, in some of these areas, such as, e.g., related to computer software, business methods, the hurdles were recently raised substantially by the courts. Although this patent landscape is perhaps more arduous to cross, there are still a variety of ways to obtain protection in these areas of technology. Accordingly, one can typically cross these hurdles if they are prepared for them.

However, while these legal hurdles are substantial enough, many researchers and scientists often face another hurdle or dilemma, one that often leads them to these new areas of study in the first place: a desire to contribute to the common good and not to seek personal reward and profit. However, these may not necessarily be mutually exclusive. After all, if one is not able to protect their inventions, then rendering a profit becomes increasingly difficult, and research and development terminates. Without patent protection, it is difficult to a) attract investors, b) prevent theft of invention, and/or c) to even steer the field in a desired direction, etc.

I have worked with all types of companies, and without question intellectual property can be of great importance to a) companies engaged in a) substantial research and experimentation efforts to develop products, b) companies in start up phases. However, many companies engaged in these new sciences fall into one or more of these categories. Thus, protection can be of great importance for such companies. However, intellectual property rights are solely a product of the law. Without the law, there are no intellectual property rights. And, if one does not proceed to obtain and register these rights, this protection will likely be minimal or non-existent. It is important to act timely, and to take steps in the right direction. Last, it is also important to appreciate that in areas of technology, patent protection is typically far more important than other forms of IP protection such as, e.g., copyright and trademark protection.

About the Author: Stephen B. Parker, Managing Partner of WP&D, law offices in Washington, D.C. Mr. Parker previously founded and chaired a committee on protecting medical devices in the largest U.S. Patent Law Association (the A.I.P.L.A.), and has also taught a class on protecting software inventions for the D.C. Bar for the last 5 years. Mr. Parker has also taught IP management as part of a graduate class at Johns Hopkins University on protection of bio technology. Mr. Parker is also presently engaged in remote viewing experiments with Univ. of Virginia. He has also practiced and studied so-called OBE and other mental states for over 20 years.

DO ELEMENTAL TRANSMUTATIONS OCCUR IN SIMPLE EXPERIMENTAL CONFIGURATIONS? COULD ALCHEMY AFTER ALL BE TRUE?

Mahadeva Srinivasan

It is a basic tenet of science since the days of Lavoisier, that all the 92 naturally occurring elements have been present on earth since the time of its formation from out of star dust and no ordinary chemical or physical process can transmute one element into another (except during radioactive decay or bombardment by high energy nuclear particles etc.) Yet there have been persistent claims and reports down the ages that elemental transmutation processes can and do occur starting with the ancient claims of Alchemy, namely the conversion of mercury into gold! Since the 18th century there have been sporadic experimental reports pointing to the possible occurrence of elemental transmutation reactions in nature, especially in plants and animals, as documented in the book "Biological Transmutations" published in the 60s by Louis Kervran and further confirmed in recent times through the works of Vladimir Vysotskii of Keiv.

The evidence for the occurrence of a variety of nuclear reactions when metallic samples such as palladium and titanium are loaded with deuterium, has been accumulating. Such studies constitute the basis of the new branch of science named "Condensed Matter Nuclear Science (CMNS)". An important outcome of recent CMNS research is that besides some type of nuclear reactions between deuterium nuclei resulting in the production of helium, elemental transmutation reactions involving the transmutation of host lattice nuclei such as Pd or Ni into various other elements have been observed

Is it really true that nuclear transmutation reactions can and do occur in simple experimental configurations including biological systems? Is it possible that after all the ancient claims of Alchemy are valid? Does the ruling dogma of Science regarding the non transmutability of elements need to be revised? If all this is true how did Science make such a big and glaring mistake in its evolution?

About the Author: Dr. Mahadeva Srinivasan served as an experimental Nuclear Physicist in the Bhabha Atomic Research Centre, Mumbai for 40 years (1957 to 1997). His specialization was in the general area of Nuclear Science and Technology, focusing on the "Physics of Fission Chain Reactions and Fusing Plasmas". At the time of his retirement he was Head, Neutron Physics Division of BARC and also Associate Director of its Physics Group. His main contributions were in the design, construction and experimentation with the Purnima series of experimental nuclear reactors.

During the last seven years of his research career at BARC he was deeply involved in the study of the controversial new field of "Cold Fusion". Dr.Srinivasan has since been closely following the world wide progress of the field of Cold Fusion which has now been rechristened as "Condensed Matter Nuclear Science". His involvement with Cold Fusion has however played a key role in his realization that even scientists are subject to the common human trait of closed mindedness.

One of Dr.Srinivasan's hobbies has been the study of various anomalous and unexplained phenomena often consigned to the realms of "Fringe Science". He has been following the many experimental investigations presently being carried out by open minded scientists to understand the "Paranormal" and consciousness related phenomena. Dr. Srinivasan has come to appreciate that "official science" has its limitations and there are many facets of "Reality" that conventional scientific wisdom seems to have bypassed.

ENIGMATIC PERIODICITIES IN NUCLEAR PROCESSES

Peter Sturrock

The decays of ^{32}Si and ^{36}Cl have been monitored over a period of four years at the Brookhaven National Laboratory, and the decays of ^{152}Eu and ^{226}Ra have been monitored for fifteen years at the Physikalisch-Technische Bundesanstalt in Germany. The silicon and chlorine data both show evidence of an annual modulation, and the radium data show very strong evidence of such a modulation, with amplitude of order 0.015%. The phases of the modulations do not conform to what one would expect from a modulation due to the variation in Sun-Earth distance. However, they may perhaps be understood as the combined effect of the annual variation in the Sun-Earth-distance and the annual variation of the heliographic latitude of the Sun-Earth vector. We have previously found evidence that the solar neutrino flux is modulated according to the heliographic-latitude variation. The DAMA/LIBRA Consortium in Rome has recently announced the discovery of a similar annual variation in twelve years of data derived from sodium-iodide detectors, an effect that they attribute to the influence of dark matter. These results, if they are confirmed by future experiments, call into question our understanding of nuclear processes. This work was supported by NSF Grant No. AST-0607572.

About the Author: Peter Sturrock is Emeritus Professor of Applied Physics at Stanford University, Emeritus President of SSE and Emeritus Editor of JSE, with wide interests currently spanning astrophysics, neutrino physics, Bayesian probability theory, the UFO problem, and the Shakespeare authorship issue.

SOMETHING FROM NOTHING: AN EVALUATION OF VACUUM ENERGY EXTRACTION METHODS

Garret Moddel

Over the last two decades several patents and research papers have reported purported practical methods to extract useful energy from the vacuum. I describe the inventions and analyze the underlying physics. From an analysis based on first principles it is clear that most of the inventions have fundamental errors and cannot work. The basic concept of harvesting zero-point energy remains viable, and at least one patented concept might work.

The vacuum is filled with a high density of zero-point energy, in the form of modes (vibrational patterns) of electromagnetic field. Over the last eight decades it has become clear that this zero-point field (ZPF) vacuum energy is not simply a mathematical formalism, but produces demonstrable effects on physical systems. Along with that realization has come the desire to extract energy from the ZPF.

One set of methods use nonlinear elements to convert the ZPF into a usable form. A rectifier (used to convert AC to DC) is a strongly nonlinear element. One patent makes use of antennas to capture the ZPF. This energy is then rectified and used. Another set of inventions simply rectify fluctuations (noise) in electronic elements as an extraction method. Using a detailed balance argument, I show that these methods cannot work.

Another set of patents describe using a Casimir cavity to mechanically extract energy from the ZPF. A Casimir cavity consists of two closely spaced reflecting plates that exclude ZPF electromagnetic modes having wavelengths larger than twice the gap spacing. The result is that the imbalance in the density of the ZPF inside and outside the cavity causes the plates to be attracted to each other. This attractive potential can be used, but only once. To produce power continuously, a method must be devised to form a reciprocating Casimir engine. The patents purport to switch off the Casimir attraction while the plates are pulled apart, so that they can repeatedly accelerate together and produce power. This approach is shown to be fundamentally flawed, and cannot produce power continuously.

A recently issued patent describes a method by which vacuum energy is extracted from gas flowing through a Casimir cavity. According to stochastic electrodynamics, the electronic orbitals in atoms are supported by ambient ZPF. When the gas atoms are pumped into a Casimir cavity, where long-wavelength ZPF modes are excluded, the electrons spin down into lower orbitals, releasing energy. This energy is harvested in a local absorber. When the electrons exit the Casimir cavity, they are re-energized to their original orbitals by the ambient ZPF. The process is repeated to produce continuous power. This method does not suffer from the fundamental flaws of the other approaches, and might work.

About the Author: Garret Moddel has been a Professor of Electrical, Computer, and Energy Engineering at the University of Colorado since 1985. Along with quantum engineering of new thin-film optoelectronic devices and exotic energy technologies, his research group investigates psi phenomena. He is a founder, and recently spent four years as president and CEO of Phiar Corporation, a venture-capital-backed high-tech start-up developing ultra-high-speed metal-insulator electronics. Currently he serves as president of the SSE.

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DISPROVING THE CURRENT THEORY OF INSECT OLFACTION: TEMPORAL EVIDENCE

Tom Dykstra

The current theory of insect olfaction has the odorant, such as a pheromone, 1) diffusing through the air, 2) attaching to the insect antennae, 3) migrating to the sensillae and then into the sensillar pores, 4) binding with a pheromone binding protein (PBP), 5) diffusing across a sea of sensillar lymph, 6) dissociating with the PBP, and then 7) binding to a membrane bound dendritic pheromone receptor to effectively initiate the classic action potential so widely documented among entomologists. Each of these steps has a specified time period, and none of them can overlap with one another.

However, the final step has not been demonstrated. Since no bona fide binding has been shown between a pheromone and a pheromone receptor this leads to one of two conclusions. Either binding occurs and has not been shown yet, or there is no binding of the pheromone at all. Since the former relies on faith, no further consideration on this seems warranted. If the latter, then some doubt occurs as to whether all the previous and dependent steps occur at all. Recent publications are reporting on temporal events related to this process. This allows for a solid temporal analysis to be performed on this hypothetical system.

According to the predominant theory, there is only one overriding mechanism, that being diffusion. This simplifies the analysis, and allows for a brief discussion of some basic physical laws. Pulling from the scientific literature allows for the simplest calculations to be made regarding the interaction times or transport times of the pheromone at each of the necessary steps outlined above. Each of these steps will be temporally analyzed and presented.

The literature reports that instigation of a nervous impulse (unequivocal detection of a pheromone) once reaching the external sensillae takes from between 1 and 10 ms. Summation of the temporal parts of the processes of interaction and transport, reveal that the pheromone cannot reach the dendritic membrane in less than 10 ms. In fact, it must be considerably slower, and may be on the order of seconds to minutes. This startling revelation points toward the inadequacy of the current theory of insect olfaction and suggests another mechanism must be occurring.

About the Author: Tom is a Cornell trained entomologist who now resides in Florida. He owns his own bioelectromagnetics laboratory (Dykstra Laboratories, Inc., www.dykstralabs.com) and is currently developing insect traps for the stored product and agricultural industries. Now a daddy and changing diapers for his two boys, he laments about not being able to watch as many movies as he used to.

HOMEOPATHY: ENERGETIC MECHANISM FOR INFORMATION STORAGE

Glen Rein

Water exhibits anomalous physico-chemical properties which are unique amongst liquids. Homeopathy is considered anomalous because remedies use chemical concentrations above Avogadro's number and the lack of a theoretical model to explain the ability of water to store information and subsequently release it to influence biological systems and promote healing.

Recently DelGiudice and Preparata have pioneered the application of quantum electrodynamics (QED) to explain water memory and information storage. The theory is based on mathematically defining the coherence equations for the quantized matter field in terms of electrostatic, electromagnetic, potential and quantum fields. The theory predicts the formation of localized quantum coherent domains which can store and release electromagnetic information.

In further support for this theory, the present study investigated the effects of quantum fields to influence the structure of water. A solenoid coil was built which allowed the flow of two strands of current in either parallel or opposing (cancellation) modes. The input current was adjusted so the total power output was the same in the two modes. A classical EM field would be generated inside the solenoid in the parallel mode. However, in the cancellation mode, force fields and potential fields are all effectively zero along the z-axis inside the solenoid. Water samples placed inside the solenoid were treated for 90 minutes in both modes. Absorbed oxygen was measured with a spectrophotometer at 202-222nm. Water placed in the solenoid in cancellation mode showed a statistically significant decrease in absorption values when compared to parallel mode exposure or no exposure (controls). The results are interpreted to indicate that quantum fields which underlie the EM environment inside a solenoid can modify the structuring of water to reduce oxygen levels. This data supports DelGiudice's theory since artificially generated quantum fields should resonate with quantum domains in water. These observations support the basic tenet of homeopathy- that chemical information can be stored for long periods of time in quantum domains. Nonetheless, despite a sound theory and experimental evidence to support it, homeopathy is still considered anomalous by mainstream science.

About the Author: Dr. Rein, a former Assistant Professor at Mt Sinai Medical School, is the founder of Quantum Biology Research Lab devoted to understanding the role of non-classical forms of EM, optical and acoustic energy in healing and higher states of consciousness.

THEORY AND DATA IN SUPPORT OF MULTIPLE UNIVERSES AND THE IMPLICATIONS OF THIS TO THE PHYSICAL AND SOCIAL SCIENCES

Courtney Brown

Ever since Hugh Everett's proposal in 1956 that the results of certain quantum mechanical experiments could be explained by the existence of multiple universes (the so-called "many worlds" theory), scientists have pondered how to test for the existence of such alternate or parallel realities. Recent breakthroughs in the study of nonlocal consciousness has led to the development of experimental designs that directly address the issue of such alternate realms. The breakthroughs involve various attempts to predict future events under controlled conditions. With certain experimental designs, prediction works with surprising reliability. However, with other experimental designs, prediction often fails miserably. Differences between the experimental designs offer support for the existence of alternate realities as well as insight into their possible structure with respect to time. The implications of this research to the physical and social sciences cannot be overstated. The existence of alternate realities implies complete worlds that coexist with our own, including alternate versions of global societies. The possibility now exists that we may be able to observe such realities directly under scientifically controlled conditions. Dr. Brown will present evidence supporting this hypothesis as well as theory that explains how such alternate realities could in fact co-exist with our own.

Brief Biography:

Brown, Courtney, Ph.D., is a professor at Emory University who specializes in the application of nonlinear mathematical models to social and political phenomena. Independent of his work as a professor, he is the Director and founder of The Farsight Institute (www.farsight.org), a nonprofit research and educational organization dedicated to the study nonlocal anomalistic consciousness. He has published a number of books on the subject of remote viewing. Web site: www.courtneybrown.com. Contact email: polscb@emory.edu.

FRAMING THE SCIENTIFIC SEARCH FOR SPIRIT

Charles Emmons

This is a preliminary report on a sociological study of scientific approaches to the study of spirit/consciousness. More generally it falls under the sociology of knowledge, which includes an analysis of socially constructed “frames”.

In the nineteenth century Spiritualists and serious scientists, as for example in the Society for Psychical Research (founded in London, 1882), undertook the study of “spiritualistic” phenomena. Clearly such research was problematic in normal science, partly because of the serious split between science and religion after Darwin, and partly because of the professionalization of science by the end of the nineteenth century. J.B. Rhine and others brought parapsychology mostly into a laboratory setting and established statistical tests of psi. They also defined paranormal abilities more as anomalous forms of communication and motor activity than as surviving or disembodied “spirit” (more of a religious concept). ESP (or “superESP”) has become a more nearly normal scientific frame for the paranormal than the Spiritualist frame of spirits and ghosts.

Although there are certainly researchers today, parapsychologists and others, who study phenomena related to the survival question, the focus is more on “consciousness”, a more legitimate-sounding term than “spirit.” From a neuroscientific point of view, the question becomes whether alleged phenomena such as OBEs, NDEs, apparition experiences, spirit mediumship, and memories of past lives can be explained by brain physiology and function alone. By one interpretation all of these phenomena might provide evidence of consciousness apart from the body (and by extension, possible survival of consciousness after death). At a loss to identify scientifically verifiable mechanisms for “paranormal” findings, some scientists (and mystics) see quantum physics as a plausible scientific paradigm to account for apparent nonlocal connections in paranormal events that otherwise would suggest a problematic dualism of consciousness and matter.

Even researchers who consider some or all of the above anomalies to require something beyond normal neuroscientific explanations do not agree on whether they provide evidence for an out-of-body consciousness or for survival beyond death. Nor do they agree on what types of evidence are or would be the best. The question arises to what degree these issues are a matter of evidence and to what degree they reflect different socially constructed frames. Examples of some of these frames and of how they seem to impact the evaluation of evidence are presented in this paper, based on interview data and on review of the literature.

About the Author: Charles F. Emmons is a sociologist at Gettysburg College, author of *Guided by Spirit: A Journey into the Mind of the Medium* (with Penelope Emmons), *Chinese Ghosts and ESP*, and *At the Threshold: UFOs, Science and the New Age*. Current research: “The Scientific Search for Spirit.”

MEDIUMSHIP UNDER THE MICROSCOPE: SCIENCE AND THE AFTERLIFE

Julie Beischel

Empirical laboratory evidence shows that certain mediums can report accurate and specific information about the deceased loved ones (termed discarnates) of living people (termed sitters) even without any prior knowledge about the sitters or the discarnates and in the complete absence of any sensory feedback. While the public's increasing fascination with the phenomenon of mediumship is visibly evident in the current rise of this topic in numerous aspects of popular culture, the traditional scientific community has only recently begun to recognize mediumship as a topic worth investigating when, in fact, the scientific study of mediums is over a century old. Mediumship findings to date, however, do not directly address which parapsychological mechanisms are involved in the anomalous information reception (AIR) by mediums. In and of themselves, the data cannot distinguish between theories including: (a) the survival of consciousness, (b) super-psi, and (c) the psychic reservoir hypothesis. At The Windbridge Institute for Applied Research in Human Potential, we engage in research that is *proof*-focused, that is, concerned with demonstrating a specific and replicable effect (i.e., AIR) in a laboratory setting, as well as research that is *process*-focused and examines the mediums' experiences during communication with the deceased. The continued evaluation of the mediumship process and research addressing the survival of consciousness hypothesis are important for many reasons, including those that are academically important as well as those that are socially relevant. Mediumship research addresses the possible mechanisms at work during the processing of non-local, non-sensory information and the relationship between the mind/consciousness and the brain. In addition, mediums may be able to perform socially useful tasks such as locating missing persons or contributing to criminal investigations; the information mediums provide may contain wisdom or knowledge that could benefit scientific, technological, and/or social progress; evidence for life after death could revolutionize health care by alleviating the anxiety felt by hospice patients and their families and changing the way allopathic physicians view death; and, finally, mediumship readings may be helpful in grief counseling and recovery.

About the Author: Julie Beischel, PhD, is the Co-Founder and Director of Research at The Windbridge Institute for Applied Research in Human Potential. Her research interests center on the survival of consciousness hypothesis ("life after death") and include proof-focused studies on mediums' communication with discarnates and process-focused studies on mediums' experiences of that communication. Dr. Beischel received her doctorate in Pharmacology and Toxicology with a minor in Microbiology and Immunology from the University of Arizona. She was the first recipient of the William James Post-doctoral Fellowship in Mediumship and Survival Research at the University of Arizona where she served as Co-Director of the VERITAS Research Program with Dr. Gary E. Schwartz before moving the research and the screening and training of prospective research mediums to Windbridge in January of 2008. Dr. Beischel is currently a member of the Parapsychological Association and a member of the scientific advisory boards of the Rhine Research Center and the Forever Family Foundation. She is the recipient of a 2008 Bial Foundation research grant and has published peer-reviewed articles in journals including the *Journal of Scientific Exploration*, *The Journal of Parapsychology*, and *Explore: the Journal of Science and Healing*. More information about Dr. Beischel and The Windbridge Institute can be found at www.windbridge.org

AFTER-DEATH COMMUNICATIONS INVOLVING TWO BONDED PARAPSYCHOLOGISTS THAT CHALLENGE THE SUPER-PSI EXPLANATION

Jane Katra (sponsored by Russel Targ)

Spontaneous communications from deceased loved ones have been sensed by people in a variety of cultures throughout history. Formal research on the phenomenon of After-Death Communications (ADC) started in the 1880s in England when a group of intellectuals formed the Society for Psychical Research. In their three-year study entitled "Spontaneous Hallucinations of the Sane," thirteen percent of 17,000 people surveyed reported that while awake, they "*had a vivid impression of seeing or being touched by a living being, or of hearing a voice; which impression was not due to any external physical cause.*" Many of the respondents reported that these hallucinations had occurred near the time of the communicating person's death, so an additional analysis of "death coincidences" was done, thus initiating the field of life-after-death research in 1894. The most important conclusion of the report was: "*Between deaths and apparitions of the dying person a connexion exists which is not due to chance alone. This we hold as a proved fact.*" (Sidgwick et al, 1894)

The evidence compiled over the past century for the survival of an intelligent component of human existence after bodily death comes from a range of studies involving trance, mental and physical mediumship, hauntings and out-of-body experiences, anomalous creativity, xenoglossy and psychopathology studies, dream visitations, apparitions, reincarnation and possession studies, near-death experiences, and most recently, instrumental transcommunication studies. This talk concerns ADC, the experience of spontaneous and unbidden contact with a deceased loved one initiated from a source outside of the recipient. The prevailing explanation for ADC for most parapsychologists has been what is known as "the super-psi hypothesis," which explains such communications as manifestations of a type of extended telepathy of the recipients who are somehow able to perceive any thoughts ever generated by any living person at any time. (Hart, 1959; Gauld, 1983)

In the early 1990s this author did remote viewing research with SSE member and physicist Russell Targ. Targ's daughter Elisabeth was a psychiatrist at the time, as well as being a remote viewer, parapsychological researcher, a certified Russian translator, and a pronounced skeptic regarding the efficacy of spiritual healing. She carried out studies in distant healing with men with HIV in San Francisco using experienced healers from around the US, and reported her findings at an SSE meeting in 2001. Tragically, the next year she died of brain cancer. Before she died, the author had extensive discussions with Elisabeth about life after death, the efficacy of distant healing, her intention to contact the author after her physical death, and their joint agreement to continue to work together if at all possible.

Since the death of Dr. Elisabeth Targ in 2002, the author has been the recipient of or witness to over 35 surprising and unbidden communications from her, many of them involving naïve witnesses. The author will describe some of the most compelling of the ADCs from Dr. Elisabeth Targ and discuss a theory of entangled minds extending into other dimensions involving enduring shared intentions and love, and how the Elisabeth Targ communications and other compelling data challenge the super-psi explanation of ADC.

About the Author: Jane Katra, Ph.D., taught at the University of Oregon in the 1980's and did remote viewing research in the 1990's. She has also practiced as a spiritual healer since 1974, after receiving instructions in a near death experience, and has coauthored with physicist Russell Targ the books *Miracles of Mind: Exploring Nonlocal Consciousness and Spiritual Healing*, and *The Heart of the Mind*. www.janekatra.org

IS POSTMORTEM SURVIVAL A SCIENTIFIC HYPOTHESIS?

Bruce Greyson

The belief that some part of human beings may survive bodily death has been around for millennia, yet it has been regarded as a scientific hypothesis only for the past century. Although some scholars still argue that belief in survival belongs to the magisterium of religion and is not amenable to scientific exploration, postmortem survival can be, and has been, operationalized in terms of empirically testable hypotheses. More than 40 years ago, a research division was founded at the University of Virginia for the scientific exploration of the survival question. Now designated the Division of Perceptual Studies within the Department of Psychiatry and Neurobehavioral Sciences, this division continues to pursue three parallel lines of empirical evidence bearing on the question of what, if anything, survives bodily death.

The first line of investigation explores the question of whether persons living today provide evidence of having lived previously, that is, of having reincarnated. This evidence may include verifiable cognitive memories from a previous life; unexpected personality traits, likes, and dislikes attributed to the previous life; unlearned skills attributed to the previous life; birthmarks and birth defects attributed to the previous life; and objective biometric similarities to the facial geometry of the previous life. The second line of investigation explores the question of whether persons now deceased still manifest consciousness in some form. This evidence may include spontaneous or induced interactive apparitions of the deceased, communication with the deceased through mediums, instrumental transcommunication or contact through physical (usually electromagnetic) devices, and the communication of keys to decipher messages encrypted by the deceased prior to death. The third line of investigation explores the question of whether the mind can function independent of the brain, a necessary (but not sufficient) condition for postmortem survival. This evidence may include unexplained recovery of lost mental functions as the brain dies, near-death experiencers with enhanced mental activity while the brain is demonstrably impaired, and out-of-body experiences with accurate perception from an extracorporeal perspective (sometimes accompanied by objective detection of a disembodied entity). The convergent evidence from these three lines of investigation provides empirical support for the scientific hypothesis of postmortem survival.

About the Author: Bruce Greyson, M.D., is the Chester F. Carlson Professor of Psychiatry & Neurobehavioral Sciences and Director of the Division of Perceptual Studies at the University of Virginia. He was a founder and Past President of the International Association for Near-Death Studies, and for the past 26 years has edited the *Journal of Near-Death Studies*. Dr. Greyson graduated from Cornell University with a major in psychology, received his medical degree from the State University of New York Upstate Medical College, and completed his psychiatric residency at the University of Virginia. He held faculty appointments in psychiatry at the University of Michigan and the University of Connecticut, where he was Clinical Chief of Psychiatry, before returning to the University of Virginia, in 1995. His research for the past three decades has focused on near-death experiences and has resulted in more than 70 presentations to national scientific conferences, including an international symposium at the United Nations last year, more than 100 publications in academic medical and psychological journals, 3 edited books, and several research grants and awards. He has been given Lifetime Achievement Awards by the International Association for Near-Death Studies and the Parapsychology Association, and is a Distinguished Life Fellow of the American Psychiatric Association.



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