Editorial Pieces of the Psi Puzzle and a Recipe for Ganzfeld Success

Etzel Cardeña

Lund University

A particularly exciting issue this is in many aspects. I heard Dean Radin deliver his talk on potential pieces of the psi puzzle. It was a daring sojourn through philosophy, physics, neurology, and systems theory, giving the complexity of psi phenomena their due. I do not believe that all of his proposed pieces will be equally useful and that more are missing, but as a synthesizer of informed, creative, and playful speculations on psi Dean was at its best.

In addition, I was able to corral three research papers on ganzfeld along with an invited editorial. The bottom line is that not only is ganzfeld research alive and well, but overall the studies in this issue support the conclusions of previous meta-analyses (Storm et al., 2010; Williams, 2011), in one case with a prospective, preregistered, and very well-designed study. This is a good answer to those who think that psi results are just the product of "questionable research practices" (QRP; see Cardeña, 2018). Here is my personal take on what I think are important ingredients of a well-seasoned ganzfeld study, based on the studies and the invited editorial:

- 1. Use a precognition design (it has been successful repeatedly and it helps avoid methodological somersaults and potential charges of fraud).
- 2. Screen your participants and select those with a positive attitude to the experiment, some type of mental or artistic discipline, and so on (see the great effect size difference of chosen samples vs. general ones in Baptista et al., 2015). Watt et al. have a screening form that I would urge all researchers to use from now on, at least until they have a good reason to change it.
- 3. Expose participants to at least 30 min of ganzfeld, as shorter intervals may not be enough to facilitate psi, and use specific instructions such as the one in the paper by Roe et al.
- 4. Use enthusiastic and "fresh" researchers, to avoid potential boredom and lack of motivation.
- 5. If evaluating alterations of consciousness, consider using change scores from baseline to the ganzfeld experience, to measure the actual effect of the stimulation, and try to discern what aspects of altered consciousness relate to psi hitting (or missing).

And some promising seasonings for future research include:

• Evaluating with quantitative and qualitative methods the syntactic and semantic linguistic aspects of ganzfeld mentation and how they relate to psi hitting. There are scattered references in the literature to what would seem to be features that make psi information salient, but very little systematic research.

6 CARDEÑA

- Considering potential asymmetrical carry-over effects when comparing two or more techniques, as Stanford discusses in his invited editorial.
- Taking full advantage of what participant have to contribute beyond their mentation, for instance by continuing to work with them long-term, if possible (as it has been done with some of the psi "stars" of the past). N = 1 studies with gifted participants might incite more ideas than yet another garden-variety ganzfeld study.
- Instead of thinking that there is a methodological homogeneity "purity test," explore what strategies may work better for specific individuals. Although every variation of a procedure should have a rationale and be documented, a flexible and somewhat individualized approach may yield better results than a "one size fits all" approach (see Varvoglis & Bancel, 2015, for a discussion of a very successful PK researcher using this strategy).
- If using a brain-imaging technique, use a neurophenomenological approach to specify which specific brain dynamics relate to which specific experience/report (e.g., Cardeña et al., 2013). Instead of collapsing all of the various changes and random variations of brain activity within a large span of time (whether in ganzfeld or another stimulation), we should look for brain activity during specific, potentially psi-related episodes.

In my opinion, the case for the ganzfeld as a psi-conducive context has already been made, so we need now to understand better what elements are most important, including taking a systems-approach and looking at the interaction with, and variables of, the researchers (revisit Dean's paper). For instance, I suspect that rather than looking at "extroversion" as a participant variable, it may be better to look at the match of participant and researcher traits. Overall, the field needs to think more in term of interactions among many variables, both psychological and physical (e.g., Ryan, 2015), than of simple effects. A gifted participant may perform better than chance given circumstances X and Y, but not circumstance X alone. And of course there will always be random and other elements that had not been foreseen and will affect the outcome, as happens in mainstream research with living beings (Lewontin, 1994).

The attentive reader will notice that new ribbons, which indicate whether the study was preregistered and/or has open data, accompany some papers. They show that research on *JP* adheres to the highest methodological standards present in top mainstream journals. Although preregistration and open data are not required for publication in the *JP* at this point, I strongly encourage researcher to adopt them.

The JP offers its sympathies to the relatives and friends of Mary Rose Barrington and Donald West, whose obituaries are included in this issue.

And lest we become overconfident about having more pieces of the psi puzzle than we actually do, and in a nod to the paper by Evrard and Beauvais on negative capability (see also Cardeña, 2011), I end my editorial with the words of a graceful poet and essayist (Hirshfield, 2015, p. 139): "Over-certainty and single-mindedness irritate as well as bore; the idea that one can know what is right, or that a general truth is possible, affronts the true complexity of the real."

References

- Baptista, J., Derakhshani, M., & Tressoldi, P. E. (2015). Explicit anomalous cognition: A review of the best evidence in ganzfeld, forced choice, remote viewing and dream studies. In E. Cardeña, J. Palmer, & D. Marcusson-Clavertz (Eds.), *Parapsychology: A handbook for the 21st century* (pp. 192–214). McFarland.
- Cardeña, E. (2011). On wolverines and epistemological totalitarianism. (Guest editorial). *Journal of Scientific Exploration*, *25*, 539-551.
- Cardeña, E. (2018). The experimental evidence for parapsychological phenomena: A review. *American Psychologist*, 73, 663-677. doi: 10.1037/amp0000236
- Cardeña, E., Jönsson, P., Terhune, D. B., & Marcusson-Clavertz, D. (2013). The neurophenomenology of neutral hypnosis. *Cortex*, 49, 375-385. http://dx.doi.org/10.1016/j.cortex.2012.04.001
- Hirshfield, J. (2015). Ten windows: How great poems transform the world. Alfred A. Knopf.
- Lewontin, R. (1994). A rejoinder to William Wimsatt. In J. Chandler, A. I. Davidson, & H. D. Harootunian (Eds.), Questions of evidence: Proof, practice, and persuasion across the disciplines (pp. 504–509). University of Chicago Press.
- Ryan, A. (2015). Physical correlates of psi. In E. Cardeña, J. Palmer, & D. Marcusson-Clavertz (Eds.), *Parapsy-chology: A handbook for the 21st century* (pp. 181-191). McFarland.
- Storm, L., Tressoldi, P. E., & Di Risio, L. (2010b). Meta-analysis of free-response studies, 1992–2008: Assessing the noise reduction model in parapsychology. *Psychological Bulletin, 136, 471–485.* http://dx.doi.org/10.1037/a0019457
- Williams, B. J. (2011). Revisiting the ganzfeld ESP debate: A basic review and assessment. *Journal of Scientific Exploration*, 25, 639–661.