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'Seven Deadly' Author Sins that Subvert Scientific Progress



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Creative Commons License 4.0. CC-BY-NC. Attribution required. No commercial use. Imagine what more could be learned or achieved across science and industry if we substantially curtailed, if not eliminated, key barriers to the advancement and dissemination of new thinking and reliable research. This is easier said than done though as overt obstacles to progress abound, including (i) ideological bias in higher education (Magness & Waugh, 2022-2023), (ii) restricted data-sharing (Tedersoo et al., 2021), (iii) fluctuating levels of collaborations that promote research novelty (Shin et al., 2022), (iv) ongoing plagiarism of academic ideas or works (Masic, 2014), (v) experimenter fraud (Fanelli, 2009), (vi) editor resistance to correcting or retracting problematic articles (Friedman et al., 2020), (vii) lack of cumulative model-building or theory formation per insufficient literature reviews (Maggio et al., 2016), (viii) publication bias for confirmatory research (Dwan et al., 2008), (ix) inadequate funding for particular topics or fields (Wang et al., 2018), and (x) a general decline in academic freedom (Kinzelbach et al., 2023). But consider another obstacle that is often covert but no less troublesome — namely, *poor author etiquette* related to the preparation, submission, or revision of scientific works.

Peer review is arguably more art than science but always a 'contact sport,' with many approaches available like single- or double-blind, transparent, collaborative, and post-publication formats (Horbach & Halffman, 2018). Some academics have even discussed the idea of using machine learning (ML) or artificial intelligence (AI) for peer review rather than relying on bias-prone humans (cf. Nigam et al., 2021). But whatever the type, peer review aims to be a proactive and protective service to authors and the broader readership alike. It fundamentally helps authors to strengthen or sharpen their works by identifying gaps in logic, weak points of assumptions or arguments, or insufficient methodological details that would better contextualize the results or conclusions. Besides fostering a clearer understanding for readers, optimizing the clarity of papers is also critical for other researchers to reproduce or replicate an author's methods and findings (National Academies of Science, Engineering, & Medicine et al., 2019). We appreciate the sentiment that "...the work of science has nothing whatever to do with consensus" (Crichton, 2003, p. 5), but this assertion is not strictly accurate. A type of consensus happens via the socialization and cumulative validation of knowledge over time. Such cross-checks are an inherent part of the scientific process, with peer review being a time-tested component.

Sadly, our editorial team has wrestled with an uptick in the frequency and severity of problematic behavior by prospective authors. We will delve into the specifics below, but this situation is perhaps acerbated by increases in *JSE*'s number of submissions, the ideological diversity of its authors, and our platinum, open-access format that is more vulnerable to the spamming or trolling commonly encountered within online com-

munities (de Seta, 2018). Of course, grumbles about peer review procedures in the *Journal* are not a new development (see, e.g., Braude, 2010a, 2010b). All this might be the inevitable price of providing a popular platform to discuss inherently controversial and often hotly contested issues. Nevertheless, it is important to acknowledge and confront barriers to advancement whenever possible. Editorial teams are not merely administrative tacticians that produce journals but rather active *facilitators* of the scientific process. It is a never-ending job that would be made considerably easier with the benefit of author assistance versus resistance. And as we will see, this involves calibrating on rather simple and straightforward expectations of professional conduct.

FACING THE SEVEN DEADLY SINS

The scientific process requires collaboration among researchers, academic institutions, peer reviewers, journal editors, and readerships, all of whom forge a complex process of quality control relative to the accuracy or meaning of published concepts and research findings (Rutherford & Ahlgren, 1991). Poor author etiquette can cause many unfortunate ripple effects that undercut various stages of knowledge advancement. Indeed, anything that squanders editorial teams' limited time and material resources interrupts, to an extent, the efficient operations of (a) peer review, (b) editorial evaluation, and (c) academic publishing—all of which collectively help to drive science.

The 'Seven Deadly Sins'—a philosophical concept with a fascinating history—can be construed as certain virtues taken to the extreme (Bloomfield, 1952; Newhauser & Ridyard, 2012; Tucker, 2015; for a lay-friendly overview, see McGowan, 2019). Also known as the capital vices or sins, the standard list includes *pride, greed, wrath, envy, lust, gluttony,* and *sloth.* An EBSQ online art exhibition featured a dramatic 2005 work by Valerie Meijer that depicted the seven deadly sins and included an eloquent description explaining how "Each

Table 1. Com	parison of Editors'	Averaged Incidence	e and Impact Rates o	of "Seven Deadly	v Author Sins."
	1	0			

Deadly Sin	Illustrative Behavior	JSE	JSE	Maverick Journals (n = 5)	Maverick Journals (n = 5)	Mainstream Journals (n = 5)	Mainstream Journals (n = 5)
		Frequency Rating ª (1-4)	Severity Rating ^b (1-4)	Frequency Rating ª (1-4)	Severity Rating ^b (1-4)	Frequency Rating ª (1-4)	Severity Rating ^b (1-4)
Greed	Quickly or sloppily prepared submissions that do not match Aims & Scope or the format of the Journal.	4.0	3.5	3.2	2.4	3.6	2.4
Lust	Complaints about "overly long" review periods that seeming- ly stem from desire for instant gratification.	2.5	2.5	2	1.6	2.6	1.8
Pride	Downplaying or ignoring the feedback from peer-reviewers or even the revision require- ments set by the editorial team.	3.0	3.5	2.8	2.8	2.6	2.6
Wrath	Emotional or irrational reac- tions to critical feedback from the peer reviewers or editorial team.	3.0	4.0	2.4	2.6	2.2	2.2
Gluttony	Overindulging in superfluous or duplicative information, includ-ing excessive citations.	2.5	2.5	2.4	2.2	2.0	1.8
Envy	Discourteous or self-inflated correspondence to the editori- al team which holds presumed authority or prestige over nec- essary rules of publication.	3.0	3.5	2.0	1.8	2.0	1.2
Sloth	Untimely or superficial review of article proofs that delays production or introduces errors needing later correction.	2.5	2.5	2.6	2.4	2.2	2.0

Notes: ^a 1 = Never; 2 = Rarely; 3 = Sometimes; 4 = Often ^b 1 = Not at all a problem; 2 = Minor Problem; 3 = Moderate Problem; 4 = Serious Problem.

[sin] stems from the same beast. Pride is wrapped in its own world of self-admiration, Greed has a one-track mind on possessing whatever it can, while Envy eyeballs its goods. Wrath is completely consumed in fiery blindness, whereas Lust, Gluttony, and Sloth live like parasites and feed upon this beastly serpent" (ebsqart.com).

This concept of deadly sins has been used to frame various academic or industry discussions, ranging from research pitfalls (Picho & Artino, 2016) and issues with manuscript writing (Trail & James, 2016) to application challenges related to supply chain logistics (Stock, 2001) or clinical therapies (Loss et al., 2020). Similarly, it dawned on us that these deadly sins may also describe those author's behaviors that frequently disrupt JSE's daily operations. Table 1 outlines the behaviors in question and gives our joint ratings of their estimated prevalence and problematic nature via 4-point Likert scales. The metrics reported here represent not only our evaluations but also comparisons to the averaged ratings of a small but relevant group of journal editors who routinely deal with frontier science topics in their respective niche (n = 5) or general journals (n = 5). In particular, we crafted an online 'Science Editor Survey' for respondents to rate each 'author sin' on its relative incidence and impact according to their editorial observations. This confidential survey was sent to a larger sample of 13 fellow editors in frontier science that we compiled through a joint discussion about suitable journals.

TRENDS ACROSS SOME MAVERICK JOURNALS

The data in Table 1 represents a 71% response rate—a respectable result that suggests strong interest in the topic of author misbehavior. To reiterate, our findings reflect the editors' insights from two distinct categories: (a) Five frontier science or maverick periodicals consisting of the Australian Journal of Parapsychology; Journal of Anomalous Experience and Cognition; Journal of Parapsychology; Journal of the Society for Psychical Research; and Zeitschrift für Anomalistik, as compared to (b) Five general outlets including Consciousness and Cognition; International Journal of Transpersonal Studies; New Ideas in Psychology; Psychology of Consciousness: Theory, Research, and Practice; and Psychological Reports. These are not a representative selection of periodicals, but they are highly relevant sources that can hint at important trends in author behavior. This is also enough information to draw some preliminary parallels between JSE and similar journals.

Our results suggest that we are not alone in dealing with certain author behaviors. Table 1 shows that both journal categories rated their most *common* problem as "Quickly or sloppily prepared submissions that do not match the Aims & Scope or the format of the journal," whereas the most *severely* rated problem was "Downplaying or ignoring the feedback from peer-reviewers or even the revision requirements set by the editorial team." This latter finding partly harkens to prior observations that one of the top reasons for journal rejection is the failure to conduct a thorough, accurate, and up-to-date literature review that identifies an important problem and places the study in proper context (Artino et al., 2015; Bordage, 2001). But a wider view of the Seven Deadly Sins suggests that "Greed, Pride, and Sloth" are the prime culprits that taint submissions. Therefore, authors can substantively help maverick (or other) journals by heeding three critical calls to action—which might be simple in principle but more difficult in practice:

- Carefully prepare papers using a balanced array of background information to properly contextualize the topic in question.
- Intentionally submit works to journals that cater to the intended audience.
- Thoughtfully revise the original submissions per the feedback from peer reviewers and editors.

On the latter point, we also stress that critical parts of finalizing publications are authors submitting reasonably polished manuscripts and correcting their article proofs promptly and meticulously. This has become an ongoing problem for the JSE team. Our internal copyediting and proofing process regularly catches numerous obvious errors in each article that authors somehow missed during their corrections. Many of these mistakes can easily be remedied before submission by using editing software. Further, these mistakes often involve outdated or incomplete references, which requires even more editorial time and resources to cross-check and amend. No one (including us) are perfect proof-readers, but unreasonably poor attention-to-detail must be avoided as error-laden papers seriously undermine the reputations of both authors and journals. Consider the well-established 'beauty bias' in psychology whereby people equate 'beauty' with 'goodness' (and vice versa). Well, this effect likewise applies to evaluations of written material (Boland & Queen, 2016). We therefore urge readers to search online for "proofing problems in academic publishing" and consult suitable resources to improve their accuracy when correcting article proofs.

But taken all together, our most problematic experiences are with the most egregious of the seven deadly sins, namely, Wrath. The numerous cogs and wheels of the Journal, which need to be tended to with each issue, never benefit from unprofessional conduct or behavior, particularly when the author's wrath is in rebellion to universal expectations of academic paper publishing. Appropriate citation, transparency in methods or mathematics, the need for clarity in writing for the general readership, or honest interpretation regarding the strength and practical significance of statistical inference testing are non-negotiable requirements of publishing a scientific article. Our encounters in these situations are always a 'rock and a hard place', as our foremost priority is the integrity and standard of the Journal. No one would want us to 'bend' these standards for special cases, regardless of the individual status of any given author. Wrath from the author when we enforce these standards helps neither the Journal nor, ultimately, the author's own standing in the academic community.

FUELING SCIENCE WITH PASSION, NOT PETU-LANCE

Further research on authors' attitudes and behaviors is a greenfield topic, which should be extremely helpful for refining or improving journal operations across all academic fields (see, e.g., McGlashan & Hadley, 2016). To be sure, editors have a solemn responsibility to help identify and disseminate reliable scientific information to the broader community (Friedman et al., 2020). Our informal Editor Survey thus could be repeated with larger and more diverse samples that rate our list (or an expanded set) of 'author misbehaviors.' It would also be interesting to compare the deadly sins of prospective authors who submit to general vs. niche journals, open access vs. print, or platinum vs. fee-based. The statistical modeling of large datasets in this context might reveal whether authors tend to progressively exhibit these behaviors in predictable ways, as well as if certain behaviors or combinations thereof are more disruptive to editorial teams than others. For sure, this simple exercise affirmed our concern that the accrued inconveniences or irritations of even minor offenses (inadvertently though they might be) can clog up the editorial works and thereby stymie the efficient reporting of scientific advancements.

Academic freedom is not synonymous with a license to deter, distract, or distress editorial teams. Likewise, no researcher or laboratory is above the procedural rules and behavioral expectations that govern peer review at the heart of the scientific process. *JSE* strives to support prospective authors with empathy and respect, but this does not imply a tolerance for excessively wasted time and resources, which are both sparse from the outset. So, what best explains 'author sins'? Many forces are likely at work. For instance, one survey respondent privately put it this way, "Most universities put considerable pressure on authors to publish in the high profile Q1 journals that have high impact factors, etc. In my humble opinion, I think the kinds of authors that scramble to publish in top-line journals also happen to be career-focused, ambitious, pressured, very sure of themselves and their abilities or expertise, and they are stressed out as a result, and do not take kindly to criticism, especially when peers or editors make more work for them than they think is necessary" (personal communication to J. Houran, 28 August 2023). The devil might well be in the details when it comes to confronting authors' sins in systematic and effective ways across academia.

As with different forms of peer review, there are many publication options for authors who simply want to share their thoughts and ideas swiftly or freely outside the confines of the formal literature—e.g., books and monographs, personal blogs, PsyArXiv and other preprint repositories, as well as social media sites like Academia.edu, ResearchGate, or Substack. Some people also share video-recorded presentations of their past or latest work on forums such as Facebook, Instagram, Vimeo, or YouTube. There is nothing wrong with leveraging or consulting any of these or related outlets, as long as one understands that such content inherently has little to no quality control and thus only supplements formally peer-reviewed information. It could be said that science is as science does. Authors can unwittingly sabotage themselves by working against the submission and review process, so we encourage them always to be mindful and act in the most courteous ways that respect and support efficient scientific publishing and the advancement of knowledge that comes with it. To be fair, editors and peer reviewers themselves are far from perfection and must grapple with their own sins (e.g., Friedman et al., 2020; Seidel Malkinson et al., 2023; Smith, 2006); there are complaints and criticisms aplenty to go around. But ultimately, the focus here boils down to a familiar but important plea—please help us editors to help you authors. This concludes today's homily, so now go and sin no more. And please pass the collection plate on your way.

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