

Editorial

Parapsychology – an “Ultra-Soft Science?”



Gerhard Mayer
mayer@anomalistik.de

Since J. B. Rhine’s research approach, experimental parapsychology has long been regarded as the ideal way to investigate paranormal phenomena (psi phenomena) and qualitative case studies have thus fallen behind in terms of the knowledge value attributed to them. An important motive behind this development was the desire to bring parapsychology as close as possible to “hard science”, i. e. to the natural sciences, in line with psychology as an academic discipline. This could be described as a striving for the “normalization of parapsychology” (Mayer & Schetsche, 2016). These efforts have certainly been successful to a certain extent in terms of science policy (Dean, 2016) and experimental outcomes, if one considers the corresponding meta-analyses (Cardena, 2018). But the very fact that we have to resort to meta-analyses points to a problem and a failure: The problem lies in the reliable replicability of experimental results, the failure in the desire to turn experimental parapsychology into an enterprise that conforms to notions of ‘hard’ science.

In the meantime, the replication problem has also emerged in other academic disciplines such as medicine, psychology and the social sciences (see e. g. Open Science Collaboration, 2015; Schooler, 2014). This indicates that the ideal of gaining scientific knowledge by means of an experimental approach, which demands hard and clear criteria regarding repeatability, is only appropriate and useful for a relatively small segment of science: namely, when inanimate objects are researched and humans are involved as little as possible

PLATINUM OPEN ACCESS
Creative Commons License 4.0
Attribution required.
No commercial use.



in the conduct of the experiments. Accordingly, the attempt to classify parapsychology, which primarily investigates the connection between mind and matter and whose name already bears a reference to humans, as a “hard science” must fail if the distinction between “hard” and “soft” is understood in the above-mentioned sense, which does not include any value judgment.¹

So, is parapsychology a “soft science”? If one considers the complexity of the phenomena and context, the methodological flexibility, and the replication problem as characteristics of “soft sciences”, then the answer to the question must definitely be affirmative. But this is probably not enough to adequately characterize the phenomenology of psi phenomena. For this reason, the parapsychologist Dean Radin has called research in this field “ultra-soft science,” since the usual epistemological assumptions about research objects in terms of control protocols, isolation or shielding from external influences, and investigator independence do not strictly apply, as they appear to be space-time independent, but rather dependent on the research leaders and other persons (Radin, personal communication). The term “ultra-soft science” seems appropriate to me. It points to the special epistemic situation of research in this area and thus expands the scope of possibilities of the sciences, rather than discrediting it in a way that is not justifiable from the philosophy of science by labeling it “pseudoscience.”

An understanding of parapsychology as “ultra-soft science” also means accepting vagueness and the difficulty of finding clear definitions and boundaries without necessarily committing to models with axiomatic basic assumptions. The apodictic devaluation of experimental (quantitative) research in parapsychology, as found among hardcore sceptics (e.g. Reber & Alcock, 2020), but surprisingly also with Atmanspacher and Rickles (2022) – despite otherwise extremely diverging positions, they agree on the point that it makes no sense to continue conducting quantitative parapsychological experiments due to alleged lack of success –, can be understood as an expression of a refusal to engage openly with questions raised by empirical facts.²

At this point I am reminded of an early cultural-critical work by the occultist Aleister Crowley, “The Soldier and the Hunchback: ! and ?,” which emphasizes the complementary necessity of the hunchback “?”, i. e. the sceptical questioner in man, over the army of upright “!”, the soldiers

1 The implicit value judgment that was evident when the distinction between “hard science” and “soft science” was introduced and was also widely adopted by parapsychology testifies to an outdated and limited understanding of science that is ultimately based on a mechanistic worldview.

2 Atmanspacher & Rickles write: „Numerous studies of so-called mind-matter anomalies (*vulgo psi*) in experimental settings over the decades either suffered from fraud or experimental incompetence, or they were simply insignificant. To some extent, this lacking significance reflects that attempts to catch and fix qualitative features (such as meaning) in a quantitative fashion (by statistical significance) is wrong-headed” (Atmanspacher & Rickles, 2022, p. 189).

who represent the dogmas and convictions (Crowley, 1909). At present, the zeitgeist seems to favor an imbalance on the side of the “army of the upright ‘!’”, i.e. of determining, explanatory and authoritative structures – at least this is evident in the political and socio-political sphere, where the backward-looking longing for clear distinctions and a simplified world view has led to a considerable decline in democratic openness to new experiences and unconventional interpretations of reality.

I am not in a position to judge the extent to which this zeitgeist also extends to science itself. In principle, scientists should be on the side of the “hunchbacks”, i.e. the sceptical questioners. Open-ended curiosity and the ability to endure cognitive dissonance arising from empirical data that cannot (yet) be integrated should be part of the basic psychological make-up of researchers. This applies in particular to research in the field of parapsychology and anomalistics, where, as Stefan Schmidt cautiously puts it in his introduction to *Experimental Parapsychology*, “the data of parapsychological experiments contain irregularities that cannot be explained by chance; little is known about the nature of these irregularities” (Schmidt, 2014, p. 103). The cautious nature of the wording reflects the fact that we still do not know exactly what so-called psi phenomena are, how theoretical concepts such as clairvoyance, telepathy, precognition and psychokinesis can be clearly distinguished on a practical level and where exactly the boundaries of the field of research lie.

During a recent discussion about the wonderful book *Picturing Aura: A Visual Biography* by Jeremy Stolow (2025), the question arose as to what extent a treatise on this subject had a connection to parapsychology. At first glance, one might associate the concept of “aura” with the field of religious studies or esoteric world views. However, a mere glance at the index of subjects and persons in the volume reveals the close connection to parapsychology and its history. Since demarcations and definitions are model-based, they always also mean exclusions – exclusions of alternative models and interpretations.

The study “Macroscopic Complementary Relation Between Subjective Observations and Objective Measurements of Colors” by Markus Maier and Moritz Dechamps, which is presented in this issue of the *Journal of Anomalistics*, provides an exciting example of how anomalistics or parapsychological research can be successfully conducted outside the traditional parapsychological research paradigms (Maier & Dechamps, 2025). Hypothesis formation and the research design are based on General Quantum Theory [GQT] (Atmanspacher et al., 2002; Römer, 2023), whose development was in turn inspired by the, if you will, “ultra-soft” behavior of the data from “classical” parapsychological experiments. In four runs of their experiment, the authors found replicable anomalies consisting of significant differences in the subjective liking of a presented color depending on whether the associated color parameters were saved or

erased. Even if this result cannot necessarily be regarded as a confirmation of GQT, it is a very interesting anomaly that does not fit into the classical categories of psi phenomena, but should nevertheless be understood as a result of experimental parapsychology.

This study shows that an apodictic rejection of experimental parapsychological research is inappropriate, as it is a perfect example of a constructive interplay between theory building and the experimental generation of empirical data. However, even in the field of known experimental paradigms, apparently replicable new findings can be obtained if one is able to look beyond the familiar. In one of the many replications of Daryl Bem's presentiment experiments (Bem, 2011), conducted at the Institute for Frontier Areas of Psychology and Mental Health, in addition to the usual reaction time measurements, the participants' EEG was also recorded. A significant presentiment effect was found not in reaction time (behavioral level), but in the EEG (Wilson et al., 2025), which was replicated in a second experiment (Mozhdehfarahbakhsh et al., 2025). The exciting thing about this finding is that the effect in the EEG was not found anywhere in the brain, but in the language center, which makes sense in the context of the experimental task, namely word recognition and processing. Here too, a new perspective on the familiar resulted in interesting experimental findings.

A further methodological "vitalization" of experimental research is currently being achieved through the intelligent use of AI, the scope of which cannot yet be fully assessed. The ability to recognize patterns in large amounts of data can help to identify new aspects in quantitative anomalistic studies. However, the use of AI is also stimulating in the field of qualitative research, as the article "Magic Flights or Mind's Eye? Further Explorations of Dimensional-Slip Narratives" by James Houran et al. in this issue demonstrates. Here, AI is still being used in a tentative way, as an additional analysis tool for qualitative data, whose usefulness is tested by comparison with expert analyses. We can expect a lot more in this respect in the future.

Scientific-technological speculations form the basis of science fiction literature. Here, however, it is not so much man-made artificial intelligence that drives the speculation; rather, the narratives often fantasize about intelligences outside the human-terrestrial framework. It is well known that the conceptions of extraterrestrials in science fiction narratives often reflect very human current (and not far-future) problems. In their paper "Transterrestrische Scham. Zur Konstruktion fiktionaler Alien-Bilder in Klassikern der englischsprachigen Science-Fiction-Literatur im 20. Jahrhundert," the authors Noah Sproß and Andreas Anton work out a new aspect in their analysis of some famous science fiction classics, namely that of the "transterrestrische Scham" mentioned in the title (Sproß & Anton, 2025). Here, too, the confrontation with the "maximally alien" (Schetsche, 2004) serves to reassure oneself, with the aspect of human limitations being brought to the fore.

The question of the epistemological limits of human possibilities in all aspects of life, including scientific knowledge, must be continually re-examined. In this respect, the view of parapsychology as an “ultra-soft science” can help to shift boundaries and expand the realm of what can be known.

References

- Atmanspacher, H., & Rickles, D. (2022). *Dual-Aspect monism and the deep structure of meaning*. Routledge. <https://doi.org/10.4324/9781003270584>
- Atmanspacher, H., Römer, H., & Walach, H. (2002). Weak quantum theory: Complementarity and entanglement in physics and beyond. *Foundation of Physics*, 32, 379–406.
- Bem, D.J. (2011). Feeling the future: Experimental evidence for anomalous retroactive influences on cognition and affect. *Journal of Personality and Social Psychology*, 100(3), 407–425. <https://doi.org/10.1037/a0021524>
- Cardena, E. (2018). The experimental evidence for parapsychological phenomena: A review. *The American Psychologist*, 73(5), 663–677. <https://doi.org/10.1037/amp0000236>
- Crowley, A. (1909). The soldier and the hunchback: ! and ? *The Equinox*, 1(1), 113–135.
- Crowley, A. (1955). Der Soldat und der Bucklige: ! und ? In A. Crowley (Ed.), *Äquinox (Bd. 2): Das Herz des Meisters* (pp. 59–70). Genossenschaft Psychosophia.
- Dean, E.D. (2015). Die Parapsychological Association, affiliertes Mitglied der American Society for the Advancement of Science. *Zeitschrift für Anomalistik*, 15(1+2), 47–54.
- Dean, E.D. (2016). Parapsychology is now a recognized science: How it was done. *Mindfield*, 8(2), 48–53.
- Maier, M.A., & Dechamps, M. (2025). Macroscopic complementary relation between subjective observations and objective measurements of colors. *Journal of Anomalistics / Zeitschrift für Anomalistik*, 25(1), 15–60. <https://doi.org/10.23793/zfa.2025.015>
- Mayer, G., & Schetsche, M. (2016). On anomalistics research: The paradigm of reflexive anomalistics. *Journal of Scientific Exploration*, 30(3), 374–397.
- Mozhdehfarahbakhsh, A., Freitag, S., Kornmeier, J., Wittmann, M., & Wilson, M. (2025). Behavioral and electrophysiological correlates of forward and backward priming. In M. Nahm (Ed.), *67th Annual Convention of the Parapsychological Association: Abstracts of presented papers* (pp. 125–127). The Parapsychological Association.
- Open Science Collaboration. (2015). Estimating the reproducibility of psychological science. *Science*, 349(6251), 4716. <https://doi.org/10.1126/science.aac4716>
- Reber, A. S., & Alcock, J. E. (2020). Searching for the impossible: Parapsychology’s elusive quest. *American Psychologist*, 75(3), 391–399. <https://doi.org/10.1037/amp0000486>

- Römer, H. (2023). *Quanten, Komplementarität und Verschränkung in der Lebenswelt: Verallgemeinerte Quantentheorie*. LIT.
- Schetsche, M. (Ed.). (2004). *Der maximal Fremde: Begegnungen mit dem Nichtmenschlichen und die Grenzen des Verstehens*. Ergon.
- Schmidt, S. (2014). *Experimentelle Parapsychologie: Eine Einführung*. Ergon.
- Schooler, J.W. (2014). Metascience could rescue the „replication crisis“. *Nature*, 515(7525), 9. <https://doi.org/10.1038/515009a>
- Sproß, N., & Anton, A. (2025). Transterrestrische Scham: Zur Konstruktion fiktionaler Alien-Bilder in Klassikern der englischsprachigen Science-Fiction-Literatur im 20. Jahrhundert. *Journal of Anomalistics / Zeitschrift für Anomalistik*, 25(1), 119–151. <https://doi.org/10.23793/zfa.2025.119>
- Stolow, J. (2025). *Picturing aura: A visual biography*. The MIT Press.
- Wilson, M., Wittmann, M., & Kornmeier, J. (2025). Behavioural and EEG correlates of forward and backward priming – An exploratory study. *PLOS ONE*, 20(5), e0322930. <https://doi.org/10.1371/journal.pone.0322930>

Editorial: Parapsychologie – eine „Ultra-Soft Science“?

Experimentelle Parapsychologie wurde seit dem Forschungsansatz von J.B. Rhine für lange Zeit als Königsweg zur Erforschung von paranormalen Phänomenen (Psi-Phänomenen) angesehen, und qualitative Fallstudien gerieten dadurch hinsichtlich des ihnen zugesprochenen Erkenntniswerts ins Hintertreffen. Ein wichtiges Motiv hinter dieser Entwicklung bestand in dem Wunsch einer möglichst großen Annäherung der Parapsychologie an die „Hard Science“, also an die Naturwissenschaften, darin ganz der Psychologie als akademischer Disziplin folgend. Man könnte dies als ein Streben nach „Normalisierung der Parapsychologie“ bezeichnen (Mayer & Schetsche, 2016). Diese Bestrebungen waren durchaus bis zu einem gewissen Grad wissenschaftspolitisch (Dean, 2015) und experimentell erfolgreich, wenn man die entsprechenden Metaanalysen betrachtet (Cardena, 2018). Aber allein die Tatsache, dass wir auf Metaanalysen zurückgreifen müssen, weist auf ein Problem und ein Scheitern hin: Das Problem liegt in der zuverlässigen Replizierbarkeit von experimentellen Versuchsergebnissen, das Scheitern im Wunsch, aus der experimentellen Parapsychologie ein Unternehmen zu machen, das den Vorstellungen einer „harten“ Wissenschaft entspricht.

Inzwischen ist das Replikationsproblem auch in anderen akademischen Disziplinen wie der Medizin, der Psychologie und den Sozialwissenschaften aufgetaucht (siehe z. B. Open Science Collaboration, 2015; Schooler, 2014). Dies weist darauf hin, dass die Idealvorstellungen