James E Kennedy

James E Kennedy is an American researcher with a longstanding interest in parapsychology, who has emerged as an influential critic of its methodology.

Career

James E Kennedy is an American researcher whose five-decade professional interest in parapsychology has included experimental research, methodological critique, and theoretical development. Kennedy earned his B.S. in engineering physics from the University of Colorado at Boulder in 1972. From 1974 to 1979 he worked at JB Rhine's Institute for Parapsychology in Durham, NC. After working six months, he realized the laboratory director who had hired him, WJ Levy, was committing scientific fraud. Kennedy and two coworkers set up a hidden recording system that provided definitive evidence of fraud.

In 1982, he obtained a M.S.P.H. (Public Health) from the University of North Carolina, focusing on environmental science and biostatistics. He then worked in environmental roles with the North Carolina state government and a nonprofit organization until 1989. Starting in 1991, he did data analysis in academic medical research at Duke University Medical Center for a few years and then data analysis and data management for FDA-regulated clinical trials for 16 years with four different organizations and increasing management responsibilities. He continued to contribute to parapsychology in his free time. Post-retirement in 2011, Kennedy advocated aligning research practices in parapsychology with clinical trials, which was consistent with the emerging replication crisis in psychology. He established with Caroline Watt the KPU Study Registry in 2012, and became an Honorary Research Fellow at the University of Edinburgh in April 2023.

Kennedy's professional trajectory in parapsychology evolved from initial optimism about experimental research to scepticism about research conducted with pre-replication-crisis methodology—while remaining convinced that paranormal phenomena occur based on his personal experiences. His approach combines rigorous methodological analysis with recognition of the lack of progress with experimental research and of the fundamental differences between the nature of psi in spontaneous cases versus the assumptions for experiments. This positions him as a significant advocate for revising the working assumptions in parapsychology.

Methodological Issues in Psi Research

Kennedy has emerged as perhaps the most influential methodological critic in contemporary parapsychology, fundamentally challenging the field's research foundations and evidence base. His comprehensive analysis of parapsychology's replication crisis represents a paradigm shift in how the field evaluates its own research standards and evidential claims.

Replication Crisis and Confirmatory Research

Kennedy has emphasized the strikingly different outcomes between preregistered, well-powered confirmatory studies and earlier research methodologies, noting that four preregistered multi-lab confirmatory studies of Bem's precognition work have all failed to demonstrate psi effects with the planned analyses—studies that the experimenters apparently expected to show evidence for psi. This failure rate contrasts sharply with earlier positive findings using pre-replication-crisis methodology, highlighting possible systematic problems with the field's research base.

Kennedy considers arguments that the replication problems in psi research are due to many uncontrolled subtle variables as moving parapsychology outside of science. Science is based on empirically testable predictions. If reliably accurate predictions cannot be made, the research remains exploratory and speculative. If reliable predictions are impossible due to uncontrollable variables, parapsychology should reasonably be considered a branch of history rather than science.[1] The same argument has been made for social psychology.

An alternative explanation for the lack of scientific progress is that experimental research has been based on incorrect assumptions about the nature of psi and on pre-replication-crisis research methods that allow bias and are unfalsifiable, and thus are incapable of revealing the true characteristics of psi.

Critique of Retrospective Meta-Analysis

Kennedy's analysis directly challenges the field's dependence on retrospective meta-analyses, arguing they cannot deliver strong evidence or settle controversies because of bias from exploratory methodology in included studies and inherent post-hoc flexibility in conducting meta-analysis.[2] He argues that retrospective meta-analyses should be considered post hoc exploratory analyses rather than confirmatory evidence since study outcomes are known when analysts make decisions about inclusion criteria, study quality ratings, moderating variables, and analysis methods. This creates substantial potential for bias. Failed confirmatory studies of Bem's research demonstrate that such biases occur in parapsychology. Previous meta-analyses reported evidence for psi.

The outcome is that retrospective meta-analyses compound problems from pre-replication-crisis research methodology and further undermine assumptions that convincing experimental evidence for psi exists.

Prospective Meta-Analysis Innovation

Caroline Watt and Kennedy developed registration-based prospective meta-analysis, described by long-term critic David Marks as 'the most significant methodological development in the history of parapsychology.'[3] This approach starts with preregistration of the hypotheses, analysis plan, and study inclusion criteria for the meta-analysis, and then uses subsequent individual study preregistrations to make study inclusion decisions before the results of the included studies are known and preferably before data collection begins. This

prevents post hoc biases while maintaining researcher autonomy, and is a confirmatory version of meta-analysis. Prospective meta-analysis and preregistered well-powered multi-lab confirmatory studies move parapsychology into a much-needed new era of evidence.

Data Analysis Issues

Kennedy addressed the substantial potential for bias that occurs in handling dropouts and incomplete data.[4] When participants receive feedback about their performance on experimental tasks, those performing poorly often drop out. The standard practice of excluding all data for participants who drop out introduces bias by omitting data with low scores. This problem is well recognized in medical research but frequently overlooked in parapsychology and psychology. Dropouts and incomplete data in any study must be treated as likely confounding factors.

Kennedy also noted that most psychology research is biased and inconsistent with assumptions that science is self-correcting because outcomes can either support hypothesised effects or be inconclusive, without capability to provide evidence that effects are false.[5] Falsifiable research requires researchers specify small effect sizes that would indicate hypothesized effects are false or not worth pursuing. Without this, non-significant study outcomes are inconclusive because any finite sample size may have inadequate power to detect tiny effects considered meaningful evidence for the effect.

For falsifiable research, studies with non-significant outcomes and power of .95 for specified small effect sizes constitute evidence that hypothesized effects are false or negligible. Preregistration for falsifiable research should specify study outcomes that will be considered evidence that hypothesised effects are false and outcomes that will be considered inconclusive, as well as outcomes that support effects.

Any confirmatory analysis (including Bayesian) should have power analysis that identifies effect sizes that can and cannot be detected with high power. This represents basic study design information, similar to describing subject populations. Preregistering inferences that will be made if study outcomes do not support hypothesized effects constitutes good practice, rather than leaving that as post hoc exploratory inference.

Kennedy's methodological work has also addressed critical experimental design issues in precognitive anticipation research, where physiological measures are recorded before random stimuli to detect unconscious anticipation.[6] He demonstrated that using physiological measures as dependent variables violates statistical independence assumptions, creating counterintuitive false-positive biases through trial dependencies. Kennedy recommended using random events as dependent variables with prediction criteria from previous data, prospective programming validation, and careful data processing to avoid post hoc bias.

Experimenter Fraud Detection and Prevention

Kennedy’s personal experience exposing researcher fraud combined with his experience in regulated clinical trials that routinely implemented measures to

prevent fraud provide a unique perspective on the topic. The most common strategy to detect and investigate researcher fraud in academic and nonprofit settings is to look for artifacts of fraud in the data.7 However, that retrospective strategy does not apply in parapsychology because such artifacts can easily be explained away as psi effects. This makes fraud detection in parapsychology much more difficult than in other areas of science, which do not consider psi effects as a viable explanation for apparent symptoms of fraud.

Parapsychology is in the difficult position of often requiring a sting operation for acceptable evidence of fraud, as occurred with the Levy case. This requires that coworkers attempt to maintain normal relationships with a close colleague while covertly planning and implementing measures to expose the colleague as a fraud. This is a highly undesirable condition for a research laboratory. The amount of undetected researcher fraud remains unknown and largely ignored by the field, which injects more uncertainty into the field's evidential claims.

The data management quality control practices that are implemented in clinical trials are effective at preventing both intentional errors (fraud) and unintentional errors.8. A key step is to consider each person involved in the research process and ask the question 'How do you know the person did not unintentionally or intentionally alter the data?' Quality control checks should be conducted and documented that answer this question. According to Kennedy, most of these measures can be implemented with reasonable effort once they become accepted routine research practices.

Early Experimental Research

Kennedy’s first research after the Levy incident was to investigate whether the contingent negative variation (CNV) brain wave pattern could detect precognitive anticipation of a random event. This was the first research on psychophysiological measures of precognitive anticipation (presentiment) and was potentially a significant advance in parapsychology. The initial results for the first exploratory study were impressive, but data analysis was compromised by some mistakes and loss of data, and the effect did not confirm.9 In a series of four experiments, interesting post hoc findings were found in the experiments but did not confirm in subsequent experiments.

Based on this experience and the state of the field, Kennedy came to the conclusion that the existing studies needed to be better understood before new studies could be usefully interpreted. He shifted his focus to literature reviews. However, he continued to have a role in experiments, a few that he initiated and more as a team member of projects initiated by others. These experiments in the 1970s used pre-replication-crisis methods, which make the findings exploratory and in need of confirmation.

Information Processing

Most of Kennedy’s early literature reviews dealt with how information is processed in psi. The studies reviewed had pre-replication-crisis methodology, and thus the

findings of the reviews may reflect properties of methodological bias more than psi.

One recurring question in these reviews was whether psi operates in a goal-oriented unitary manner that transcends the properties of the random process, or in a step-by-step information processing manner. For example, a blind PK task in which the participant is asked to make dice match a hidden target number would be expected to give lower scores than the usual unblinded PK task because the target must be determined by ESP and then the dice influenced to match the number. The available data indicated that the goal was achieved in a unitary manner that bypassed the conventional information processing steps.

The goal-oriented unitary nature of psi presents a dilemma for experimental research.[10] For most psi experiments, the experimenter has the goal of obtaining a significant result and has stronger motivation than the participants. Thus, the entire experiment may be affected by experimenter psi as one complex random event with a probability of a hit of .05, bypassing all the individual trials. If this is true, increasing sample size in an experiment will not produce the more reliable effects expected by statistical theory. This may be possible to evaluate with post-replication-crisis research.

After retiring, Kennedy observed that scientific understanding of life, consciousness, and quantum physics is hindered by inconsistent concepts, terminology, and assumptions about the basic nature of information.[11] His efforts to identify fundamental concepts of information that are universally applicable revealed two different concepts. Symbolic information is the basis for life and is an active process of placing symbols in media that can be interpreted by other living processes. Symbolic information is how living entities generate variability, adaptability, and creativity from the fixed forces of physics. The other concept of information is physical information that is a descriptive property of any nonuniformity, difference, or distinction in the distribution of matter and energy.

Symbols allow virtually unlimited creativity and have meaning that is independent from the physical media that hold the symbols, yet symbols also require some form of physical media. This is a duality between the domain of meaning for symbols and the domain of matter for media. Kennedy suggests that generating creativity may be the ultimate result or purpose of symbolic information and that a deep understanding of symbolic information processing is a prerequisite for understanding consciousness.

Unsustainable, Actively Evasive Psi

George Hanson’s book proposing that paranormal phenomena have the characteristics of a trickster inspired Kennedy to consider that the inconsistency of psi effects may be due to a factor that is actively evasive. Notably, attempts to apply psi have sometimes produced remarkable successes, including substantial financial gains, but those successes could not be sustained.[12] And, the capricious nature of psi missing gives the impression that psi is communicating 'I am here but you will not control me.' The true characteristics of psi will presumably become more apparent as distortions by pre-replication-crisis methodology are superseded in the new era of research.

In Kennedy's view, striking instances of psi and subsequent defiant unpredictability cannot be explained by an inanimate principle of physics or by a poor signal-to-noise ratio caused by many uncontrolled subtle variables. Information processing that would normally be associated with a living system appears to be involved, including memory and decision-making.

Spirituality and Psi

Kennedy's current views about psi are based on consideration of the question 'What does psi do?' Based on his personal experiences, research he conducted, and research by others, he concludes that the most prominent effect of spontaneous psi experiences appears to be to enhance a person's sense of meaning in life, belief that their life is guided, and interest in spirituality.13 Spontaneous psi experiences rarely have the practical effects that would be expected if psi were guided by conventional human motivations as assumed for experimental psi research.

The ultimate goal of experimental psi research is to convert psi to technology, and the most advanced applications would be for military dominance and corporate profits. However, the unsustainable, evasive characteristics prevent reliable control of psi and maintain the mystery that allows psi to inspire a sense of meaning in life and spirituality. That mystery would be lost if psi were converted to technology. From this perspective, spirituality may provide a more appropriate context for understanding psi than does traditional experimental parapsychology. Rather than guided by normal human motivations as assumed for experiments, psi may have its own agenda, and that agenda may be subject to scientific investigation.

Website: https://jeksite.org/psi.htm

Literature:

Kennedy, J. E. (1979). Possible paranormal components of anticipation: Psychophysiological explorations. *Journal of Parapsychology* 43, 360-63. https://jeksite.org/psi/cnv.pdf

Kennedy, J.E. (1995). Methods for investigating goal-oriented psi. *Journal of Parapsychology*, 59, 47-62. https://jeksite.org/psi/jp95.pdf

Kennedy, J.E. (2000). Do people guide psi or does psi guide people? Evidence and implications from life and lab. *Journal of the American Society for Psychical Research* 94, 130-50. https://jeksite.org/psi/jaspr00.pdf

Kennedy, J.E. (2003). The capricious, actively evasive, unsustainable nature of psi: A summary and hypotheses. *Journal of Parapsychology* 67, 53-74. https://jeksite.org/psi/jp03.pdf

Kennedy, J.E. (2004). What is the purpose of psi? *Journal of the American Society for Psychical Research* 98, 1-27. https://jeksite.org/psi/jp03.pdf

Kennedy, J.E. (2005). Personality and motivations to believe, misbelieve, and disbelieve in paranormal phenomena. *Journal of Parapsychology* 69, 263-92. https://jeksite.org/psi/jp05.pdf

Kennedy, J.E. (2013a). Can parapsychology move beyond the controversies of retrospective meta-analysis. *Journal of Parapsychology* 77, 21-35. http://jeksite.org/psi/jp13a.pdf

Kennedy, J.E. (2013b). Methodology for confirmatory experiments on physiological measures of precognitive anticipation. *Journal of Parapsychology* 77, 237-248. https://jeksite.org/psi/jp13b.pdf

Kennedy, J.E. (2016). Is the methodological revolution in psychology over or just beginning? *Journal of Parapsychology* 80, 56-68. https://jeksite.org/psi/jp16.pdf

Kennedy, J.E. (2017). Experimenter fraud: What are appropriate methodological standards? *Journal of Parapsychology* 81, 63-72. https://jeksite.org/psi/jp17.pdf

Kennedy, J.E. (2023). The nature and meaning of information in biology, psychology, culture, and physics. OSF Preprints. https://doi.org/10.31219/osf.io/6vgxa

Kennedy, J.E. (2024a). Coming to terms with the psi-trickster. *Journal of Scientific Exploration*, 38(1), 110-121. https://doi.org/10.31275/20242755

Kennedy J.E. (2024b). Addressing researcher fraud: Retrospective, real-time, and preventive strategies—including legal points and data management that prevents fraud. *Frontiers in Research Metrics and Analytics*, *9*, 1397649. https://doi.org/10.3389/frma.2024.1397649

Kennedy, J.E. (2024c). Planning falsifiable confirmatory research. *Psychological Methods*. Advance online publication. https://dx.doi.org/10.1037/met0000639

Watt, C.A., & Kennedy, J.E. (2017). Options for prospective meta-analysis and introduction of registration-based prospective meta-analysis. *Frontiers in Psychology* 7, 2030. https://doi.org/10.3389/fpsyg.2016.02030

Endnotes

Footnotes

- 1. Kennedy (2024c).
- 2. Kennedy (2013a); Watt & Kennedy (2017).
- 3. Watt & Kennedy (2017).
- 4. Kennedy (2016).
- 5. Kennedy (2024c).
- 6. Kennedy (2013b).
- 7. Kennedy (2017).
- 8. Kennedy (2024b).
- 9. Kennedy (1979).
- 10. Kennedy (1995).
- 11. Kennedy (2023).
- 12. Kennedy (2003); Kennedy (2024a).
- 13. Kennedy (2000); Kennedy (2004); Kennedy (2024a).