

What Do Reviewers Really Want?

Sometimes it seems you just can't win with reviewers. There's always something. Odds are they'll find your data inadequate, your results unconvincing, or your conclusions overdrawn. They don't care how hard you worked, how long it took, or how difficult it was to get results. There'll be something wrong with your methods—unless they give results that “do not add to our current understanding.” They'll say you didn't include all the relevant controls, you didn't provide sufficient detail, you analyzed the data using a suboptimal statistic, you didn't discuss enough alternative interpretations (such as the impact of masking, or of substance P, or of genetic background, or of cosmic rays), or you overinterpreted your results. The question you addressed may be deemed mildly interesting but you didn't answer the question the *reviewer* cares about. You should have included all the experiments you were hoping to get to next year. The physiologic relevance of your findings is unclear, or you haven't provided their mechanism. If they care, it wasn't done well enough; if it was done well enough, they don't care. Then, you have to deal with that special breed of thorns called “editors,” which makes some authors think that acceptance of papers is like salvation, with higher standards for the righteous, or a seemingly random or predetermined function of grace.

I expect most people's first response to reviews is “Idiots!” or “Bastards!” or “They don't understand,” or “What do they want from my life?” (Learning to reply “We thank the reviewers for their thoughtful and helpful comments . . .,” without gagging, is a rite of passage.) The factors embodied in the initial responses listed above—stupidity, spite, ignorance, competitive back-stabbing, misunderstanding, and impossible standards—no doubt do come into play at times, but they cannot account for the prevalence of discordance between the views of authors and reviewers.

It's always been like this. The situation was summed up long ago in an observation attributed to Michel de Montaigne (1533-1592):

Whenever a new discovery is reported to the scientific world, they say first, “It is probably not true.” Thereafter, when the truth of the proposition has been demonstrated beyond question, they say, “Yes, it may be true, but it is not

important.” Finally, when sufficient time has elapsed to fully evidence its importance, they say, “Yes, surely it is important, but it is no longer new.”

This quote is comforting. It seems at first to take a world-weary jab at our narrow-minded colleagues. It evokes, and helps us identify with, the protagonists of heroic tales of lone geniuses, unappreciated, fighting entrenched, closed-minded Authority. A condensed variant and extension, from Evelyn Satinoff, is: “*First they say it isn't true, then they say it isn't new, then they say it isn't you.*”

Unlike our hidebound peers, however, you and I seek and cherish the true, the new, and the important, and give credit where credit is due. How is it then that, though all of us experience these tribulations, when it's our turn to be the reviewer, we generally come up with the same sort of comments and arouse the same sort of responses?

Because that's how science works, and, pretty much, that's how it should work. As a community, we screen for, and are most skeptical of, that which we value most. Anyone can make a claim; show us the data, and the design, and the methods, and the controls, that they be without blemish. Most reports of truly novel findings are wrong, and most truly novel ideas are nonsense. The more novel your results and your conclusions, the more likely and severe the resistance. Should this not be so? If it's true and new, then it's worth the trouble of determining whether it's merely interesting, or somewhat important, or moderately so, or very important. By the time everyone agrees that it's true and important, it's time to move on, except for the division of spoils among investigators.

All the while, we remain on the lookout for the next new, true, and important finding. And all the while, we must heed the warning from Paul Valery (1871-1945): “*The folly of mistaking a paradox for a discovery, a metaphor for a proof, a torrent of verbiage for a spring of capital truths, and oneself for an oracle, is inborn in us.*”—which applies to authors, to reviewers, and, perhaps especially, to editors.

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