Zombie papers in social psychology: A look into Smeesters' seven retracted articles and their citations

(Artículos zombi en la psicología social: un análisis de los siete artículos retractados de Smeesters y sus citas)

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Abstract: This study investigates the long-term impact of retracted articles, focusing on the case of Dutch social psychologist Dirk Smeesters. Despite their retraction, all seven of Smeesters' articles are still cited, earning them the title of "zombie papers". According to an analysis of citation data from Clarivate's Web of Science Core Collection (conducted in January 2025), 58.28% of citations occurred post-retraction, with some articles receiving more citations post-retraction than pre-retraction. The author identifies 25 journals that cite these articles, including five instances of positive post-retraction citations in the large-scale psychology journal *Current Psychology* and the Open Access journal *Frontiers in Psychology* (with two and three citations, respectively). These findings highlight systemic issues in scholarly publishing, emphasizing the importance of improved retraction tracking, citation practices, and ethical/editorial oversight.

Keywords: Zombie articles; retraction; post-retraction citation; research misconduct in psychology; academic publishing; editorial policies

Resumen: Este estudio examina el impacto a largo plazo de los artículos retractados, centrándose en el caso del psicólogo social neerlandés Dirk Smeesters. A pesar de su retractación, los siete artículos de Smeesters continúan siendo citados, lo que les ha valido la denominación de "artículos zombi". Según un análisis de los datos de citación de la Web of Science Core Collection de Clarivate (realizado en enero de 2025), el 58,28 % de las citas se produjeron después de la retractación, y algunos artículos recibieron más citas en el período posterior a la retractación que antes de ella. El autor identifica 25 revistas que citan estos artículos, incluidas cinco citas positivas posteriores a la retractación en la revista de psicología de gran escala *Current Psychology* y en la revista de acceso abierto *Frontiers in Psychology* (con dos y tres citas, respectivamente). Estos resultados ponen de relieve problemas sistémicos en la publicación académica y subrayan la importancia de mejorar el seguimiento de las retractaciones, las prácticas de citación y la supervisión ética y editorial.

Palabras clave: Artículos zombi; retractación; citación posterior a la retractación; mala conducta en la investigación en psicología; publicación académica; políticas editoriales

Resumo: Este estudo investiga o impacto de longo prazo de artigos retratados, com foco no caso do psicólogo social holandês Dirk Smeesters. Apesar de terem sido retratados, todos os sete artigos de Smeesters continuam a ser citados, o que lhes rendeu a designação de "artigos zumbi". De acordo com uma análise dos dados de citação da Web of Science Core Collection da Clarivate (realizado em janeiro de 2025), 58,28 % das citações ocorreram após a retratação, sendo que alguns artigos receberam mais citações no período pós-retratação do que antes dela. O autor identifica 25 periódicos que citam esses artigos, incluindo cinco citações positivas pós-retratação na revista de psicologia de grande escala *Current Psychology* e na revista de acesso aberto *Frontiers in Psychology* (com duas e três citações, respectivamente). Esses resultados destacam problemas sistêmicos na publicação acadêmica e enfatizam a importância de melhorar o monitoramento das retratações, as práticas de citação e a supervisão ética e editorial.

1. Introduction

Over the past two decades, concerns about research integrity and research misconduct have increasingly occupied scholars, editors, and policy-makers across the social sciences (Craig et al., 2020; Moran et al., 2023; Watts et al., 2023; Horbach et al., 2024; Crone & Green, 2025; Moussa, 2025a; Renshaw et al., 2025; Yeo-Teh & Tang, 2025). Research misconduct is commonly understood as encompassing a range of problematic practices, including fabrication, falsification, and plagiarism (American Psychological Association, 2017; National Institutes of Health, 2024). Retractions are the primary corrective mechanism used by journals to signal that published findings are unreliable due to misconduct (Ferguson & Brown, 2025). In principle, retraction represents the strongest available sanction in scholarly publishing and is intended to remove invalid knowledge from the scientific record (Committee on Publication Ethics [COPE], 2025).

However, a growing body of evidence suggests that retraction alone is insufficient to prevent the continued circulation and influence of flawed or fraudulent research. Numerous studies have documented the persistence of citations to retracted articles long after their formal withdrawal from the literature (Candal-Pedreira et al., 2020; Bolland et al., 2022; Behera et al., 2024; Yang et al., 2024). These persistently cited retracted papers—often referred to as "zombie papers"—remain intellectually active despite having received what is supposed to be scholarly publishing's "death sentence" (Brainard, 2022). In this context, positive post-retraction citations refer to citations that treat retracted articles as legitimate prior work and draw on their findings without acknowledging their retracted status (Bar-Ilan & Halevi, 2017).

The phenomenon of zombie papers poses significant risks to the scientific system. Post-retraction citations may implicitly legitimize invalid findings, sustain the reputational capital of authors whose work has been discredited, and mislead subsequent research that builds upon flawed evidence (Frederick, 2023; Joëts & Mignon, 2026). In applied fields such as psychology, these risks extend beyond academia, as retracted findings may continue to inform theory development, experimental design, and even policy or clinical reasoning. Moreover, when retracted articles are cited without acknowledgement of their retraction status, papers that rely on them may themselves require correction, thereby amplifying the downstream costs of misconduct (Bolland et al., 2022; Vazire & Holcombe, 2022).

From a public policy perspective, the persistence of zombie papers raises additional concerns. Evidence-based policymaking, regulatory decisions, and funding priorities often rely on published research that is assumed to be valid and up to date. When retracted articles continue to circulate unmarked, they risk informing policy debates, institutional guidelines, and evaluation frameworks, thereby extending the consequences of research misconduct beyond the academic community.

Importantly, zombie papers should not be viewed as an isolated anomaly but rather as one symptom of broader systemic weaknesses in scholarly communication. Inadequate retraction visibility, inconsistent editorial practices, limitations of citation databases, and overburdened peer-review systems all contribute to the persistence of retracted research in the active literature (Craig et al., 2020; Moussa, 2022). As such, zombie papers reveal failures not only at the level of individual authors, but also within editorial workflows, reviewer practices, and institutional oversight mechanisms.

Several paradigmatic cases illustrate the scale of this problem in psychology and related disciplines. High-profile misconduct scandals involving authors such as Diederik Stapel, Dirk Smeesters, Lawrence Sanna, and others have led to dozens of retractions (Task Force on Publication and Research Practices, 2014; Moussa & Charlton, 2024), yet empirical analyses consistently show that many of these articles continue to be cited positively years later, including in mainstream psychology journals (Heibi & Peroni, 2022; Yang et al., 2024). Despite repeated calls for reform, the persistence of post-retraction citations suggests that self-correction in science operates far less effectively than is often assumed (Stroebe et al., 2012; Sotudeh et al., 2022; Vazire & Holcombe, 2022; Woo & Walsh, 2024).

This study builds on this literature by offering a focused, case-based analysis of post-retraction citation practices surrounding the work of a single social psychologist whose publication record includes both retracted and non-retracted articles. While not unique, this case is analytically useful because it allows for a detailed examination of how retracted work continues to circulate across journals and over time, thereby shedding light on the mechanisms through which zombie papers persist in the scholarly record.

2. Objectives

Against this backdrop, the present study examines the case of Dirk Smeesters, a Dutch social psychologist whose work was found to involve systematic data fabrication. Data fabrication was identified following concerns raised by behavioral scientist Uri Simonsohn, which led Erasmus University Rotterdam (EUR) to conduct formal investigations. Following investigations conducted by EUR, seven of Smeesters' articles were retracted between 2012 and 2014 (Moussa & Charlton, 2024). The retracted articles addressed core themes in social psychology, including self-control, consumer behavior, priming effects, moral judgment, and decision-making processes—topics with both theoretical and applied relevance. This case is particularly well suited for examining the zombie-paper phenomenon because the retractions are well documented, span multiple high-profile journals, and occurred more than a decade ago—allowing for an assessment of long-term citation dynamics.

Using a case-study approach and citation data from Clarivate's Web of Science Core Collection, this paper addresses three research questions (RQs):

RQ1: Which of Smeesters' retracted articles continue to function as zombie papers? (Addressed through a descriptive table identifying retracted articles and their post-retraction citation status.)

RQ2: How frequently are these articles cited before and after retraction? (Addressed through comparative citation counts and a pre-/post-retraction citation figure.)

RQ3: In which psychology journals do these post-retraction citations occur, and how are the retracted articles framed (i.e., cited positively or negatively)? (Addressed through a journal-level analysis and a qualitative classification of citation framing.)

Examining the journals in which post-retraction citations occur is theoretically and practically important, as journals differ in visibility, readership, and influence on research agendas and evidence-based decision-making. Citations in highly visible psychology journals may contribute to the continued circulation of invalid knowledge, with potential downstream effects for research synthesis, policy advice, and applied practice.

By situating the Smeesters case within the broader literature on academic misconduct and post-retraction citation practices, this study aims to contribute empirical evidence that informs editorial policy, reviewer responsibility, and research training. Rather than treating the case as an isolated failure, the analysis highlights how zombie papers reflect systemic vulnerabilities in scholarly publishing and underscore the need for coordinated, action-oriented reforms.

3. Method

3.1 Smeesters' retracted articles

Table 1 shows Smeesters' seven articles that were recommended for retraction by the initial and subsequent EUR investigations, as well as their retraction notices. As mentioned before, the retracted articles addressed core topics in social psychology and consumer behavior, including self-control, priming effects, moral judgment, and decision-making. In all cases, the retractions were attributed to systematic data manipulation identified during institutional investigations, although the articles relied on different datasets and experimental contexts.

It is worth noting that one of the seven articles (i.e., article #2) has two retraction dates. According to its retraction notice, published on December 1, 2022, the retracting journal (i.e., Journal of Marketing Research) issued a retraction on March 19, 2014 that was not incorporated into Sage Publications' scholarly record. Sage has been the publisher of that journal since 2018. In this study, this situation is referred to as a secondary retraction notice, rather than a "re-retraction," to distinguish it from the initial withdrawal of the article from the literature.

Table 1

Dirk Smeesters' seven retracted articles and their retraction notices

Article No.	Publishing journal	Previous/ongoing publisher	DOI of the original article	Online publication date of the original article	DOI of the retraction notice	Online publication date of the retraction notice
1	*Journal of Consumer Research***	University of Chicago Press /Oxford University Press (as of 2015)	10.1086/648688	20 October 2009	10.1086/676823	10 April 2014
2	*Journal of Marketing Research***	American Marketing Association/Sage publications (as of October 2018)	10.1509/jmkr.47.2.251	1 April 2010	10.1177/00222437221139856	19 March 2014 / 1st December 2022
3	*Journal of Experimental Social Psychology**	Elsevier	10.1016/j.jesp.2011.02.010	11 February 2011	10.1016/j.jesp.2012.11.016	4 January 2013
4	*Journal of Consumer Research***	University of Chicago Press/Oxford University Press (as of 2015)	10.1086/661553	14 July 2011	10.1086/676822	10 April 2014
5	*Psychological Science***	Sage publications	10.1177/0956797611418348	5 August 2011	10.1177/0956797614531550	8 April 2014
6	*Journal of Consumer Research**	University of Chicago Press/Oxford University Press (as of 2015)	10.1086/662139	5 October 2011	10.1086/667689	11 July 2012
7	*Journal of Personality and Social Psychology**	American Psychological Association	10.1037/a0026106	7 November 2011	10.1037/a0030145	No exact date available (though published in the October 2012 issue)

Note. DOI = Digital Object Identifier; articles marked with a single asterisk (*) were recommended for retraction by the initial investigation conducted by Erasmus University Rotterdam (EUR), whereas those marked with a double asterisk (**) were recommended for retraction following the subsequent EUR investigation.

3.2 Citation database

Citation data were collected, on 19 January 2025, through an institutional access to Clarivate's Web of Science Core Collection (WoS-CC). This database was used to investigate: (a) the retraction status of Smeesters' seven retracted articles, as it explicitly tags retracted publications; (b) citations received by these articles, if any.

Each of the seven retracted articles was retrieved by searching its Digital Object Identifier (DOI) in WoS-CC. For each article, all citing documents indexed in the database were examined, including publication year, journal title, and citation context. No restrictions were imposed regarding document type (i.e., research/review article) or language. This strategy is consistent with prior studies examining post-retraction citation patterns in psychology and related fields (e.g., Candal-Pedreira et al., 2020; Bolland et al., 2022; Craig et al., 2020).

3.3 Pre and post-retraction citation counts

For the purposes of this study, a citation was considered post-retraction if it appeared in the publication year following the issuance of the retraction notice. For example, articles #1 and #4 were retracted on April 10, 2014, and were included in the post-retraction citation counts for citations received in 2015 and subsequent years through 2025. This, of course, provides an approximation of the number of post-retraction citations. Since the retraction notice for article #3 was issued on January 4th, 2013, the count of post-retraction citations also included those received in 2013. This operational definition provides a pragmatic approximation of post-retraction influence while acknowledging limitations related to publication timing.

3.4 Journal selection and citation framing

To address RQ3, the analysis focused on journals that cited Smeesters' retracted articles at least twice. This threshold was applied to exclude isolated or incidental citations and to concentrate on journals where repeated citation suggests greater potential influence on knowledge circulation. Using this criterion, 25 psychology journals were identified. Each citing article was manually examined to determine how the retracted article was framed. Citation framing was coded as **positive** when the retracted article was treated as valid prior work or used to support the citing study's arguments or hypotheses; **negative** when the retraction was explicitly acknowledged and the findings criticized or rejected. Coding was conducted by the author through close reading of the citation context. To enhance reliability, ambiguous cases were re-examined after an initial coding pass, and coding criteria were applied consistently across all citing articles, following approaches used in prior post-retraction citation studies (e.g., Bar-Ilan & Halevi, 2017; Bolland et al., 2022).

4. Results

4.1 Retraction status of Smeesters' retracted articles on the WoS-CC database

On the WoS-CC database, all seven of Smeesters' retracted articles were tagged as "Retracted Publications" with the trademark red exclamation mark inside a red triangle used by Clarivate to alert users.

4.2 Are Smeesters' retracted articles zombie papers?

In response to RQ1 (i.e., Which of Smeesters' retracted articles continue to function as zombie papers?), the WoS-CC database indicates that all of Smeesters' articles are zombie papers. Several years after their retraction, all seven continue to receive citations (see Figure 1, Panel a).

Figure 1

Citations received by Smeesters' seven retracted articles
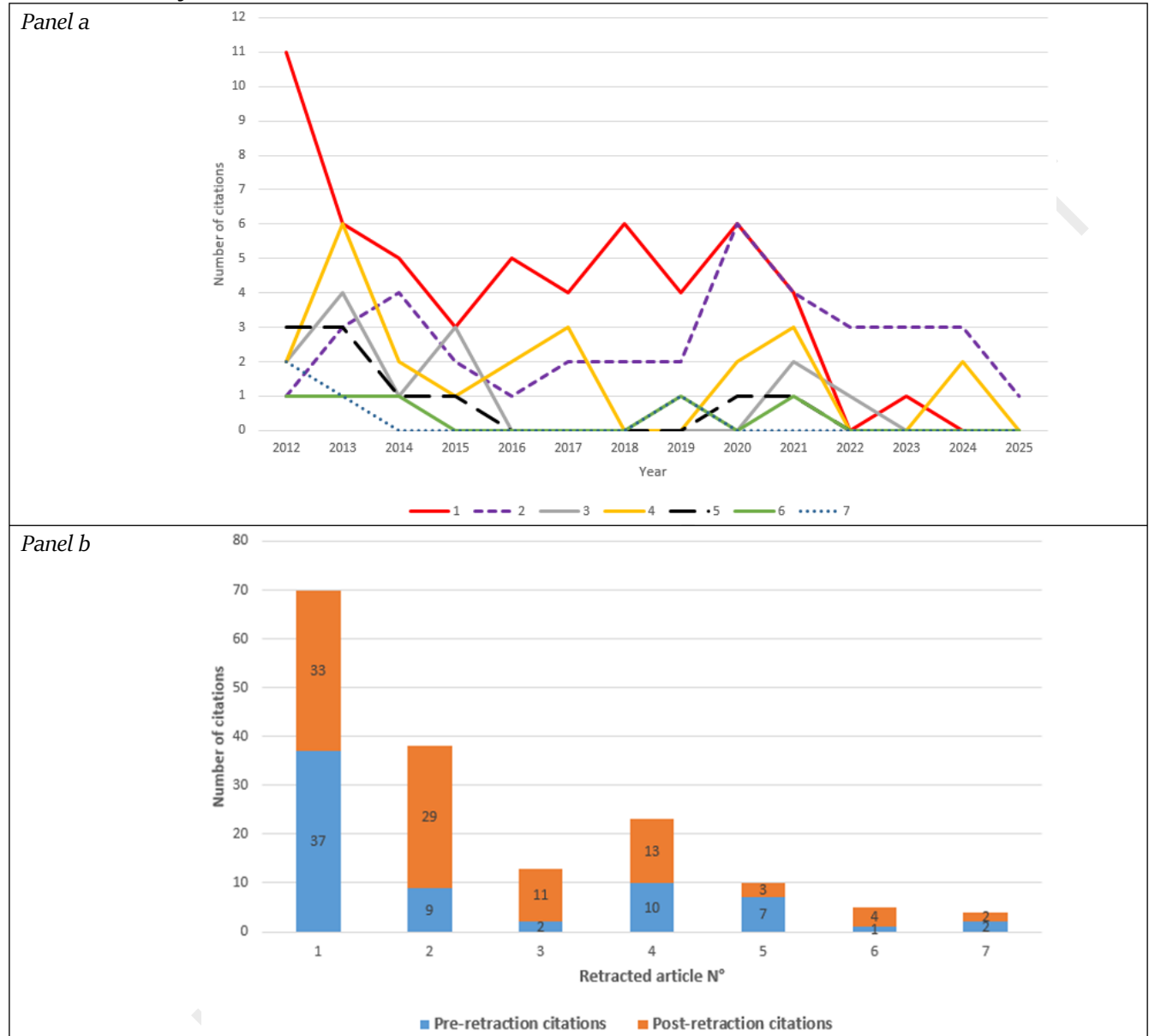
Panel a

Panel b

4.3 Pre and post retraction citations

In response to RQ2 (i.e., How frequently are these articles cited before and after retraction?), Figure 1 (Panel b) shows that of the 163 citations received by Smeesters' retracted articles, 95 (58.28%) are post-retraction citations. It is worth mentioning that the number of post-retraction citations for articles #2, #3, #4, and #6 exceeds the number of their pre-retraction citations. One possible explanation for this finding, particularly for article #2, is that it was "re-retracted" (i.e., with a secondary retraction notice) in late 2022, eight years after the "lost" retraction notice was (re)issued (Moussa, 2025b).

4.4 Some psychology journals positively citing Smeesters' retracted articles

In response to RQ3 (In which psychology journals do these post-retraction citations occur, and how are the retracted articles framed?), this section examines (a) which journals continue to cite the retracted articles and (b) how these citations are framed.

Following Bar-Ilan and Halevi (2017), post-retraction citations can be distinguished by how the retracted work is treated. Positive post-retraction citations occur when a retracted article is referenced as valid prior research and its results are used to support or legitimize the citing study. In contrast, negative post-retraction citations explicitly acknowledge the retracted status of the work and refer to its findings as unreliable or invalid (Bar-Ilan & Halevi, 2017). The examples discussed below are illustrative and do not constitute an estimate of the prevalence of positive or negative post-retraction citations across the full dataset.

Figure 2 depicts a treemap chart of 25 journals that cited at least twice one of Smeesters' retracted articles. This threshold was adopted to focus the analysis on journals with repeated engagement with the retracted literature, while maintaining a manageable level of analytical detail. Rectangle size corresponds to the number of citations, and journal names are shown with their respective citation counts. Figure 2 highlights journals with repeated engagement with retracted literature; it does not represent the full population of citing journals.

One of these 25 journals, *Current Psychology* (hereinafter CP, a Springer Nature journal), has two citations. CP is characterized by a high annual publication volume; for example, its 2024 volume comprised 48 issues with a large number of articles per issue (i.e., around 50 articles, see https://link.springer.com/journal/12144/volumes-and-issues, last accessed 21 January 2025). While publication volume alone does not imply editorial shortcomings, such scale may pose structural challenges for consistently identifying retracted literature.

Figure 2

Treemap chart of 25 journals citing Smeesters' retracted articles two or more times

Note. Only journals with two or more citations were included to focus on repeated post-retraction engagement. The visualization is descriptive and intended to identify concentration patterns rather than estimate prevalence or assess editorial practices. The image corresponds to the automated output generated by Clarivate's Web of Science.

A further investigation into the two citing CP articles reveals that these two articles were published in 2021 (see https://doi.org/10.1007/s12144-019-0154-2) and 2024 (see https://doi.org/10.1007/s12144-024-06851-3). Therefore, these are two post-retraction citations. Using an institutional subscription, the author downloaded the two articles to identify which of Smeesters' retracted articles is cited in each of the two CP articles. The authors of the 2021 CP article cite Smeesters' retracted article #3, whereas those of the 2024 CP article cite Smeesters' retracted article#2. After carefully reviewing the in-text citations and references lists of these two CP articles, it is safe to conclude that they cited Smeesters' retracted articles positively (i.e., positive post-retraction citations).

For instance, while providing a general discussion of their findings, the authors of the 2021 CP citing article wrote (on p. 2159):

"Smeesters and Liu [..] found that blue is more likely to lead to assimilative shifts in behavior (e.g., after activating aggression, the participant will judge the target person as more aggressive), while red is more likely to lead to contrastive changes in behavior (e.g., even after activating aggression, the participant will not judge the target person as more aggressive)".

Similarly, when defining the term "mortality salience" in the introduction section, the authors of the 2024 CP citing article wrote (pp. 34163-34164):

"The term 'mortality salience' (MS) refers to an experimental manipulation that is artificially induced to cause people to think about death and its impendingness while also evoking awareness of death, which is currently the most widely used methodology to study the psychology of death in labs ([...] Liu & Smeesters, [...])".

The authors of these two CP articles failed to acknowledge that the Smeesters' papers they cited had been retracted, nor did they reference them as examples of retracted research.

Another psychology journal that cited Smeesters' fraudulent—and now retracted—articles multiple times is the Open Access journal *Frontiers in Psychology* (FiP), with four citations in total. Frontiers (publisher of FiP) was once included in the famous-now-defunct Beall's list of potentially predatory publishers (Bloudoff-Indelicato, 2015). A closer analysis reveals that three of these citations occurred after the articles had been officially retracted. Specifically, a 2016 FiP article (https://doi.org/10.3389/fpsyg.2016.00609) referenced article #4 in its introduction. Two additional FiP articles published in 2020 also cited Smeesters' retracted work: the first (https://doi.org/10.3389/fpsyg.2020.01876) cited article #5 in the introduction, while the second (https://doi.org/10.3389/fpsyg.2020.02042) cited article #2 in the literature review and hypotheses section. Excerpts from the 2016 FiP as well as from the first and second 2020 FiP citing articles are presented below, respectively:

"A number of studies that were conducted by other researchers have demonstrated alternate consequences of money activation like a sense of power, self-confidence and effectiveness; a tendency to exploit other people; the holding of liberal social attitudes and an increased need for self-determination ([...] Liu et al. [...])" (p. 2).

"Typically, mimicking someone causes the mimickee to have more positive feelings about the mimicker [...] ([...] Liu et al., [...])" (p. 1).

"Researches show that stuff which is related to death can serve as reminders to make mortality more salient, such as

[...] death-related media contexts (Liu and Smeesters, [...])" (pp. 2-3).

Here too, the authors of the three FiP articles failed to acknowledge that the Smeesters' papers they cited had been retracted, nor did they indicate that these articles were examples of retracted research.

The two CP articles, along with the three from FiP, demonstrate that Smeesters' fraudulent—and now retracted—papers continue to influence recent psychological research as if they were valid pieces of knowledge. These zombie papers persist in shaping research hypotheses, framing introduction rationales, and even informing the discussion of findings—despite receiving scholarly publishing's "death sentence".

5. Discussion

Taken together, the results provide convergent answers to the three research questions. First, all seven of Smeesters' retracted articles continue to function as zombie papers (RQ1), receiving citations years after their formal retraction. Second, more than half of all citations to these articles occurred after retraction (RQ2), indicating that retraction has not effectively curtailed their epistemic influence. Third, these post-retraction citations occur in a range of psychology and marketing journals and are predominantly framed as valid prior research rather than as unreliable or discredited findings (RQ3).

The findings indicate that post-retraction citations are not isolated errors but reflect structural weaknesses in citation practices, editorial workflows, and research oversight. In the context of social psychology—where cumulative theory building and experimental paradigms rely heavily on prior empirical findings—the persistence of zombie papers is particularly consequential. Fraudulent results may continue to shape hypotheses, operationalizations, and theoretical narratives, thereby distorting subsequent research trajectories. More broadly, the persistence of zombie papers suggests that retractions alone are insufficient to prevent the continued circulation and implicit validation of fraudulent research. Responsibility for this phenomenon is therefore distributed across multiple actors within the scholarly ecosystem rather than resting solely with individual authors. From a meta-science perspective, zombie papers can be understood as symptoms of deeper institutional and infrastructural shortcomings in how scientific knowledge is corrected, signaled, and monitored over time.

5.1 Recommendations for action

The persistence of zombie papers demonstrated in this study calls for concrete, coordinated interventions across multiple levels of the scientific ecosystem. The following recommendations are derived directly from the empirical patterns observed in this case and are intended to address the mechanisms through which post-retraction citations continue to occur. These recommendations are proposed for authors, academic institutions, and journal editorial teams.

5.1.1 Recommendations for authors

Authors bear primary responsibility for ensuring the reliability of the literature they cite (Biju et al., 2025). Before manuscript submission, authors should systematically verify the retraction status of all cited works using trusted sources such as Clarivate's Web of Science, PubMed, Crossref, and Retraction Watch (Xu et al., 2023). Reference-management software alone is insufficient, as retraction metadata may be incomplete or inconsistently displayed across databases (Moussa, 2025b). If a retracted article must be cited for historical or methodological reasons, its retracted status should be clearly indicated in both the text (e.g., "Smeesters [2011,

retracted]") and the reference list, ideally alongside the retraction notice. Failure to do so risks misleading readers and perpetuating invalid findings. Training in ethical citation practices should therefore be considered a core component of responsible authorship (Woo & Walsh, 2024).

5.1.2 Recommendations for universities and research institutions

Universities and research-performing institutions play a crucial role in preventing the spread of zombie papers through education. Doctoral and early-career researcher training should explicitly address retractions, citation ethics, and the limitations of bibliometric tools. Research integrity training should move beyond abstract principles and include practical instruction on how to detect retracted literature (Moran et al., 2023). Institutions should also encourage the use of internal pre-submission checks, particularly for theses, dissertations, and grant-related outputs. By embedding retraction awareness into research training and evaluation, institutions can reduce unintentional post-retraction citations and reinforce norms of responsible scholarship (Teixeira da Silva, 2020; Moussa, 2022; Horbach et al., 2024).

5.1.3 Recommendations for journal editors and publishers

Editorial teams occupy a pivotal position in preventing zombie papers from entering the published record (Sethuraman, 2023). Journals should adopt automated citation-screening tools that flag retracted references at the submission stage. Editors should require authors to confirm that all cited references have been checked for retraction status, ideally through a mandatory declaration during submission. In addition, journals should align their retraction and correction practices with the latest COPE guidelines (COPE, 2025), ensuring that retracted articles are clearly labeled, permanently linked to retraction notices, and consistently indexed across platforms. Post-publication monitoring is equally important: when zombie citations are identified, editors should issue corrections or editorial notes to prevent further propagation. Together, these measures can help transform retraction from a largely symbolic sanction into a more effective mechanism for protecting the integrity of the scientific record.

5.2 Limitations and future directions

This study has several limitations that should be acknowledged. First, the analysis focuses on a single case involving seven retracted articles by one author in social psychology. While illustrative, the findings should not be overgeneralized to other disciplines or forms of misconduct. Second, citation data were drawn exclusively from Clarivate's WoS-CC; although widely used, this database does not capture all citations and may underrepresent citations in non-indexed journals, books, or theses. Third, the classification of citations as pre- or post-retraction relies on publication year rather than exact citation timing, which provides an approximation rather than a precise temporal measure. Finally, the study does not systematically analyze the motivations behind post-retraction citations, such as author unawareness versus deliberate disregard (Minetto et al., 2024).

Future research could extend this work in several directions. Comparative studies across disciplines could assess whether zombie-paper dynamics differ between psychology, medicine, economics, and other fields. Large-scale bibliometric analyses could examine the effectiveness of recent editorial reforms and database-level warning systems. Qualitative studies involving authors, reviewers, and editors could also shed light on decision-making processes that lead to the continued citation of retracted work. Together, such research would deepen understanding of how and why zombie papers persist and inform more effective interventions.

6. Conclusions

This study examined the persistence of post-retraction citations—commonly referred to as "zombie papers"—through an in-depth analysis of a concrete case situated within the social psychology literature. Rather than treating post-retraction citation as an incidental or purely technical failure, the findings highlight it as a systemic problem embedded in contemporary scholarly communication (Million & Budd, 2024). Within the limits of this case, retraction alone appears insufficient to halt the epistemic influence of fraudulent research once it has entered the academic record.

The analysis demonstrates that zombie papers are sustained by a convergence of factors, including inadequate signaling of retraction status, routinized citation practices, limited accountability at the author and journal levels, and structural weaknesses in editorial and peer-review workflows. In applied and theory-driven fields such as social psychology, this persistence is not merely an internal academic concern: retracted findings may continue to inform theoretical models, experimental paradigms, and, indirectly, evidence used in policy-relevant domains. From a meta-science and policy perspective, this raises concerns about how flawed knowledge can continue to circulate within systems that inform funding decisions, research evaluation, and evidence-based policymaking (Xu et al., 2023; Yang et al., 2024).

Beyond documenting a specific case, this article contributes to ongoing debates on research integrity by reframing zombie papers as symptoms of deeper institutional and procedural shortcomings. The case analyzed here illustrates how responsibility for post-retraction citation cannot be assigned solely to individual authors; instead, it is distributed across academic training practices, institutional oversight mechanisms, editorial policies, and publishing infrastructures. Addressing the phenomenon therefore requires coordinated action across multiple levels of the scholarly ecosystem (Teixeira da Silva, 2020).

By articulating empirically grounded recommendations for researchers, universities, and journal editorial teams, this study contributes to ongoing debates on research integrity and scholarly governance. While the conclusions are necessarily bounded by the scope of the case examined, they underscore the importance of moving beyond symbolic correction toward more robust systems for preventing the continued circulation of known errors. Ultimately, mitigating the persistence of zombie papers is essential not only for correcting the literature but also for maintaining trust in scholarly communication and safeguarding the cumulative nature of scientific knowledge.

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Statements