

Review of: "Facilitating Constructive Criticism of Established Scientific Paradigms"

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In this insightful analysis, the author delves into the contrasting positions of “normal science” and “extraordinary science,” focusing on their treatment during peer review. It’s no surprise that groundbreaking and heretical ideas—those that challenge established paradigms—often face an uphill battle within the scientific community. Beyond mere skepticism, reviewers frequently reject such ideas because they not only challenge their own beliefs but also jeopardize their professional reputation and status.

However, there’s a silver lining. As depicted in Figure 1, these unconventional articles eventually find their way to the scientific community and the public. The catch? Authors must navigate a longer and more arduous path.

Central to the discussion is the media “Well-Founded Extraordinary Science.” At first glance, its purpose seems clear: to facilitate the dissemination of extraordinary scientific work and promote epistemic progress. Yet, upon closer examination, I harbor some reservations and invite the author to consider the following:

Medium Prejudices: Does the existence of such a specialized medium inadvertently reinforce reviewer biases? If we need a separate channel for groundbreaking ideas, does that imply something amiss with “true science”? There’s a risk that this approach might exacerbate existing issues within the “classical media.”

Attracting the Fringe: While “Well-Founded Extraordinary Science” aims to support genuine breakthroughs, it could inadvertently attract pseudoscientists, dilettantes, and conspiracy theorists. They might perceive it as their playground, flooding it with nebulous, unscientific content. In an open review system, this flood could drown out truly rigorous scientific contributions.

Author Perspectives: Most authors of “extraordinary science” likely view their work as advanced, exceptionally significant research rather than something extraordinary. They aspire to publish in reputable, well-established journals. Convincing them to submit to a specialized medium might prove challenging.

Perhaps a more pragmatic approach lies in influencing existing reputable journals. By adapting the proposed reviewer questions, editors can better identify articles that qualify as “extraordinary science.” Clear instructions to reviewers on how to approach such work could foster positive change. Ultimately, articles like this one serve as valuable educational tools, shaping reviewers’ ethics and openness to transformative ideas that drive epistemic progress.

