

Resources

Academic Articles

Anthropology/Folklore

“Canela Relationships with Ghosts: This-Worldly or Otherworldly Empowerment.” Crocker, William H. *The Latin American Anthropology Review*, Vol. 5, No. 2, pp. 71-78.

No abstract.

“The Structure, Stability, and Social Antecedents of Reported Paranormal Experiences.” Fox, John W. *Sociological Analysis*, Vol. 53, No. 4, The Unique and Shared in Religion and Society, (Winter, 1992), pp. 417-431.

Using national sample data from the General Social Surveys, this study assess cultural source theories of reported paranormal experiences. The reported paranormal experiences of extrasensory perception, clairvoyance, contact with the dead, and mysticism, but not déjà vu, are found to have an invariant and stable factor structure across the 1984, 1988, and 1989 General Social Survey data. Déjà vu is more frequent among younger and more highly educated respondents, but this is unaffected by sex, race, income, marital status, and religious preference difference. Other reported paranormal experiences are higher among women but are unaffected by age, race, education, income, marital status, and religious preference differences. The effects of age and education on déjà vu and the effect of sex on other reported paranormal experiences are consistent across 1984, 1988, and 1989 General Social Survey data. The findings of this study suggest that cultural source theories and deprivation theory have little empirical support explaining reported paranormal experiences.

“Traditional Christian Beliefs, Spiritualism, and the Paranormal: An Icelandic--American Comparison.” Haraldsson, Erlendur and Joop M. Houtkooper. *International Journal for the Psychology of Religion*, Vol. 6, No. 1 (Jan. 1996), pp. 51-64.

The relation among traditional Christian beliefs, spiritualism, and the paranormal was the subject of a factor-analytical study to compare religious-paranormal belief structures of samples in Iceland and the United States (Louisiana, Virginia, and Illinois). Tobacyk's 25-item Paranormal Belief Scale (Tobacyk and Milford, 1983) was administered to 349 Icelandic students. The same seven factors emerged in Iceland as in Louisiana but the strength of the various factors differed considerably among the two samples. The Traditional Religious Belief factor, which explained most of the variance in the Louisiana samples, was fifth in Iceland, where the Spiritualism factor emerged as the strongest but was fifth in the United States. The Psi factor showed comparable strength in both samples. The Icelandic sample revealed itself as less believing on all subscales (factors) except on the Spiritualism subscale where it was comparable to the U.S. sample.

"Amulets and Anthropology: A Paranormal Encounter with Malay Magic." Lee, Raymond L. M. *Anthropology & Humanism Quarterly*, Vol. 12, No. 3 & 4, (1987), pp. 69-74.

Many anthropologists regard personal accounts of the paranormal as superfluous because they are not scientifically verifiable. I argue, on the contrary, these accounts cut into the heart of that reality we call fieldwork. As a human endeavor, fieldwork is emotional. By describing the social context of my experience with Malay magic, I adduce the emotional intensity in paranormal encounters. It is in these encounters we gain insight into the ritual control of emotion.

"Religion and Paranormal Belief." Orenstein, Alan. *Journal for the Scientific Study of Religion*. Vol. 41, No. 2 (Jun., 2002), pp. 301-311.

This article uses a Canadian national sample to examine the relationship between conventional religious belief, church attendance, and belief in paranormal phenomena. Greater religious belief is strongly associated with greater paranormal belief. Church attendance (and other measures of religious participation) are only weakly associated with paranormal belief until conventional religious belief is statistically controlled; once this is done, variables explain about one-quarter of the variance in paranormal belief, making them the strongest predictors that have yet to be identified.

"The Swedes and the Paranormal." Sjodin, Ulf. *Journal of Contemporary Religion*, Vol. 17, No.1, (Jan. 2002), pp. 75-85.

The hypothesis that Church and Science have lost some of their former standing in Sweden and

made way for deviant beliefs is examined in two empirical studies which show a widespread belief in paranormal phenomena. The paper also discusses how believers in the paranormal relate to institutionalised religious beliefs and how problematic the interpretation of religious self-assessment items are.

“Repentant Soul or Walking Corpse? Debatable Apparitions in Medieval England.” Simpson, Jacqueline. *Folklore*, Vol. 114, (2003), pp. 389-402.

This paper examines two sets of medieval English narratives describing encounters with ghosts, those by William of Newburgh and those in a manuscript from Byland Abbey. Both combine theological elements with non-religious features, some of which can be linked to pre-Christian practices and others to later folklore. But neither the theology nor the folklore is uniform. Furthermore, it is not possible to assign theological attitudes solely to the clergy and/or an educated elite, and “folkloric” ideas solely to an underclass. These texts display an ongoing medieval debate in which neither clerics nor the laity spoke with a single voice.

"Investigating the Relationship between Exposure to Television Programs that Depict Paranormal Phenomena and Beliefs in the Paranormal." Sparks, Glenn and Will Miller. *Communication Monographs*, Vol. 68, No.1, (Mar. 2001), pp. 98-113.

This paper seeks to continue a program of research that explores the possible relationship between exposure to media messages and paranormal beliefs. Following the work of Sparks, Nelson and Campbell (1997), who reported the results of a random sample survey taken in 1994, this study reports the findings of a second random sample survey taken in the same geographic area several years later. The results of the survey show that paranormal beliefs are prevalent in the population and that they are related to reports of television exposure to programs that regularly depict paranormal phenomena. Like the findings reported by Sparks, Nelson and Campbell (1997), this study found that the relationship between TV viewing and paranormal beliefs was contingent upon prior personal experience with a paranormal event. However, the form of this contingent relationship was directly opposite from that observed in the earlier survey. In this study, the relationship between TV exposure and paranormal beliefs emerged only for respondents who reported personal experience with the paranormal. Plausible reasons for the conflicting findings and suggestions for future research are discussed.

“Ghostly Possession and Real Estate: The Dead in Contemporary Estonian Folklore.” Valk, Ülo. *Journal of Folklore Research*, Vol. 43, No. 1, (2006), pp. 31-86

This article examines Estonian Folklore about ghosts in generic, social, and historical contexts. It argues that the presumed expectations of the dead can become a coercive force on the behavior of the living, whose fears and anxieties are symbolically expressed in legends and memorates. Return of the restless dead in contemporary Estonian folklore manifests discrepancies between the values and norms of modern people and those previous generations.

This article is based on fieldwork interviews conducted on the islands of West Estonia between 2000 and 2003. It analyzes memorates about the haunted childhood home of Helmi, who inherited and sold it. According to Helmi, the home was haunted by the ghost of her grandmother, who was concerned about the abandonment of her family property.

These worries are best understood in the context of Estonia's uncertain history of property ownership. Estonians became legal owners of farms at the end of nineteenth century. The number of farmers grew until the country was annexed by the Soviet Union. The communist system replaced private property with state ownership. After Estonia regained independence in 1991, however, real estate was returned to the pre-communist owners or their descendants. In this period of change and uncertainty, ghosts can be connected with ownership. Property required an owner, and if property is abandoned, legends may introduce supernatural shadow figures to serve as owners. Legends about ghost can thus express memories and traumatic experiences of the living, who have suffered from the turmoils of history.

Biology/Neurology

"Neurobehavioral and Neurometabolic (SPECT) Correlates of Paranormal Information: Involvement of the Right Hemisphere and its Sensitivity to Weak Complex Magnetic Fields." Roll, W. G., et al. *International Journal of Neuroscience*, Vol. 112, No. 2, (Feb. 2002), pp. 197-224.

Experiments were designed to help elucidate the neurophysiological correlates for the experiences reported by Sean Harribance. For most of his life he has routinely experienced flashes of images of objects that were hidden and of accurate personal information concerning people with whom he was not familiar. The specificity of details for target pictures of people was correlated positively with the proportion of occipital alpha activity. Results from a complete neuropsychological assessment, Single Photon Emission Computed Tomography (SPECT), and screening electroencephalography suggested that his experiences were associated with increased activity within the parietal lobe and occipital regions of the right hemisphere. Sensed presences (subjectively localized to his left side) were evoked when weak, magnetic fields, whose temporal structure simulated long-term potentiation in the hippocampus, were applied over his right temporoparietal lobes. These results suggest that the phenomena attributed to paranormal or extrasensory processes are correlated quantitatively with morphological and functional anomalies involving the right parietotemporal cortices (or its thalamic inputs) and the hippocampal formation.

"Executive Functions in Morality, Religion, and Paranormal Beliefs." Wain, Omar and Marcello Spinella. *International Journal of Neuroscience*, Vol. 117, No. 1, (Jan. 2007), pp. 135-146.

Moral, religious, and paranormal beliefs share some degree of overlap and play important roles in guiding peoples' behavior. Although partly cultural phenomena, they also have neurobiological components based on functional neuroimaging studies and research in clinical populations. Because all three show relationships to prefrontal system functioning, the current study examined whether they related to executive functions as measured by the Executive Function Inventory in a community sample. As in previous research, religious beliefs related positively to both moral attitudes and paranormal beliefs. Moral attitudes, however, did not relate to paranormal beliefs. Paranormal beliefs related inversely to impulse control and organization, whereas small positive correlations occurred between traditional religious beliefs, impulse control, and empathy. Moral attitudes, on the other hand, showed consistent positive correlations with all executive functions measured, independent of demographic influences. These findings concordantly support that prefrontal systems play a role in morality, religion, and paranormal beliefs.

"Experimental Simulation of a Haunt Experience and Elicitation of Paroxysmal Electroencephalographic Activity by Transcerebral Complex Magnetic Fields: Induction of a Synthetic 'Ghost?'" Persinger, M. A. et al. *Perceptual and Motor Skills*, Vol. 90, No. 2, (Apr. 2000), pp. 659-674.

To test the hypothesis that experiences of apparitional phenomena with accompanying fear can be simulated within the laboratory, a 45-yr.-old journalist and professional musician who had experienced a classic haunt four years previously was exposed to 1 microTesla, complex, transcerebral magnetic fields. Within 10 min. after exposure to a frequency-modulated pattern applied over the right hemisphere, the man reported "rushes of fear" that culminated in the experience of an apparition. Concurrent electroencephalographic measurements showed conspicuous 1-sec.-to-2-sec. paroxysmal complex spikes (15 Hz) that accompanied the reports of fear. A second magnetic field pattern applied bilaterally through the brain, was associated with pleasant experiences. The subject concluded that the synthetic experience of the apparition was very similar to the one experienced in the natural setting. The results of this experiment suggest that controlled simulation of these pervasive phenomena within the laboratory is possible and that this experimental protocol may help discern the physical stimuli that evoke their occurrence in nature.

Electromagnetic Fields (EMF)

"Electromagnetic Fields and Public Health." Aldrich, Timothy E.; Clay E. Easterly. *Environmental*

Health Perspectives, Vol. 75, (Nov., 1987), pp. 159-171.

A review of the literature is provided for the topic of health-related research and power frequency [of] electromagnetic fields. Minimal evidence for concern is present on the basis of animal and plant research. General observations would accord with the implication that there is no single and manifest health effect as the result of exposure to these fields. There are persistent indications, however, that these fields have biologic activity, and consequently, there may be a deleterious component to their action, possibly in the presence of other factors. Power frequency electromagnetic field exposures are essentially ubiquitous in modern society, and their implications in the larger perspective of public health are unclear at this time. Electromagnetic fields represent a methodological obstacle for epidemiologic studies and a quandary for risk assessment; there is need for more data.

"Electromagnetic Pollution: Is It Hurting Our Health?" Arehart-Treichel, Joan. *Science News*, Vol. 105, No. 26, (Jun. 29, 1974), pp. 418-419.

No abstract.

"Using Digital Magnetometry to Quantify Anomalous Magnetic Fields Associated with Spontaneous Strange Experiences: The Magnetic Anomaly Detection System (MADS)." Braithwaite, Jason J. *The Journal of Parapsychology*, 2005.

Recent laboratory studies have revealed that human exposure to low-frequency complex electromagnetic fields (EMFs) can induce anomalous hallucinatory and delusional experiences in normal observers. The implication from these laboratory studies is that such EMFs could underlie some spontaneous instances of anomalous cognition in the natural setting. Although the laboratory-based studies are interesting they remain to be systematically field tested with an appropriate methodology and suitable equipment. Based directly on the finds from neuroscience, this paper introduces the first truly appropriate environmental-based measuring system for the systematic recording of the complex magnetic signatures identified as being crucial by the laboratory studies. The magnetic anomaly detection system (MADS) is a fully computerized dual sensor high-speed digital magnetometer system that can be easily adapted to EMF field and laboratory research. The MADS is capable of illumination scientific theories by detailing the complex characteristics of such anomalous transients and helping assess their implications for cognition.

"In Search of Magnetic Anomalies Associated with Haunt-Type Experiences: Pulses and Patterns in Dual Time-Synchronized Measurements." Braithwaite, Jason, et al. *The Journal of Parapsychology*. 2004.

Growing evidence from field-based investigations of haunted locations suggests that, in some circumstances, such areas are magnetically remarkable in some way relative to baseline locations. However, few studies have reported experiments that employed magnetic measurements from observer and baseline areas simultaneously, and even fewer have investigated magnetic anomalies in depth. Expanding on a recent study (Braithwaite, 2004), this paper presents a follow-up investigations of a detailed magnetic study of a reportedly haunted locations. Time-linked simultaneous measurements revealed important magnetic signatures distinguishing crucial areas. These signatures included: (1) higher magnetic variability, and (2) an instance of a burst-pattern impinged in the variability. We also measured transient instances of pulses within the data series. Collectively, these signatures likely reflect complex interactions between house wiring, localized geological characteristics, physical objects and building structure. The implications of the current findings for the magnetically remarkable nature of reportedly haunted buildings are discussed.

"Human exposure to 60-Hz magnetic fields: neurophysiological effects." Graham, Charles, et al. *International Journal of Psychophysiology*, Vol. 33, (1999), pp. 169-175.

The neurophysiological effects of exposure to power-frequency magnetic fields at two occupationally-relevant intensities were evaluated in a single-blind study with 18 male and 18 female volunteers. Auditory brainstem (BAEP) and somatosensory (SEP) evoked potentials were recorded before, during and after field exposure (duration = 45 min, frequency = 60 Hz, field intensities = 14.1 or 28.3 microtesla, μ T), or an equivalent sham-exposure control period. Visual event-related potentials (VEP) to pattern reversal stimuli were also recorder before and after the exposure period. Field exposure had no differential effects on the BAEP, the VEP, or on SEP measurements of central conduction time. Men and women showed a similar lack of sensitivity to exposure. The present results do not support the mechanistic hypothesis that the transmission of sensory information to appropriate cortical centers is delayed or distorted by exposure to power-frequency magnetic fields at occupational intensities.

"Hypersensitivity of Human Subjects to Environmental Electric and Magnetic Field Exposure: A Review of Literature." Levallois, Patrick. *Environmental Health Perspectives*, Vol. 110, Supplement 4, (Aug. 2002), pp.613-618.

Hypersensitivity to exposure to electric and magnetic fields (EMFs) has been reported for nearly 20 years; however, the literature on the subject is still very limited. Nearly all the literature published concerns a dermatological syndrome that consists of mainly subjective symptoms

(itching, burning, dryness) and a few objective symptoms (redness, dryness) appearing after individuals begin working with video display units and decreasing during absence from work. Case-control studies as well as some good but limited double-blind trials have not found any clear relationship between this syndrome and exposure to EMFs. A "general syndrome" with more general symptoms has been rarely described but seems to have a worse prognosis. The symptoms often associated with skin disorders are mainly neurasthenic type and can cover a lot of nonspecific fatigue. Most of these symptoms are allegedly triggered by exposure to different sources of EMFs, but there have been no valid etiological studies published on this more general syndrome. It appears that the so-called hypersensitivity to environmental electric and magnetic fields is an unclear health problem whose nature has yet to be determined.

"Neurobehavioral Effects of Power-Frequency Electromagnetic Fields." Paneth, Nigel. *Environmental Health Perspectives*, Vol. 101, Supplement 4: Environmental Epidemiology, (Dec., 1993), pp. 101-106.

Some laboratory experiments have suggested that power-frequency electric and magnetic fields (EMF) may be capable of influence calcium efflux from cell membranes, pineal function, and circadian rhythms. As yet, however, no consistent, replicable laboratory model has been developed for any of these effects. Most assessments of human volunteers exposed to EMF have been negative, but occasional effects on vigilance or alertness and some modest effects on circadian rhythmicity have been reported. Several carefully performed studies of workers occupationally exposed to high electric-field strengths have failed to find effects on behavior or cognitive functioning. Although the bulk of human research on the effects of EMF on cognitive performance is negative, there has been less assessment of behavior and psychiatric symptomatology. Because some studies, in both humans and animals, have described effects of EMF on circadian rhythms, future research might concentrate profitably on the assessment of EMF in relation to depression and other cyclically mediated psychiatric disorders.

"Electromagnetic Fields: The Biological Evidence." Pool, Robert. *Science*, New Series, Vol. 249, No. 4975, (Sep. 21, 1990), pp. 1378-1381.

No abstract.

"A Neurobiological Basis for ELF Guidelines." Saunders, Richard D. and John G. R. Jefferys. *Health Physics*, Vol. 92, No. 6, (Jun. 2007), pp. 596-603.

It is well understood that electric currents applied directly to the body can stimulate peripheral nerve and muscle tissue; such effects can be fatal if breathing is inhibited or ventricular fibrillation is induced. Exposure to extremely low frequency electric and magnetic fields will also induce electric fields and currents within the body, but these are almost always much lower than those that can stimulate peripheral nerve tissue. Guidance on exposure to such fields is based on the avoidance of acute effects on the central nervous system. This paper reviews the physiological processes involved in nerve cell excitability in the peripheral and central nervous system, and the experimental evidence for physiologically weak electric field effects. It is concluded that the integrative properties of the synapses and neural networks of the central nervous system render cognitive function sensitive to the effects of physiologically weak electric fields, below the threshold for peripheral nerve stimulation. However, the only direct evidence of these weak field interactions within the central nervous system is the induction of phosphenes in humans - the perception of faint flickering light in the periphery of the visual field, by magnetic field exposure. Other tissues are potentially sensitive to induced electric fields through effects on voltage-gated ion channels, but the sensitivity of these ion channels is likely to be lower than those nerve and muscle cells specialized for rapid electrical signaling. In addition, such tissues lack the integrative properties of synapse and neuronal networks that render the central nervous system potentially more vulnerable.

"Affective Response to 5 μ TELF Magnetic Field-Induced Physiological Changes." Stevens, Paul. *Bioelectromagnetics*, Vol. 28, (2007), pp. 109-114.

Research into effects of weak magnetic fields (MFs) at biologically relevant frequencies has produced ambiguous results. Although they do affect human physiology and behaviour, the direction of effects is inconsistent, with a range of complex and unrelated behaviours being susceptible. A possible explanation is that these effects, rather than being directly cause, are instead related to changes in affective state. A previous study showed that MFs altered the affective content of concurrent perceptions, but it was unclear whether the emotional response was direct or indirect. Here is it shown that exposure to a 0-5 μ T MF (DC-offset sinusoidal wave form) within EEG α -band frequencies (8 - 12Hz), results in a reported change in emotional state. This related to a decrease global field power but lacks the frontal α -asymmetry that would physiologically indicate a directly induced emotional state, suggesting that participant experiences are due to interpretation of the effects of MF exposure.

"Can Low-Level 50/60 Hz Electric and Magnetic Fields Cause Biological Effects?" Valberg, P. A., et al. *Radiation Research*, Vol. 148, No. 1, (Jul. 1997), pp. 2-21.

Some epidemiological studies have suggested that exposure to ambient, low-level 50/60 Hz electric and magnetic fields (EMFs) increases risk of disease. Whether this association has a causal basis depends in part on whether the electrical, chemical and mechanical "signals" induced within living cells by ambient EMFs are detectable in the complex milieu of voltages, currents and forces present within the living organism. Magnetic responsiveness has been found in some

animals and bacteria; aquatic animals (e.g. sharks and rays) can sense weak electric fields. We outline the physics of several mechanisms by which EMFs may interact: (1) Energy transfer by acceleration of ions and charges proteins modifies cell membranes and receptor proteins; however, EMF energies are far below those typical of biomolecules in the cell. (2) Electric fields induced inside the body exert forces on electric charges and electric moments; however, these forces are considerably smaller than typical biological forces. (3) The magnetic moments of ferromagnetic particles and free radical molecules interact with magnetic fields, but magnetic-moment sensory cells have not been found in humans, and modification of radical recombination of rates by EMFs in a biological system is highly problematic. (4) Resonant interactions involve EMFs driving vibrational or orbital transition in ion-biomolecule complexes; these mechanisms conflict with accepted physics, and many experimental tests have not found the predicted effects. (5) Temporal averaging or spatial summation can improve the ratio of "signal" to "noise" in any system, but this "mechanism" requires biological structures and neural processes having the necessary capabilities of EMF detection and temporal averaging that have not been found in humans. In summary, biological effects in humans due to extremely low-frequency EMFs on the order of those found in residential environments [$\leq 2 \mu\text{T}$ ($\leq 20 \text{ mG}$)] are implausible based on current understanding of physicals and biology. Biological effects in humans at higher fields [$>10 \mu\text{T}$ ($> 100 \text{ mG}$)] might reach plausibility as a result of time-averaging in combination with a magnetic-moment transduction mechanism; but even here, neither specialized EMF transduction structures nor appropriate averaging networks have been demonstrated. The hypothesis that the epidemiological associations observed between 50/60 Hz EMFs and disease reflect a causal relationship is not supported by what is known about mechanisms.

"Biological Effects Due to Weak Electric and Magnetic Fields: The Temperature Variation Threshold." Weaver, James C., et al. *Biophysical Journal*, Vol. 76, (Jun. 1999), pp. 3026-3030.

A large number of epidemiological and experimental studies suggest that prolonged ($> 100 \text{ s}$) weak 50-60 Hz electric and magnetic field (EMF) exposures may cause biological effects (NIEHS Working Group, NIH, 1998; Bersani, 1999). We show, however, that for typical temperature sensitivities of biochemical processes, realistic temperature variations during long exposures that raise the threshold exposure by two to three orders of magnitude over a fundamental value, independent of the biophysical coupling mechanism. Temperature variations have been omitted in previous theoretical analyses of possible weak field effects, particularly stochastic resonance (Bezrukov and Vodyanoy 1997a. *Nature*. 385:319-321; Astumian et al., 1997 *Nature*. 338:632-633; Bezrukov and Vodyanoy, 1997b. *Nature*. 338:663; Dykman and McClintock, 1998. *Nature*. 391:344; McClintock, 1998; Gammaitoni et al., 1998. *Rev. Mod. Phys.* 70:223-287). Although sensory systems usually respond to much shorter ($\sim 1 \text{ s}$) exposures and can approach fundamental limits (Bialek, 1987 *Annu. Rev. Biophys. Biophys. Chem.* 16:455-468; Adair et al., 1998. *Chaos*. 8:576-587), our results significantly decrease the plausibility of effects for nonsensory biological systems due to prolonged, weak-field exposures.

"Health Effects of Extremely Low-Frequency (50- and 60-Hz) Electric and Magnetic Fields." Zipse, Donald W., *IEEE Transactions on Industry Applications*, Vol. 29, No. 2, (Mar/Apr. 1993), pp. 447-458.

The news/publishing media has attempted to capitalize on or exploit the concern over health effects of electric and magnetic fields. This paper will provide assistance to the scientific and technical community to put the subject into perspective while the furor abates. The concern over the health effects of extremely low-frequency, 50-60 Hz, electric and magnetic fields is addressed. The voltages and currents generated within the human body are detailed. The values of directly applied voltages and currents that occur when a person comes into contact with energized conductors, that are hazardous to human, are compared with the nonhazardous induced voltages and currents. An overview of the animal, cell, and human research with the epidemiological studies is presented with the object of familiarizing the reader with the wide scope of the subject. The "positions" being expounded by the various concerned groups are listed. The existing standards and values that have been developed by consensus groups are presented. Continuation of prudent research is advocated.

Electronic Voice Phenomena (EVP)

"Rorschach Audio: Ghost Voices and Perceptual Creativity." Banks, Joe. *Leonardo Music Journal*, Vol. 11, Not Necessarily "English Music": Britain's Second Golden Age. (2001), pp. 77-83.

The author considers research into allegedly supernatural "Electronic Voice Phenomena" (EVP) in light of both anecdotal reports and formal experimental studies of related aspects of human auditory perception. He offers the primary hypothesis that an understanding of the relevant aspects of psychoacoustics provides a complete explanation for most EVP recordings, and a secondary hypothesis that an informed understanding of these processes is as relevant to the emergent field of sound art as studies of optical illusions have been to the study of visual art.

"I Hear Dead People: Science, Technology and a Resonant Universe." Dixon, Deborah P. *Social & Cultural Geography*, Vol. 8, No. 5, (Oct. 2007), pp. 719-733.

In recent years the simplistic categorization of Victorian practices and beliefs as either 'occult' or 'scientific' has been undercut by a series of revisionist analyses that point to an over-arching concern with influence and effect, a concern that was manifest across the sciences and humanities and beyond into popular culture. This paper sets out to further problematize such a distinction via an exploration of twentieth-century research into electronic voice phenomena (EVP), celebrated by its adherents as proof of a spiritual plane of existence beyond the readily observable or audible. In doing so, I focus on the work of one of the most active EVP researchers, Konstantin Raudive, as well as the web pages of the World Instrumental Transcommunication organization, drawing out the pivotal role of technology in the construction of this form of knowledge and some of its associated imaginative geographies. In and of itself, EVP research tells us much about the authoritative status of cause and effect explanatory frameworks, as well as the innocence accorded

technological apparatus. An examination of how EVP has been received within academia, however, also reveals how, in our 'post'-positivist academic environment, efforts are still being made to locate explanation within the human subject, as the charge is made that EVP researchers suffer from a logocentrism or are witness to Freud's doppelganger. In response to these critiques, I pose the question: can the willingness of EVP researchers to abandon such human-centered certainties resonate with emergent 'post-human' ideas on the nature of explanation itself?

"Voices of the Dead: Transmission/Translation/Transgression." Enns, Anthony. *Culture, Theory and Critique*, Vol. 46, No. 1, (2005), pp. 11-27.

The history of spiritualist sound experiments - from nineteenth-century 'trumpet manifestations' to contemporary 'electronic voice phenomena' - represents a sustained engagement with electrical noise and its psychic, linguistic, and media-technological implications. While the study of noise generally focuses on music and cinema sound, in which its transgressive nature is often recuperated back into artistic production, spiritualist efforts to record so-called transmissions from the dead illustrate the ways in which noise resists conscious mediation or artistic representation. A closer study of their methods and practices shows that the real, physical-acoustic nature of voice phenomena even resists the spiritualists' own attempts to translate and interpret these noises as coherent 'messages'. Through an examination of the history of spiritualist sound experimentation in the Nineteenth Century and its continued practice following the development of the radio and tape recorder in the Twentieth Century, this paper argues that the spiritualists' enduring fascination with noise exposes the connections between sound technologies, psychic phenomena and schizophrenic hallucinations which pose a threat to the autonomy and integrity of the listening and speaking subject.

Psychology/Parapsychology

"Normalizing the Paranormal: Short-term and Long-term Change in Belief in the Paranormal Among Older Learners during a Short Course." Banziger, George. *Teaching of Psychology*, Vol. 10, No.4, (1983), pp. 212-214.

No abstract.

"The Presence of the Dead: An Empirical Study." Bennett, Gillian and Kate Mary Bennett. *Mortality*, Vol. 5, No. 2, (Jul. 2000), pp. 139-157.

It is very common for newly bereaved people to hold on to their spouse's possessions, and talk to photographs of them, or to feel that they are still communicating with them. A post-bereavement experience that encapsulates these themes, providing closeness, communication, and the continuation of an important relationship, is the sense of the dead person's presence. At its weakest this is a feeling that one is somehow being watched; at its strongest it is a full-blown sensory experience. This experience has over the past 50 years become well documented in medical, counseling and psychological literature. Our discussion is based on two empirical studies undertaken roughly 15 years apart, and it leads us to challenge some assumptions found in the literature. We argue, for example, that the sense of presence does not occur at a single stage of bereavement and that it lasts for much longer than the literature has previously suggested. We also look at some of the ways these sorts of experiences have been commonly interpreted and how experiencers interpret them themselves. The view that dominates scientific discourse is that these experiences are illusory-symptoms of broken hearts and minds in chaos, or part of the futile searching for the deceased that characterizes the early stages of grief. However, there is an alternative interpretational framework which allows the phenomenon to be seen as 'real' and 'natural', evidence of the possibility of continuing links with the dead beyond the grave. We argue that both these discourses are cultural artefacts, equally 'rational' and equally 'traditional'. In a search for understanding of their experiences, bereaved people have access to both these discourses. We show that they may utilize either or both, often within the context of a single conversation or narrative. The primary data for this paper come from KMB's recent research into the lives of widows in Leicester; it also draws on earlier research conducted in Manchester by GB.

"Population Stereotypes and Belief in the Paranormal: Is There a Relationship?" French, Christopher C. *Australian Psychologist*, Vol. 27, No. 1, (Mar. 1992), pp. 57-58.

The current study provides a further demonstration of population stereotypes in a study ostensibly investigating telepathy. Subjects show a strong tendency to choose certain predictable responses, and this phenomena can be used to create the impression that extrasensory communication has occurred. No correlation was found between the tendency to choose stereotypical responses and scores on the Belief in the Paranormal Scale. The high-belief group were more convinced than the low-belief group that ESP had been involved throughout the study, even following debriefing.

"Effects of Paranormal Beliefs on Response Bias and Self-assessment of Performance in a Signal Detection Task." Gagne, Helene and Stuart J. McKelvie. *Australian Journal of Psychology*, Vol. 42, No. 2, (Aug. 1990), pp.187-195.

It has been found that people who believe in the paranormal give higher estimates of their performance in psi tasks than non-believers. In order to test the hypothesis that this effect stems from a general tendency of believers to respond less cautiously than non-believers in perceptual-

cognitive tasks, 26 high and 27 low scorers on the Survey of Paranormal Beliefs were tested in a signal detection task. However, the two groups obtained similar scores on two objective measures of responding during the task (β , the response criterion, and the number of positive detection responses), and on two subjective post hoc measures of performance (perceived control over response outcomes, and estimated number of hits). These results do not support the contention that believers generally respond less cautiously than non-believers.

"Refitting Fantasy: Psychoanalysis, Subjectivity, and Talking to the Dead." Gunn, Joshua. *Quarterly Journal of Speech*, Vol. 90, No. 1, (Feb. 2004), pp. 1-23.

This essay works toward an integration of psychoanalysis and rhetorical theory in response to the poststructural critique of mediation. I argue that the concept of communication, usually understood as the mediation or reconciliation of Self and Other, is based on what Lacan termed the fundamental fantasy. Distinct from the conscious fantasies usually analyzed by rhetorical critics, the fundamental fantasy is an underlying psychological structure that channels desire, usually a subject's desire for the Other's desire. I argue that conscious fantasies yield a sense of agency, but only as iterations of this more fundamental fantasy thriving in the unconscious. To illustrate this psychoanalytic understanding of fantasy and subjectivity, I examine the rhetoric of John Edward, a popular television psychic and medium who persuades people that he can talk to the dead.

"A Rasch Hierarchy of Haunt and Poltergeist Experiences." Houran, James and Rense Lange. *The Journal of Parapsychology*, Vol. 65, (Mar. 2001), pp. 41-58.

Although it has long been suspected that haunt and poltergeist phenomena form a hierarchy, compelling empirical evidence for this suggestion has been lacking. Using the data of 865 student respondents from 2 previous studies, Rasch scaling of 8 items from the Poltergeist subscale of the Anomalous Experiences Inventory (V. K. Kumar, R. J. Pekala, & C. Gallagher, 1994) revealed the existence of a well-defined probabilistic hierarchy of events. Statistical dimensionality tests validated that the 8 items indeed constitute a unidimensional continuum, and this continuum is not significantly affected by gender-related response biases. The results do not discriminate among the various parapsychological and conventional explanations for these experiences, and several theoretical perspectives on the findings are discussed.

"How Many Factors of Paranormal Belief Are There? A Critique of the Paranormal Belief Scale." Lawrence, Tony R. *The Journal of Parapsychology*, Vol. 59, (Mar. 1995), pp. 3-25.

The purpose of this investigation was to assess critically the Paranormal Belief Scale (PBS) developed by Tobacyk and Milford (1983) and revised by Tobacyk (1988). This scale provides seven factors of paranormal belief: Traditional Religion, Psi Belief, Precognition, Spiritualism, Witchcraft, Extraordinary Life Forms, and Superstition. The revised scale consists of 26 items and has been widely used in research into the causes and consequences of belief in the paranormal. However, in its present form the PBS is based on less than strong methodology, and even though the factorial structure of paranormal belief is likely to be multidimensional, it is certainly not accounted for by a seven-factor simple structure, nor is it likely to be orthogonal. Reconstruction and reanalysis of original 13-factor solution show that there are more likely to be four significant factors in the PBS. An in-dept review of the PBS subscales shows that subscale items lacked comprehensive coverage of their constructs and are often wrongly named. It also sheds light on why the factor structure may have turned out as it did. In conclusion, I argue that a new PBS and a more appropriate definition of paranormal are required. Finally, a new approach to PBS scale development is argued for, helping the researcher to sift out the varieties of believe and therefore enhancing the quality of paranormal research.

"Quantitative Investigation of the General Wayne Inn." Maher, Michaeleen C. *The Journal of Parapsychology*, Vol. 64, (Dec. 2000), pp. 365-390.

Apparitions and poltergeist-like disturbances were reported by the owner and employees of a wayside inn in Merion, Pennsylvania. The legend that a "ghost" haunted the premises had persisted for more than 2 centuries. Quantitative measures tested 3 sensitives and 3 controls. Participants marked on floor plans locations where they sensed a ghost (sensitives) or where they believe a credulous person might report a ghost (controls). Participants also responded to a checklist containing brief descriptions of the reported phenomena that were randomly interposed with descriptions of plausible disturbances that no one reported. One sensitive's floor-plan responses significantly resembles the locations of disturbances reported by witnesses ($p = .026$), and her checklist impressions suggested the ghostly characteristics witnesses had described ($p = .059$). The combined floor-plan responses of sensitives bore a suggestive correspondences to the witnesses' reports ($p = .084$). Control participants, neither individually nor as a group, produced test responses that resembled the witnesses' accounts. No significant differences in the mean magnitudes, or all measured magnitudes. These findings imply that the aberrant cognitive phenomena reported by witnesses cannot be attributed to variations in the magnitudes of ambient magnetic fields.

"Riding the Waves in Search of the Particles: A Modern Study of Ghost and Apparitions." Maher, Michaeleen C. *The Journal of Parapsychology*, Vol. 63, No. 1, (Mar. 1999), pp. 47-80.

No abstract.

"Student Belief and Involvement in the Paranormal and Performance in Introductory Psychology." Messer, Wayne S. and Richard A. Griggs. *Teaching of Psychology*, Vol. 16, No. 4, (Feb. 1989), pp.187-191.

Student belief and involvement in 10 paranormal phenomena were assessed via questionnaire. Prevalence of belief was extensive, with over 99% of the sample expressing belief in at least one phenomenon. Personal involvement was less prevalent but substantial. Over 65% indicated personal involvement in at least one phenomenon. In addition, men who believed in ESP/psychokinesis and firewalking and women who felt they had personally experienced precognition during dreams had significantly lower course grades than their skeptical and uninvolved counterparts, even when the effect of SAT score was removed. In light of these findings, we discuss the introductory psychology instructor's role in combating unfounded beliefs and fostering critical thinking skills.

"Help-seeking and paranormal beliefs in adherents of mainstream religion, alternative religion, and no religion." Smith, Anne Finlayson and Janette Graetz Simmonds. *Counselling Psychology Quarterly*, Vol. 19, No. 4, (Dec. 2006), pp.331-341.

This study explored the relationship between help-seeking and adherence to mainstream religion (Christianity, Judaism and Islam), alternative religion (for example, New Age spiritual belief and Paganism) and no religion (including agnosticism and atheism). Four-hundred and fourteen participants completed an online survey which included questions on demographics, help-seeking beliefs and paranormal beliefs (a modified form of the Paranormal Beliefs Scale was used). Previous research had explored adherence to various religions and compared aspects of help-seeking and paranormal beliefs separately. Comparisons were made between basic theoretical differences in belief (e.g., monotheism vs. polytheism vs. rationalism) and help-seeking beliefs. Implications of this research for therapeutic practice are discussed.

"Intelligence, Belief in the Paranormal, Knowledge of Probability and Aging." Stuart-Hamilton, Ian, et al. *Educational Gerontology*, Vol. 32, No. 3, (Mar. 2006), pp. 173-184.

In young adults, preparedness to accept improbable events as planned rather than due to chance is predictive of the level of belief in the paranormal, possibly underpinned by lower intelligence levels (Musch and Ehrenberg, 2002). The present study, using a sample of 73 older participants aged 60-84 years failed to find any relationship between age, intelligence, probability knowledge,

and belief in the paranormal. The findings further question the assumptions that studies on knowledge and belief in younger adults can be unquestioningly transposed onto older adults. An explanatory model of the findings is presented.

"Death threat, death concerns, and paranormal belief." Tobacyk, Jerome. *Death Studies*, Vol. 7, No. 2, (Summer 1983), pp. 115-124.

Relationships among death threat, death concerns, and paranormal beliefs were investigated in a personal construct theory framework. First, the Threat Index measure of death threat and the Paranormal Belief Scale, which provides a measure of degree of belief in each of seven paranormal dimensions, were administered to 78 college students. As hypothesized, one paranormal belief dimension (traditional religious belief) was significantly associated with decreased death threat. In addition, the Death Concern Scale measure of conscious concerns about death and the Paranormal Scale were administered to 73 college students. As hypothesized, significant positive correlations were obtained between six of the seven paranormal belief dimensions (all except for traditional religious beliefs) and Death Concern Scale scores. Thus, greater beliefs in these six paranormal dimensions were associated with greater death concerns. Findings are discussed in terms of the notion that paranormal beliefs may play a role in reducing fear and threat of death. Further, results indicate that death threat and death concerns are separate death orientation constructs.

"Paranormal Beliefs and the Barnum Effect." Tobacyk, Jerome, et al. *Journal of Personality Assessment*, Vol. 52, No. 4, (Feb. 1988), pp. 737-739.

The acceptance phenomenon (i.e., the general tendency for persons to accept almost any bogus personality feedback; Layne, 1979) may be related to certain paranormal beliefs (Alcock, 1981; Hyman, 1981). Paranormal beliefs are beliefs in phenomena that, if authentic, violate basic limiting principles of science (Broad, 1953; Tobacyk & Milford, 1983). One specific illustration of the acceptance phenomenon is the Barnum effect, which refers to acceptance of bogus personality feedback consisting of relatively trivial statements with a high base rate (Layne, 1979; Snyder, Shenkel, & Lowery, 1977). The Barnum effect has been implicated in personal validation and in cold reading, both of which are used routinely by many astrologers, clairvoyants, faith healers, fortune tellers, graphologists, mediums, Tarot Card readers, and others (Hyman, 1981). It was hypothesized that paranormal beliefs emphasizing divinatory procedures that produce personalized feedback (i.e., precognition, spiritualism, superstition, and witchcraft) are associated with greater susceptibility to the Barnum effect.

"Paranormal Beliefs and Locus of Control: A Multidimensional Examination" Tobacyk, Jerome J. et al. *Journal of Personality Assessment*, Vol. 52, No. 2, (Jun. 1988), pp. 241-246.

Relationships between paranormal beliefs and locus of control were studied, using multidimensional operationalizations of both constructs. The Paranormal Belief Scale and Paulhus's Spheres of Control Scale were administered to 349 introductory college students. As hypothesized, significant correlations showed predicted relationships between (a) greater personal efficacy control and less belief in superstition and witchcraft, and (b) greater interpersonal control and less belief in superstition.

"An Investigation into Alleged 'Hauntings.'" Wiseman, Richard et al. *British Journal of Psychology*, Vol. 93, (2003), pp. 195-211.

In cases of alleged hauntings, a large number of seemingly trustworthy witnesses consistently report experiencing unusual phenomena (e.g. apparitions, sudden changes in temperature, a strong sense of presence) in certain locations. The two studies reported here explored the psychological mechanisms that underlie this apparent evidence of "ghostly" activity. The experiments took place at two locations that have a considerable reputations for being haunted - Hampton Courts Palace (Surrey, England) and the South Bridge Vaults (Edinburgh, Scotland). Both studies involved participants walking around these locations and reporting where they experienced unusual phenomena. Results revealed significantly more reports of unusual experiences in areas that had a reputation for being haunted. This effect was not related to participants' prior knowledge about the reputation of these areas. However, the location of participants' experiences correlated significantly with various environmental factors, including, for example, the variances of local magnetic fields and lighting levels. These findings strongly suggest that alleged hauntings may not necessarily represent evidence for "ghostly" activity, but could be, at least in part, the result of people responding to "normal" factors in their surroundings.

"Paranormal Belief, Dissociative Tendencies, and Parental Encouragement of Imagination in Childhood." Makasovski, T. *Journal of the American Society for Psychological Research*, Vol. 93, No. 3, (Jul. 1999), pp. 233-247.

This study examined parental encouragement of imaginative involvement, pathological dissociation, and nonpathological dissociative tendencies (psychological absorption) as predictors of paranormal belief. In a questionnaire survey, data on each of these variables were solicited from 139 Australian university students. Canonical correlation analyses indicated that parental encouragement of imagination was related to relatively "occult" paranormal beliefs such as witchcraft; this association was not mediated by dissociative tendencies. Additionally, pathological dissociation was found to predict belief in parapsychological and spiritual concepts,

but psychological absorption was not a correlate of any paranormal belief. Future models of paranormal belief need to envisage different developmental pathways for distinct facets of paranormal belief.

"Contextual Mediation of Perceptions in Hauntings and Poltergeist-like Experiences." Lange, R. et al. *Perceptual and Motor Skills*, Vol. 82, No. 3, (Jun. 1996), pp. 755-762.

The content of perceived apparitions, e.g., bereavement hallucinations, cannot be explained entirely in terms of electromagnetically induced neurochemical processes. It was shown that contextual variables influential in hallucinatory and hypnotic states also structured reported haunting experiences. As predicted, high congruency was found between the experiential content and the nature of the contextual variables. Further, the number of contextual variables involved in an experience was related to the type of experience and the state or arousal preceding the experience. Based on these findings we argue that a more complete explanation of haunting experiences should take into account both electromagnetically induced neurochemical processes and factors related to contextual mediation.

"Contextual Mediation of Perceptions during Hauntings and Poltergeist-like Experiences: A Replication and Extension." Harte, T. M. *Perceptual and Motor Skills*, Vol. 91, No. 2, (Oct. 2000), pp. 451-459.

This study is a replication of the experiment by Lange, Houran, Harte, and Havens (1996) on contextual variables, in which hallucinations appear to be affected by the environmental context. These contextual variables are influential in the reporting of haunting and poltergeist-like episodes. This study extended the previous study by adding new factors of time of day, climactic conditions, and emotional feelings. These were analyzed for a different sample, looking for further congruency between experiential content and the context. The sample (N=843) were reports found on the Internet and in one book. The Lange, et al. study was replicated in that contextual variables were identified in 99.2% of the reports, the content of the reports was judged to be consistent with the nature of the contextual variables in 58.8% of the reports, and contextual variables were related to the percipients' state of arousal and the modalities of experience.

"Ambiguous Origins and Indications of 'Poltergeists.'" Houran, J. *Perceptual and Motor Skills*, Vol. 84, No.1, (Feb. 1997), pp. 339-344.

The phenomena traditionally attributed to recurrent spontaneous psychokinesis is shown to be inherently comprised of vague sensory and environmental stimuli. The ambiguous nature of these experiences precludes any definite supposition as to their source of origin or whether there is only one causal mechanism. Further, many of the so-called paranormal effects are fully comparable to known psychophysical phenomena. Consequently, it is argued that this hypothesis as an explanation of poltergeist-like experiences is premature and unjustified.

"Hauntings and Poltergeist-like Episodes as a Confluence of Conventional Phenomena: A General Hypothesis." Houran, J. and R. Lange. *Perceptual and Motor Skills*, Vol. 83, No. 3, (Dec. 1996), pp. 1307-1316.

Hauntings and poltergeist-like episodes are argued to be products of contagious reactions to ambiguous environmental or cognitive events. In particular, evidence suggests that the subjective and objective effects reported by percipients are the function of independent, nonparanormal etiologies whose constitutions have been previously established and described. According to this multivariate model, the labeling of ambiguous events as "abnormal" or "paranormal" initiates the reactive process which is subsequently sustained by perceptual contagion, i.e., flurries of paranormal observations due self-reinforcing attentional processes.

"Diary of Events in a Thoroughly Unhaunted House." Houran, J. and R. Lange. *Perceptual and Motor Skills*, Vol. 83, No. 2, (Oct. 1996), pp. 499-502.

Two subjects were asked to keep a 30-day journal of occurrences in their residence which are traditionally associated with hauntings and poltergeist-like phenomena. It was expected that the instructions would increase the frequency of perception of unusual or rarely occurring events in their residence, resulting in an attentional and "perceptual contagion effect." As expected, several features of the percipients' observations closely resembled those found in previously reported poltergeist episodes. Most importantly, the distribution of perceived occurrences closely resembled the predicted logistic curve, suggesting that hauntings involve a perceptual process where initial observations "infect" later ones.

Photography/Video

"Digital Doctoring: How to Tell the Real from the Fake." Farid, Hany. *Significance*, Volume 3, No.4, 2006. Pp. 162-166.

We are living in a world where seeing is not longer believing - the technology that allows for digital media to be manipulated and distorted is developing at break-neck speeds. And at the same time our understanding of the technological, ethical, and legal implications is lagging behind. How is this technology affecting our society and how do we contend with the implications? Hany Farid describes the impact of digital tampering and the development of mathematical and computational algorithms to expose digital fakes.

"Exposing Digital Forgeries by Detecting Inconsistencies in Lighting." Johnson, Micah K. and Hany Farid. *Proceedings of the 7th Workshop on Multimedia and Security*. 2005. Pp. 1-10.

When creating a digital composite of, for example, two people standing side-by-side, it is often difficult to match the lighting conditions from the individual photographs. Lighting inconsistencies can therefore be a useful tool for revealing traces of digital tampering. Borrowing and extending tools from the field of computer vision, we describe how the direction of a point of light source can be estimated from only a single image. We show the efficacy of this approach in real-world settings.

"Digital Forensics: 5 Ways to Spot a Fake Photo." Farid, Hany. *Scientific American*. June 2, 2008.

No abstract.

"Detecting Moving Objects, Ghosts, and Shadows in Video Streams." Cucchiara, Rita et al. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 25, No. 10, (Oct. 2003), pp. 1337-1342.

Background subtraction methods are widely exploited for moving object detection in videos in many applications, such as traffic monitoring, human motion capture, and video surveillance. How to correctly and efficiently model and update the background model and how to deal with shadows are two of the most distinguishing and challenging aspects of such approaches. This work proposed a general-purpose method that combines statistical assumptions with the object-level knowledge of moving objects, apparent objects (ghosts), and shadows acquired in the processing of the previous frames. Pixel belonging to moving objects, ghosts, and shadows are processed differently in order to supply an object-based selective update. The proposed approach exploits color information for both background subtraction and shadow detection to improve object segmentation and background update. The approach proves fast, flexible, and precise in

terms of both pixel accuracy and reactivity to background changes.

"Predicting Anomalous Effects on Film: An Empirical Test." Houran, J. *Perceptual and Motor Skills*, Vol. 84, No. 2, (Apr. 1997), 691-694.

This research tested the hypothesis that anomalous images on film can be attributed to the specific recording medium. Using five different film media, a total of 96 photographs and 8 min. of 8-mm motion picture film were obtained during a field study of a reported haunting. Multiple covariates were also recorded including electromagnetic field fluctuations, time of day, and geographic position. No anomalous images were obtained, although approximately half of the frames on both the infrared and black and white films were unexposed. The results are discussed in terms of ambiguous events being interpreted as meaningful due to paranormal contexts.