

To the Editor:

Response to Lance Storm's letter

Lance Storm's response to my review (Kennedy, 2025) of his two books (Storm 2025a, 2025b) about synchronicity and psi provides useful clarifications but also continues to underestimate the implications of the replication crisis. Significant clarifications include why he wrote two books rather than one and why the number of proposed archetypes may not be as unmanageable as suggested by some comments in the books.

Writing this review was something of a dilemma for me because I agree with the need to change the working assumptions for psi experiments, but I also think the comments about the Trickster archetype and associated evidence from meta-analyses are not justifiable. Fortunately, the discussion of the Trickster and meta-analyses is peripheral and does not impact the main points in the books. I hope that was clear in the review. In my opinion, the books would have been much stronger if those topics had been left out.

Storm's response expresses a common assumption among those who do not have experience with preregistered, well-powered confirmatory research. This assumption is that retrospective meta-analyses are needed to combine studies with inconsistent results to determine whether there is evidence for an effect. However, if researchers have a useful understanding of a true effect and conduct research with a power of 0.90 (preferably 0.95), about 90% (or 95%) of the studies will produce evidence for the effect. Similarly, if the effect is not true and previous exploratory research was false-positive, about 95% of the confirmatory studies will be consistent with no effect. Retrospective meta-analysis will not be needed to evaluate whether the effect occurs.

The preregistered confirmatory studies for Bem's precognition research demonstrate the expected consistency. Four preregistered, well-powered studies all found no evidence for psi with the planned analyses (Kekecs et al., 2023; Maier et al., 2020; Schlitz et al., 2021).

Inconsistent results for confirmatory studies would indicate that researchers do not have an adequate understanding to make reliable predictions, or that some of the studies had unrecognized biases. Either way, the research remains at the exploratory, speculative stage. If a retrospective meta-analysis is needed to evaluate whether an effect occurs, the research remains exploratory.

Studies that are preregistered as exploratory or are unregistered should be

excluded from the primary evaluation of whether an effect occurs because they are prone to bias and distort the findings, but they may be useful for exploratory analyses. Underpowered preregistered confirmatory studies can contribute to evidence with a prospective meta-analysis (Watt & Kennedy, 2017). The methods for planning and analysing well-powered confirmatory research are described in Kennedy (2024).

This is a fundamentally different strategy and standards of evidence than pre-replication-crisis methodology. The low standards of evidence with pre-replication-crisis methodology allow bias and are unfalsifiable (Kennedy, 2024), and, thus, tend to produce prolonged wasted efforts on unproductive lines of research, endless controversy, and low credibility.

Those who have an established career based on pre-replication crisis research and retrospective meta-analysis probably cannot be expected to welcome a methodological paradigm shift that raises doubts about their previous work. However, those with less vested interests will likely recognize that the emerging findings with preregistered confirmatory studies provide strong evidence that does not bode well for the traditional assumptions in experimental parapsychology about meta-analyses and about the nature of psi.

A couple of Storm's comments about experimenter effects deserve a response. Storm dismisses J. B. Rhine's belief that experimenters have differing abilities to obtain psi effects as one man's assumption in the 1930s. However, Rhine's view was expressed in 1976 after 45 years of conducting, managing, and observing psi experiments. Rhine's prolonged, intensely focused attention to psi experiments and experimenters is probably unmatched to this day. His experience managing a large number of diverse experimenters over the decades (ranging from Chuck Honorton to sceptic Chuck Akers) cannot be dismissed. Storm considers the claims from correlational analyses in meta-analyses as stronger evidence than the observations of Rhine and others and the results of experiments designed to investigate experimenter effects. However, an alternative interpretation is that this case demonstrates the methodological point that post hoc correlational analyses in retrospective meta-analyses can distort evidence to the point of appearing to support claims that are clearly not true.

Also, Storm sidesteps my point about Rosenthal finding evidence for experimenter differences in an early ganzfeld meta-analysis. Storm argues that Rosenthal's comment does not counteract later meta-analyses. However, my point was that the inconsistent conclusions by analysts with different expectations is an example of the post hoc flexibility that is common in retrospective meta-analysis. This is a point about the limitations of the methods, not a claim about the comparative evidence with later meta-analyses.

In his letter, Storm also clarifies that his hypothesis that the Trickster archetype causes researchers to make mistakes is a global factor encompassing all situations in which researcher mistakes occur. This appears to move the

hypothesis outside the possibility of empirical investigation and science. As yet, Storm has not presented any evidence that the Trickster archetype has a role in researcher errors or suggested a way that it could be scientifically investigated.

I'll conclude by reiterating that I think Storm's ideas about the need to revise the assumptions for experimental research are useful, but I think he gets off track with unnecessary and unjustifiable speculations about the Trickster archetype causing researcher mistakes and the evidential value of correlational analyses in retrospective meta-analyses.

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