

Psi and Distance: Is a Conclusion of Distance Independence Premature?

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ABSTRACT: This brief article describes eight considerations that suggest that the usual conclusion that psi is independent of distance is not yet justified, given presently existing empirical evidence.

Two familiar dicta inform the content of this essay. The first is by the fictional detective, Sherlock Holmes: “When you have eliminated all which is impossible, then whatever remains, however improbable, must be the truth” (Doyle, 1927/1930, p. 1011). The second, often misattributed to Carl Sagan, is by the late sociologist Marcello Truzzi: “When such claims are extraordinary, that is, revolutionary in their implications for established scientific generalizations already accumulated and verified, we must demand extraordinary proof” (Truzzi, 1975, p. 4).

Researchers and theorists exploring the areas of parapsychology and psychical research often argue that psi (a rubric for phenomena such as telepathy, clairvoyance, precognition, psychokinesis, and remote mental healing) is “independent of distance.” Although this may indeed be the case, it is my contention that such a conclusion, if based solely on presently existing evidence, is premature and violates both dicta mentioned above. On the one hand, “all which is impossible” has not yet been eliminated in psi and distance studies. On the other hand, the “extraordinary proof” for distance independence has not yet been provided.

My suggestion that psi’s distance independence is as yet inclusive is based upon three arguments: (a) there does not exist a satisfactory measure of psi accuracy or strength, (b) experiments exploring psi and distance typically have not been free of potentially important psychological confounds, and (c) there is, indeed, at least some empirical evidence that psi *is* related to distance. I will argue that the only legitimate conclusion, given the present state of the science and art, is that psi sometimes may occur at great distances. However, whether psi truly is *independent* of distance remains to be determined.

Difficulties with the distance independence conclusion have not gone unnoticed. In an early and usually neglected treatment, Dobbs (1967) described certain possible confounding factors that have not been adequately addressed, and Schmeidler (1977) and Palmer (1978) mentioned some additional challenges to this conclusion in their extensive reviews of psi findings.

Methodological Issues and Possible Confounding Factors

1. *Present measures of psi accuracy and psi intensity are crude, indirect, nonuniform, and lack satisfactory standardization.* Present measures—such as hitting rates in restricted response laboratory studies, judge ratings or rankings in free response studies, and convincing correspondences in spontaneous instances—can indicate that psi interactions are present but they do not yet provide convincing indications of the degree of psi's presence or satisfactory indications of the actual amount, degree, intensity, or precision of the psi interaction in any given case. Until more adequate measures of psi strength, effectiveness, and efficiency have been developed and are commonly used, any conclusions regarding psi's relationship to distance will remain less than satisfactory.

2. *Few distance-related psi studies have been free of possibly confounding psychological factors.* Ideally, participants in psi and distance studies should be unaware ("blind") as to the distance involved in the specific instance being tested. Knowing whether the distance is near or far could engage confounding psychological, motivational factors in participants, such as trying harder or less hard, having greater or lesser confidence in success, and so on. These psychological conditions in participants could obscure possible influences of physical (distance-related) conditions. The work of Osis, Turner, and Carlson (1971) is noteworthy in that it included sophisticated experimental procedures and analysis methods (including canonical correlations and stepwise multiple regression analysis) to keep distance "blinded" and also attempted to assess various psychological variables that might influence or interact with distance, per se. Unfortunately, such attempts to control or assess possible psychological confounds are either rare or absent in most studies of the psi-distance relationship.

3. *There may be difficulty distinguishing long-range real-time psi from close-range precognitive psi in cases in which research participants later can see their targets (e.g., for judging or simply for feedback).* Suppose a research participant is asked to psychically describe a distant target, but later (after providing a response) is exposed to that target either for judging purposes or simply for feedback regarding his or her success. In such a case, at least two psychical access possibilities exist: (a) long-range real-time psi access to the target (at its original distant location), and (b) short-range precognitive access to the target (at its later, close-at-hand location). Given the present state of the art/science, we cannot yet determine which of those two forms of target access actually took place. Precognitive short-range target access can be a confounding factor in any psi-and-distance study in which participants later are exposed to the once-distant target.

4. *The possibility of a threshold factor complicates interpretation.* It may be that there is a *threshold* process in psi, such that a certain minimal "intensity" or amount of information may be sufficient for psychic awareness, and increases above that threshold do not appreciably improve functioning. If this is the case, then there may well be a decrease in "intensity" with increasing distance, but this would not affect psi functioning as long as the threshold is exceeded. In this interpretation, whether or not psi awareness occurs would be governed in an "all or none" digital manner, rather than in a graded, analog manner. This interpretation is not unlike the quantum potential, pilot wave model proposed by the late physicist David Bohm (1986, 1990), in which such a potential/wave

is present and effective everywhere with the same form (and hence, with the same efficacy in influencing quantum physical processes) even though its intensity may decline with increasing distance. In Bohm's model, the quantum potential depends only on the *form*, and not in the *intensity* of an omnipresent quantum field, so that even a very weak quantum field can strongly affect a particle, and distance becomes irrelevant in certain quantum interactions.

5. *Access to psi information may be influenced by a process akin to automatic gain control in physical detectors.* It may be the case that the "intensity" of what becomes available to a percipient in some psi process does vary with distance, but there may exist something akin to automatic gain control, within the percipient, that might boost weak "signals" and attenuate strong signals, so that the resultant awareness may remain at some relatively constant level, regardless of the input intensity. This hypothetical process would be analogous to the functioning of automatic volume control circuits in radio, television, or audio equipment. If such a process (either physiological or psychological) exists, then its action could mask or obscure a distance-psi relationship.

6. *There may be a curve relating psi to distance, but the shape of that curve is uncertain, and distances presently being explored may be restricted to relatively flat portion of that curve.* The typical rationale of the claim that psi is independent of distance is an attempt to show that psi does not exhibit the typical decline with distance that seems to characterize known physical forces and, therefore, physical forces and energies can be ruled out as mediators of psi. A frequent claim is that psi does not appear to decline with the square of distance as do many forces with which we are familiar. There are two problems with such a conclusion.

The first problem is that we already know of exceptions to this familiar distance-decline rule (i.e., the *inverse-square law*). The inverse square law applies only to point sources and not to other types of forces or radiations. For example, an inverse square decline does not apply to the strong nuclear force, to the field strength of a magnetic dipole (which follows, instead, an inverse cube law), to highly collimated light (e.g., an ideal laser beam), to a spherical sound *pressure* (as opposed to a sound *intensity*) wave (which decreases with distance rather than distance squared), and even to directed sound (as opposed to omnidirectional sound). A very common exception to the usual distance decline involves the reception of short wave radio signals, which sometimes can be detected better at long distances than at short distances (dependent upon skywave-influencing ionosphere conditions and ducting possibilities).

The second problem is that although there may indeed be a curve describing decline of psi intensity or accuracy with distance, the particular distances tested thus far may lie on relatively flat portions of that curve and may erroneously suggest that the entire curve is flat. In Figure 1 below, true distance independence is indicated by the completely horizontal "independent" curve. If Curve A represents the true state of affairs, psi tests conducted at relatively "far" distances would not reveal a distance-dependent decline. If Curve B represents the true state of affairs, psi tests conducted at relatively "near" distances also would not reveal a distance-related decline. We would not be able to determine or infer the true shape of a psi-and-distance curve unless psi were tested over a

very great range of distances—from the extremely close to the extremely far—and such extensive studies have not yet been adequately conducted.

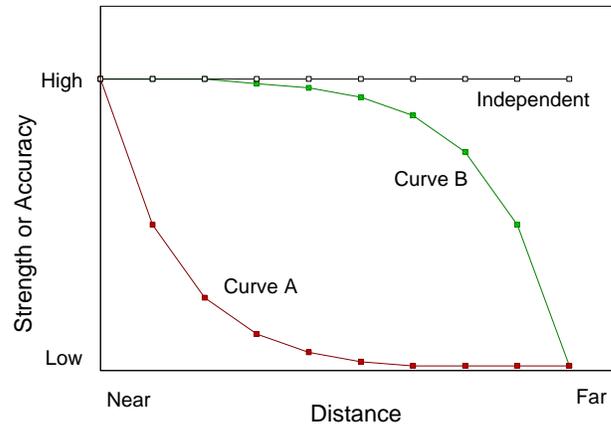


Figure 1. Three hypothetical curves relating spatial distance to psi performance.

7. *There exists actual empirical evidence for a relationship of psi with distance.* I'll mention four sets of findings that have indicated a distance-related decline for psi functioning. I. M. Kogan (1969, p. 22) reported a distance decline in psi functioning that closely resembled Curve B above. In his reported experiments, Kogan observed a decline of psi with distance over a range from 5 meters to 10^7 meters, and suggested that the actual transmission rate for telepathic information was between 0.005 and 0.1 bit per second.

Karlis Osis and his coworkers (Osis, 1965; Osis & Fahler, 1965; Osis & Turner, 1968; Osis, Turner, & Carlson, 1971) reported a series of distance-related psi experiments, conducted by Osis and by others, many of which indicated distance-related psi performance declines. As mentioned above, in the most adequately designed study (Osis, Turner, & Carlson, 1971), sophisticated experimental procedures and analysis methods (canonical correlations and stepwise multiple regression analysis) were used in order to keep distance "blinded" and to assess various psychological variables (such as research participant moods) that might influence or interact with distance, per se. In this study, the researchers observed an attenuation of between 0.7 to 1.7 units of the psi quotient measure for each 1000 miles, over the 0 to 10,000 mile distances explored in the study.

Fiona Steinkamp (2005) calculated z scores and effect sizes for Osis's earlier findings. The results of her analysis are shown in Figure 2 below. The curve relating forced-choice psi (ESP) performance and spatial distance closely resembles hypothetical Curve A of Figure 1.

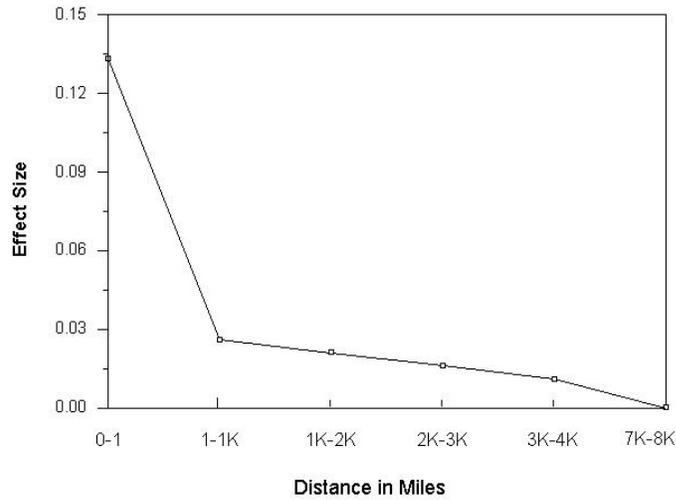


Figure 2. Fiona Steinkamp’s recalculated data for Karlis Osis’s psi and distance studies.

Dean Radin (2006) described a study he conducted with coworkers in which participants attempted to influence cell cultures in the laboratory, through intention alone. The researchers determined the degree of intentional influence on the targeted cells and also on random number generators (RNGs) at various distances (from 0 to 10,000 miles) from the cells. Note that this study explored active psi (psychokinetic influences upon animate and inanimate systems), rather than the kinds of receptive psi (ESP) described above. The effects of intention upon the RNGs stationed at various distances from the mentally targeted cells seemed to decline with increasing distance as indicated in Figure 3 below.

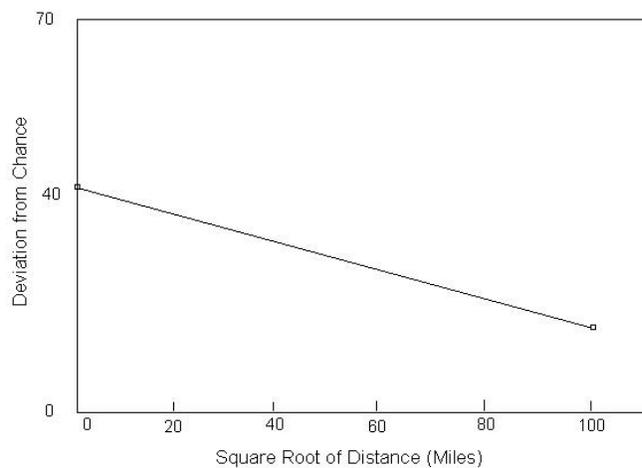


Figure 3. Deviations from chance in random number generators positioned at different distance from mentally targeted cells.

8. *The psi and distance relationship is confounded with additional psychological and biological factors of an adaptive nature.* Our various processes and abilities have adaptive functions; they allow us to satisfy our physical and psychological needs. It is likely that psi processes also serve our adaptation to our physical, psychological, and social worlds. If this is so, then being psychically sensitive to things, persons, and situations close at hand would be more adaptive than responding to those at great distances from us, because the former are much more likely to have important impacts upon us. This would suggest that our psychic functioning would privilege the “targeting” of events that are relatively near us, in space and time, over more distant spatial and temporal events. However, this proximal (versus distal) favoring is complicated by still another adaptive consideration—namely, the *meaningfulness* or psychological or biological importance, valence, or significance of the targeted events, regardless of their distance. The *personal (and species) significance, meaning, and importance* of certain individuals, objects, or circumstances might override the nearness-favoring relationship, leading us to attend to and influence the former even if they occur at great distances. Thus, this need-serving function of psi may interact with its nearness-serving function, obscuring the nature of the psi-distance relationship itself (were all other factors equal). Indeed, the interaction of these two functions may, to some extent, account for the vagaries of psychic knowing and psychic influence and contribute to the inconsistent results of psi experiments and reported psi experiences. (This consideration #8 is similar to consideration #2 above. However, #2 applies to experimental studies whereas #8 applies to spontaneously occurring cases.)

My intention, in this article, is not to claim that psi functioning is not distance-independent. Rather, it is simply to point out that such a claim—although it may eventually be shown to be true—is premature, based on existing evidence and on the possibility that other confounding factors have not yet been eliminated (and frequently have been ignored). Returning to the Holmes and Truzzi sayings mentioned at the beginning of this essay, “all which is impossible” has not yet been eliminated, and the “extraordinary proof” for the claim that psi is independent of distance has not yet been satisfactorily provided.

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