

Peer Review

Review of: "Free Will: Reality and Perception"

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review of Joachim I. Krueger, *Free Will: Reality and Perception* (Qeios preprint, 2 January 2026)

Summary and overall assessment

Krueger's manuscript is explicitly framed as a *perspective paper* rather than an empirical report, and it delivers exactly what that label suggests: a brisk, rhetorically confident essay that (i) rejects libertarian free will as impossible, (ii) argues that compatibilism and pragmatism impede scientific progress, and (iii) surveys selected findings on how *belief* in free will functions psychologically and socially.

The piece is readable, provocative, and pedagogically useful in places, especially where it warns against conflating moral desirability with truth. At the same time, the manuscript's scholarly contribution is limited by (a) an unusually narrow target definition of "free will" (libertarian only), (b) a tendency to treat conceptual critiques as if they settled scientific questions, and (c) a reliance on illustrative "toy" quantitative demonstrations and brief summaries of empirical work without enough methodological detail to evaluate the evidential weight.

In short: as an opinionated synthesis aimed at correcting what the author views as conceptual confusion, the paper is competent and sometimes sharp. As a contribution to the scientific understanding of decision-making, volition, and agency, it is underpowered: it largely bypasses mechanistic models and neuroscience, and it does not itself supply new data or a new explanatory framework that could guide discriminating experiments.

What the paper actually claims (and what it does not)

A central point for readers: Krueger does not remain neutral about whether free will exists. He states plainly that libertarian free will "does not, and indeed cannot, exist," and he presents this as the first pillar of the manuscript.

He also takes a strong stance that compatibilism is not merely incomplete but a conceptual detour that “hinders scientific progress.” Finally, the author emphasizes that even if belief in free will were associated with prosocial outcomes, such correlations cannot constitute evidence for the metaphysical reality of libertarian free will.

What the manuscript largely does not do is engage with the leading *scientific* models of decision and control (evidence accumulation, conflict monitoring, basal-ganglia gating, affordance competition, predictive-processing / active-inference approaches, etc.), nor does it propose a mechanistic bridge from neural dynamics to the phenomenology of agency. Instead, it treats “volitional action” and “self-regulation” as legitimate scientific topics *within determinism*, but insists that studying them does not bear on free will *as he defines it*.

This is a coherent editorial choice, but it should be made even more explicit, because many readers, including psychologists, use “free will” as shorthand for graded cognitive control (inhibition, deliberation, reasons-responsiveness) rather than libertarian metaphysics. By refusing that broader usage, the paper increases conceptual purity at the cost of potentially talking past a large portion of the contemporary research programme.

Strengths: conceptual hygiene and a clear warning against “utility $\Rightarrow$ truth”

a. The compatibilism critique as a definitional boundary marker

Krueger argues that compatibilism “mistakes volition ... for freely willed action,” calling it a “category mistake” and, rhetorically, a red herring. Whether one agrees or not, the author is doing something valuable here: he is trying to enforce a sharp distinction between (a) explaining how intentions form and guide action and (b) justifying an uncaused origin of will. This can help students see why the same word (“free”) does different work in philosophy, law, and psychology.

The weakness, however, is that Krueger treats this definitional boundary as if it were decisive for what should count as scientific progress. Many researchers are perfectly content to say: *the interesting scientific question is control*, and compatibilism is the conceptual wrapper that licenses that shift. Krueger’s position is more like: *if you shift to control, stop calling it free will*. That is a fair terminological demand, but it is not clear that it shows compatibilism “hinders” science; it may simply show that it changes the subject.

b) The pragmatism critique is a useful methodological lesson

The paper's most concrete analytic move concerns pragmatism: Krueger criticizes the inference that because a belief is useful it must therefore be true, labeling this "affirmation of the consequent." He then offers a probabilistic demonstration (Figure 1) contrasting a "null world" with a "socially improved world," showing that increasing the base rate of "good behavior" can produce an apparent asymmetry that favours pragmatic inferences from behaviour to truth.

As pedagogy, this is strong: it reminds readers that correlations between belief and behaviour—even replicable ones—do not licence metaphysical conclusions, and that base-rate shifts can create misleading confirmation patterns. The author's framing of "prediction asymmetry" also resonates with longstanding warnings in psychological science about post hoc explanations and overconfident inference.

But this brings us to a key limitation: Figure 1 is not an empirical result. It is an illustrative construct. The manuscript should therefore avoid any tone suggesting that the figure *settles* debates about real-world "free will belief" effects; it only clarifies a logical structure.

Major limitations: narrowed target, essay format, and thin empirical backbone

- a. The paper's "only libertarianism matters" stance is contentious

Krueger explicitly states that "the only claim worth debating is that of libertarian free will." This is a strong philosophical claim, but in a psychology-facing essay it requires more defence than is provided, because it risks being a definitional veto over a major empirical literature. A substantial portion of cognitive science and neuroscience has been built around graded control and agency; for those researchers, compatibilism is not a "mistake" but a conceptual alignment between the folk term and an operationally tractable target.

If the author insists on libertarianism as the sole legitimate referent of "free will," he should do at least one of the following more explicitly:

- justify why the author rejects positions pointing to neurological evidence of the possibility of making volitional decisions (see e.g. Galus, W.L., (2024) Neurological Foundations of Moral Responsibility. SSRN: <https://ssrn.com/abstract=4933128>), or
- justify why scientists should accept that linguistic stipulation, or
- acknowledge that the contemporary scientific "free will" programme is really a programme about volition/agency and then evaluate it on its own terms.

Currently, the argument appears to be based on a definitional preference that is being used to delegitimise an entire research tradition.

a. The determinist conclusion is asserted more than scientifically argued

The “unapologetically determinist” posture appears again in the postface, where Krueger concludes that “we have decisions; we don’t make them,” and that decisions “come to us.”

These are memorable lines, but they function rhetorically more than analytically. They might be defensible within certain philosophical pictures of agency, but as scientific claims, they would normally require engagement with computational accounts of decision formation, the time-course of commitment, and the role of conscious evaluation and inhibition. The paper largely declines that engagement by design.

a. Empirical content is presented as “recent exploration” with insufficient detail

The third part reviews findings that free-will beliefs are strong on average, that self–other attributions correlate highly ($r \approx .8$), that about a third report “more free will than average,” and that there is a “matching effect” in social evaluation and trust games. These are plausible and potentially interesting results. However, in the present manuscript, they are summarized without enough methodological specification (sample sizes, sampling frame, preregistration status, analytic choices, robustness checks). The references include a 2024 SSRN item and other sources, but the preprint itself does not supply the evidential scaffolding needed for a reader to assess whether these results are stable, how they relate to the broader replication landscape, or whether they depend on particular operationalizations of “free will belief.”

Given that the author himself emphasizes failed replications in the “belief in free will improves morality” literature, he should apply the same skepticism to the newer correlational findings.

Novelty: what is actually new here?

1. **Figure 1 is novel mainly as a didactic decomposition**, not as new data. The “ratio of ratios” and “prediction asymmetry” framing offer a clean illustration of how pragmatic inference can be misleading even when conditional probabilities look favourable. This is a contribution in argumentation and teaching, not in empirical discovery.
2. The **social-psychological pattern** (projection, self-enhancement, matching/trust effects) is potentially interesting, but in this manuscript, it is presented as a compact narrative summary

rather than a fully documented empirical contribution. If the author wants to claim novelty on empirical grounds, he should either (a) present the data more fully in this preprint (methods, analyses, effect sizes, uncertainty, robustness), or (b) clearly treat it as a pointer to external work.

3. The **determinist/anti-compatibilist** stance itself is not new; it is a familiar position in the philosophical and popular-science landscape. The manuscript's novelty lies mostly in its rhetorical synthesis and in the specific probabilistic demonstration used to criticise pragmatism.

So: the presence of “statistics” and a figure is not sufficient to claim strong novelty if the figure is illustrative and the empirical claims are only summarised. Novelty in a research sense usually requires either new data, new analyses, a new model, or a new method—none of which is robustly delivered within the four corners of this preprint.

Declarations

Potential competing interests: No potential competing interests to declare.