Laboratory mediumship research

Tressoldi P, Liberale L, Sinesio F. Is There Someone in the Hereafter? Mediumship Accuracy of 100 Readings Obtained with a Triple Level of Blinding Protocol. Omega (Westport). 2022.

The accuracy of information obtained by 28 self-claimant mediums related to 100 readings obtained with a triple level of blinding was examined across three indices: percentage of correct reading identified by the sitters, global score of readings and percentage of difference between correct and incorrect information. All three indices showed statistical differences of the intended versus the control readings: correct identification 65%; global score: intended readings, mean = 2.4, SD = 1.5; control readings, mean = 1.7, SD = 1.2; percentage difference between correct and incorrect information: intended readings, mean = -7.9%, SD = 38.7%; control readings, mean = -27.3%, SD = 38%. Our results using a very large sample, confirm previous results, supporting the hypothesis that self-claimant mediums are able to retrieve correct information about deceased people without knowing and interacting with the sitters having access with only to the deceased persons' first name.

Sarraf M, Woodley Of Menie MA, Tressoldi P. Anomalous information reception by mediums: A meta-analysis of the scientific evidence. Explore (NY). 2021 Sep-Oct;17(5):396-402.

In this paper, we perform a meta-analysis of all available modern experimental evidence, specifically from 2001 to December 2019, investigating the accuracy of apparently anomalously received information provided by mediums about deceased individuals. Methods 14 papers passed our selection criteria, for a total of 18 experiments. Both Bayesian and frequentist random effects models were used to estimate the aggregate effect size across studies. Results The overall standardized effect size (proportion index), estimated with a frequentist and a Bayesian random effects model, yielded a value of .18 (95% C.I. = .12 - .25) above the chance level. Furthermore, these estimates passed the control of two publication bias tests. The results of this meta-analysis support the hypothesis that some mediums can retrieve information about deceased persons through unknown means.

Beischel J, Boccuzzi M, Biuso M, Rock AJ. Anomalous information reception by research mediums under blinded conditions II: replication and extension. Explore (NY). 2015 Mar-Apr;11(2):136-42.

(1) Comparisons between blinded target and decoy readings regarding the estimated percentage accuracy of reading items (n = 27, P = .05, d = 0.49), (2) comparisons regarding the calculated percentage accuracy of reading items (n = 31, P = .002, d = 0.75), (3) comparisons regarding hits vs. misses (n = 31, P < .0001 and P = .002 for different reading sections), (4) comparisons regarding global scores (n = 58, P = .001, d = 0.57), and (5) forced-choice reading selections between blinded target and decoy readings (n = 58, P = .01) successfully replicate and extend previous findings demonstrating the phenomenon of anomalous information reception (AIR), the reporting of accurate and specific information without prior knowledge, in the absence of sensory feedback, and without using deceptive means. Because the experimental conditions of this study eliminated normal, sensory sources for the information mediums report, a non-local source (however controversial) remains the most likely explanation for the accuracy and specificity of their statements.

Kelly EW, Arcangel D. An investigation of mediums who claim to give information about deceased persons. J Nerv Ment Dis. 2011 Jan;199(1):11-7.

Two research studies were conducted in which mediums provided readings about particular deceased persons to a proxy sitter. The real sitters then blindly rated the reading that was intended for them along with several control readings. In the first study, the results were not significant. In the second, much larger study the results were highly significant (z = -3.89, p < 0.0001, 2-tailed). The authors discuss 2 possible weaknesses of the successful study and indicate some directions for further research.

Beischel J, Schwartz GE. Anomalous information reception by research mediums demonstrated using a novel triple-blind protocol. Explore (NY). 2007 Jan-Feb;3(1):23-7.

The findings included significantly higher ratings for intended versus control readings (p = 0.007, effect size = 0.5) and significant reading-choice results (p = 0.01). The results suggest that certain mediums can anomalously receive accurate information about deceased individuals. The study design effectively eliminates conventional mechanisms as well as telepathy as explanations for the information reception, but the results cannot distinguish

among alternative paranormal hypotheses, such as survival of consciousness (the continued existence, separate from the body, of an individual's consciousness or personality after physical death) and super-psi (or super-ESP; retrieval of information via a psychic channel or quantum field).

Near-Death Experiences

Greyson, B. (1993). Varieties of Near-Death Experience. Psychiatry, 56(4), 390-399.

Near-Death Experiences are profound subjective events frequently reported by individuals who have come close to death. They are of importance to mental health professionals, not only because they often happen to patients under our care, but because the have been reported to produce widespread and long-lasting changes in values, beliefs and behaviour that dramatically affect the experiencers' attitudes towards living and dying. Several studies, including surveys of recently resuscitated hospital patients and a nationwide poll of the general population have estimated that near-death experiences are reported by 30-40% of individuals who come close to death, or about 5% of the adult American population.

Greyson, B. (2000). Near-death experiences. In E. Cardeña, S. J. Lynn, & S. Krippner (Eds.), Varieties of anomalous experience: Examining the scientific evidence (pp. 315–352). American Psychological Association.

This chapter discusses the phenomenology, aftereffects, individual differences, psychopathology, clinical issues, risks and theories of near-death experiences (NDEs). In addition the chapter examines the treatment of NDE-related problems such as confusion and distress. NDEs are profound psychological events with transcendental and mystical elements, typically occurring to individuals close to death or in situations of intense physical or emotional danger. NDEs are reported by individuals who had been pronounced clinically dead but then resuscitated; by individuals who actually died but were able to describe their experiences in their final moments; and by individuals who, in the course of accidents or illnesses, feared that they were near death. Although initial studies suggested that how one came to death, or how close one actually came to death, does not influence the occurrence or type of NDE (e.g., K. Ring, 1980, 1984), more recent research has indicated that physiological details of the close brush with death may play a minor role.

Lommel, Pim & Wees, Ruud & Meyers, Vincent & Elfferich, Ingrid. (2001). Near-Death Experience in Survivors of Cardiac Arrest: A Prospective Study in the Netherlands. Lancet. 358. 2039-45.

In a prospective study, we included 344 consecutive cardiac patients who were successfully resuscitated after cardiac arrest in ten Dutch hospitals. We compared demographic, medical, pharmacological, and psychological data between patients who reported NDE and patients who did not (controls) after resuscitation. In a longitudinal study of life changes after NDE, we compared the groups 2 and 8 years later. 62 patients (18%) reported NDE, of whom 41 (12%) described a core experience. Occurrence of the experience was not associated with duration of cardiac arrest or unconsciousness, medication, or fear of death before cardiac arrest. Frequency of NDE was affected by how we defined NDE, the prospective nature of the research in older cardiac patients, age, surviving cardiac arrest in first myocardial infarction, more than one cardiopulmonary resuscitation (CPR) during stay in hospital, previous NDE, and memory problems after prolonged CPR. Depth of the experience was affected by sex, surviving CPR outside hospital, and fear before cardiac arrest. Significantly more patients who had an NDE, especially a deep experience, died within 30 days of CPR (p<0·0001). The process of transformation after NDE took several years, and differed from those of patients who survived cardiac arrest without NDE.

Holden, J. M. (2009). Veridical perception in near-death experiences. The handbook of near-death experiences: Thirty years of investigation, 185-211.

NDE researchers and others have shown particular interest in what I am calling apparently *nonphysical veridical NDE perception* (AVP). In AVP, NDErs report veridical perception that, considering the positions and/or conditions of the physical bodies during the near-death episodes, apparently could not have been the result of normal

sensory process is or logical inference - nor, therefore, brain mediation- either before, during, or after those episodes. Thus, AVP suggests the ability of consciousness to function independent of the physical body. Numerous anecdotal descriptions of AVP appear in the near-death literature, and researchers have attempted to study the phenomenon under scientifically controlled conditions

Ring, K., Cooper, S. Near-Death and Out-of-Body Experiences in the Blind: A Study of Apparent Eyeless Vision. Journal of Near-Death Studies 16, 101–147 (1997).

This article reports the results of an investigation into near-death and out-of-body experiences in 31 blind respondents. The study sought to address three main questions: (1) whether blind individuals have near-death experiences (NDEs) and, if so, whether they are the same as or different from those of sighted persons; (2) whether blind persons ever claim to see during NDEs and out-of-body experiences (OBEs); and (3) if such claims are made, whether they can ever be corroborated by reference to independent evidence. Our findings revealed that blind persons, including those blind from birth, do report classic NDEs of the kind common to sighted persons; that the great preponderance of blind persons claim to see during NDEs and OBEs; and that occasionally claims of visually-based knowledge that could not have been obtained by normal means can be independently corroborated. We present and evaluate various explanations of these findings before arriving at an interpretation based on the concept of transcendental awareness.

Deathbed Visions

Claxton-Oldfield, S. (2022). Deathbed Visions: Visitors and Vistas. OMEGA - Journal of Death and Dying, 0(0).

This review article examines the recent (i.e., since the late-1990s) research on deathbed visions (DBVs). The reviewed material includes the features of DBV experiences, terminology and definitional issues in the literature, and prevalence reports of DBVs by family members/caregivers of dying persons, healthcare professionals, terminally ill patients, hospice palliative care volunteers, and nursing home staff. The impact of DBVs on dying persons, why deathbed visitors appear, and possible explanations for DBVs are also considered. The lessons learned from the literature review include the following: DBVs are common experiences that cannot be easily explained, and they typically have positive impacts on dying persons, not the least of which is lessening the fear of death. The literature review also highlights the need for training and education about DBVs.

Osis, K., & Haraldsson, E. (1977). Deathbed observations by physicians and nurses: A cross-cultural survey. Journal of the American Society for Psychical Research, 71(3), 237–259.

Conducted surveys in the US and India of deathbed observations to replicate a pilot study made in 1959–1960 and to gather data relevant to the question of survival. Physicians and nurses filled in questionnaires and were interviewed concerning 442 patients in the US and 435 in India, most of them terminally ill. The most frequently reported phenomena were hallucinations of human figures (471 cases). The main findings of the pilot survey were confirmed in both cultures. Four-fifths of the apparitions portrayed deceased persons and religious figures, in sharp contrast to the hallucinations of a normal population. Three out of 4 apparitions were experienced as having come to take the patients away to a post-mortem mode of existence, to which 72% of them consented. More patients responded with serenity, peace, and elation (41%) than with negative emotions (29%) to this invitation. The data were analyzed for interaction with various medical, psychological, and cultural factors which could cause or shape hallucinations. In conformity with the survival hypothesis, the deathbed visions were found to be relatively independent of these factors.

Fenwick P, Lovelace H, Brayne S. Comfort for the dying: five year retrospective and one year prospective studies of end of life experiences. Arch Gerontol Geriatr. 2010 Sep-Oct;51(2):173-9.

Many cultures have reported end-of-life experiences (ELEs) as part of the dying process. However, few studies have examined the mental states of the dying in the weeks and days before death. Following an ELE pilot study

with a palliative care team, 38 nurses, doctors and end-of-life carers from two hospices and a nursing home took part in a 5-year retrospective followed by a 1-year prospective ELE study. Interviewees' reports (first-hand and second-hand accounts from relatives, patients and residents) suggested that ELEs are not uncommon. ELEs included deathbed phenomena (DBP) such as visions, coincidences and the desire to reconcile with estranged family members. These experiences seemed to comfort both the dying and the bereaved. Interviewees described other phenomena such as clocks stopping synchronistically at the time of death, shapes leaving the body, light surrounding the body and strange animal behavior. Interviewees confirmed that ELEs differed from drug-induced hallucinations and occurred in clear consciousness. Most expressed concern about a lack of specialist ELE training and education and recommended that ELE modules be included in their training courses. ELEs provided comfort and hope for the dying and consolation for the bereaved. Further research is required to find the true prevalence and range of ELE phenomena.

Devery K, Rawlings D, Tieman J, Damarell R. Deathbed phenomena reported by patients in palliative care: clinical opportunities and responses. Int J Palliat Nurs. 2015 Mar;21(3):117-25.

Reports from patients on seeing or hearing a dead relative or dreaming a highly significant dream at the end of life can be perplexing for health professionals who may wonder how best to respond. The aim of this study was to systematically review the literature on deathbed phenomena (DBP), and provide suggestions for a clinical response to dying patients' recounts of these hard-to-explain phenomena. The authors searched for relevant studies which reported on DBP within a palliative care context. Eligibility criteria were established, a review process was employed and a narrative synthesis approach was used to interpret the data. In total, eight papers met the inclusion criteria. Reported prevalence of DBP ranged from 24–51% with common themes described. Distinguishing between DBP and hallucinations was discussed, requiring very different clinical responses. Phenomena were timed most often in the last hours or days before death. Experiencing a DBP was, in most cases, deeply meaningful, bringing comfort, peace and reassurance. Health professionals were not surprised to hear of a DBP, but were not always well prepared to respond appropriately. Rather than simply dismissing DBP as medication related or the physiological effects of dying, the significance of these events and the comfort afforded by them to patients and carers should be recognised. Disclosure of DBP may enable health professionals to discuss more spiritual and existential concerns, which have the potential to offer hope, meaning and connection. We propose strategies and approaches for strengthening compassionate clinical practice in this area.

Wholihan D. Seeing the Light: End-of-Life Experiences-Visions, Energy Surges, and Other Death Bed Phenomena. Nurs Clin North Am. 2016 Sep;51(3):489-500.

Spiritual care is an integral part of multidimensional palliative care and a major domain of care identified in definitions and guidelines. Death bed phenomena include visions, dreams, hallucinations, and premortem energy surges, which can be deeply spiritual experiences. Death bed occurrences are often a source of consolation. However, they have been underrecognized. The last hours of life are sacred; as holistic, multidimensional practitioners, nurses should remain open to experiences not easily explained within a traditional medical model. As the most consistent caregivers, nurses assess, recognize, and validate such experiences to assist patients in finding meaning, comfort, and a peaceful end-of-life.

Psychic Powers

Cardeña, E. (2018). The experimental evidence for parapsychological phenomena: A review. American Psychologist, 73(5), 663–677.

This article presents a comprehensive integration of current experimental evidence and theories about so-called parapsychological (psi) phenomena. Throughout history, people have reported events that seem to violate the common-sense view of space and time. Some psychologists have been at the forefront of investigating these phenomena with sophisticated research protocols and theory, while others have devoted much of their careers to criticizing the field. Both stances can be explained by psychologists' expertise on relevant processes such as

perception, memory, belief, and conscious and nonconscious processes. This article clarifies the domain of psi, summarizes recent theories from physics and psychology that present psi phenomena as at least plausible, and then provides an overview of recent/updated meta-analyses. The evidence provides cumulative support for the reality of psi, which cannot be readily explained away by the quality of the studies, fraud, selective reporting, experimental or analytical incompetence, or other frequent criticisms. The evidence for psi is comparable to that for established phenomena in psychology and other disciplines, although there is no consensual understanding of them. The article concludes with recommendations for further progress in the field including the use of project and data repositories, conducting multidisciplinary studies with enough power, developing further nonconscious measures of psi and falsifiable theories, analyzing the characteristics of successful sessions and participants, improving the ecological validity of studies, testing how to increase effect sizes, recruiting more researchers at least open to the possibility of psi, and situating psi phenomena within larger domains such as the study of consciousness.

Tressoldi, P., Katz, D.L. (2023). Remote Viewing: a 1974 2022 systematic review and meta-analysis. In press, Journal of Scientific Exploration. https://psyarxiv.com/r9yw5/download

This is the first meta-analysis of all studies related to remote viewing tasks conducted up to December 2022. After applying our inclusion criteria, we selected 36 studies with a total of 40 effect sizes. Both frequentist and Bayesian meta-analyses revealed a strong average effect size of .34; 95% confidence interval: .22 --.45, after the exclusion of outliers, without signs of publication bias and a minimal decline effect. In the raw scores, these average results correspond to a difference in hits score of 19.3%; 95% confidence intervals:13.6% 25%, above the expected chance. Among the meta-analyses of moderators, a small nonstatistical difference emerged between the precognitive and clairvoyance tasks, particularly for those with an outbound agent. A comparison among meta-analyses results observed with other experimental protocols testing extrasensory perception showed the clear superiority of remote viewing. After more than 50 years of investigation into extrasensory perception, remote viewing experimental protocols appear to be the most efficient for both experimental and practical applications.

Mossbridge, J., Tressoldi, P., Utts, J. (2012). Predictive Physiological Anticipation Preceding Seemingly Unpredictable Stimuli: A Meta-Analysis. Frontiers in Psychology (3).

This meta-analysis of 26 reports published between 1978 and 2010 tests an unusual hypothesis: for stimuli of two or more types that are presented in an order designed to be unpredictable and that produce different poststimulus physiological activity, the direction of pre-stimulus physiological activity reflects the direction of poststimulus physiological activity, resulting in an unexplained anticipatory effect. The reports we examined used one of two paradigms: (1) randomly ordered presentations of arousing vs. neutral stimuli, or (2) guessing tasks with feedback (correct vs. incorrect). Dependent variables included: electrodermal activity, heart rate, blood volume, pupil dilation, electroencephalographic activity, and blood oxygenation level dependent (BOLD) activity. To avoid including data hand-picked from multiple different analyses, no post hoc experiments were considered. The results reveal a significant overall effect with a small effect size [fixed effect: overall ES = 0.21, 95% CI = 0.15-0.27, z = 6.9, $p < 2.7 \times 10-12$; random effects: overall (weighted) ES = 0.21, 95% CI = 0.13-0.29, z = 5.3, $p < 5.7 \times 10-8$]. Higher quality experiments produced a quantitatively larger effect size and a greater level of significance than lower quality studies. The number of contrary unpublished reports that would be necessary to reduce the level of significance to chance (p > 0.05) was conservatively calculated to be 87 reports. We explore alternative explanations and examine the potential linkage between this unexplained anticipatory activity and other results demonstrating meaningful pre-stimulus activity preceding behaviorally relevant events. We conclude that to further examine this currently unexplained anticipatory activity, multiple replications arising from different laboratories using the same methods are necessary. The cause of this anticipatory activity, which undoubtedly lies within the realm of natural physical processes (as opposed to supernatural or paranormal ones), remains to be determined.

Williams, B. J. (2021). Minding the Matter of Psychokinesis: A Review of Proofand Process-Oriented Experimental Findings Related to Mental Influence on Random Number Generators. Journal of Scientific Exploration, Vol. 35, No. 4, pp. 829–932, 2021

Many experiments have been conducted over the past eight decades to explore whether the ostensible psychic ability of psychokinesis (PK, or "mind over matter") might be a genuine human potential, and the most extensive of these have involved attempts to mentally influence the output of electronic, binary-bit random number generators (RNGs). Research of this type can generally be divided into two lines: proof-oriented (concerned with the accumulation and statistical evaluation of data from controlled experiments designed specifically to test for the presence of PK effects on the microscopic scale) and process-oriented (concerned with conducting exploratory experiments designed to systematically vary certain test conditions in order to search for and identify any physical, biological, and psychological factors which might have a role in improving or moderating PK effects). To help orient novice investigators and crossdisciplinary researchers who may be considering work along these lines (as well as to offer some initial guiding insight on possible directions for future research), this paper provides a general review of some of the notable proof- and process-oriented findings that have been obtained to date in experimental microscopic PK research using RNGs. The review generally indicates that although a considerable amount of proof-oriented data for micro-PK has accumulated over the years, the relatively sparse amount of process-oriented data available at present leaves many open questions regarding the underlying factors involved, providing ample opportunity for novice investigators and cross-disciplinary researchers to make valuable research contributions in the future.

Radin D, Schlitz M, Baur C. Distant Healing Intention Therapies: An Overview of the Scientific Evidence. Global Advances in Health and Medicine. 2015;4(1_suppl).

This article provides a broad overview of "distant healing intention" (DHI) therapies, ie, intentional healing modalities claimed to transcend the usual constraints of distance through space or time. We provide a summary of previous reviews and meta-analyses that have explored a diverse array of DHI modalities, outcome measures, and experimental protocols. While some significant experimental effects have been observed, the evidence to date does not yet provide confidence in its clinical efficacy. The purported "nonlocal" nature of DHI raises significant methodological and theoretical challenges. We recommend several avenues for improving future research.