Review of: "HUME, Paradigms, and the Debate on Psi"

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Psi research is an epistemological quagmire. Not only is the field far from reaching consensus on the theoretical explanation of the phenomena, but also their very reality is not firmly established. Furthermore, there is no agreement on what tools should be adopted to research the diverse groups of alleged phenomena. On a more basic, philosophical level, there are disputes among the researchers themselves and, to a greater degree, among critics and sceptics, on how to understand the key epistemological notions involved in the debate: evidence, proof, belief, and knowledge. Since the issue crucially involves these notions, it is not surprising that several contenders have stumbled on a classic, fundamental piece written by one of the greatest philosophers in the English-speaking tradition, David Hume's essay "Of Miracles," published as chapter 10 of *An Enquiry concerning Human Understanding* (1748).

Although there is ample divergence among Hume scholars about nearly every aspect of his philosophical work, there seems to be relatively little doubt among them as to what exactly were the grounds, nature, and import of Hume's arguments against miracles. Psi researchers, on the other hand, have typically misunderstood these arguments and made use of them to argue both against the reality of the alleged psi phenomena and in favour of the *possibility* of their occurrence by rejecting the arguments offered by Hume. In the present paper, Williams successfully manages to avoid these misguided approaches. The key factor leading to this happy exception in the psi literature is the close attention the author pays to the broader philosophical and historico-cultural contexts in which Hume's essay was composed.

Williams correctly notices that, in the essay, Hume is simply applying his own sane, famous epistemological rule, that "[a] wise man … proportions his belief to the evidence". Hume compares the evidence – and, for him, evidence is *empirical*, factual evidence – for the laws of nature with the evidence for miracles, *such as those classically claimed to exist in a broad spectrum of religious traditions*, and which were deeply criticised by Hume for other (and good) reasons, in other parts of his works. The most important point here is that, in Hume's epistemological theory, the evidence for the laws of nature (which for him means simply the regularity of nature) is never absolute. Laws of nature are not apodictic *knowledge*, but, simply, well-grounded *belief*. In making this distinction between knowledge and belief, and in placing natural philosophy (or science, as we would call it now) on the side of belief, Hume is effectively following Locke, in his influential *Essay concerning Human Understanding* (1690). For Locke, the best evidence for the scientific laws amounts only to probability, never to demonstrable knowledge, as in mathematics. But Hume further distinguishes "probability" from what he, rather idiosyncratically, calls "proofs" (*Enquiry*, chap. 6, note 10; see also his previous, and more fundamental book, *A Treatise of Human Nature*, book 1, part 3, section 11, paragraph 2). This is not to be confused with the ordinary notion of proof as demonstration, such as that found, for instance, in mathematics. Proof, for Hume, is what for Locke was

probability in its highest degree, and which results from a completely uniform and regular evidence for a certain cause-effect correlation. Laws of nature are “proofs”, in this sense: theoretical regularities grounded on invariably favourable, regular, empirical evidence.

Now, Hume’s main argument in the essay on miracles is that if miracles are understood as reports of violations of a law of nature, then these reports should, at the very least, be seen with suspicion, for by definition, they flatly contradict the whole of previous, uniform evidence. *But this does not mean that Hume does not admit the possibility that contrary evidence to a law of nature should ever be found*. On the contrary, his epistemological theory makes ample allowance for the observation of *ir*regularity in the operation of bodies. When this occurs, the balance between favourable and contrary evidence has to be recalculated, according to the mentioned epistemological maxim. What once could have been taken as a “proof” may be downgraded to “probability”. So it is not correct to say that when Hume claims that for each purported miracle there is a contrary “proof,” he is claiming that miracles – in the sense of a violation of a law of nature – are metaphysically *impossible*. As it happens, however – and this is amply exemplified by Hume in part II of the essay, occupying 6 of its 9 pages – the typical reports of miracles, belonging to the religious traditions, do *not* meet the minimal requirements for being seriously taken as indications of breaches of natural laws.

After recognizing this crucial point, Williams makes the original and plausible suggestion that “Hume’s intended target was the fallibility of testimony around miracles, usually of a religious nature, *not anomalous findings in laboratories*” (my italics), such as the most robust psi research reveals. He adds that “[t]his is likely an important omission, because testing under laboratory-controlled conditions is generally designed to rule out at least some of the problems that concerned Hume”.

This reduction of Hume’s arguments to their just dimensions avoids both the usual, and opposite, mistakes of taking them as a cabal proof (in the usual, strong sense of the word) that miracles are absolutely impossible or of rejecting them altogether, with a view to making way for psi research. This is the main contribution of Williams’ paper. Alone, it would entitle us to count it as one of the best analyses of Hume’s essay in relation to psi research. For this reason, I recommend the publication of the paper.

However, in an apparent attempt to give more substance to his paper, Williams also makes reference to a recent overview of the extant meta-analyses of the psi field (Cardeña, 2018), which could, according to him, be taken as just the kind of well-grounded, controlled evidence for psi phenomena gathered under lab conditions. It is not idle to offer this reference to the reader of his paper, although this may somewhat shift her attention away from its main, philosophical contribution. Whatever the case may be, the discussion of these findings could have been more succinct (section 5.2, for instance, could have been omitted), since no new material is effectively added.

In the same vein, little gain to the paper ensues from the many passing remarks made by Williams to the existence, in the psi literature, of claims that the psi phenomena are incompatible with certain specific laws of physics, or branches of theoretical physics (such as quantum field theory); or, in the opposite direction, uphold by certain theoretical developments in quantum physics. Nothing of this is concrete in the present state of the studies; and, as the experts in the foundations of physics have been remarking for decades, this has been a fertile terrain for groundless speculations, prejudices both pro and con, and a lot of pure nonsense. Williams’ paper could be better if it had kept aloof of these

controversial issues.

On p. 8, there is a minor historic error: “the discovery of Neptune” was not a “violation” of Newtonian mechanics. Irregularities in the orbit of Uranus were noticed at the beginning of the 19th century. Instead of imputing the discrepancies between the astronomical data and the theoretical predictions to the falsity of Newtonian mechanics, astronomers suggested that they would probably be due to the existence of a yet-unobserved planet in the vicinity of Uranus. Decades later, this strategy was spectacularly vindicated by the astronomical observation of this new planet, Neptune. Thus the episode was in fact a striking *confirmation* of Newton’s theory, not its “violation”. As to the orbit of Mercury, the other case mentioned by the author in the same paragraph, matters are more complex; to explain it would take several paragraphs of technical analysis lying out of the article’s scope. So I suggest omitting these problematic examples altogether.

Finally, the Author indulges, in section 6, in laying down certain bridges between the qualms involving the debate on psi and Thomas Kuhn’s views on the dispute between rival “paradigms”. Specifically, he appears to suggest that the chasm separating supporters and critics (or sceptics) of psi could be taken as a kind of Kuhnian “incommensurability”. Now, besides being one of the thorniest concepts introduced by Kuhn in his epoch-making book, and about which he himself shortly after its publication came to have second thoughts, no real gain accrues to Williams’ analysis from this clearly undeveloped suggestion. Ironically, should it be made more robust, it would militate against Williams’ sympathetic stance towards psi, since a Kuhnian incommensurability would represent – in its most usual construal – the epistemological bankruptcy of the rational, empirically grounded dialogue between opposing theoretical camps.

The paper has a series of misprints and lacunae in the reference list, requiring correction in the published version in *Qeios*:

- p. 3: 5.7×10^{-8} instead of 5.7×10^{8}
- p.4, table: $p < 10^{-16}$ instead of $<0.10^{-16}$
- p. 4, table: 2.34×10^{-13} instead of 1. 2.34×10^{-13}
- pp. 5 and 6 (several occurrences): BLP instead of BLT
- p. 7: reference to Stapp, 2017 is missing in the References
- p. 7: ‘would appear’ instead of ‘would appears’
- p. 13: $p < 10^{-16}$ instead of $p<0.10^{-16}$
- p. 19: the references to Williams, 2019 and Radin and Kaufman, 2022 are missing in the References.