

Bias in Parapsychology Research: Implications for Early-Career Scholars

Like many psi scholars, I came to study parapsychology in a roundabout way. I had been interested in the paranormal from a young age, but I found that these interests were not supported when I pursued my PhD in psychology. From the undergraduate to graduate level, my professors either did not mention parapsychology at all, or they dismissed it as a pseudoscience. A few years after finishing my PhD I received an opportunity to work as a postdoctoral research fellow at Harvard Medical School, where I studied the effects of yoga and mindfulness in school settings. I was surrounded by scientists who were interested in spiritual, tran-

spersonal, and parapsychological topics, yet very few were willing to admit these interests in academic settings or publications.

Over time I became increasingly frustrated with this situation. I ended up leaving my job at Harvard, living in a cabin in the woods for two months, then moving to Europe. I am currently a part-time Lecturer in the School of Psychology at the University of New York in Prague where I teach and do research in the fields of positive psychology, transpersonal psychology, and parapsychology. I made the bold decision, given that this is my first official job as a professor, that it was finally time to go public about my interests in parapsychology. I started by de-



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veloping an undergraduate course called *Mind, Body, Consciousness: The Cutting Edge of Psychology*, where I teach about topics related to transpersonal and parapsychology, including exceptional human

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experiences (White, 1993; Yaden, Haidt, Hood, Vago, & Newberg, 2017) and the latest psi research (Cardeña, 2018a).

My students respond to these topics in very interesting ways. There are some students whom you might call “psi-proponents,” or at the very least, “psi-intrigued.” They are very interested in parapsychology and are amazed at the amount of research that has been done on this topic. They are also often shocked that none of their other professors have ever mentioned this research. The rest of the students (perhaps half to two-thirds of the class) are quite psi-skeptical. The moment I start presenting psi research, they reach for their phones or laptops to find the study that I am discussing and

do everything in their power to critique it. Or, if I assign a pro-psi article as a reading, they thoroughly crosscheck the article’s citations and critique as many of them as possible. I enjoy teaching my students how to think critically, so I don’t mind the critique. What I find interesting, however, is that these same students can read or listen to me speak about research on mainstream topics and barely bat an eyelash about it. They might use their phone while I’m speaking, but it’s to text their friend or to go on social media rather than to critique the research.

This observation inspired me to design a study that would directly compare people’s evaluations of parapsychology research to research in a more mainstream field like neuroscience (Butzer, 2019). I created two study abstracts that were identical in statistics, results, and general wording, except that one abstract presented the findings as though from a parapsychology study, whereas the other abstract presented them as though from a neuroscience study. One hundred participants with a background in psychology were randomly assigned to read one of the two abstracts and then answer four questions about the strength, reliability, and validity of the results. Participants also answered Barušs and Moore’s (1998) *Beliefs About Consciousness and Reality Questionnaire* to assess transcendentalist versus materialist beliefs.

The results showed that participants rated the neuroscience abstract as having stronger findings and being more valid and reliable than the parapsychology abstract, despite the two abstracts being identical. Participants also displayed confirmation bias in their ratings of the parapsychology abstract, in that their ratings were correlated with their scores on transcendentalism. Higher transcendentalism was associated with more favorable ratings of the parapsychology abstract, whereas lower transcendentalism was associated with less favorable ratings.

These types of confirmation biases have been found in previous research on parapsychology and other psychology topics (e.g., Goodstein & Brazis, 1970; Hergovich, Schott, & Burger, 2010; Koehler, 1993; Roe, 1999), however my study is the first experiment to directly compare evaluations of parapsychology versus neuroscience. My results suggest that people with a background in psychology display a bias, undervaluing parapsychology research compared to neuroscience research. My results also suggest that people evaluate parapsychology research in ways that are consistent with their level of transcendentalist beliefs.

What are the implications of these findings for the next generation of parapsychology researchers? First, and perhaps not surprisingly, there continues to be

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bias against parapsychology compared to mainstream topics like neuroscience. This bias becomes particularly important during the peer review process, where parapsychologists have long battled with biased editorial processes (Cardeña, 2015; Irwin, 2014; Murray & Fox, 2007). To address these potential biases, I encourage early-career scholars to do everything in their power to make their studies as transparent and methodologically sound as possible. One promising option is to begin adopting open science procedures that emphasize transparency in study design, data collection, and analysis (Munafò et al., 2017; Ryan, 2018). Parapsychologists have focused on

enhancing methodological quality for decades (Cardeña, 2018b; Watt & Kennedy, 2015; Wiseman, Watt, & Kornbrot, 2019), however open science practices are still relatively rare both within parapsychology specifically and psychology overall. For suggestions on how to get started, review Munafò et al. (2017), Ryan (2018), Watt and Kennedy (2015) and the Open Science Foundation website at www.osf.io. In addition, *Psi Open Data* is an open data repository specifically developed for parapsychology research (Ryan, 2018) (<https://open-data.spr.ac.uk/>), and the *KPU Study Registry* (<https://koestlerunit.wordpress.com/study-registry/>) provides a platform for parapsychology researchers to prospectively register their studies in order to document hypotheses and analysis plans and thus reduce the likelihood of reporting and publication biases.

I also encourage early career scholars to adopt a stance of compassion and non-attachment, particularly if you have designed a rigorous study and your research continues to be rejected and/or evaluated in a biased way. In other words, do the best you can, then release your attachment to the outcome. This is easier said than done, I know. But it is possible that the research we are doing right now might not bear its full fruit in our lifetimes; the paradigm shift of acceptance of parapsychology, if it comes, may come when the time

is right. We need to take the long view by acknowledging that our research, though not yet recognized, is contributing to that shift. In addition, instead of adopting an us vs. them mentality, perhaps we can practice compassion for the skeptics. Indeed, as Eisenstein (2005) suggests, psi-proponents and psi-skeptics may both be using the scientific method to seek the same thing: a liberation from despair. We are simply approaching this liberation in different ways.

The second implication of my results is that as parapsychology researchers, we need to be vigilant about our own confirmation biases that might lead us to evaluate parapsychology studies in an overly favorable manner. Scholars in many fields have long argued that the ideals of a completely objective scientist, and a value-free science, are myths (Braud & Anderson, 1998), and parapsychology is no exception to this rule; experimenter effects and sheep-goat effects suggest that psi-proponents sometimes find or produce pro-psi results more often than psi-skeptics do (Palmer & Millar, 2015; Storm & Tressoldi, 2017). Practicing good science demands we become more aware of how our beliefs might affect our evaluations of research. This requires self-awareness, humility, and transparency. Even though we might get excited about pro-psi results, we need to carefully examine the methodology used and make sure we don't over-

state the findings when we share them with others. I'm reminded of Agent Mulder's UFO poster with the words "I want to believe" in the TV series *The X-Files* – sometimes our desire to believe might cloud our judgment.

In recent years, parapsychology has experienced a reemergence, being more widely discussed and perhaps even accepted among academics and the general public. A recent study found that 93% of scientists and engineers endorsed having had at least one exceptional human experience (Wahbeh, Radin, Mossbridge, Vieten, & Delorme, 2018), and even professional skeptics have begun admitting these types of experiences publicly (Shermer, 2014). To advance this reemergence, the next generation of scholars will need to continue to be tenacious in the face of biases against their work, while also ensuring that they themselves do not succumb to biases that overly favor parapsychology. These are not easy tasks, but the future of the field depends on them.

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