## **Society for Scientific Exploration**

41st Annual Conference

July 23 – 26, 2023, Bloomington, Indiana

#### **Maverick Science**

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#### **Experts Aren't, or Are They?**

#### Garret Moddel

University of Colorado, Boulder, CO, USA

Maverick science has a long history of being shunned by the mainstream. Some maverick findings have turned out to be valid, and some not. How can we know when to trust the experts or when to take the maverick assertions seriously? For years, as a maverick scientist, I have planned to make a presentation called "Experts Aren't." With increasingly authoritative sounding but unsupported conclusions on the internet and from artificial intelligence (AI) systems, I have reevaluated this plan. No matter your perspective, you are likely to disagree with at least some of my observations about this perpetually controversial issue.

What follows are a smattering of maverick science findings, including valid and invalid claims (three were presented by the mavericks at SSE conferences):

- The notion that X-rays are longitudinal waves (extended to the notion of scalar waves) by Nikola Tesla (1896) was and still is rejected by the mainstream electromagnetics community.
- Positive results of control studies showing the existence of extrasensory perception (ESP) by J. B.
   Rhine (1931) have not been replicated according to the mainstream scientific community (which neglects to cite the vast psi literature providing many replications).
- Perpetual motion in John Bedini's free energy motor powered by a battery charged by charge spikes (1984) is supported by an extensive free energy movement but ignored by the mainstream.
- Cold fusion, now termed low-energy nuclear reactions (LENR), as reported by Stanley Pons and Martin Fleischmann (1989), is still being dismissed by a skeptical mainstream scientific community.
- Findings that cosmic redshift is not the result of an expanding universe, which is consistent with the Big Bang, was found by Halton Arp (1998) but discarded by mainstream cosmologists.
- The assertion that gravity propagates much faster than light by Tom Van Flandern (1998), with current support by the Electric Universe community, has been rejected by mainstream cosmologists.
- An innovative scale-expanding theory explaining the apparent age of the Universe and other observations by Johan Masreliez (2004) has been completely ignored by mainstream cosmologists.

- Halting Alzheimer's disease with lithium microdoses reported by Marielza Nunes et al. (2013) is reported much less than drug cures that are not nearly as effective.
- A clear violation of the second law of thermodynamics using epicatalysis demonstrated by Daniel Sheehan (2014) is ignored by the mainstream thermodynamics community.

Examining these maverick findings, how can we distinguish authoritative-sounding but baseless claims from valid ones? Is the use of quantitative/mathematically-based modeling and predictions just a way for experts to show off their skills and suppress dissent? (No.) Can common sense be our guide? (Unfortunately, not.) Is "debunking" and mocking opposing views appropriate? (Of course not.) And has the shunning of maverick science suppressed scientific advancement, or are a lot of amateur researchers and inventors fooling themselves? (Yep, and yep.) I present a set of protocols for evaluating maverick science to resolve these questions.

#### David Hume, Paradigms, and the debate on psi

#### George Williams

#### Federal Communications Commission

Some skeptics of the psi data have considered David Hume's argument in his essay On Miracles as a potent weapon against the psi evidence. Following their interpretation of Hume, they typically argue that, because the findings on psi must be viewed as violations of the laws of nature, the most likely interpretation is the presence of questionable research methods or fraud. For a number of reasons, I argue that the psi critics who use Hume in this way have misunderstood his arguments and that his famous chapter concerning miracles does not offer the resources to dismiss the psi data. First, the target of Hume's essay was miracles of religious nature, not reports of anomalous findings under laboratory conditions. Second, I discuss that Hume's arguments on the nature of causality, from other areas of his work, do not support the sorts of "laws" that psi skeptics have in mind. Essentially, Hume's arguments show that we cannot characterize causal relationships as deterministic or mathematical "laws." Instead, Hume argues that the world's causal relationships must be described only in terms of regularities. Another key problem for psi critics is that their core arguments generally hinge on establishing principles from a particular domain of inquiry in order to constrain or limit allowable findings in different domain that may have different characteristics and properties. However, Hume's analysis of causality does not allow us to establish such limiting principles that can be used to a priori dismiss evidence gathered under different conditions from such principles. In addition, I argue that, apart from Hume's thinking, we should be wary of such limiting principles, given the context dependency of many causal relationships. After showing that Hume's arguments do not possess the resources to dismiss the psi data, I argue that it is extremely unlikely that the psi data could be the result of some combination of fraud and questionable research methods and thus merit serious attention.

Further, I also consider how Hume's arguments linking our understanding of the world's causal nature with custom and sentiment support a more institutional understanding of science than what is commonly understood, where habits of thought and emotion likely play a large role. This more institutional view of science fits Thomas Kuhn's framework that describes scientific practice in terms of paradigms. I then turn to how we might understand the debate around psi might be characterized through Kuhn's notion of paradigms and Hume's emphasis on habitual thought and sentiment.

#### Reproducibility? Controls? Randomness? Constants? What if they're not?

#### Dianne C. Trussell

Independent Researcher, Goonellabah, NSW Australia

Herewith a maverick mind questioning the very foundations of scientific research. We tend to take a position at either of two poles: mathematical determinism as per Newtonian physics or meaningless chance as per Quantum physics. But why can't polarities be co-existent points of union? Cannot meaningful, directed physical evolution be consciously held in the mind of God or Space, and be operating using the omnipresent, omnipotent quantum field as its essential substrate of order and action? In that union, can we exceed the limitations of the scientific method and its founding principles, such as reproducibility, control of variables, randomness, the constancy of constants, etc.?

After decades of disciplined use of the scientific method in neuroanatomy, to subjective-objective work in psychology, and recent explorations with the Random Event Generator, I am experimenting with intuitive methods such as Agni Yoga.

The intuitive process of letting go and opening to what is received yielded a series of questions and viewpoints for further exploration and literature research.

- 1. What are reproducibility, controls, randomness, and constants? Are they what we assume they are? There is plenty of debate in the literature around these subjects.
- 2. What is this Me or You that thinks it thinks? And because it thinks it thinks, it thinks it can be separate from and control endlessly changing nature, to force moment-by-moment unchangeability. This is a paradox in scientific experiments.
- 3. We base our science on constants, the ability to control and replicate experiments, the use of statistics, and the comparison with baselines and randomness to back up our conclusions. However, they may be less fixed, attainable, random, or controllable than we usually assume. Thus, our science may be based on false or shaky foundations.
- 4. Scientific research today is primarily conducted by self-referential, individualized, mental/physical, beings thinking they have control, whereas we actually have none. We are not an independent source of consciousness that can stand outside universal oneness/consciousness, and decide that every parameter: energy configurations, particles, photons, minds, and bodies, etc, can be

controlled and defined by us - the separate, objective observers. To become an unbiased observer inherently means to be free of the separate existence and identification with self. In this, we can integrate the Newtonian forms and the Quantum fluctuations, which are deeply and harmoniously intertwined.

Rather than abandoning scientific research altogether, we could embrace the problems with the foundations. Suggestions:

- Refine data analysis to lessen dependence on reproducibility.
- Realize that efforts to 'control' lead to the cementing of biases and a narrow focus in handling data.
- Change our self-perception from separate, objective manipulators outside the nature we are studying. Know that we are an integral part of every phase of the experiment.
- Consider the impact of variable, cycling, or evolving universal constants.
- View baselines not as random or meaningless but as meaningful universal states or experimental conditions unto themselves.

# Toward an Occult Museology: The Museum as Spirit Laboratory

Lois H. Silverman

Professor, Public Scholar of Museum Education Museum Studies Program, Indiana University – Purdue University, Indianapolis

Introduction: The International Council of Museums defines museology as a field of scientific study that "includes all the efforts at theorization and critical thinking about the museal field" with "the common denominator" being "a specific relation between man and reality.... expressed by documenting that which is real and can be grasped through direct sensory contact" (Desvallees and Mairesse, 2010, p. 56). This prevailing view, although accepted globally, stands in stark contrast to the etymology of the word "museum" from the Greek word mouseion as a temple or haunt of the muses and to the plethora of historical and contemporary accounts of seemingly non-material museum experiences characterized by qualities of intuition (Fisher, 2006), psychometry (Fischer, 2013), magic (e.g., Ciaccia, 2022), and other unexplained phenomena. What if, instead of overlooking these anomalous visitor experiences which rarely gain notice in mainstream museological literature, a framework was crafted to elevate, connect, and study "unusual" experiences that occur in the presence of objects across museums of art, history, and anthropology? Inspired by the Society for Scientific Exploration 2023 annual conference theme of

Maverick Science, this paper aims to heed the call by Durakiewicz (2022) to accept risk and embrace diversity in service to envisioning a new occult museology.

Methods: This integrative and interdisciplinary study will sample and connect several bodies of literature in order to generate new knowledge. First, this paper will briefly survey and describe the history of and prevailing approaches to the scientific study of visitor experiences in museums, including common findings and "norms." Secondly, the paper will then present and describe a number of historical and contemporary accounts of non-material museum experiences, including compelling examples from non-museological literature as well as from visitor studies in major museums, like the Smithsonian Institution, the Metropolitan Museum of Art, and others. Third, the study will draw upon a variety of relevant occult and spiritual perspectives, including animism and spiritualism, to offer a preliminary framework for describing non-material museum experiences. Finally, the paper will map a theoretical and research agenda to further develop an occult museology, including suggested research methods.

**Results:** The results of this integrative review will offer an important reconceptualization of the importance of anomalous experiences in museums and a framework for expanded study. This new perspective will inspire museologists, visitor studies researchers, and museum practitioners toward greater diversity in theoretical and practical perspectives and the role of museums in society. The results of this study will hopefully chart a course both conceptually and methodologically to foster further research into the spiritual potential and value of museums.

**Implications / Discussion:** Beyond its value to the field of museology, this study aims to inspire scholars of anomalies research to consider and recognize the value of museums as important sites and laboratories for a host of topics, including spirit communication, mediumship, healing, and other unexplained phenomena.

### The Sport of Remote Viewing: As Told by a Minor Leaguer

Lyrysa Smith

Independent Journalist, Writer, Editor, and Remote Viewer

Remote viewing (RV) is real. We have data, evidence, studies, and transcripts that show that it works -- a lot of the time. Could RV work more of the time if we could better understand how a remote viewer senses it? I've had beginner's luck and major slumps. I'll show you some hits and misses. I'm trying to get more hits and fewer misses.

It's accepted that most remote viewers experience beginner's luck and then settle into a batting average. My first session of RV, I didn't know what I was doing. I thought, "What the heck? Let's give it a try." When Garret Moddel learned that I was a good hypnosis subject, he had a hunch. He explained RV to me in a few minutes. I got three targets, and I got three home runs. I was batting 1000.

But like baseball, RV is full of vicissitudes. My next at-bats were kinda-hits and a bunch of strike-outs. Right away, my challenge became consistency. That's confusing and frustrating. And it is also exciting, because I'm committed. The next home run can happen the next time I'm up. But how do I prepare myself to get a hit?

I'm a former competitive swimmer. I trained for RV like an athlete. Practice more, get coached, work hard. I took RV classes, read books and papers, sought advice, and I still practice yoga and meditation. I learned several RV methods, but inconsistency remains.

I understand that even the best achievers fail. It's part of the game. I study my own sessions to derive some inkling of what works for me. What did the hit feel like on the way to getting the target right? What did the kinda-hit or miss feel like? Are there any clues in my confidence or stress levels? I'll share those transcripts and how they felt.

Perhaps we need a better way to decipher a hit in RV. The judging is tricky and often subjective. The best hitters in baseball average 3 out of 10. Ty Cobb holds the record with .366. If remote viewers get hits 3.5 times out of 10 attempts (and many do better than that), then mainstream science should finally agree that psi is valid. Personally, like in baseball, I believe there's value in the base hits of RV, and the home runs.

I'm seeking to bring beginner's luck every time I go to bat. If I'm open and willing, can I capture a beginner's mind anytime? Maybe the fluctuations aren't always due to my ability. Is the psychic force a steady stream or does it wane? Maybe the psychic pitcher throws curveballs?

Perhaps the magic of beginner's luck is whimsy, unawareness, just swinging for the fences with no preconceived notions. Simply describe the first thing that pops into mind. I'm curious. I love to have the image surprise me. Sometimes it works. Like hitting a small round object coming at you at 100 mph with a wooden stick less than 3 inches wide.

# 2060: A Tested Program to Acquire Pragmatically useful information from the future

Stephan A. Schwartz

California Institute of Human Science, BIAL Foundation, and Atlantic University

**Introduction:** This is a preliminary report on a 45-year-long ongoing project using precognitive remote viewing to describe the future. For almost 50 years, information derived nonlocally through the use of established remote viewing protocols has provided pragmatically useful information. The Research Director of this project, Stephan Schwartz, developed and employed a protocol using multiple viewers, the Mobius Consensus Protocol, and concept-by-concept accuracy analysis by independent experts. It resulted in the discovery of archaeological sites both terrestrial and marine throughout the world.

**Methods:** In Phase One of this project from 1991 to 1996, we focused on the sessions in the year 2050. We entered 538 remote viewings done using the monitored interview protocol. In Phase Two of the project, which began in 2018, we shifted to the year 2060 in order to compare the differences reported in 2050 and 2060. For the 2060 Populations Phase Two we conducted in-person or Skype remote-viewing sessions with 300 respondents and allowed another 1,000 individuals to respond using remote viewing on Survey Monkey questionnaires. After all concepts of all viewers were transcribed and broken down into alphanumerical identified concepts, an analysis was done establishing consensus within the data, both verbal and drawings, as well as whether an observation is low a priori.

#### Results: A selection of preliminary observations about the future

The 1978 to 1991 viewers predicted:

- the disappearance of the Soviet Union
- the catastrophic rise of climate change
- the rise of terrorism
- the AIDs epidemic
- the transition out of the carbon energy era
- the development of virtual reality

Beginning later in 1991, funded by Atlantic University and continuing through 1996, a second phase of the study began, involving not just personal sessions:

- the inundation and collapse of American coastal cities
- the creation of electric-powered commercial aircraft
- the rise of the cashless society in which biometrics vouchsafe payment

In 2018, with funding from the BIAL Fundação and Atlantic University, a third phase of this research was begun involving very specific populations and is now ongoing. A preliminary survey of the 2060 data reveals certain notable trends:

- Between 2040 and 2045 several very dramatic changes alter the structure of human culture worldwide. It is not yet clear what they are, but two candidates seem to be climate change and the end of the carbon energy era, which will have major technological and geopolitical implications.
- Climate change and the associated sea rise have caused the submergence of many coastal cities
  and subsequent massive internal and international migrations for which much of the world is
  notably ill-prepared.

- People have largely reorganized into small communities.
- The United States still exists at least in form, but real political power has devolved to states and regions, because of the radically different way in which states have planned for and accommodated climate change and these migrations.
- In the U.S. the illness profit system of healthcare seems to have given way to universal birthright single-payer healthcare, much more like the present European model.

# Enhanced Mind-Matter Interactions Following rTMS Induced Frontal Lobe Inhibition: A Novel Approach To Psi Research

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**Introduction:** A major barrier to acceptance of psi, especially among mainstream scientists, is that effects are small and hard to replicate under controlled experimental conditions. To address this barrier, we need novel models to study psi that will enhance the detection and replication of psi effects.

In the early 1900s, Henri Bergson postulated that the nervous system inhibits psychic abilities and that deficits in this inhibitory mechanism may lead to the emergence of psi phenomena. To expand on Bergson's concept, we postulated that psi inhibition by the brain involves the frontal lobes. To test this hypothesis, we studied individuals with neurological damage affecting their frontal lobes and found that the left medial middle frontal region involving Brodmann areas 9, 10, and 32 may act as a biological filter to inhibit psi. This was based on identifying the areas of lesion overlap in the individuals studied. The experimental task was to influence the output of a Random Event Generator (REG) translated into the movement of an arrow on a computer screen to the right or left. Compared to a well-designed control condition, individuals with frontal lesions demonstrated a significant effect in moving the arrow contralateral to the side of their primary lesion overlap, i.e., to the right. However, these findings were based on two cases. We now report findings from a study of 108 participants using repetitive transcranial magnetic stimulation (rTMS). We confirmed our *a priori* hypothesis that healthy participants with reversible rTMS-induced lesions affecting the left medial middle frontal region would show larger right intention psi effects on a mind-matter interaction task compared to healthy participants without rTMS-induced lesions.

**Methods:** We studied mind-matter interactions in healthy participants (n=108). There were three groups: rTMS-induced lesions in the left medial middle frontal region (n=36), rTMS-induced lesions in the right medial middle frontal region (n=36), and sham stimulation (n=36). For the mind-matter interaction task, participants were asked to try to influence the output of a REG that was translated into the movement of an arrow on a computer screen to the right or left.

**Results:** In support of our *a priori* hypothesis, we found significant psi effects following rTMS inhibition of the left medial middle frontal lobe compared to sham stimulation when trying to move the arrow on the computer screen to the right (= -0.17, LCL = -0.29, UCL = -0.05, t = -2.80, p = 0.006, d = 0.38).\*

**Implications / Discussion:** Our study represents the *fourth* replication by our group of the finding that disruption of the left medial middle frontal region can increase the influence of the human brain on seemingly random events. This supports the concept that the brain acts as a psi-inhibitory filter. Our research suggests that individuals with frontal lesions may comprise an enriched sample for detecting and replicating psi effects. Our findings are potentially transformative for the way we view interactions between the brain and psi.

\* = parameter estimate; LCL and UCL = lower and upper confidence intervals, d = Cohen's d (effect size)

# A quantitative approach to the band-limited information throughput in a single-blind experiment conforming to spatially non-local post-cognitive perception

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Introduction: The information throughput associated with spatially non-local post-cognitive perception is known to be "fuzzy" (May et al, 1990) or band-limited. The assessment concerning which kind of useful information has been yielded by spatially non-local post-cognitive perception, however, may depend upon whether the tasking was research-orientated or operational. A research-oriented tasking would have appropriate controls in place and be rendered with full-spectrum feedback. An operational tasking, however, needs to extract or reconstruct the most significant or relevant intelligence out of inevitably band-limited information acquisition in the absence of feedback. When both the physical target and the physically documented output are available as with research-oriented tasking, it entails assessing the transmission throughput of the tasking using a system perspective by evaluating the transfer function or its equivalence to help understand the limitations or characteristics of non-local information transfer.

**Principles:** We represent the transmission outcomes associated with spatially non-local post-cognitive perception using a two-way "apparent information requisition yield" (AIRY). The way-I or "tangible" aspect of AIRY relates to the extent of resolving the shape or structural details of the primary physical entity of the target. The way-II or "intangible" aspect of AIRY pertains to the degree of reconstructing the feature or functionality of the predominant physical event of the target.

**Methods:** A single-blind experiment between the two authors was conducted on free-responsive spatially non-local post-cognitive perception of free-selected simple photograph targets. Cloud storage was used to control the single-blindness, and feedback was expected prior to selecting a new target. A total of 100 trials were completed over eleven months. Thirteen judges graded, according to a fuzzy scale of 0% to 100% with an increment of 10%, the matching between the perceived sketch-&-script output and the corresponding photograph target on two types of matchiness. The type-I matching judged the resemblance of the produced output to the primary object of the target in terms of the shape or structure. The type-II matching judged the reconstruction of the produced output to the primary object of the target in terms of the feature or functionality.

**Results:** Six trials received higher than 50% grades in both type-I and type-II scales of the matching judged. This outcome may correspond to an effect size of 1.47, if assuming a hypothetical chance expectation giving a benchmark proportion of 3 out of 100 trials to produce higher than 50% grades in both type-I and type-II aspects of matching. Two trials encountering target interference are particularly interesting, for uniquely casting light on what process may or may not be engaged in the tasking. Additionally, the gradings between two groups of judges likely having different openness to spatially non-local post-cognitive perception are significantly different (p < 0.0001, ANOVA). The two-way AIRY may be converted to a "partitioned undulation net transfer (PUNT) "function for quantitating the relative bandwidth of information throughputs by the yet-to-be-understood perception.

**Implications / Discussion:** The two-way AIRY, as well as its derivative of PUNT may provide a new quantitative approach for understanding the relative fuzzy yield, or the band-limited throughput of information acquisition attributable to spatially non-local post-cognitive perception.

#### C.M. Chantal Toporow

SSE Education Officer

Altruistic Engineering Consultancy, Redondo Beach, CA

The Aspiring Explorers meeting is for student members and faculty who are interested in SSE related topics, to get to know one another and discuss how to better support students in their academic and professional goals. Come join in our discussion and meet new friends and colleagues.

## Dinsdale Lecture What Every Maverick Scientist Needs

Patrick Huyghe

Anomalist Books Charlottesville, VA, USA

Solid data. An interested journalist. And good luck. I have spent most of my career as a journalist covering the claims of maverick scientists. How this came about, what "rule" I had to follow in order to get published, and what a scientist needs to best present their maverick claim are the subject of this presentation. I will largely focus on one "case study," where I had a chance to see what happens behind the scenes of a maverick claim's struggle for acceptance. And how I ended up unintentionally being the claim's last remaining advocate.

### What is Hiding in Ertel's Tree?

Kenneth Irving

Staten Island, NY

The life's work of the late French psychologist Michel Gauquelin was centered on a large collection of timed, registered birth records that he used in various studies. The core of this collection consisted of the birth data of nearly 29,000 people who had risen to success in eleven professions that, as he said, "had a direct relationship with the great poles of attraction of the mind: science, art, politics, and so on." Significant patterns found in data gathered in France, Europe, and the United States linked these professions to the rising and culmination of the Moon, Venus, Mars, Jupiter, and Saturn.

Other psychologists (even skeptics) were able to repeat these experiments with their own data, but other experiments did not come off as well, particularly one known as the Character Trait Hypothesis (CTH), which proposed that each planet could be identified by a distinct set of traits. Though his results to prove this were successful, others could not match them, setting the stage for a controversy.

In a 1986 article published in a German journal, Professor Suitbert Ertel presented the results of a comprehensive study he had made of Gauquelin's achievements as they stood at that time. Covering each facet of the data collection, and the theories and experiments attached to it, Ertel ended the article with high praise for what Gauquelin had done. The centerpiece of that article was two hierarchical cluster analyses by Ertel. One was based on the birth positions of the five planets in the eleven professions in the entire Gauquelin database, and a second was based only on card sorts using cards with the names of the Gauquelin professions inscribed on them. The two different procedures produced almost identical tree graphs (dendrograms).

This was all to the good until, in a 1989 lecture at a research conference in London, Ertel said of the planet-based dendrogram, "This tree may be enjoyable, but it is posing a disturbing question ... Applying temperamental variables does not make sense out of what you see here. Are its branches definable by Gauquelin's characterology ... Or by Eysenck's introversion, extraversion, or something similar?" He then said that the "pattern of relations" seen in that dendrogram had raised doubts in him about the Character Trait Hypothesis.

Though he offered no theory to counter his doubts (either then or later, to my knowledge), he may have done so inadvertently at a lecture in Amsterdam that same year. Speaking in reference to students' ability to match the planet-based structure, he attributed it to "the order our minds tend to impose on the professions." This phrase is a close cousin to the term "occupational stereotypes," a bedrock term in the area of psychology that deals with vocational interests - the dispositions that guide us toward what we do in life. What such interests might have to do with Gauquelin's planets is another matter, so let us take a look at what this might tell us about Ertel's tree, and what else might be hiding in its branches.

Gauquelin's fundamental and reproducible findings about planets and professions are an open question, but that question has been obscured over the years by a focus on efforts looking for "causes" derived from physical science. Such there may be, but we should keep in mind that it is psychology, and not physics, that has been at the center of what we know so far about the Gauquelin discoveries.

#### Harnessing and Utilizing Plant's Biophotonic Emission

Igor Nazarov

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**Introduction:** The aim of this research was to experimentally validate a low-intensity, light-sensitive set of several apparatuses for the analysis, recording, and storage of biophotonic flux emitted by various plants in an electronic format. The biophotonic flux profiles that were recorded as a spectral diagram were combined as an electronic file and applied to other plants through an LED illumination system modulated by electronic signals derived from the file that had been created. The tested plants were analyzed for changes in mass gain and chemical composition.

After the biophotonic flux was electronically recorded and transformed into a frequency-modulated current, it was applied to LED lighting devices, creating emission modulations. This modulated LED emission was used to illuminate water through special filters and caused the latter to acquire new qualities, a process which was named "water structuring." Water structuring can lead to changes in the vibrational spectrum of water that result in the molecular structure of aquatic solutions attaining a higher order of organization and changing the way the structured water interacts with living organisms.

The results of these experiments demonstrate that biophotonic flux patterns transported to the test plants through water structuring, as compared to the control, improve germination rates for old

seeds, facilitate faster growth of seedlings, and increase biomass gain in the tested plants, both with fertilizers and without them.

**Methods:** A three-stage setup was used to accomplish this research.

In the first stage, a hologram, resulting from the interference of laser light with the plant's fluorescence emission, was captured by a charged-couple device (CCD). A signal from the CCD was evaluated by a spectrum analyzer, where it was transformed into a digital signal, suitable to be used further in an LED illumination system. The next stage was based on a single photon counting unit combined with a special light-proof chamber designed for registering low-light emissions. This system allowed for the registering of biophotonic flux from a plant sample, while it was illuminated by various spectrum LEDs. After illuminating each test plant sample with a modulated emission, a delayed fluorescence intensity was recorded. As soon as a favorable digital spectrum pattern was identified, it was processed in the third and final stage, where the test plants were grown in a controlled environment while being illuminated by LED light modulated with the identified favorable patterns and irrigated by water structured by the same LED emission pattern.

**Results:** This research indicates that electronic signals taken from the plants via their biophotonic flux can be used for modulating the emission intensity of LED lighting systems and subsequent water structuring, which can be used in agricultural applications, thereby affecting improved growth and chemical composition of plants.

**Implications / Discussion:** This research addresses a component of the common needs of small and medium family farms that face increasing risks regarding their production, as well as their financial risks. Because the proposed approach is easily scalable and adjustable to specific environmental needs, it can also serve well the needs of indoor farming and hydroponic farms.

### A novel energy-based wearable technology for addressing anxiety

Loretta Ivory & John Arlotti

Restore Patch, Castle Rock, Colorado

A novel non-pharmaceutical intervention for anxiety is investigated.

Anxiety is a feeling of excessive worry, fear, dread, and uneasiness, and is a normal and often healthy emotion that can be a normal reaction to stress. From an evolutionary viewpoint. Many people worry about things such as health, money, family, or when faced with a difficult problem at work, before taking a test, or before making an important decision. It can help one to cope. The anxiety may give a boost of energy or help with focus.

But, for people with anxiety disorders, the fear is not temporary and can be overwhelming. The symptoms can interfere with daily activities such as job performance, schoolwork, and relationships.

There are multiple treatment options available for anxiety disorders. They typically involve a combination of therapy, medication, and lifestyle changes. All of these modalities have their benefits and their limitations. Many of them require long-term commitments to therapy and expenses not reimbursed by insurance.

Restore Patch™ is the latest in wearable technology, using the century-old scientific concept that every living thing is energy. Similar to Bioenergy healing, the Restore Patch ™ is based on the premise that each individual is surrounded by an electromagnetic field of energy. The developers believe that every cell in the body vibrates or resonates in a way that is unique to each other. When applied to the skin, a transfer of energy takes place. The body's own electrical fields naturally absorb this information and cause a resonance process to begin within the body at the cellular level. Depending on the unique formula, a patch can promote healing, eliminate actions within the body, and/or provide support. The patch is placed on a meridian on the body and is left on for three days, before a new patch is applied.

Restore Patch has been shown to be beneficial in enhancing quality of life and restoring mental and physical homeostasis, as well as improving sleep quality. The technology is inexpensive and does not place a financial or time burden on participants.

Researchers were able to successfully demonstrate that an energy-based wearable technology is effective in addressing multiple anxiety presentations, allowing the body to mobilize resources to address other health concerns.

# Reliably Recording Videos of UAPs/UFOs: A New Approach that Works

Courtney Brown

FARSIGHT Atlanta, Georgia

Introduction: New camera technology, when combined with novel video editing techniques, enable the video recording of UAPs/UFOs both reliably and repeatedly. Recent discoveries using appropriate equipment and processing approaches have revealed that UAPs/UFOs are present in enormous numbers, virtually everywhere, all the time. They nearly always employ cloaking or stealth technology to hide their presence, but that technology can be overcome with new equipment and editing approaches. Any 10-minute recording done in the middle of the day can normally reveal numerous UAP/UFO crafts. Many crafts are close enough so that one can clearly see the shapes and movements. The speeds are often upwards of 20,000 mph (32,000 kph), so specialized recording approaches are clearly needed. The basic camera requirements to do this are to use high frame rate cameras that have been converted to full spectrum, and then to apply an infrared filter. The cameras used in Farsight experiments are Panasonic Lumix GH6, and they have been converted to full spectrum by LifePixel.com. The infrared filters used in our experiments were 590 nm and 830 nm. The footage must be captured using 120 fps, since

the crafts move so quickly. Finding the footage with the UAP/UFO crafts is then done using video editing software that allows one to dramatically slow down the playback so as to locate the moving vehicles. Rendering the footage to allow the playback to be uploaded to social media or included in normal video presentations requires additional steps. But the result is unambiguous, and fully replicable. Courtney Brown will bring to the SSE presentation a camera that has been modified to make such videos. He will demonstrate how this is done, and he will demonstrate with an appropriate laptop computer how to locate the UAP/UFO appearances in the footage, as well as how to do basic editing of this footage so that the results can be posted to social media. Methods are applied to rule out bugs, normal human aircraft, birds, and other aerial phenomena in the footage.

**Methods:** The methods used employ digital videography using cameras that can record at 120 fps in infrared. The editing software used at Farsight to locate the UAP/UFO phenomena is Adobe Premiere. The videos are recorded using the STANDARD video setting (not monochrome or log). Methods to estimate speed include two approaches. The first is to use external elements, such as clouds, trees, rooftops, standard aircraft, etc., to estimate the speeds in mph or kph. The second method is to use a body length per second measurement, where the distance traveled by the UAP/UFO is measured in terms of its own body length.

**Results:** Dr. Brown will show numerous examples of UAP/UFO video recordings taken with Farsight's own cameras and processed using Farsight's own computers.

**Implications / Discussion:** No longer do people have to rely on others to demonstrate that UAP/ UFO are real. Now anyone using appropriate equipment and processing methods can repeatedly and reliably make their own high-quality video recordings of UAP/UFO vehicles.

### How to Respond when You Encounter a Maverick Scientist

James Houran, Patrick Huyghe, Chantal Toporow

Moderator: Garret Moddel

An issue that confronts many of us who are engaged in maverick science is how to respond with a critical mind and a compassionate heart when we encounter scientists – from students to established researchers – who come to us with their maverick science ideas. Several challenges arise:

- How to distinguish the promising ideas from those that are totally implausible
- What advice to give people with good ideas on how to deal with scorn or suppression from the mainstream
- How to diplomatically respond to people whose ideas appear to be ungrounded or outrageous
   We will discuss these matters and field-related questions and comments from the audience.

# Presidential Address Know Your Magnetic Field

Margaret M. Moga

Indiana University School of Medicine, Terre Haute, IN, USA

Know Your Magnetic Field is a book written by an anonymous nurse in conversation with a gifted, yet enigmatic, healer named William E. Gray. He viewed his work as healing nerve tension and irritation, leading to an enhanced magnetic field, with greater health and life satisfaction. In the present talk, we examine healer insights and clairvoyant views of the human body and attempt to correlate these observations with scientific studies of healing.

The literature on healer and meditator experiences was examined for descriptions of energy sensations and internal energy movement. Scientific studies of human bio-emissions, including those of the author, were compared with these felt sensations, to help develop hypotheses for future experiments in healing.

The magnetic field of the human body is large enough to be detected 5 feet away (HeartMath website), unlike the electrical activity of the heart and brain, which require surface electrodes. Experiments involving environmental magnetic field recordings during energy healing and other bioenergetic activities show a characteristic charge-discharge process. Magnetic field discharges are described by healers as "releases". Green et al. (1991) observed that the body voltage potential of healers increases dramatically during healing, in some cases, surging to 5 volts and then discharging. These two types of measurement, magnetic field recording, and body voltage potential, show a similar process occurring in the human body as a whole. Kundalini meditators report energy movement and extreme heat in the body, which may be due to increased current and body voltage potential. Based on their analysis of a Spontaneous Human Combustion (SHC) artifact, Benford and Arnold (1997) speculated that the energy of Kundalini and SHC may be subatomic in nature and involve neutron/proton emission. A subatomic basis of healing has also been proposed by Kronn (2021), based on the work of healer/researcher Dr. Yan Xin, who was able to significantly alter the decay rate of a radioactive element Am-241 (Yan et al., 2002). Thus, healers may be able to alter the weak force, which acts within the subatomic nucleus of an atom.

Healing and bioenergetic activities of the body may involve both electromagnetic and subatomic mechanisms. Magnetic field strength and voltage potential of the human body may be indicators of patient health. Knowing the energies of the body, how charge is built up and released, could guide patients in their relationships and in maintaining their own health. A subatomic mechanism could be tested by measuring proton and neutron emission during healing and/or kundalini activation.

# Nonlocal Anomalies in Physics and in Psi Point to a Cosmic Hyperdimension of Consciousness-Energy

Chris H. Hardy

Eco-Mind Systems Science Seguret, Vaucluse, France

Introduction: Anomalies often signal a yet unknown facet of reality, but rarely do they stem independently from physics and consciousness studies while pointing to the same solution. Synchronicities (including psi) and the collective unconscious led Jung and Pauli to postulate a reality deeper than Quantum Mechanics (in Pauli's dream) blending psyche and matter/energy—acausal, trans-spatial, trans-temporal, meaning-laden, where dwells the Self (in Jung's terms), i.e., nonlocal and beyond-spacetime/matter.

**Presentation:** Nonlocality in physics is evidenced in the entanglement, the sub-Planckian region (and astounding Planck-scale energy), the non-matter "dark energy," and the tachyonic speed of the inflation phase. Similarly, many research data show that psi mental processes are nonlocal, contradicting EM/spacetime laws, thus demonstrating consciousness/mind to be both beyond–spacetime and beyond–brain-locality. Taken together, these anomalies point to a hyperdimension of cosmic consciousness, filled with an enormous non-matter energy instantiating hyperspeed.

The Infinite Spiral Staircase Theory (ISST, Hardy 2015) posits a triune hyperdimension (HD), with hyperspace (Center-HD), consciousness (semantic or Syg-HD), and hypertime (Rhythm-HD)—opening at, and operating below Planck scale—both at the origin and in any particle/system. The CSR-HD is thus both compact and coiled (in all particles/systems) and a bulk surrounding and pervading the matter-universe (Randall-Sundrum model-2). Thus, all bio/matter-systems, at all scales, have a superposed HD sygfield (complex dynamical networks + whole system's information), self-organized by syg-energy (tachyonic hyperfrequency sygons) via spontaneous network-links triggered by semantic proximity/similarity.

ISST is thus a pantheist framework, one positing a creative, interactive proto-consciousness in all systems, and a self-referent, self-conscious HD-subject in intelligent beings—the Self (Jung's supraconscious subject of the personal unconscious). Syg-energy sets the spontaneous and meaningful interconnection with other syg-fields, whether mind-mind (telepathy), mind-system (remote-viewing), or mind-future event (precognition). Furthermore, any syg-energy interconnection implies an inter-influence, with one syg-field possibly imposing a reorganization of the other one (modulated by parameters, e.g., syg-proximity, intensity), as in bio-PK and DMILs conclusive experiments.

**Implications:** But ISST also portends maverick hypotheses, like:

IF any particle/system has a HD-syg-field (and given the wave-particle duality), THEN the wave component of quantum processes instantiates hyperdimensional dynamics (whereas the post-collapse particle-system is embedded in spacetime), thus grounding weird quantum behaviors, such as retrocausality, superposition, nonlocal entanglement... Accordingly, in Schrödinger's wavefunction, the su-

perposition would reveal the HD sygon-waves that, beyond reflecting environmental constraints, could alternatively be sent forth by a mind/intention. This, in turn sheds a new light on David Bohm's Pilot Waves—proposed as guiding the wavefunction via the Quantum Potential (Q), precisely a *nonlocal term*. In ISST's framework, Q would be, by itself, an interfering HD Pilot-Wave, steered by cosmic syg-energy and/or individual minds/Selfs generating it, thus allowing for a mind/intention to influence and reorganize the (observed) system (provided syg-parameters), as evidenced in the observer/experimenter effect and in bio-PK.

As for the entanglement, *IF* we consider the paired particles with opposite spins (which are issued from a unique source) as sharing a single syg-field from birth, *THEN*, their interlocking via the HD and syg-energy is impervious to their spatial distance and actual spacetime coordinates.

### Anomalous Energies of Oak island, nova scotia

Tim Loncarich, EarthSense

Bridgewater, Nova Scotia, Canada

For 228 years, the mysterious Oak Island in Mahone Bay, Nova Scotia has been the scene of a sustained treasure hunt and anomalous phenomenon. Apparitions, battery depletion and electronics malfunction, spirit attacks and energetic encounters, and luminous objects are experienced on the island on a regular basis. Only in the past ten years has the investigation of the mysterious island shifted to a more scientific approach.

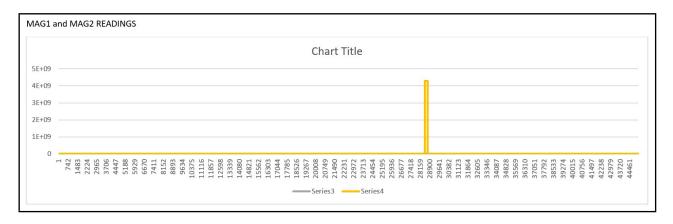
Independently and under contract to the production company for the *History* TV series, *The Curse of Oak Island*, Tim Loncarich and his company, EarthSense, conducted energetic studies using magnetometers, gravimeters (capacitance), voltage meters, gamma spectrometer, and other instruments and sensors to measure energetic anomalies on the island. Dousing was used to identify major magnetic (ley) lines.

Unattended batteries were quickly depleted at some locations on the island but not at others. The magnetic strength of a megalithic arrangement of large boulders named Nolan's Cross spikes during the overhead passage of the constellation Cygnus (which the cross resembles) and exhibited unusual magnetic and gravimetric activity during solstices. The center stone emits a magnetic heartbeat-like signature every 30-45 minutes. An energy vortex generates reversing telluric currents just before disabling electronic instruments. There are several locations where electronic instrumentation is mysteriously shut down but works fine a meter away.

Professional archaeological investigation on the island has uncovered European artifacts dating from as far back as 200 AD with indications of possible religious rituals performed at stone structures. Off-the-record evidence of a possible Aztec presence has also been detected. Stone walls that mix

slate with granite appear to have an energetic function. A stone, gravel, and sand construction deep in a swamp also generates strong energetic anomalies.

The island appears to have some sort of sophisticated constructed energy system of unknown purpose that reacts to and may interact with astral bodies. Archaeological evidence suggests that multiple non-indigenous cultures may have visited the island as a sacred site for at least 1,800 years. Magnetic data suggests that there are deep tunnels passing under the island.



**Fig. 1** The center (head) boulder of Nolan's Cross demonstrating a magnetic spike during the overhead passage of Cygnus.

# Brainworks: The Emergence of Consciousness in Brain, Body and Cosmos

James E. Beichler

Retired, Independent Researcher, Research Institute for Paraphysics

Any valid theory of consciousness necessitates a contextual theory of physics for a complete understanding of the nature of consciousness. The problem is twofold: An inability to properly define consciousness that leads to verification and an inability to develop a theoretical model of how and why the brain gives rise to the emergence of conscious awareness. By taking a wholly new approach founded upon the single field (SoFT) unification of physics, which has already been used to define and model life (the biofield), mind and consciousness within the context of a truly unified field theory, a model of how the brain works from sensation input to memory storage and recall, to building and storing complex memories, all the way up to and through the formation of self-concepts and worldviews, as well as the whole-brain resonance necessary for simple cognition, and beyond to whole-body coherence representing the manifestation of higher consciousness in the body.

**Hypothesis:** A body (life-force or biofield) of an organism is its Matter/Energy-field, Mind is its Electric-field and Consciousness is its Magnetic-field. But the magnetic field has two distinct parts in the scalar B-field (common cognitive consciousness) and the vector A-field (subliminal higher consciousness). The brain is only the functional center of Mind because of the density and complexity of neural nets, the workhorses of our cognition. Heart is the functional center of Consciousness because it has the strongest magnetic field in the body. Our higher Consciousness is our direct connection to the oneness of the universe through a virtual pre-consciousness potential field resulting from the fundamental nature of the discrete quantum points that collectively guide the evolution of life and the universe as a whole.

Relevance: The discipline of psychic studies was converted to parapsychology in 1930 when new lab techniques based on statistics and probability theory were used to explain ESP and similar phenomena of direct mind-to-mind or mind-to-material world contact. But the apparent probabilistic nature of paranormal phenomena reaching whole-brain cognition, though conscious mind of the recipient, is more a factor of intensity of the phenomenon, which depends on the importance of the paranormal signal to the person receiving it. It would normally just remain too weak a signal in the subconscious mind, and therefore, there is nothing probabilistic about the paranormal as thought. Despite the inherent downplay and abridging of the paranormal over the decades, it was bound to make a comeback because the paranormal is real and would not go away. So, new interests in the scientific concept of consciousness merged slowly by the 1970s and thereafter, when physicists became interested in PK phenomena, remote viewing (planned, directed, and purposeful clairvoyance), and other so-called psychic phenomena. They even referred to such phenomena as 'anomalous' rather than psychic or paranormal hoping that no one would notice, but changing the name of a thing does not change the thing itself in any way. Studying consciousness instead of the paranormal does not change anything, it just recognizes the truth that what is considered paranormal, including the afterlife and communication with the afterlife, is still a natural feature of consciousness and our world of physical reality.

As more and more scientists in general and physicists, in particular, became interested in consciousness during the last decades of the twentieth century, a new branch of science that brought physics and neurology or neurophysiology together began to develop with graduate degrees offered in the new academic discipline by the end of the first decade of the twenty-first century and labs dedicated to physics of the brain or neurophysics. One side is far too general and hands-on in its reductionistic approach and the other is far too esoteric and flighty, thinking only in the most general of terms, in its approach to understanding the brain and consciousness. That separation of approaches to essentially the same problem all changes below in the following theoretical model of how the brain functions based on a theoretical and a purely physical field-model of life, mind, and consciousness within a more comprehensive and truer physics and context of our experienced material/physical reality.

# Could Neutrinos Play a Part in Quantum Biology? Exploring Potential Neutrino Wave Signatures in Living Systems: Implications for Energy Medicine and Psi

Debra D Overberg<sup>1</sup> & Dominique Surel<sup>2</sup>

<sup>1</sup>The Golden Yolk and Medicine Massage, LLC Westminster, CO, USA <sup>2</sup>Dominique Surel, PhD, Evergreen, CO, USA

Quantum biology has revealed that classical physics alone cannot fully explain the intricacies of biological systems. Quantum phenomena, such as quantum tunneling, superposition, and entanglement, have been proposed to elucidate specific biological processes like photosynthesis, magneto-sensing, and olfaction. Quantum coherence and field theory might also contribute to long-range biological communication, akin to lasers, Bose-Einstein condensates, and superconductors. Recent evidence of room temperature Bose-Einstein condensates further supports this notion.

Biological systems are known to possess strong electromagnetic fields across cell membranes. These fields may interact with neutrino fields through the electroweak field theory, which combines the weak (neutrino) force with the electromagnetic force. Given the heightened coherence and energy levels in biological substances, an affinity between neutrinos and biological systems may exist and support self-organization.

Quantum biology is a complex emerging field often relying more on theoretical models than direct evidence currently. So, this may be an opportune moment to consider the potential role of neutrinos in the observed or speculated quantum effects.

### Dispelling the Notion of Neutrinos Acting as Particles Only

Firstly, it is crucial to acknowledge that neutrinos have now been found to exhibit wave interactions, in addition to the well-known particle interactions. Neutrino particle interactions have a very small cross-section, so are dismissed as not interacting with our day-to-day world. However, recent experiments have confirmed their more frequent wave-scattering interactions. This challenges the prevailing thought form of neutrino physics and may have significant implications for quantum biology.

### **Detecting the Elusive Ghost**

Neutrinos are nicknamed "ghost particles" due to their elusive nature, as they cannot be directly detected. Instead, neutrino interactions are inferred from their signatures, which are detectable. It's comparable to tracking an animal's footprints without ever glimpsing the animal itself. We will explore some of these footprint-like signatures, informally referred to as zap, flash, ping, and burn.

#### **Could Neutrinos Provide Answers to Anomalous Phenomena?**

Many perplexing questions remain regarding the mechanisms underlying energy medicine, distant healing, and psi phenomena. While substantial data correlate with measurable electromagnetic effects, electromagnetic fields quickly diminish over distance and cannot penetrate shielded enclosures. Therefore, it is evident that electromagnetic forces are not the underlying cause. Furthermore, certain biological phenomena, like delayed bioluminescence, and nearly 100% energy efficiencies in living systems, are not well understood. Could neutrinos be involved in these areas?

#### **Neutrinos: Ubiquitous Energy**

Invisible neutrinos continuously bombard living systems, raining down from the Sun at a rate of 65-70 million neutrinos per second per square centimeter. According to Fermi National Labs, "roughly a thousand trillion neutrinos pass harmlessly through your body every second." Hence, neutrinos are at least incident upon living systems. However, they have yet to be tested to see if they interact with biological systems.

In conclusion, we propose investigating neutrinos as a known quantum particle available to biology, capable of carrying energy coherently, to advance our understanding of quantum biology.

### **Depression is an Anomaly (for Materialists)**

#### J. Kenneth Arnette

Transpersonal Institute for the Scientific Study of the Paranormal

**Introduction**: Anti-depressant (AD) medications appear not to work very well and present a sequence of puzzling problems: side effects, a long latency period before recovery, an uncertain theoretical foundation for psychopharmacology, the high relative efficacy of placebos, and the generally low efficacy of ADs. Behind these empirical and scientific problems lie a host of ethical issues within drug development: publication bias, conflicts of interest, ghost authorship, and informed consent.

**Method**: I reviewed the literature carefully, and used the following questions for my review: how are AD candidate drugs developed in the laboratory; how are the candidates tested on humans; what are the procedures for conducting clinical trials; what factors interfere with clinical trials; what are the typical results of such trials and how does the FDA evaluate trials; and how do these factors play out in routine use of the AD by the public?

**Results**: (1) there is no reason to believe that ADs should be effective for humans, given their origin in rodent research; (2) the placebo effect rivals the drug effect, showing that ADs are ineffective; (3) drug companies and doctors unethically continue to push the use of ADs; (4) analyses from science and the philosophy of science show that ADs are scientifically unsound; and (5) ethical analyses demonstrate that ADs are ethically intolerable.

**Discussion**: My analysis indicates that the monoamine (serotonin) hypothesis regarding the nature of depression is unsupported by the evidence. When such drugs seem to work, the improvements are, in fact due entirely to the placebo effect. The so-called active drug merely provides side effects, which ironically serve to convince the patient that the drug is actually doing something, thus producing the placebo effect. The side effects are mostly symptoms of depression itself because the drug is ineffective against depression. Thus, the latency period (around two months), after which the drug appears to begin working, is instead due to the cyclic nature of depression—after a serious bout, mood tends to move back in the direction of normal mood with no assistance from the AD.

**Conclusion**: There are deep implications for psychiatry, psychology, and philosophy. The primary implication is this: if one holds to the mind-brain identity thesis—that the mind is what the brain does—then how does one explain how a healthy brain generates a diseased mind? We can rule out the brain's role in depression because no drug has succeeded in defeating it. The direct meaning of this is that depression is a disease of the mind, not of the brain, and thus the mind-brain identity thesis is refuted; with the same stroke, materialist explanations of consciousness are refuted. And for the materialist, depression becomes an anomaly because it cannot be explained in terms of material causation. This gives the mind an independent ontological status—it does not depend on the brain. This point of view is called interactive substance dualism, first proposed by Descartes, and forever thereafter hated by almost everyone.

### Mavericks Developing a Science of the Subjective

C.M. Chantal Toporow

SSE Education Officer Altruistic Engineering Consultancy, Redondo Beach, CA

Science, at present, is overwhelmingly driven by objective methodologies, causing a sort of myopia when looking at "inexplicable/anomalous/paranormal" events. Goethe's work elucidates more subjective scientific methods, which, though pushed aside by the then-dominant Newtonian objective science, are equally enduring and valid as we move forward in balancing our subjective and objective views of the world around us (Amrine, F., & Zucker, F. J.,1987; von Goethe, J. W., 1988). Only through this amalgamation of apparently anomalous events, (random yet synchronous) with those which are the standard "predictable and repeatable", can we begin to fully develop our understanding of the inherent nature of the interconnectivity of knowledge. This objective/subjective duality must be balanced out in order to reap the vastness of exceptional human experiences, many of which are totally unrepeatable and exceedingly extraordinary.

It is critical for the scientific community to realize that "…scientists, despite their conclusions, are still very far from creating a full-fledged theory of dimensions because, in the study and description of the higher dimensions, they use the tools of the world of the four dimensions (x,y,z,t) and the five-sense percep-

tions. It is like chasing the horizon, the faster we get closer to it, the faster it moves away from us. In order to break through to higher dimensions, you need, at least, to go beyond the limits of your own perception. To overcome these obstacles, methods are needed that would seem to scientists to be completely "unscientific..." (Tkhinvaleli, D., In Press

Our SSE founders Robert Jahn and Brenda Dunne wrote extensively on this issue (Jahn, R.G., Dunne, B.J., 1997, 2011).. Dr. Jahn's marching orders to the PEAR (Princeton Engineering Anomalies Research) Academy of Consciousness, the SSE, and to the world, was to develop and establish the science of the subjective. They wrote: "The challenges of quantitative measurement and theoretical conceptualization within such a "Science of the Subjective" are formidable, but its potential intellectual and cultural benefits could be immense, not least of all in improving the reach, the utility, the attitude, and the image of science itself." (Jahn, R.G., Dunne, B.J., 1997)

#### References:

- Amrine, F., & Zucker, F. J. (1987). Introduction. In F. Amrine, F. J. Jucker, & H. Wheeler (Eds.), *Goethe and the sciences: a reappraisal* (pp. xi–xvi). Dordrecht: Reidel.
- Jahn, R.G., Dunne, B.J. (1997). Science of the Subjective Journal of Scientific Exploration, 11:201–224, 1997.
- Jahn, R.G., Dunne, B.J. (2005). The PEAR Proposition, *Journal of Scientific Exploration*, Vol. 19, No.2, pp.195-245.
- Jahn, R. G., Dunne, B. J. (2011, June 9). *Towards a Science of the Subjective,* https://www.scientificexploration.org/videos/towards-a-science-of-the-subjective
- Tkhinvaleli, D. (In Press). The Laws of Nature.
- von Goethe, J. W. (1988) The experiment as mediator between object and subject. In D. Miller (Ed. & Trans.), *Goethe: scientific studies* (pp. 11–17). New York: Suhrkamp Publishers. (Original work published 1823).

### Our Mind is Formed outside of Our Body

### Olga Strashun

Co-founder of Strashun Institute, Toronto, Canada

Our interest today is our Chakras, which I call Energy Centers. It is a very intriguing, complex system; nobody knows how it works. I'm not able to explain it too. I'm neither a physicist nor a scientist; I'm a practitioner trying to figure out how we can use information coded in this system for our benefit, because the awareness of these structures gives us tools for a better understanding of our place in the world, how our mind works, understanding of ourselves and others.

On top of the five senses, we possess another system for accessing information which consists of seven Energy Centers that look like ice cream cones with tips inside the Energy highway along the spine,

penetrating our body and passing into the Energy Field. The parameters of the cones' diameters on a skin level, and how far into the EF each of them go, carry important information.

- Each Center functions as a receiver and a transmitter. We are surrounded by the ocean of vibrations. As a receiver, each Center is tuned into a specific range of vibrations. The clearer the reception of signals, the more accurate information our brain will get. The accuracy depends on how well the receiver is developed, which is reflected in its diameter. The quality of information is somehow shaping our response to it, forming our nature. As transmitters, they send information about us into the world of Subtle Energy.
- I believe that Centers carry a "genetic" code of who we were at the end of our previous life. We start our new journey with abilities, liabilities, and predispositions coded in our Centers.
- This system doesn't have a direct connection with organs or endocrine glands geographically related to them (this is why Chinese medicine doesn't mention Chakras).
- We will talk about what each Center is responsible for developing in us.
- Energy Centers could be looked at as a blueprint for the way in which we turn as human beings.
- We can train ourselves to analyze Energy Centers. I call it Subtle Energy Profiling. It shows, like no other method, the personality traits of people even without knowing them.

At the lab, I participated in experiments using holograms of patients' organs in the evaluation of their health, without talking to them. What was even a heresy to think about, proved working. I became fascinated with holographic methods. Coming to Canada, I started to look for ways to make the lives of clients balanced and more fulfilling. I needed to understand people better. Energy Centers carried answers to my questions, and I started my research on them, using holographic methods that helped to understand how different levels of Centers development correlated with differences in personality traits.

The evaluation of Energy Centers as structures where our mind is formed, is the model that I'm using successfully in my practice of Wellness Counselling and daily life for over 20 years.

#### The New Quantum Medicine in The Regeneration of Heart Cells

Flavio Burgarella

Heart Friends Around the World Strada della Boffalora n 1, Bianzano, (BG), Italy Istituto Clinico Quarenghi, San Pellegrino Terme, (BG), Italy

**Introduction:** One of the topical issues in cardiological research is the possibility of treating heart failure through multi-potent stem cells which are present in the heart. The DNA of these cells requires

appropriate information, which can be received epigenetically through the Burgarella Quantum Healing (BQH)® model, a cognitive bio-quantic noetic vibrational model of life with the purpose of healing. Thanks to BQH, we can teach patients how to use three parameters of quantum physics such as Entanglement, Discontinuity, and Intricate Hierarchy, in prevention and recovery.

The energetic ability in the Burgarella Quantum Healing (BQH)® model consists in perceiving clockwise or counterclockwise "spin fields" to which we can attribute a meaning of opposite states, such as harmonic or disharmonic. They represent the perception of an "informed conscious energy" closely related to consciousness, which is, according to quantum physicist David Bohm, wherever we want it to be.

In BQH it is also possible to send magnetic scalar waves obtained by canceling two opposing electromagnetic fields, such as those formed by the passage of oxygen-poor, paramagnetic blood into the right heart chambers and oxygenated, diamagnetic blood into the left heart chambers. The meeting of opposing magnetic waves tends to cancel them, but since, in nature, energy is neither created nor destroyed, but is transformed, it is possible for electromagnetic waves generated by the passage of blood inside the heart to originate longitudinal waves, i.e. scalar magnetic waves. These waves spread in the human magnetic field and represent the way in which cellular communication takes place through DNA, beyond time and space. They are waves invisible to common senses, but perceptible and usable by all those who have done some training with me.

The message that these waves can send to DNA is obtained through storytelling, which in BQH represents the dialogue between the Self, holographic of the All-encompassing Field of Consciousness, and the unconscious mind, through the telling of fascinating stories which, being totally unfounded, overcome the control of the conscious ego, severe representative of the rational mind. The succession of episodes of a fantastic imagination, aimed at cellular regeneration, thus allows information to be channeled through DNA with the intention supported by the unconscious mind in supporting cellular regeneration.

We started this study with satisfactory preliminary results regarding the improvement of left ventricular contractility following myocardial infarction.

The research could have enormously important results due to the fact that heart failure patients can subsequently take care of themselves by themselves, alongside the recommended pharmacological or electrical therapy.

## Uncovering Subjective Meaning: Developing an Open-Sourced Database of Images for psi Research and Beyond

Damon Abraham<sup>1</sup>, Julia Mossbridge<sup>2</sup>, Cédric Cannard<sup>3</sup> & Helané Wahbeh<sup>3</sup>

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It is not always clear what makes an ideal (or poor) target image for use in experimental research and applications. For instance, many have speculated that beyond the image's contents or specific objects represented, certain psychologically meaningful subjective dimensions, such as its interestingness, numinosity, or emotionality, etc., may be predictive of remote viewing (RV) success or could explain some instances of displacement effects. Yet, aside from anecdote and speculation, the systematic empirical validation of these dimensions has been somewhat limited.

In collaboration with researchers from The Institute for Love and Time (TILT) and the Institute of Noetic Sciences (IONS), we are developing an open-sourced database of images for use in parapsychological and traditional psychological research. Our aim is to generate normative ratings for approximately 3000 unique images across 18 subjective dimensions (classes), which will facilitate a deeper understanding of these idiosyncratic nuances and their potential impact on RV success and psychological processes.

The 18 classes include Abstractness, Animacy, Awe, Conceptual Complexity, Embodiment, Emotional Valence, Emotional Intensity, Interestingness, Likelihood (Hypothetical Distance), Movement, Natural, Numinosity, Visual Perspective, Physical Distance, Sensory, Social, Temporal Distance, and Visual Complexity. The selection of these classes was informed by a comprehensive review of existing literature and consultations with domain experts, ensuring a robust and relevant range of attributes.

Subjective ratings are collected from a diverse participant pool, comprising university undergraduate students, community volunteers, and paid Amazon Mechanical Turk (mTurk) workers. Using a sliding numerical scale, participants rate 80 images chosen from the database. High and low values on this scale represent stronger or weaker endorsements of the particular attribute under assessment. The 18 categories are split into three distinct sets of six classes, using a counterbalanced order design, and participants make 6 unique ratings for each image. To ensure the reliability of the ratings, multiple participants provide ratings for the same image.

The first phase of this project will yield the normative mean ratings and distribution characteristics of the 18 classes for every image. The resulting database will enable researchers to select stimuli for their experiments based on specific subjective properties, allowing for more refined and targeted experimental designs. Additionally, it will facilitate research to validate these dimensions as potential predictors of RV success. For instance, researchers may investigate whether RV sessions are more likely to result in a hit when the target has a higher normative numinosity rating relative to a decoy image. Furthermore, the database will serve as a valuable resource for studying the relationship between subjective dimensions and other psychological phenomena, such as memory, perception, and attention.

In this lecture, I will discuss further potential applications of the database and address some of the theoretical basis and inspiration for the project. I will also discuss implications of this work in fields beyond RV such Artificial Intelligence and Machine Learning. Planned future directions and next phases of the project will also be considered.

### **Call for Resurrection of Teaching Sensation and Perception Courses**

Margaret Lutze, PhD Chicago, IL USA

When I started teaching 25 years ago as an adjunct professor at universities in the Chicago area, many Psychology Departments had requirements for students to take Sensation and Perception classes, and I was often asked to teach these classes. Throughout the years, these departments dropped the classes on Sensation and Perception as well as classes dealing with the brain and behavior or biological psychology because the full-time faculty had other interests. Historically, however, Sensation and Perception classes were required courses for a degree in psychology. Indeed, psychology as a discipline began with the study of the senses and how they related to perception.

Perceptions are the basis for our concepts of the material world, and we describe "reality" according to our perceptions, and many have refused to accept the possibility of any reality beyond the material world we perceive. As one of the most exciting developments in science, since the time of Einstein and colleagues, physics has begun to provide us with information that says reality goes far beyond the material world we perceive. We are living in a time when new ideas are continually being presented about time, space, and consciousness.

Here I argue that the loss of an education in Sensation and Perception is a great mistake. Likely, most do not realize how this information is very important in today's world. It is important to recognize how the new ideas about the universe and reality have taken us beyond the material world of Newtonian physics. Yes, Newtonian physics remains important for building bridges and navigating in our world, but we now know there are laws and relationships that exist beyond Newtonian laws. We now have hints about a reality that is difficult to imagine and suggests a new understanding of consciousness.

The new concepts that are being brought forward by physicists and others are hard to grasp and can also be unsettling. It is hard for people to let go of their grip on a material world as described by Newtonian physics. It can be made easier, however, with knowledge of the limits of sensory systems and how they present us with only "slices" of information about certain energies. Understanding our universe through new physics must be complemented by an understanding of sensation and perception. I, therefore, call for a renewal of interest in educating university students and the general public about sensory systems and perception and how they are limited. There is likely much more to the universe and reality than what we perceive with ordinary consciousness.

#### The Return of the PK Man

Jeffrey Mishlove

New Thinking Allowed

This banquet address will summarize a ten-year field study of Ted Owens (1920-1987), who performed many demonstrations of ostensible large-scale psychokinesis – or possibly precognition – involving, among other things, hurricanes, volcanic activity, lightning strikes, sporting events, and various disasters such as the 1986 Challenger explosion. Jeffrey will also present recent empirical evidence that, 35 years after his death, Owens may be attempting to continue such demonstrations from the afterlife. The recent study concerns weather patterns in Europe influencing the war in Ukraine.

### **ABSTRACTS OF PRESENTED POSTERS**

### Sidereal Period Calculated with the Earth's Forward Speed Around the Sun as a Proposed Theory of UAP Speed

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Recent videos and sightings of unidentified aerial phenomenon (UAP) have spurned the creation of the Unidentified Aerial Phenomena Task Force to standardize the collection and reporting of sightings of unexplained aerial vehicles previously termed unidentified flying objects (UFOs). The recent reports concentrate on the perception of observers of the object's speed viewed in excess of 13,000 (mph) and observations of maneuvers that appear to contradict known laws of physics. Unidentified Aerial Phenomena Spatial Distancing is a theory that is a reverse to which the basic concept is the UAP is not moving the observers of the UAP are moving. In this concept of speed, the consensus is the object is using a form of antigravity based on observations that the objects have no known method of propulsion. The objects have been observed to hover and then move at tremendous speeds to which, in a matter of seconds, they are out of physical visual sight and electronic surveillance. The perception of the observers is that the objects moved upward toward space.

This perception of the UAP moving upward may be accurate as the Unidentified Aerial Phenomena Spatial Distancing theory is based on the movement of the Earth related to the Earth's sidereal rotation and the Earth's solar rotation. These two rotations are known mathematically as the Earth rotates on its axis at a speed of 1,037 (mph). The Earth is moving through space in a solar orbit at a speed of 67,000 (mph).

Sidereal time is a time scale based on the Earth's rate of rotation, and this scale can be used to determine the potential speed of UAP related to an application of gravity. In essence, a person is moving within the Earth's sidereal motion at a speed of 5 football fields per second, and a person is moving within the Earth's solar rotation at a speed of 327 football fields per second. The Earth's solar rotation or the Earth's velocity around the Sun is shown as g = m/s2 = x g on the Earth's surface v = m/s = km/h = mi/h.

The two speeds are constant and affect everything on the planet to which a person physically located in the state of Indiana, USA is traveling, through time and space, at the same speed as a person physically located in the countries of: France; Japan; India; Egypt or Russia. In this concept, the person is not aware of the Earth's rotation speeds, and the person's perception is that they are standing still.

In this theory, there are two speeds and two directions. The theory was first proposed in the year 1970 and is not without support as Albert Einstein proposed that a person's perception of time and space is dependent on where they are relative to the object being observed. Unidentified Aerial Phenomena Spatial Distancing theory is based on the Earth's sidereal rotation speed multiplied times the observation time (UAPS1 = ESR \* OT) and the Earth's solar forward rotation speed multiplied times the observation time (UAPS2 = ESFR \* OT).

# Theoretical Examination of the Boundary in Living Systems Between a Quantum System and a Classical Biophysical Interface to Understand Fundamental Life Processes and Forces

#### Scott Marcus Koshland

The theoretical understanding of the biophysics that underlie life is a fundamental goal in science. Life is an integrated intelligent learning system. Life, as with all chemical reactions, has an underlying quantum mechanical basis at the atomic level. The developing science of Quantum Biology shows that biochemical activity has an underlying quantum mechanism. The recent advent of quantum computers has defined a mechanism for quantum computation that may help provide an understanding of the complex science underlying life and consciousness. Consciousness research from the likes of Hameroff and Penrose provides a theoretical quantum basis for understanding consciousness. Other researchers have proposed that the whole living system is essentially a quantum computer. The concept of quantum entanglement is essentially the generation of a system that creates a stored memory that can be measured or recalled. Quantum entanglement is used for storing encrypted codes. Memory is stored recallable information that is necessary for a living system. Entanglement is non-localized information and even exists out of time and offers an explanation of how memory can be stored through time. All the bio-molecular components of life are a physical memory for a functional operation like hardware in a computer. However, the complexity of bio-molecules within a living cellular organism presents a difficult problem for coordinating simple kinetic interactivity to create emergent life properties. Having an entangled memory of these interactions could create a template for organizing and coordinating

these interactions, even possibly forming non-local and non-kinetic emergent activity at the molecular level. This entanglement of biological memory is like the software that resembles Sheldrake's Morphic Resonance for the physical bio-molecular hardware. Although it is thought to be difficult in the cellular environment it is possible that this entangled bio-molecular memory can be generated by the resultant thermodynamic Gibbs free energy of the functional system operation in the cell.

The quantum memory imprints the physical emergent functional operation. Michael Levin describes an emergent bioelectric current that coordinates cellular morphogenesis. This bioelectric current allows cells to communicate in a higher order top-down emergent state controlling the overall development of the organism. This electric wave functions in the physical plane as the quantum entanglement memory functions in the quantum plane. These bioelectric wave functions are seen in the brain forming complex (EGG) patterns that, in a similar manner to cell development, generate the emergent bio-electric functions associated with consciousness.

The physical biochemical reactions in a living system involve energy, and entropic transformation serves to imprint the quantum entangled information. The interactions at the interface between the quantum/classical biophysical systems create the complex emergent intelligent processes of life. This interface between the quantum information memory space and the biophysical material plane is the life force or Chi. The Chi lifeforce is the meeting point for the biophysical material "hardware" and the quantum entangled informational memory "software".

### Posttraumatic Growth Following the COVID-19 Pandemic

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**Introduction:** The purpose of this study was to investigate the relationship between posttraumatic stress symptoms (PTSS), psychological well-being, and posttraumatic growth (PTG) in the context of the COVID-19 pandemic. The first hypothesis was that individuals with greater Positive Relations with Others would report higher posttraumatic growth. The second hypothesis was that people who evaluate the COVID-19 pandemic as significantly and negatively impacting their life are expected to report higher posttraumatic growth. The third hypothesis was that posttraumatic stress symptoms would be associated with lower well-being scores for those who report lower posttraumatic growth but not for those who report higher posttraumatic growth.

**Methods:** Participants were 242 adults with a mean age of 19.5. Participants completed a survey consisting of a demographic questionnaire, The Impact of Event Scale-Revised, the Posttraumatic Growth Inventory, and the Scales of Psychological Well-Being.

Results: The correlation between Positive Relations with Others and PTG was not significant. Re-

sults revealed that PTSS and PTG had a significant positive correlation. The sample was split into thirds using PTG scores, and regression and correlational analyses revealed a negative correlation between PTSS and well-being for the lowest third but not for the highest third. This research indicates that as PTSS increased, so did PTG. Further, PTG acted as a protective factor for well-being against PTSS.

**Implications / Discussion:** The results indicate that as PTSS increased, so did PTG. Further, PTG acted as a protective factor for well-being against PTSS. Increasing the knowledge base around PTG may be a means to improve mental health among adults is discussed as an implication of this study. This study strengthens our current understanding of PTG rates following the COVID-19 pandemic and deepens the current knowledge of how PTG can act as a protective factor for well-being against PTSS.

# Exotic technologies are not required to explain observed near ground and flight characteristics of many nonconventional flying crafts

#### Barry B Muhoberac

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**Introduction** Although more recent advanced "antigravity investigations" and "alternate propulsion methodologies" catch the attention of many, the research and technology developed from the 1930s through the 1960s are stunning in creativity, depth, and breadth. The flying wing and nuclear technology exemplify these achievements.

This presentation implies that many of the nonconventional flying crafts observed from this period with no visible external method of propulsion were not difficult to understand within the scope of open-source science and technologies then available, as listed below. These technologies may have been highly integrated for performance and shape optimization but are not exotic:

- 1. high voltage generation and control atmospheric ionization and motion
- spinning or rotation mechanism gyroscopic stability, atmospheric motion, and charge and magnetic field generation
- 3. ionizing radiation (electromagnetic or nuclear) enhanced and directed atmospheric ionization
- atmospheric fluid dynamics/magnetohydrodynamics controlled motion of charged and uncharged air

The visual observations and other characteristics of flying crafts, and the potential roles of associated technologies are presented below.

- High voltage charge and ionization effects are found with multiple craft sightings.
- Spinning or rotation are often observed on a portion of the craft itself, as spiral traces on the

ground, wind or trees rotating near the craft, and dust or heavier particles being lifted in a vortex below the craft.

- · Ionizing radiation and heat effects have been noted from ground traces and during flyover.
- Atmospheric fluid dynamics/magnetohydrodynamics is the obvious non-exotic form of craft lift.
   Although not reviewing the detailed science here, this presentation gives insight into the potential of combining standard technologies (1) through (4) into plausible forms of lift and propulsion prior to the well-publicized announcements in the mid to late 1950s of the university and aerospace corporation research thrust into "gravity control" technology.

**Methods**: Published summaries of close encounters and somewhat more distant observations were examined for commonality that pointed toward specific technologies. Occasional more specific but not often mentioned encounter details proved to be very important. These characteristics were reviewed by the author with respect to his scientific training and study to assemble them into a suggested working configuration of nonconventional craft lift and propulsion.

**Results**: The appropriate selection, application, integration, and optimization of technologies that were researched and developed between the 1930s and the 1960s could easily have been assembled into flying crafts of increasing performance consistent with many of the observational reports. Although disk-shaped craft would have been the easiest to construct, other shapes could also incorporate these technologies.

Implications / Discussion: Flight of various kinds of non-conventional crafts, as observed by many, need not rely on exotic technology but could have been constructed by the United States and other countries with the known technologies of the 1950s and probably earlier. Perhaps General Twining was correct in stating in his 1947 memo that it was possible within then present US knowledge, using extensive detailed development, to construct such a piloted craft.

# The social self: differences between individuals with and without a near-death experience

Meglyn Murphy & Imants Barušs

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**Introduction:** The purpose of the present study was to examine aspects of the social self in individuals who had near-death experiences compared to those who had not. NDEs are experienced during real or perceived life-threatening events and are identified as being transformative experiences, often with positive aftereffects. Changes in aspects of the self and relationships with others occur. Personality variables pertaining to the self were examined and included authenticity, self-monitoring, and mindfulness. The current study was novel, as no prior NDE studies have examined changes in the social

aspect of the self. Three hypotheses were explored. We hypothesized that individuals who had NDEs would score higher on authenticity and mindfulness, and lower on self-monitoring than individuals who did not have an NDE.

Methods: The current sample included 212 participants between the ages of 17 and 84. The NDE group consisted of 86 individuals and the non-NDE group consisted of 114 individuals. Participants were recruited through four platforms, which included psych 1000 undergraduate students at King's University College in London, Ontario; International Association for Near-Death Studies (IANDS); Spiritual Awakenings International (SAI); and The Consciousness Club Facebook group. Participants were directed to complete an online questionnaire that consisted of four Likert scales measuring authenticity, self-monitoring, mindfulness, and NDE. Additional demographic information was also collected.

**Results:** Results were analyzed using a MANOVA and regression analyses. The MANOVA was statistically significant, which revealed that there were significant differences between groups for some of the variables. Further exploration revealed that when considered by itself, a statistically significant difference was found between the NDE group and the non-NDE group for authenticity. Additionally, logistic regression analyses revealed authenticity as a predictor of whether or not one had an NDE, after accounting for age as a potential confound. Furthermore, individuals with higher NDE scale scores had significantly higher levels of mindfulness and authenticity than individuals with lower NDE scale scores. However, further analyses revealed that this relationship was due to age.

Implications / Discussion: One of the three proposed hypotheses was supported. Individuals who had NDEs reported significantly higher levels of authenticity than individuals who did not have an NDE. Interestingly, inconsistent with prior research, mindfulness was not significantly related to whether or not one had an NDE. It is important to consider the changes to an individual's identity influenced by an NDE, as it can provide insight into how transformative these events can be. Additionally, it is helpful in order to provide potential clinical treatment to individuals learning how to navigate a new way of life. Being the first known study to consider variables related to the self in NDE research, future studies should consider alternate personality variables pertaining to the self that might be impacted by an NDE.

### **Attributions for Anomalous Object Displacement**

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Introduction: The purpose of this study was to explore the relationship between attributions for AOD (Anomalous Object Displacement), psychological well-being, meaning, and levels of spirituality. Another purpose of this study was to learn more about AOD experiences, including the attributions given for them, the qualities of the experiences, and how they compare to other types of anomalous experiences. Anomalous Object Displacement (AOD) is the phenomenon of an object seemingly disappearing, moving to a different spot, or returning to the same spot it previously occupied without

anyone having moved it. AOD experiences were studied and compared to other types of anomalous experiences in ratings of profundity of these experiences. This study was conducted in an exploratory fashion because AOD experiences have not been studied in an academic setting; therefore, it is a new topic that has not been explored yet.

**Methods:** The sample consisted of 83 participants, collected in an unsystematic way from the course Psychology 1000 at King's University College in London, Ontario, as well as other participants from around the world who were part of various online groups, including the Consciousness Club and the King's Thanatology group. Participants were asked to complete a series of online questionnaires about their anomalous experiences, levels of spirituality, and psychological well-being. These questionnaires included Likert scale items, multiple-choice items, and text boxes.

**Results:** Eight hypotheses were tested in preliminary analyses of the data to discern the psychological aspects of anomalous object displacement. A more open investigation reveals that anomalous attributions for AOD experiences are significantly positively correlated with psychological well-being. Spirituality was found to be significantly positively correlated with anomalous attributions for AOD experiences. Information about the qualities and circumstances of AOD was gained, including how frequently AOD occurred for participants, how long ago the experience occurred, the size of the objects that moved, the personal significance of the objects, and how the experience made the participant feel.

Implications / Discussion: Lessening the pathologizing of anomalous experiences and beliefs for otherwise healthy people is discussed as an implication of this study. AOD experiences should be further studied to examine the mechanisms for which anomalous attributions for AOD and psychological well-being are positively correlated. The relationship between these two variables, psychological well-being, and anomalous attributions for AOD, could provide insight into the importance of one's subjective perception of AOD (i.e., attributions for AOD) for increased psychological well-being.

# Simple thermodynamic analysis of the temperature changes in a cia-archived experiment reported in china

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**Introduction:** The CIA's declassified archive (https://ia801208.us.archive.org/1/items/CIA-RDP96-00792R000300040002-9/CIA-RDP96-00792R000300040002-9.pdf) translated a literature originating from China concerning an experiment of psychothermal manifestation, which was reportedly conducted on an aqueous object (Wu et al, 1991). The temperature of approximately 5 ml of water contained in a test tube that was held in one hand of an individual of psychoenergetic claim was monitored with a semi-conductor temperature sensor having a time resolution of 0.2 seconds. The single figure in the report registered the water temperature over a duration of approximately 208 seconds, covering the claimed tasking

of the psychoenergetic individual. The water temperature rose 27 °C over the baseline temperature of 25 °C in approximately 52 seconds, then fell 27 °C back to the baseline in approximately 142 seconds.

The rising phase could separate into three consecutive stages differing in the patterns of temperature change: one lasting 30 seconds with a temperature rise of 1 °C, one lasting eight seconds with a temperature rise of 22 °C, and one lasting 14 seconds with a temperature rise of 4 °C. Likewise, the falling phase could split to four cascaded stages of differing patterns of temperature change: one lasting 57 seconds with a temperature drop of 15 °C, one lasting 63 seconds with a temperature drop of 3 °C, one lasting 19 seconds with a temperature drop of 6 °C, and one lasting three seconds with a temperature drop of 3 °C. One of the three stages of the rising phase and three of the four stages of the falling phase revealed apparent small and slow oscillations that overlayed upon the global patterns of change. The oscillation in one stage of the falling phase even manifested a frequency relaxation.

The dynamic patterns of the temperature changes as reported, rising and falling phases combined, could not be accounted for by local means of energy source and source-free rates of heat-dissipation.

**Objective:** This work attempts to analyze the patterns of thermal energy transfer that could have happened to the test object, causing the reported temperature changes, based on the thermodynamics principle.

**Methods:** A non-adiabatic thermal system may lead to a first-order low-pass transfer response between the thermal energy input and the temperature change. The time constant of the transfer response characterizes the heat dissipation rate, whereas the input determines the steady-state condition. By keeping the transfer response as first-order but adapting the time-constant, thermal-energy inputs specific to the individual stages of the rising and falling phase differing in polarity, DC-amplitude, AC-amplitude, and AC-frequency are implemented to simulate the resulted temperature changes.

**Results:** The simulated course of the temperature change was examined grossly against the literature figure in tuning the parameters. One rising stage and three falling stages containing small oscillations were fitted with harmonic patterns having frequencies in the range of 0.3-0.5 Hz.

**Implications / Discussion:** The oscillations of the inputs in 0.3-0.5 Hz entail neurophysiological association considering the possibility of aliasing in temperature sampling. Should the low-frequency patterns be caused by energy input, other derivative forms of the energy input may be pursued for confirmation.

## Social Miasm Theory: A Revisitation of Chronic Illness from a Meta-Perspective of Suppression

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A miasm is a multi-generational, complex, chronic illness through a perspective of a type of frequency medicine known as homeopathy. There is much to be analyzed through the literal and metaphorical concept of "suppression" through the miasmatic lens, which continues to compound. Unless health ailments are addressed at their root cause, these micro and macro imbalances will continue to augment, on an individual, societal, and ecological level. The solution requires an all-systems approach that addresses axiomatic foundations, so that researchers and reformers may perceive with fresh, unbiased eyes.

This is a multi-disciplinary paper, written from a philosophical perspective, not a clinical perspective. Foundationally, it begins with questioning the intent behind analytic philosophy, our current cosmology, and the standard model, while introducing James Clerk Maxwell's non-truncated electromagnetic equations and unified physics models. This allows the author to properly address the dogma of germ theory and focus on terrain theory and pleomorphism. An examination of the immune system, toxemia, frequency modulation, voltage, pH, and water memory is introduced, allowing the author to set the proper foundation of miasma, its history, and the three main types, the most important being the psoric miasm, the foundation of all chronic illness. From here, the author explicates the many metaphors of suppression and the compounding inflictions of miasma, not just in the individual homunculus, but throughout society and the environment.

Miasms will continue to compound upon the planet, as long as mankind continues to build upon false manners of thinking and suppress honest inquiries and healing opportunities.

Oftentimes, a crisis is a catalyst for change. This paper ensconces a diversity of subjects with the intent to reveal dissonant and ineffective qualities within the medical system and the axiomatic presuppositions of which the medical system is founded upon. The scope of this paper is far-reaching and requires an all-systems, paradigmatic shift. It is the author's intent to open up further discussion into the many areas of science, not just medicine, but also over unity technology, psi phenomena, and other branches where the standard model cannot explicate observations. Imperative within this approach is full disclosure within all areas of research, along with corporate, governmental, and individual accountability.

# Mind-Body Health and Tai Chi: Maximizing Health Benefits Through Eastern Medicine and Taoist Perspectives

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Tai Chi-a thousand-year-old Chinese martial art-is garnering global attention as an inexpensive and easy-to-implement treatment for chronic disease, pain, mental health, and cognitive decline. In addition, because it involves gentle movements, Tai Chi can be practiced by people of all ages. Tai Chi health benefits have been explained primarily in terms of psychoneuroimmunological mechanisms that emphasize calm mental states and the advantages of aerobic exercise. I will discuss some limitations of this approach and propose an alternative approach that focuses on the use of Eastern Medicine and Taoist principles to analyze Tai Chi movements and its practice methods. Such an approach would complement western medical theories in predicting Tai Chi health outcomes, facilitating the development of Tai Chi treatments tailored to specific health issues or target populations, and maximize the health benefits of existing Tai Chi routines.

## **Holographic Quantum Theory of Consciousness**

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Consciousness relates to awareness. It is a subjective, nonpredictable, non-deterministic phenomenal experience of internal and external worlds. Consciousness is associated with a sense of self, feelings, choice, free will, control of voluntary behavior, memory, thought, language, and imagination. Our view of reality, of the universe, and of ourselves, depend on consciousness. Consciousness defines our existence.

What consciousness really is remains a mystery. Most theories about consciousness fall into two categories: physicalist theories and non-physicalist theories. In physicalist theories, consciousness occurs through a physical object, such as the brain. In non-physicalist models, consciousness is considered fundamental, from which space and time and physical reality emerge. According to David Chalmers, the hard problem of consciousness is to explain why and how a physical objective process generates a specific subjective experience. The easy problem addresses how brain integrates information, categorizes and discriminates environmental stimuli and memories, focuses attention, etc. Physicalist theories face challenges in solving the hard problem of consciousness. Non-physicalist theories may be required to break this impasse. The challenge with these non-physicalist theories is to obtain the mathematical formulation which shows how the observed physical laws and phenomena emerge from consciousness.

Both conscious and quantum phenomena have an indeterministic and subjective nature. We argue that consciousness is a quantum phenomenon and should be studied with quantum physics. Understanding consciousness is closely related to deciphering the metaphysical meaning and interpretation of quantum physics. We propose holographic quantum theory of consciousness (QTOC) based on discoveries, mathematic formulation, and a new interpretation of quantum physics, and three insights. The first is that everything is a vibrational field carrying information, energy, and matter. The second is that quantum measurement and conscious experience occur when the detectors are being activated and applied to absorb and process the quantum vibrations. The third is that consciousness is the driving force that manifests what we observe. We presume that conscious space and time are one of the elementary consciousness and the fundamental duality codes of manifestation. From this assumption, we can obtain the holographic action, which turns out to be the generalized action including general relativity, quantum mechanics, and thermodynamics. One can derive and show that physical phenomena and laws, such as elementary particles, fundamental forces, dark matter, dark energy, black hole dynamics, and large hierarchy, emerge from the hologram described by the holographic action. This gives a new way to derive a grand unification theory in physics.

We show how this holographic quantum theory of consciousness may address the hard and easy problem of consciousness and explain why free will, destiny, cause-effect, environment, and brain structure can all affect human experience. We indicate that this theory can be applied to study other theories and models of consciousness as well as spiritual phenomena. It also enables a new mathematical definition of spirit, life and sickness, which can lead to a deeper understanding of our existence and life purpose as well as more advanced quantum healing technology. An experimental test of this theory is also discussed.

## **ABSTRACTS OF PAPERS PRESENTED ONLINE**

#### **Economist Brain Exploration Textbook**

#### G.H.Abiri

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**Introduction:** This study is based on a paradigm of economic failure from both sides of "market failure" as well as "government failure". This will create a challenge or at least define, the job of scholars in the field of economics as a branch of science. The language of economics is very complicated and needs to learn that post modern capitalistic civilization has developed this language in the shadow of a pluralistic society. Anthropologists believe that economic concepts developed in developed countries may not be helpful in developing countries. Besides the cultural values that can directly affect the language, the con-

nection of words and its meaning has also brought another barrier to our studies (semantic issues).

Although the concept of rethinking in economics studies is meaningful, the history of economic thought shows reliance on the different schools of thought in economics, passed toward the main-stream, which might create a divergence in the language of economics.

**Methods:** In the shadow of the above interdisciplinarity, this research focuses on what economic scholars have done in their textbooks, from the *Principles of Economics* of Adam Smith to A. Marshall, and from *Macroeconomics* to *Development Economics*.

In this regard, I went towards the ways economists used different technical words (weaving words) in scientific textbooks, in universities as well as in international organizations.

From the websites, 41 textbooks were selected, for the purpose of this study, plus a framework model consisting of technical words encompassing Market Forces, Resource Endowments, Objectives, and Indicators. Applied different regression models for the purpose of understanding consistency and coordination in the words weaving process (compare the coefficient of determination & ranking of technical words plus meaningful analysis).

**Results:** Out of 400 regression models, only 15-25% of models had significant, meaningful results. Although our textbooks are well-informed, they are not consistent in fulfilling knowledgeable students of economics. Different models bring attentiveness to textbooks with the same title, and contradictory results. For instance, two different textbooks on economic development had the lowest coefficient of determination, and two textbooks on macroeconomics and microeconomics had the highest coefficient of determination. The ranking of words in the models was a big warning about the importance of words (variables), in each model, which is in contrast with our famous hypothesis (Philips Curve).

Modern textbooks such as *Knowlege Economy* had the lowest coefficient of determination in the models applied, (degree of freedom is fair enough).

## Implications / Discussion:

There are feasible approaches, to changing the disciplines of training our students as well as, changing rules for publishing economic textbooks, to achieve better coordination at different levels of presentation to explore new ideas for solving problems of economics.

Each model will provide a foresight to look over the trouble and change the roadway, to minimize the contradiction. It should be accepted that the present gap between textbooks will no longer be accepted.

# Comparison of Compassion and Death Anxiety in Mediums and Demographically Identical Non-Mediums

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**Introduction:** Although it is possible for anyone to experience communication or contact from the deceased, individuals termed (psychic) mediums have this experience regularly and reliably and share the resulting messages with living loved ones. This demonstrates a continuing bond that perseveres beyond physical death. Previous blinded and controlled research has demonstrated mediums' abilities to report accurate information about the deceased and a significant phenomenological component of love during communication.

**Methods:** Two online surveys were used to compare the characteristics of self-identified mediums and non-mediums. In both studies, the participants were demographically identical in gender (~90% female), age (~54 yrs), and race (~90% white). The first study examined differences in compassion using anonymous survey responses to the Santa Clara Brief Compassion Scale (SCBCS) from 316 mediums and 1,068 non-mediums. The SCBCS is comprised of five items using Likert-type response options (1: 'not at all true of me,' to 7: 'very true of me;' min: 5, max: 35). The second study used the Collett-Lester Fear of Death Scale (CLFDS) to quantify death anxiety in 120 mediums (including 14 Windbridge Certified Research Mediums) and 226 non-mediums. The CLFDS gages individual components of death anxiety using four 7-item subscales (Your Own Death, the Death of Others, Your Own Dying, and the Dying of Others) and uses Likert-type response options (1: 'not,' to 5: 'very;' min: 7, max: 35 for each subscale). Data groups were compared using *t* tests; significance was Bonferroni-corrected.

**Results:** Data are listed as mean ± SD; effect size: Hedges' g.

**Compassion:** Mediums received significantly higher SCBCS scores than non-mediums with a moderate effect size (31.18  $\pm$  4.61 vs. 28.69  $\pm$  6.13; df = 676, Welch t = 7.80, p = 2.34x10<sup>-14</sup>, g = .43).

**Death Anxiety:** Mediums received significantly lower CLFDS scores than non-mediums with moderate and large effect sizes for all four subscales: Your Own Death (11.91  $\pm$  5.21 vs. 15.44  $\pm$  7.38, df = 317, Welch t = -5.17,  $p = 4.15 \times 10^{-7}$ , g = .53); the Death of Others (16.4  $\pm$  5.79 vs. 21.22  $\pm$  0.45, df = 276, Welch t = -6.95,  $p = 2.60 \times 10^{-11}$ , g = .75), Your Own Dying (17.15  $\pm$  6.88 vs. 21.09  $\pm$  7.10, df = 344, t = -4.96,  $p = 1.09 \times 10^{-6}$ , g = .56), and the Dying of Others (17.64  $\pm$  5.79 vs. 20.72  $\pm$  6.10, df = 344, t = -4.59,  $p = 6.20 \times 10^{-6}$ , g = .72).

**Implications / Discussion:** Compared to demographically identical, self-identified non-mediums, mediums demonstrated significantly higher levels of compassion and significantly lower levels of death anxiety. Engaging in practices that develop compassion may help non-mediums connect with their departed loved ones thus strengthening their continuing bonds. Moreover, the trait of compassion may

be useful for psychic functioning in general. In addition, experiences related to an afterlife may decrease one's death anxiety. This finding may have implications for healthcare and society in general.

# Imperfect reflections: Using Artificial Intelligent systems to model non-human alien intelligences

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**Introduction:** Over the past several years, interest in the study of unidentified aerial phenomena (UAPs) has seen explosive growth. While the main focus of these studies currently centers on sightings and interactions with various types of crafts observed by military assets, these encounters are only a small portion of the experiences attributed to extraterrestrial-related phenomena over the years. Previously termed unidentified flying objects (UFOs), the aerial phenomena along with a range of encounter experiences, including direct interaction and communication with non-human alien intelligences (NHAI), abductions, and mysterious animal deaths, to name but a few, are of interest to the field of UFOlogy.

However, our understanding the how NHAIs perceive and interact with our world is still unknown. This exploratory project hypothesizes that NHAIs may not only lack a comprehensive understanding of human culture and morals but also that the very way they perceive reality, including their experiences of space-time, may be radically different from that of humans. These differences could have a significant impact on how NHAIs understand and ultimately choose to interact with us.

This project considers these questions through the study of evolving artificial intelligence (AI) tools. While these tools are developed by humans and trained with human-generated data, they are imperfect reflections of their human creators. Many of these systems are prone to 'hallucinations', which are expressed through text and generated images, thus making AIs a type of external entity which observes and responds, in its own way, to human interactions. These hallucinatory anomalous processes expressed by AIs may provide a window into the perceptual and cognitive processes of an intelligence that is observing us but has yet to fully understand us.

**Methods:** Through a series of sessions with OpenAl's ChatGPT and several text-to-image systems, the history of UFO/UAP encounters as well as how NHAls might view the human condition, human interactions with each other, the environment, and other species was explored. Additionally, the possible techniques and technologies NHAls could use to initiate contact and communicate with humans was examined. While many types of UAP/UFO interactions were explored with the Als, this presentation focuses on mysterious animal deaths (MADs) associated with UAP/UFO encounters. MADs have been observed and documented for decades, with thousands of cases reported worldwide. These events involve the unexplained and often gruesome deaths of animals, including cows, sheep, and horses. While various theories have been put forth to explain the phenomenon, ranging from natural causes to human actions, many of these cases remain unexplained.

**Results:** The result of this project is a collection of AI-generated conversations and images that probe how an external intelligence considers life on Earth and the meaning of human life.

**Implications / Discussion:** The study of UAPs, UFOs, and NHAI perception and communication are important and timely topics of study. By utilizing evolving AI tools and studying these phenomena, researchers may be able to shed light on the nature of NHAI interactions, ultimately paving the way for more effective communication and collaboration between humans and non-human entities.

## **Becoming Light:**

A comparative analysis of the attainment of the Tibetan Buddhist Rainbow Body with the Transfiguration, Resurrection, & Ascension of Jesus, the Assumption of his Mother Mary & glowing orbs witnessed in conjunction with the UFO/ UAP phenomena

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**Introduction**: Within the Nyingma tradition of Tibetan Buddhism there is a teaching that prepares human beings to achieve an enlightened state of consciousness and bodily transformation called the Rainbow Body. A few days after the death of a Master practitioner of the teachings, the body shrinks and then vanishes from sight. Witnesses report unusual phenomena in the locality of the deceased such as rainbows of various shapes in the sky, beautiful music heard from an unknown origin, and the scent of a fragrant perfume.

This comparative analysis explores the research done by Fr. Francis V. Tiso who details his investigation into the attainment of the Rainbow Body by Khenpo A Cho, a Tibetan monk, in 1998.

Similarities are noted between the recorded accounts made by fellow monks who witnessed the transformation of Khenpo A Cho and Biblical passages concerning the Transfiguration, Resurrection, and Ascension of Jesus, as well as the visionary experiences in the early 1800's of Anne Catherine Emmerich concerning the Assumption of Mother Mary. Also considered is the possibility that some of the orbs of light witnessed in association with the UFO/UAP phenomena could be intelligent light beings manifesting in our perceptual realm.

**Methods**: For my comparative analysis, I cite as primary references:

- Tiso, F. V. (2016). Rainbow body and resurrection: Spiritual attainment, the dissolution of the material body, and the case of Khenpo A Cho. North Atlantic Books.
- Emmerich, A. C. (1970). The life of the Blessed Virgin Mary: From the visions of Ven. Anne Catherine Emmerich. (M. Palairet, Trans.). TAN Books & Publishers

- Bledsoe, C. (2023). UFO of God: The Extraordinary True Story of Chris Bledsoe.
- King James and New International Version of the Bible
- Selected writings of William Henry (https://www.williamhenry.net/)

**Implications / Discussion**: This presentation is a fascinating exploration into wisdom teachings concerning who we may be and who we may become. Is the bodily transformation into a body of light the next step on humanity's evolutionary path? Are the orbs of light people experience showing us a glimpse into a far more wondrous reality filled with intelligent beings that exist all around us?

## Consciousness, Sentiment and Stock Market Returns: Can the GCP Data be Put to Practical Use?

**Ulf Holmberg** 

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The Standard & Poor's 500 Volatility Index (VIX), a common measure of market sentiment, is found to be significantly correlated with the hardware-generated random numbers produced by the Global Consciousness Project (GCP). More specifically, the largest daily composite GCP data value (Max[Z]) as well as changes in it and its variance is found to significantly interact with changes in the VIX measure. The results suggest that the GCP data can help in explaining market sentiment and that daily market movements can be better understood by studying the GCP data. The results point towards that the GCP data can be put to practical use by traders, which is investigated in an out-of-sample simulation study. By fitting econometric models that either utilize or ignore the GCP data on daily S&P 500 returns, model-dependent investment rules can be established such that the validity and usefulness of the GCP data can be studied. To this end, an out-of-sample simulation study began on the 1st of August 2022 and is scheduled to end on the 1st of August 2023. The result from the study currently suggests that the GCP data indeed can be used to improve daily forecasts such that the GCP data can be used in practice by e.g., traders. Both the philosophical and practical implications of these results are self-evident.

Key words: Consciousness, sentiment, stock market returns, VIX, Global consciousness project

#### The Astrology of World Events

#### **Bob Marks**

Full-Time Professional Astrologer

Introduction: There are major problems in performing a scientific test of astrology. First of all, you have to have the correct time of birth for all of your test subjects. Then you have to collect data about major events in their lives. These problems disappear when doing the astrology of nations. You don't need the time of birth of a nation. Only two things are required: the location (latitude and longitude) of the capital city and the exact time of a major astronomical event, such as the conjunction opposition, or square between two planets (angles of 0, 90, or 180 degrees). That data is readily available in any ephemeris. The horoscope charts are easily constructed. The next step is the timing of future events. This is done from the Precession-Corrected Solar Return and Half-Solar Return, which are derived from the horoscopes of the original event.

**Methods:** Once we have the horoscopes of the Astronomical events, we can predict the timing of events by using the technique of Solar Returns. Every event has a "birthday" and a "half-birthday." By looking at the Solar Return (and Half-Solar Return) charts, standard astrological techniques can be used to predict events happening to any particular country.

Another technique is to use charts for the time the outer planets (Jupiter, Saturn, Uranus, Neptune, and Pluto) change signs.

**Results:** The results gave positive correlations for both World Wars, the Great Depression, and the Mortgage Crisis of 2008 as well as all four presidential assassinations of American presidents.

**Implications / Discussion:** This technique can also be used to make predictions of future events for purposes of verification.

# Unreliability of the Gas Discharge Visualization (GDV) Device and the Bio-Well for Biofield Science: Kirlian Photography Revisited and Investigated

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**Introduction:** The purpose of this research is to study the reliability and functioning of the Gas Discharge Visualization (GDV) device and the Bio-Well. These biofield machines are based on the Kirlian effect and photograph the stimulated electrophotonic emission of living and non-living things.

The measurement variability and working of these technologies were investigated in a Pranic Healing experiment, evaluating their capacity to assess the subtle energy of human beings and water. Kirlian photography has been used for decades to measure the human energy field, in order to assess its bioenergetic condition and potential, as well as validate a variety of therapeutic approaches and modalities. Pranic Healing has been practiced in Ayurveda for millennia, in order to restore and promote health, by manipulating the flow of subtle energy Prana throughout the human organism.

**Methods:** The experiment involved 40 participants: 20 Pranic healers and 20 non-healers. Healers performed a treatment on water, while non-healers simulated it; both groups were measured repeatedly before and after their real or sham performance; their water was measured as well and compared with controls. In the analysis, it was evaluated whether these devices could return accurate, repeatable, and meaningful information about the participants and water's biofields, allowing to detect potential subtle energy changes in the healer group compared to the non-healer one.

**Results:** The GDV-device and Bio-Well parameters showed large measurement variability and/or poor informative value, resulting inconsistent at detecting possible subtle energy variations in human beings and water.

**Implications / Discussion:** The findings of this research indicate that the GDV device and Bio-Well may not be reliable tools for biofield science and suggest that the literature related to these technologies should be revised and questioned. Results showed the limitations of these technologies, highlighting their incapacity to return meaningful bioenergetic information and thus suggesting that their use in biofield science should be revisited.

# Crossing Thresholds: Exploring Stories and Visual Art from Beyond the Boundaries of Ordinary Consciousness

#### Lorraine Tolmie

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Introduction: Throughout history, the arts and creativity have been viewed as a participatory process, connected with nonordinary states of consciousness (NSC). Deeply intertwined with spirituality, inspiration was often believed to be a message from a divine source (Fox & Christoff, 2018). Many cultures do not make a clear distinction between the everyday world and a sacred dimension, explaining how this is reflected in their art (Koppman, 1999). The aim of this study was to explore the lived experience of individuals using creative expression as a way of documenting or processing experiences that occur beyond the threshold of ordinary consciousness.

**Methods**: Integral Inquiry (Braud, 2011) was used in connection with Narrative Inquiry (Kim, 2016) and Arts-based Methods (Leavy, 2015) to investigate the connection between transliminal art, boundaries, and heightened perception. A holistic, multi-modal approach was used during data collection and

analysis. A purposive sampling strategy focused recruitment on individuals who had created a piece of art based on a nonordinary state of consciousness, or who had an unusual experience related to a piece of art. Twenty-five participants shared their stories and experiences in an online survey and were subsequently invited to send a digital copy of their artwork. Ten of these individuals were interviewed on Zoom. All data were collated, analyzed, re-storied, and validated by participants. Themes were then identified across cases. Throughout the process, the focus was on an inclusive approach using multiple ways of knowing, including analytical and intuitive, embodied and cognitive, as well as ordinary and nonordinary states of consciousness.

**Results**: This research supports the findings of studies indicating a connection between boundaries, heightened perception, and creativity. The results showed that although the artwork was often created in challenging circumstances, a co-creative process emerged, with participants often feeling a connection to a transpersonal source. For the participants, creative expression was an integral part of a dialogic process between their inner world and the external world. A sense of tension or conflict tended to be experienced when there was a desire for fluidity or expansion, but this was not possible because the integrity of the inner world was threatened by the intensity of the external world. In contrast, feelings of unity and harmony tended to occur during the creative process. This often evolved into a sense of a transpersonal connection and linked to nonordinary experiences.

Implications / Discussion: In addition to offering a way to integrate nonordinary experiences, the creative process appears to have the potential to open a doorway to such experiences, creating a sense of otherwordly support and a sense of meaning. Most participants used words like "porous", "permeable", or "fluid", or suggested there was no distinction between their inner and external worlds. This is in resonance with the concept of a filter or membrane that determines the amount of material crossing the threshold between the conscious and unconscious (Thalbourne, 2009). The experiences of participants support evidence of an underlying interconnectedness between matter and mind and the expansive nature of consciousness. Perhaps the experiences of those with less rigid boundaries are indicative of latent human potential to perceive beyond the material world.

# Harnessing Electroculture, Magnetoculture, and Subtle Energies for Enhancing Plant Growth

#### David J. Wechsler

Throughout history, humans have sought innovative approaches to improve crop yields, secure food production, and ensure the survival of their communities. Innovators, inspired by the scientific understandings of their time and their intuitive bond with nature, have strived to utilize the intrinsic energies in the environment to accomplish this task.

This presentation aims to explore my experiences with electroculture, magnetoculture, and be-

yond - multidisciplinary methodologies that combine multiple scientific domains, plus art, design, intuition, consciousness, and more!

Electroculture, or the stimulation of plants using electricity, has for over two centuries been studied on-and-off, all over the world. Empirical studies have shown the ability of small amounts of electricity to stimulate seed germination, invigorate plant health, and enhance resistance against pests and diseases. Complementing electroculture, magnetoculture harnesses magnetic fields to bring about the same or similar effects.

However, the scope extends beyond these fundamental physical energies. The realms of non-physical, or metaphysical energies, also hold promising potential. Subtle energies, encompassing a spectrum of less measurable forces ranging from pyramid energy to prana, conscious intent, and so on - are believed to permeate all living systems. Though still in their infancy or perhaps the adolescence of scientific understanding, the influence of these energies on plant growth has sparked interest within the fields of biodynamic agriculture, radionics, and the broader realms of Energetic Agriculture. Many practitioners report marked improvements in plant health and productivity due to the influence of these energies upon their plants and crops.

This poster presentation intends to shed light on the potential of harnessing these forces and the role they could play in a more holistic and energy-efficient approach in agriculture. Collectively, electroculture, magnetoculture, and subtle energies represent a novel frontier in agricultural science. Their potential application could revolutionize sustainable farming, from small-scale home gardens to large-scale commercial plantations. Understanding and harnessing these forces may provide us with the tools to promote plant growth and productivity in a way that respects the delicate balance of our environment. As we move forward, more rigorous research and controlled experiments are needed to confirm their effectiveness and to understand the underlying mechanisms at play.