

Inference to the Best Explanation for Conclusions, Implications,
and as a Decision-Making Model for Continuance of the Investigation of Spiricom
(with a Discussion of Logical Fidelity versus Irrational Memetics)

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ABSTRACT

What began as a search for a rational decision-making model for continuance of research into the Spiricom project has led to conclusions and implications for further research. The author reaches a final conclusion as to legitimacy of the Spiricom evidence: fraud. This conclusion, while a consequence of *inference to the best explanation* and a deconstruction of the logical fallacies that abound in the Spiricom story, is based entirely on testable evidence (e.g., new findings; the ‘official record’; and the Spiricom story as retold in the paranormal subculture) subject to objective confirmation. More than just calling into question the legitimacy of the claims made by Metascience and their contemporaries (said claims, original and amplified, constitute a Spiricom mythology), the author has discovered a psychobiological explanation for the creation of a paranormal ethos (like the ethos that under girds the Spiricom story and subsequent EVP-ITC related narrative), the adoption of fringe ideas as a belief system, and method by which said ideas are spread and reinforced in believers (i.e., *memetics*). The article concludes with substantiating the after-life meme peculiar to EVP-ITC as dogma (of the self-sealing doctrine type), and posits reasoning as to why uncritical beliefs which amount to self-deceptions subject to protection against disconfirmation are so intractable.

Background

From the mid-1960's to the early-1980's research on the development of a technological means of communication with the dead was conducted by Metascience Foundation, Inc. George W. Meek (President) and William J. O'Neil (a self-described psychic electronics engineer) supposedly developed a device that facilitated two-way conversation with the dead. They called it Spiricom, for spirit-communication. The Spiricom project was officially defined as "an electromagnetic-etheric systems approach to communications with other levels of human consciousness" (Meek, 1982, p. iv) and resulted in a series of devices, of which the Mark IV was considered most successful (Fuller, 1985; Fuller, 1986; Fuller, 1987; Heinzerling, 1997; Kubis & Macy, 1995; Macy, 1993; Macy, 1996a; Macy 1996b; Macy, 1997; Meek, 1982; Meek, 1988; Randles & Hough, 1994; Uphoff, Uphoff, Senkowski, & Meek, 1988).

The research of Meek and O'Neil (while pursued under the assumption such an endeavor was not only possible, but inevitable) was predicated upon the electronic voice phenomenon of perceived voices of unknown origin recorded on audio media. Electronic Voice Phenomena (EVP) collectively describes anomalously recorded sounds approximating vocal utterances, as perceived by the listener.

In 1980, William O'Neil reportedly first made contact with a supposedly discarnate being, a deceased NASA scientist (Fuller, 1985; Fuller, 1986; Fuller, 1987; Kubis & Macy, 1995; Macy, 1993; Macy, 1996a; Macy 1996b; Macy, 1997; Meek, 1982; Meek, 1988; Randles & Hough, 1994; Uphoff et al., 1988) named George J. Mueller using the Mark IV Spiricom. The Mark IV device consisted of thirteen audio oscillators, each tuned to an audio frequency between 131Hz and 701Hz (presumed by O'Neil to

approximate the tone range for an adult male voice, should a discarnate being require said approximation of a 'voice-box'), a radio transmitter tuned to 29.57 Mhz, a radio receiver tuned to the same (Heinzerling, 1997), and a variety of other equipment that may have been a part of the Spiricom apparatus, such as an "artificial larynx device" (Meek, 1982, p. 30; Pratt, 2008). While providing details of Spiricom components at some level, the problem of technological opacity makes reproduction of the actual Spiricom device difficult. Though 'plans' and block diagrams of the Spiricom Mark-IV were made publicly available, actual schematics never were. It is through this ill-defined apparatus that O'Neil claimed he was able to hold two-way conversations with spirits of the dead, some of which he recorded and made available to George Meek (O'Neil's benefactor). The results of O'Neil's experiments were announced at a Washington, DC, press conference on April 6, 1982 by George Meek, with the support of a panel of Metascience affiliates. George Meek provided press kits with transcripts and audio cassettes of the Spiricom recordings at the event. Meek both published and announced that the Spiricom recordings and materials were being provided to the public without copyright or claim to ownership, with the proviso that they not be resold for profit (Meek, 1982a; Meek, 1982c). Later the recordings were resold by Mark Macy in video and audio formats (Macy, 1996b; Macy, 1997). The Spiricom recordings, as alleged conversations, are not snippets of voices typically found in Electronic Voice Phenomena (EVP) research, but longer and apparently interactive.

Rationale for Investigation

The Spiricom recordings, being qualitatively less ambiguous than EVP, were of interest to this author because of their uniqueness as ‘evidence’ of after-life communications via technology, the availability of open literature on the Spiricom project and associated parties, and because of the pervasiveness of the Spiricom story as a reality among paranormal enthusiasts (Fuller, 1985; Fuller, 1986; Fuller, 1987; Kubis & Macy, 1995; Macy, 1993; Macy, 1996a; Macy 1996b; Macy, 1997; Meek, 1988; Meek, 1999; Randles & Hough, 1994; Uphoff et al., 1988). To be clear, EVP findings are generally brief and require repeated listenings to discern as something resembling intelligible speech. The listener, in the case of EVP, may be prone to the verbal transformation effect and *apophenia* (MacRae, 1984; Smith, 1974; Warren, 1983) compounded by auditory *pareidolia* (Guthrie, 1995; Reed, 1988; Zusne, 1990). The verbal transformation effect is experienced as illusory changes in repeated words (Skinner, 1936; Warren, 1963), apophenia is the spontaneous perception of meaningfulness of unrelated phenomena (Brugger, 2001) like auditory stimuli, and pareidolia is a type of misperception involving obscure stimulus being perceived as clear and distinct (Guthrie, 1995; Reed, 1988; Zusne, 1990). Whereas apophenia in EVP perception (i.e., audio-Rorschach where meaning is attributed to the brief sounds heard on audio media, explainable as artifacts of auditory perception) might suffice for truncated voice phenomena, the Spiricom recordings (being of such frequency, length and apparent interaction) requires an explanation beyond apophenia compounded by auditory pareidolia.

The Spiricom recordings were considered by this author to have one of three interesting explanations; the recordings were either: (1) evidence of Instrumental Trans-Communication (ITC) facilitating interactive sessions of Electronic Voice Phenomena (EVP) with a deceased scientist; (2) a hoax perpetrated upon or by William O'Neil and George Meek; or (3) a self-deceptive expression of William O'Neil's delusions or 'pathologies of belief' (Bell et al., 2003) that were consequent to his schizophrenia (Meek, 1992; Meek, 1999; Pratt, 1992), made possible by his skills as a ventriloquist (Fuller, 1985; Fuller, 1986; Fuller, 1987; Meek, 1988; Meek, 1999), and responsive to the fringe idea of after-death communications by technological means already established in the spiritualist paranormal subculture as EVP and ITC.

Given the contribution of the Spiricom 'evidence' to the already existing EVP-ITC mythology, and the role Spiricom played in the expansion and spread of said myths at the popular level, any one of the explanations posited above held a number of interesting implications. Hence, a rationale for investigation was established in December of 2005 by this researcher.

If the first explanation were factually true (i.e., interactive ITC communications with a deceased scientist), it could validate religion as a framework for understanding the anomalous and the ineffable, validate the Aquanian *principal of plentitude*, or even provide science with evidence for the existence of extra dimensions inhabited by post-fourth dimensional beings. Evidence for the existence of parallel universes, or a many-worlds model in a multiverse, would lead to a more complete understanding of the inexplicable weakness of gravity. That the Spiricom 'evidence', the ITC phenomena, or the EVP data set might support some epiphenomenal expression of human potential, like

psychic abilities (Hassin, Uleman & Bargh, 2005), is not within the purview of this paper. However, implications (of the first explanation being true) related to physics might also include advancements in the understanding of scalability of quantum events. Regarding such advancements, if evidence for paranormal phenomena by way of EVP-ITC were proven legitimate, then a completely new science of possibilities would collide with the standard model, thereby legitimizing certain interpretations of quantum mechanics that lend themselves to a many-worlds interpretation of our universe.

If the second explanation were factually true (when interpreted as a hoax perpetrated *by* O'Neil, promoted by Meek) then many implications for the study of pathological group dynamics, persuasion theory and the spread of fringe ideas as reality would exist. Further implications for study might include how subjective notions that motivate amateurs experimenting with unknown phenomena are amplified by a lack of critical judgment so remarkable, as to be nearly unique. This has yet further implications for the psychology of belief regarding magical thinking as an intellectual pathology. Having a belief, even if disconnected from reality, changes the way evidence is collected and evaluated (Reisberg, Pearson & Kosslyn, 2003). Therefore, *predecisional distortion* (Carlson & Russo, 2001), the tendency to evaluate incoming evidence in support of current beliefs, would be yet another area for further research. Furthermore, the implications proposed thus far might well provide for an ultimate explanation for EVP-ITC experiences: a combination of fantasy-proneness and sub-culturally available scripts, reinforced by the rewarding focused attention of members in the subculture. If the second explanation were factually true (when interpreted as a hoax perpetrated *upon*

O'Neil and Meek) then implications for research would include psychological operations models, led by the guiding question: *Cui bono?*

If the third explanation were factually true (i.e., Spiricom was a self-deceptive expression of O'Neil's mental instability), then the above implications (for the second explanation under consideration) would hold, as well as implications for research on the cognitive nature of delusions (Bell, Halligan & Ellis, 2006b) and schizophrenia. The study of delusions or 'pathologies of belief' (Bell, Halligan & Ellis, 2003) has been advanced in the literature where delusions are considered clinically significant because, like normal beliefs, they make sense for the believer, are held to be evidentially true, but often produce distress and disability. The distress and disability for William O'Neil was his manic depression and his schizophrenia, respectively (Fuller, 1985; Fuller, 1986; Fuller, 1987; Meek, 1988; Meek, 1999; Pratt, 1992). The somewhat recent application of a cognitive neuropsychological approach to psychiatric symptoms like O'Neil's (Halligan & David, 2001) has led to interesting research on the cognitive nature of delusions (Bell et al., 2006b). There is now considerable evidence from cognitive neuropsychiatry for the involvement of anomalistic perception (Bell et al., 2006a; Ellis & Young, 1990), probabilistic reasoning (Garety, Hemsley & Wesley, 1991) attention, metacognition and attribution biases (Kaney & Bentall, 1989) in delusion formation. All of this has proved increasingly useful to psychologists, providing testable frameworks yielding better understandings of the cognitive and neural systems involved in delusions (Bell et al., 2006a). Plausible mechanisms for how certain pathological beliefs arise (Breen, Caine, Coltheart, Hendy & Roberts, 2000; Ellis & Young, 1990), like those manifested by O'Neil and ultimately EVP-ITC enthusiasts, fit well with the Spiricom story. For

example, in response to the failure of other Spiricom systems (either created by Metascience, or reproduced by enthusiasts) Meek concluded (1985) that it was O'Neil's mediumistic abilities that had imbued the Spiricom device with the ability to communicate with the dead: "Our research has shown that our success with this system (Mark IV) was possible only because of certain psychic energies – of a very rare nature – possessed by the electronic technician operating the equipment" (p. 1) The "psychic energies", while described as being of a "very rare nature", never were operationally defined, nor were they tested. Thus rendering all Spiricom evidence unfalsifiable, while simultaneously reinforcing the delusional thinking of William O'Neil, the mechanism for the pathological beliefs inherent in the claims, and the intellectual pathology that others might succeed in similar attempts despite all of Meek's 'evidence' and 'experience' to the contrary. Meek himself published in official Metascience literature: "All research with such equipment was terminated in 1983" (1985, p. 1), and yet Spiricom-like EVP-ITC experimentation persists to this day in paranormal enthusiast circles, oblivious to their progenitors disuse of the 'technology'.

Introduction

Given popularized assumptions about the Spiricom project and subsequent audio 'evidence' of direct and real-time 'communication' with the deceased (produced by the Metascience Foundation, Inc., specifically by one William O'Neil via a device called the Mark IV), it is the assertion of this researcher that the voracity of Metascience's claims, particularly the authenticity of the Spiricom tapes, is assailable at the evidential level. Given the analyses (performed by the author through a variety of analytical approaches,

including hypotheses testing and modeling) of the evidence (gathered through a variety of means and from many resources by the author), it would be logical to infer that popularized assumptions (disseminated at the popular level through a variety of media) inconsistent with documented facts constitute a Spiricom mythology. It is the intent of the author to arrive at a decision about continuance of the investigation into Spiricom, draw implications for further research, and ultimately arrive at a conclusion about the truth or falsehood of the Spiricom story using an inductive model based on all the available, pertinent evidence. The notions of (1) continuance for good reason, (2) eliciting implications, and (3) ultimately drawing conclusion are interdependent.

Regarding the model offered by the author (that a Spiricom mythos fuels the belief engines of adherents of the paranormal, particularly those interested EVP-ITC, to the point of adopting *extra-cognitive conclusions*), there is no competing model using the same data, analyses and reasoning that is superior. For example, there is no ground for arguing that the Spiricom project and story is flawlessly, or even accurately, recounted in the popular literature; there is no ground for arriving at a conclusion that the available evidence and concomitant facts can be assembled in such a way as to pass judgment upon said Spiricom project and results as *true*. This sort of analytic reasoning for decision-making under less than optimal situations of reconstructing evidence should be familiar to the reader, as all scientific reasoning is ultimately based on a principle called *inference to the best explanation* (Douven, 1999; Elfin & Kite, 1996; Lipton, 2004), a type of causal-inference model of induction (Rappaport, 1996) specifically well-suited to *post-hoc* evidence of the kind under consideration here. *Post-hoc* evidence may suggest the hypothesis of a causal relationship (Tanner, 1998), which then requires further

investigation and testing (even if in a quasi-experimental design), but it is never sufficient evidence on its own. The *post-hoc* must be confirmed by the *a priori* (i.e., knowledge independent of experience, literally translated as ‘from what comes before’) and amplified by the *a posteriori* (i.e., knowledge dependent on experience, translated literally as ‘from what comes later’).

Justification for Inference to the Best Evidence

Regarding an evaluation of Spiricom in the larger sense (meaning other than decisions about investigation continuance or discrete hypotheses during a continued investigation), Epstein advised evaluations be made “in logical ways” (1988, p. 12). The logical formalism of *inference to the best explanation* is just such a logical approach, and the concept of bolstering or refuting *post-hoc* findings with *a priori* and *a posteriori* knowledge types makes the prospect of continuance appealing, so that said continuance might proceed in such a way as to employ the investigative mode of *means, motive, and opportunity* as a logic of inquiry (Copi & Cohen, 1998).

Inference to the Best Explanation

Inference to the best explanation is a method of judgment and reasoning employed in the sciences in which researchers elect that hypothesis which best explains the relevant evidence and/or phenomena. *Inference to the best explanation* “corresponds approximately with ‘the method of hypothesis’” (Harman, 1965, p. 88). When *inference to the best explanation* is used, decision makers infer a conclusion by deciding that it

comprises the best explanation for the evidence under consideration (Douven, 1999; Harman, 1965).

Recent work in the philosophy of science has shown those hypotheses that qualify as *best explanations* typically provide simple, coherent, and causally adequate explanations of the evidence or phenomena in question (Douven, 1999; Elfin & Kite, 1996; Lipton, 2004). Historically, this decision-making tool for conclusion-building was formalized by John Locke according to Harman:

When we use inference to the best explanation, we infer a conclusion by showing that it comprises the best explanation for the evidence under consideration, as Locke showed in his *Essay Concerning Human Understanding*. (1965, p. 89)

More recently, inference to the best evidence has been championed by Lipton (2004) and his contemporaries, Douven, Elfin and Kite, and Okasha among others, as a distinctive kind of inductive inference, that when even broadly understood, “has the dual attributes of doing justice to the actual workings of science and the demands for its rational justification” (p. 61). While Peter Lipton’s model of *inference to the best explanation* (2004) may not represent an advance over the *causal-inference model of induction* (Rappaport, 1996), the former is a scientifically sound decision-making model. In an exploration of scientific reasoning using *inference to the best explanation*, Eflin and Kite (1996) confirm the usefulness of this model through the testing of empirical, or reliable *post-hoc*, findings and hypotheses for accuracy or falsity of conclusions made using a system of formulae, showing that *inference to the best explanation* is an accurate method of decision making and interpretation. Though inductive in nature, *inference to the best explanation* differs from pure induction in primarily one way: *inference to the best*

explanation can be concerned with singular events and the corresponding evidence, while pure induction is concerned with forming generalizations from a large number of instances or events (Rappaport, 1996). Since the author is deciding on Spiricom investigation continuance, and deciding on discrete hypotheses bygone (and those contingent upon continuation), *inference to the best explanation* is complimentary to the logic of inquiry employed by the author and fits the research situation as a tool for developing implications and drawing conclusions.

Inference to the best explanation fits as a decision making model for the continuance of the Spiricom investigation (even if only in a limited way, per the primary areas of interest that remain) and for a conclusion of its overall legitimacy because it involves the selection of the best explanation for a particular event or phenomenon, given the available evidence (Douven, 1999; Elfin & Kite, 1996; Lipton, 2004; Tanner, 1998). As has already been shown, when inconclusive analyses are set aside, the best explanation to be inferred from the knowledge that the Spiricom story is fraught with inconsistencies and belied by facts is that the results of the Mark IV were fraudulent (i.e., deceitful, untrue, duplicitous, false, dishonest, falsified, or counterfeit) at some level. Primary source data as exhibits comprise links in a chain of evidence that leads to this inescapable conclusion (ensuring logical fidelity). This chain of evidence (presented comprehensively at www.spiricomstudy.com) won't be recounted here, but rather the faulty reasoning that predated the author's investigation will be explored, as will the role of the *meme* as the means by which *pervasive extra-cognitive conclusions* about EVP-ITC are spread and adopted (i.e., irrational *mementics*).

Fringe Ideas as Para-Memetics

A *meme* is a neologism coined by Richard Dawkins (in chapter 11 of *The Selfish Gene*, called “Memes: The New Replicators”) to describe how the spread of ideas (including beliefs) occur via the evolutionary processes of natural selection: variation, mutation, competition, and inheritance; converging to influence a *meme*’s reproductive success. So, much like virology, one can expect that some *memes* will propagate less successfully and become extinct, while others will become more virulent strains, spread, and mutate. Are EVP-ITC generally, and Spiricom more specifically, just such infectious ideas whose time has come for inoculation?

On the perils of the self-replicating ideas called *memes* (Blackmore, 1999):

Memeticists argue that the memes most beneficial to their hosts will not necessarily survive; rather, those memes that replicate the most effectively spread best, which allows for the possibility that successful memes may prove detrimental to their hosts. (Kelly, 1994, p. 360)

If *memes* are so potentially problematic for their hosts, particularly fringe-idea or hard-to-explain *memes* akin to a psychogenic contagion, how can the replication of said *para-memes* be a part of the Darwinian survival contest?

Evolutionary psychology provides answers to the question of why humans are susceptible to *memes* that do them so much damage. Humans evolved the psychological traits that make us vulnerable to *memetic* adoption of fringe ideas and beliefs, because social status is so important to the survival of humans. But how is this related to the spread of problematic memes in select populations? Cults, drugs and fringe ideas that result in an attention-reward feedback loop all take advantage of the same essential

motivational-reward pathways in the human brain. This is as much a neurological fact as it is psychological (Henson, 2002).

Para-Meme Reinforcement

To clarify the attention-reward psychological mechanism that makes some susceptible to sub-cultural norms, values and occult ideas of ‘special knowledge’ in the form of *memes*: Being the object of attention is the way humans, and in fact all social primates, measure status. Received attention is therefore highly rewarding because of the neurotransmitter mediated release of biochemicals such as *dopamine* (strongly associated with reward mechanisms in the brain) and *endorphins* (which resemble opiates in their abilities to produce analgesia and a sense of well-being). Thusly, if attention is engendered among even a small group by the adoption of a set of fringe, internally inconsistent, or even radical conclusions, then the potential exists that the host-subject of the *meme* will become infected by the fringe-idea. It is important to inform the reader the chemical messenger, dopamine is similar to adrenaline in that dopamine affects brain processes that control emotional response, the ability to experience pleasure and pain, and learning (Gregory, 1998). Equally important, the word ‘endorphin’ is derivative and combinatory of the words *endogenous* and *morphine*, intended to describe endorphins as a “morphine-like substance originating from within the body” (Goldstein, 1975, p. 929). Ironically, it is the host-subject’s own neurological positive reinforcement mechanism of cascading chemicals that is an accomplice in this *memetic* infection of neural circuitry and subsequent psychological schema, resulting in the kind of adoption of new ideas and beliefs outside of ‘critical thinking’.

Para-Meme Reinforcement

An explanation consistent with evolutionary psychology for the propagation of the hard-to-explain *memes* is that successful *memes* of this class induce focused attention between those infected with said memes. That attention, in turn, results in the release of pleasure-inducing chemicals (i.e., the reward system of the brain). Consequent to this release of chemicals is the reinforcement of behaviors that led to the attention. Thus, it is not surprising that the behavior of people either under the influence of subcultures or cults, or people otherwise persuaded to adopted an irrational set of conclusions by the focused attention yielded from affiliation with those infected with the fringe idea, is similar to that observed in addicts. (Henson, 2002) In fact, addictive and even obsessive behaviors are manifested by the fringe-idea infected (Blackmore, 1999), perhaps better described as those under the influence of the *para-meme*.

Para-Meme Protection

Self-deceptions or defenses by which we protect our worldviews might well also serve to protect the para-meme. Just such a self-deception can be found in the self-sealing doctrine, a defensive maneuver used to protect cherished beliefs from disconfirmation. Examples of this mechanism of para-meme protection abound in the Spiricom literature:

We few fellow mortals who have today created a crude device for instrumental communication with the so-called dead, are certain to be greeted by laymen and scientists with the same or even greater skepticism, disbelief and derision. We will reap charges of “ventriloquism” or other forms of hoax. The fact that the inventors of this “crazy” new system seem to have a somewhat muddled

comprehension of the underlying laws of nature which must be involved, is also completely in line with Bohr's remarkably cogent insight. (Meek, 1982)

Also from the official Spiricom Manual (Meek, 1982):

With these preliminary thoughts on the record, we will spend no time refuting any accusations of fraud, hoax, or misinterpretation of results. We are quite content to leave judgment on all such matters to the unfolding of history in the 21st century.

These examples of *cognitive dissonance avoidance* serve to allow uncritical beliefs and self-deceptions to become subject to protection against disconfirmation, making the beliefs intractable.

Logical Fallacies

The Spiricom evidential data-set and story is plagued by different types of deceptive vagueness. Logical fallacies of vagary (like false precision, misplaced precision, and spurious accuracy) are used both surreptitiously and deliberately (Paulos, 1995) by the perpetrators of the Spiricom myth (bygone and contemporary alike).

Damer in *Attacking Faulty Reasoning* (1995) explains thusly:

This fallacy [of vagueness through pretended-precision] occurs when an argument treats information as more precise than it really is. This happens when imprecise information contained in the premises must be taken as precise in order to adequately support the conclusion. (p. 121)

This is precisely the model of *if, then, therefore* found in the Spiricom story and the related communication-with-the-dead *meme*, culminating in Spiricom as a foundational

mythos of the modern Instrumental Trans-Communication (ITC), and related Electronic Voice Phenomena (EVP), movement(s).

The Spiricom story is fraught with logical fallacies that lend themselves ultimately to the conservation of the fringe meme. In the Spiricom case we find examples of overly-precise numbers (e.g., the amplitude modulation of 29.57 megahertz when using the Spiricom Mark-IV device and 13 specific tones generated as a carrier for the discarnate voices according to O'Neil) and a preponderance of evidence (repeated references to the number of hours of contact, the number of references in the number of books, and number of believers of the same ideas) to make the claims of contact with the deceased seem more credible. The attempt at perception management of the fantastic claims using overly-precise numbers and the preponderance of evidence appeal is in stark contrast with O'Neil's claims of intuitive engineering of the Spiricom device (i.e., vagary)- an undeniable incongruence.

A common effect of overly-precise numbers and the affect of a preponderance of evidence to make a claim seemingly 'undeniable' is that this persuasive combination impresses some people as scientific, and thereby comes to be adopted by some as a conclusion. This conclusion then is not adopted on the merits of its logical fidelity, internal consistency, or concordance with all the facts – but rather on the impression of it as a 'true', credible or believable story. (Huff, 1954) Sadly, this is the case among the misinformed Spiricom meme-infected: So taken are they by the appearance of precision and preponderance of evidence, they have adopted a conclusion before critical judgment of the beliefs and notions said conclusion is based on.

Conclusion

When gross features of the Spiricom story are analyzed for coherence, one is left with a fantastic tale, superseded only by the claims of contemporary ITC ‘researchers’ like Mark Macy, supported by questionable evidence.

This begs the inference that the best explanation for the Spiricom ‘evidence’ is *fraud* was perpetrated, either upon or by the players involved in the Spiricom project. There is always the chance that future evidence will undermine this inference in favor of some other explanation. This conclusion is, therefore, provisional and available for revision in the face of new evidence. Hence, while the necessity for investigation continuance is rational (if not undeniable), its scope should be limited to those models of explanation not yet fully explored, namely conspiratorial models including psychological operations.

With continuance decided, a sound conclusion can be made at this point as to the falsehood of the Spiricom claims, having established means, motives and opportunity for a hoax in the comprehensive Spiricom study found on www.spiricomstudy.com and in *Spiricom: The Final Report* (Rorke, 2008).

Further Research

An explication of the compounding effects of irrational memetics, fantasy proneness, magical thinking, apophenia and pareidolia on the extra-cognitive adoption of beliefs as ‘truths’ would compliment well the established field of neurotheology.

References

- Bachman, J. (1995). Appeal to Authority. In H. V. Hanson & R. C. Pinto (Eds.), *Fallacies: Classical and Contemporary Readings* (pp. 274-286). Penn State Press.
- Bell, V., Halligan, P., & Ellis, H. (2003). Beliefs about delusions. *The Psychologist*, *16*(2), 418–423.
- Bell, V., Halligan, P., & Ellis, H. (2006a). A cognitive neuroscience of belief. In P. Halligan, & M. Aylward (Eds.) *The power of belief*. Oxford: Oxford University Press.
- Bell, V., Halligan, P., & Ellis, H. (2006b). Explaining delusions: A cognitive perspective. *Trends in Cognitive Sciences*, *10*, 219–226.
- Blackmore, S. (1999). *The Meme Machine*. Oxford: Oxford University Press.
- Breen, N., Caine, C., Coltheart, M., Hendy, J. & Roberts, C. (2000). Towards an understanding of delusions of misidentification. In M. Coltheart & M. Davies (Eds.) *Pathologies of belief*. Oxford: Blackwell.
- Brugger, P. (2001). From haunted brain to haunted science: A cognitive neuroscience view of paranormal and pseudoscientific thought. In J. Houran and R. Lange (Eds.) *Hauntings and Poltergeists: Multidisciplinary Perspectives*. North Carolina: McFarland & Company, Inc. Publishers.
- Buchbinder, R. (2006). Managing disability by public policy initiatives. In P.W. Halligan, & M. Aylward (Eds.) *The power of belief*. Oxford: Oxford University Press.
- Carlson, J., & Russo, E. (2001). Biased interpretation of evidence. *Journal of Experimental Psychology: Applied*, *7*, 91–103.
- Copi, I., & Cohen, C. (1998). *Introduction to Logic*. NJ: Prentice Hall.

- Damasio, A. (2000). Thinking about belief. In D.L. Schacter & E. Scarry (Eds.) *Memory, brain and belief*. Cambridge, MA: Harvard University Press.
- Damer, T. (1995). *Attacking Faulty Reasoning: A Practical Guide to Fallacy-Free Arguments*. Wadsworth Press.
- Dawkins, R. (1976). *The selfish gene*. Oxford: Oxford University Press.
- Dennett, D. (1987). *The intentional stance*. Cambridge, MA: MIT Press.
- Diefenbach, M., & Leventhal, H. (1996). The common sense model of illness representation. *Journal of Social Distress and the Homeless*, 5, 11–38.
- Douven, I. (1999). Inference to the best explanation made coherent. *Philosophy of Science*, 66(3), 424–435.
- Elfin, J., & Kite, M. (1996). Teaching scientific reasoning through attribution theory. *Teaching of Psychology*, 23(2), 87–92.
- Ellis, H., & Young, A. (1990). Accounting for delusional misidentifications. *British Journal of Psychiatry*, 157, 239–248.
- Epstein, A. (1988). A no frills approach to program evaluation. *High Scope Resources*, 7(1), 1–12.
- Evans, D., & Cruse, P. (2004). *Emotion, evolution and rationality*. Oxford: Oxford University Press.
- Eysenbach, G. (2004). Tackling publication bias and selective reporting in health informatics research. *Journal of Medical Internet Research*, 6(3), 35–37.
- Fodor, J. (1981). The mind–body problem. *Scientific American*, 244, 114–123.
- Fuller, J. (1985). *The ghost of 29 megacycles: a new breakthrough in life after death research*. London: Souvenir Press.

- Fuller, J. (1986). *The ghost of 29 megacycles: the most amazing breakthrough ever in life after death research*. NY: Signet Press.
- Fuller, J. (1987). *The ghost of 29 megacycles: the most amazing breakthrough ever in life after death research*. Great Britan: Grafton Press.
- Garety, P., Hemsley, D., & Wessely, S. (1991). Reasoning in deluded schizophrenic and paranoid patients. *Journal of Nervous and Mental Disease*, 179, 194–201.
- Gilbert, D., Tafarodi, R., & Malone, P. (1993). You can't not believe everything you read. *Journal of Personality and Social Psychology*, 65, 221–233.
- Goldstein, A., & Lowery, P. (1975). Effect of the opiate antagonist naloxone. *Life Sciences*, 17(6), 927–931.
- Gregory, R. (1998). Brainy mind. *British Medical Journal*, 317, 1693–1695.
- Guthrie, S. (1995). *Faces in the Clouds: A New Theory of Religion*. Oxford: Oxford University Press.
- Halligan, P. (2002). Phantom limbs: The body in mind. *Cognitive Neuropsychiatry*, 7(2), 251–268.
- Halligan, P., & Aylward, M. (Eds.) (2006). *The Power of belief: Psychosocial influence on illness, disability and medicine*. Oxford: Oxford University Press.
- Halligan, P., & David, A. (2001). Cognitive neuropsychiatry: Towards a scientific psychopathology. *Nature Neuroscience Review*, 2, 209–215.
- Halligan, P., & Oakley, D. (2000). Greatest myth of all. *New Scientist*, 2265, 34–39.
- Harman, G. (1965). Inference to the best explanation. *The Philosophical Review*, 74(1), 88–95.

- Hassin, R., Uleman, J., & Bargh, J. (Eds.) (2005). *The new unconscious*. New York: Oxford University Press.
- Heinzerling, J. (1997). All about EVP. *Fortean Times: The Journal of Strange Phenomena*, November, 26–30.
- Henson, H. (2002). Sex, Drugs, and Cults. *Human Nature Review*, 2, 343–355.
- Huff, D. (1954). How to Lie With Statistics. In Chapter 4: *Much Ado about Practically Nothing* (pp. 58–59). Norton Press.
- Keil, J. (1980). The voice on tape phenomena: Limitations and possibilities. *European Journal of Parapsychology*, 3, 287–296.
- Kelly, K. (1994) *Out of control: the new biology of machines*. London: Fourth Estate Limited.
- Kubis, P., & Macy, M. (1995). *Conversations Beyond the Light: Communication With Departed Friends & Colleagues by Electronic Means*. Boulder, CO: Griffin & Continuing Life Research.
- Leonard, D., & Brugger, P. (1998). Creative, Paranormal, and Delusional Thought: A Consequence of Right Hemisphere Semantic Activation? *Neuropsychiatry, Neuropsychology, and Behavioral Neurology*, 11(4), 177–183.
- Lipton, P. (2004). *Inference to the best explanation* (2nd ed.). New York: Routledge.
- MacRae, A. (1984). Some findings relating to the electronic voice phenomenon. *Psi Research*, March, 36–46.
- MacCrae, A. (2004). *EVP and New Dimensions*. Sanctuary Press: LuLu On-Demand Manuscript Publishing

- Macy, M. (1993). When dimensions cross. *Noetic Sciences Review*, 25, 17–20.
- Macy, M. (1994). News and views from the US. *Cercle d'Etudes sur la Transcommunication Luxembourg INFONews*, November (1), 14–43.
- Macy, M. (1996a). The technical side of ITC: ITC systems are a marriage of technology and spirit. *Contact! A Triannual Report of Technical Spirit Communication Research*, 2 (May–August), 8–11.
- Macy, M. (1996b). The Miracle of ITC: Electronic Communication Across Dimensions [Audio cassette]. Boulder, CO: Continuing Life Research.
- Macy, M. (1997). Communication From Beyond: A Survey of Advanced Technical Spirit Contacts [Video cassette]. Boulder, CO: Continuing Life Research.
- Meek, G. (1972). *From Séance to Science*. UK: Regency Press.
- Meek, G. (1973). *From Enigma to Science*. US: Weiser.
- Meek, G. (1982a). *SPIRICOM* [technical manual- first printing]. Franklin, NC: Metascience Foundation, Inc.
- Meek, G. (1982b). *SPIRICOM: An Electromagnetic-Etheric Systems Approach to Communications with Other Levels of Human Consciousness*. Franklin, NC: Metascience Foundation, Inc.
- Meek, G. (1982c). Press Conference- SPIRICOM: Its Development & Potential. National Press Club [VHS] Washington, DC.
- Meek, G. (1983) Pilot Study of a Report on 23 Years of Research into the Basic Nature of Man [VHS]. Kesselring Productions.
- Meek, G. (1985). *Metascience Research Division Memorandum: Status of our research*. [Winter 1985-1986]. Internal Memo.

- Meek, G. (1987). *Metascience Research Division Memorandum*. Internal Memo.
- Meek, G. (1988). Report from Europe: Earthside instrumental communications with higher planes of existence via telephone and computer are now a reality. *Unlimited Horizons: Newsletter of Metascience Foundation, Inc.*, 6(1), 1–11.
- Meek, G. (1988). In Memory of William O'Neil. *Unlimited Horizons: Newsletter of Metascience Foundation, Inc.*, 11(1), 5.
- Meek, G. (1999). *Enjoy Your Own Funeral*. US: Galde Press.
- Paulos, J. (1995). *A Mathematician Reads the Newspaper*. Anchor Press.
- Pratt, T. (1988). In Memory of William O'Neil. *Unlimited Horizons: Newsletter of Metascience Foundation, Inc.*, 11(1), 5.
- Pratt, T. (2008, July 20). A telephone interview conducted by Dr. Stephen Rorke with the President of Metascience Foundation, Inc. Thomas Pratt. Orlando, Florida.
- Quine, W. (1951). Two Dogmas of Empiricism. *The Philosophical Review*, 60, 20–43.
- Randles, J., & Hough, P. (1994). *The Afterlife: An investigation into the mysteries of life after death*. NY: Berkley Books.
- Rappaport, S. (1996). Inference to the best explanation. *Philosophy of Science*, 63(1), 65–80.
- Raudive, K. (1971). *Breakthrough: An Amazing Experiment in Electronic Communication with the Dead* [N. Fowler, Trans.]. Gerrards Cross, UK: Colin Smythe.
- Reed, G. (1988). *The Psychology of Anomalous Experience: A Cognitive Approach*. Buffalo, NY: Prometheus Books.

- Reisberg, D., Pearson, D., & Kosslyn, S. (2003). Institutions and introspections about imagery. *Applied Cognitive Psychology, 17*, 147–160.
- Rorke, S. (2008) Spricom: The Final Report. Unpublished manuscript.
- Skinner, B. F. (1936). The verbal summator and a method for the study of latent speech. *The Journal of Psychology, 2*, 71–107.
- Smith, E. (1974). The Raudive voices- Objective or subjective? A discussion. *Journal of the American Society for Psychical Research, 68*, 91–100.
- Tanner, D. (1998). The social consequences of bad research. *Phi Delta Kappan*. Retrieved September 12, 2007 from <http://www.pdkintl.org/kappan/ktan9801.htm>
- Uphoff, W., Uphoff, M., Senkowski, E., & Meek, G. (1988). Historical overview on the development of instrumental contact with the “dead.” *Unlimited Horizons: Newsletter of Metascience Foundation, Inc., 6*(1), 15–17.
- Warren, R. (1968). Verbal transformation effect and auditory perceptual mechanisms. *Psychological Bulletin, 70*(4), 261–270.
- Warren, R. (1983). Auditory Illusions and Their Relation to Mechanisms Normally Enhancing Accuracy of Perception. *JAES Volume 31 Issue 9*, 623-629
- Weinman, J., & Petrie, K. (1997). Illness perceptions: A new paradigm for psychosomatics? *Journal of Psychosomatic Research, 42*, 113–116.
- Zusne, L., & Jones, W. (1990) *Anomalistic Psychology: A Study of Magical Thinking 2nd edition*. MA: Lawrence Erlbaum Associations.