



## Why I declare a conflict of interest and you should not

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### Abstract

Academic publishing is both an indication of scientific contribution and a currency for career advancement. This dual role gives rise to a normative scientific conflict: Does the structural incentive to publish constitute a conflict of interest (COI) that ought to be disclosed? In this paper, we address this conflict through an action research approach, engaging collaboratively and reflexively to answer four related questions: (1) What evidence suggests that researchers face a (financial) COI when publishing? (2) What are the benefits and drawbacks of explicitly acknowledging that publications function as academic currency? (3) How should such conflicts be disclosed? (4) Do mechanisms such as pre-registration and registered reports resolve these concerns? This paper contends that while researchers are clearly incentivised to publish, this interest need not necessarily constitute a conflict or be explicitly disclosed. Treating this issue as a normative scientific conflict does reveal the need for a shift in how researchers understand and navigate the subjective, self-interested dimensions of their work. We propose four key responses: (1) integrating discussions of COIs and biases more extensively into undergraduate science education, (2) promoting greater reflexivity in everyday research practice (e.g., through reflexivity journals, peer-led audit groups, and the reintegration of discussions on the historicity and cultural nature of research into scientific publications), (3) critically investigating institutional incentives and journal policies, and (4) proactively adopting methodological safeguards such as pre-registration. By addressing this conflict through action research, we demonstrate how normative tensions in science can be made productive — supporting both critical reflection and structural improvement.

**Keywords** Competing interest · Action research · Positionality · Reflexivity · Motivated reasoning · Incentives · Psychology of science

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Publishing is essentially (and perhaps existentially) tied to the lives of scientists. To safeguard this process, researchers are increasingly required to include a statement at the closing of their publications, disclosing personal interests that are unaligned with their professional responsibilities (Cain et al., 2005). These are referred to as *conflicts of interest* or *competing interests* and the statement seems to be essentially there to demonstrate the absence of such conflicts. As a rule, authors state that they have *no* conflicts of interest (henceforth: COIs). If this is not the case, the conflicts are named. Authors who fail to do so may face consequences such as expressions of concern or even the retraction of their publication if serious COIs are later uncovered. It is not clear what happens when COIs are properly disclosed — for instance, whether editors, reviewers, or readers interact differently with the work. It does stand to reason that a disclosure of COIs is likely to lead to increased scrutiny of positive results that align with the researchers' interests. On the other hand, reporting a negative or null result (while acknowledging an interest in positive results) might make the reader trust the outcome more.

Researchers have a variety of motives for seeking publication of their work and publications are incentivized in different ways. At least some of these can be said to be self-serving in that they lead to increased possibilities for career advancement, research mobility, and stability of research positions. This raises the questions of whether the personal interests of a scientist can have a negative influence on what they publish and how to counteract this. Tensions like these pose not only personal conflicts (i.e., conflicts relating to the scientific actions of an individual person) but are also very much normative scientific conflicts. To what extent do we consider these interests part and parcel of the scientific enterprise and perhaps not worth disclosing, or does the public acknowledgement of these potentially conflicting interests provide opportunities to better our science? These are questions that researchers are likely to have different perspectives on and that are not readily resolved through empirical research.<sup>1</sup>

To start answering these questions, this paper represents an emergent case of Action Research — a research method that seeks transformative change by inviting stakeholders into cycles of action, research, and reflection on the process itself (Cornish et al., 2023). This process began when one of the authors' reflections on COIs led to action: publicly stating career advancement as a COI, which sparked mixed community reactions (first cycle; more on this below). The followup reactions catalyzed two hackathons — one at the 7th Perspectives on Scientific Error Workshop (Verheyen, 2025) and another within the Psychology of Science Collaboration Hub (Aczel, 2023) — where participants collectively explored four interrelated questions about publications as academic currency and COI statements (second cycle):

1. What is the evidence that many researchers have a (financial) conflict of interest when publishing?

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<sup>1</sup> Although we will argue later on that it could prove insightful to take a more empirical approach to the effects the disclosure of COIs have.

2. What are the benefits and downsides of explicitly acknowledging that publications are the currency of advancement in academia?
3. How should such conflicts be addressed?
4. Are concerns about potential conflicts of interest voided in case of pre-registration and/or registered reports?

The hackathon at the Perspectives on Scientific Error Workshop took place in person and was attended by about 20 participants from varied backgrounds, including academic researchers, journalists, and policy makers. The Psychology of Science hackathon was attended online by a little over 10 academic researchers, mostly from psychology (half senior, half early career researchers). The topic of the hackathons was introduced to the participants through a powerpoint presentation (<https://osf.io/4nhcp/>). The participants then split into four subgroups, which each answered one of the four target questions. The outcomes of these conversations were then discussed in three consecutive plenary sessions and any new information was documented in shared documents that were used throughout each hackathon. All participants in the hackathons were invited to contribute to this paper.

In this paper, we attempt to offer a balanced account of the viewpoints voiced during the hackathons. It is intended for an interdisciplinary readership that includes (but is not limited to) researchers, journal editors, reviewers, and science communicators. The ideas summarized here should not be ascribed in their entirety to any single author; instead, they reflect the diversity of perspectives that emerged, which is also reflected in the variety of COI statements at the end of the paper. This also means that the paper at points introduces ideas that might seem at odds with each other. However, in the General Discussion, we provide a consensus that aims to show a possible direction in which to move the discussion forward. Importantly, we introduce a short [survey](#) that allows others to contribute to the discussion. The survey marks the beginning of a third action research cycle, inviting the broader community to collaborate and to co-create the next phase of this dialogue.

While our contributors come predominantly from psychological backgrounds — a discipline well positioned to reflect on the human dimensions of research — we suspect that many of the issues raised herein apply across the social sciences and beyond, albeit to different degrees and with different implications. They may manifest themselves in different forms and may be differently severe depending — among others — on forms and amount of publishing, relevance of empirical results, size of working groups, amount of funding necessary for research, and so on. The practices and artifacts of different scientific disciplines are very diverse (e.g., Defila & Di Giulio, 1998; Stichweh, 2001) and this is also true, at least in part, of the incentive structures in different countries. It is important not to lose sight of these particularities in describing the situation or in seeking remedies. The goal of the survey is therefore to fill in any gaps that we might have missed because of our specific backgrounds. That being said, we do believe that the arguments put

forth in this paper can be transferred — at least in part — to fields that, like psychology, tend to define themselves as empirical, cultivate a fast and international working style, attach great importance to the unity of methods and approaches, and conduct applied research.<sup>2</sup>

Before we address the questions that were discussed in the hackathons, we provide a bit of background on the current context of academic work, define terminology, and take a first glimpse into the broader and normative issue of interests in science.

## Metricization of scholarship: a brief overview

Contributions certified through authorship on a publication are typically seen as the “currency” of academia. The emergence of publications as academia’s primary metric is rooted in the post-World War II development of institutes of higher education, which necessitated external accountability measures that publication metrics efficiently satisfied, eventually transforming them into normative evaluation instruments that shape scholarly incentives and behaviors. Geiger (1993) documented how the massive postwar university expansion (Trow, 1973) included new evaluation structures, contrasting with earlier systems where scholarly reputation relied primarily on peer networks, teaching excellence, and broader intellectual contributions, rather than publication counts (Geiger, 1993). Transitions to government funding mechanisms like the National Science Foundation (England, 1983) were crucial because they embed demands for accountability which require measurable outputs (Stephan, 2012).

The rise of neoliberal governance again reshaped academia, as universities adopted business-like management under New Public Management, emphasizing competition, efficiency, and customer orientation (Hood, 1995; Marginson & Considine, 2000; Olssen & Peters, 2005). This structural development precipitated what Power (1997) terms the audit explosion — the proliferation of performance metrics. These metrics were necessary to render academic performance “objectively” evaluable to external funders (Hammarfelt & Hallonsten, 2022), which was not possible in the previous closed system where only experts could evaluate experts. In this context, as Weingart (2005) argues, publications became the favoured performance indicator — tangible, quantifiable, and readily supplied by commercial databases. Bibliometric indicators — initially developed as descriptive tools for scientific information management (e.g., Garfield, 1955) — were repurposed (Gingras, 2016) into normative instruments (de Rijcke et al., 2016) and used for evaluating both individual and institutional performance (Cave, 1997).

Publications thus emerged as the quintessential academic commodity precisely because their quantifiability aligned with administrative imperatives

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<sup>2</sup> The dimensions for distinguishing specialist cultures are partly based on Becher and Trowler (2001).

for standardized performance assessment (Burrows, 2012; Hammarfelt & de Rijcke, 2015). This metricization of scholarship fundamentally altered academic incentive structures (Waters, 2004) and turned scholarly work into a commodity (Münch, 2014). This in turn led to reactivity (Espeland & Sauder, 2007) — the tendency for performance measures to alter the very behaviors they purport to merely monitor (Shore, 2008). The contemporary privileging of publication output thus represents not an essential, inherent component of scholarly practice, but rather a feature of an audit-oriented evaluation culture.

## The scope of conflicts of interest

The term *conflict of interest* is relatively new, and has entered ordinary English dictionaries only after 1971 (Davis & Johnston, 2009). Nowadays, the term is often used interchangeably with *competing interests* to indicate an undue influence on research output (Davis & Johnston, 2009; Hazari, 2019). These terms subtly differ in meaning because the former implies interests that are clearly in mutual conflict, while the latter does not. Here, we will use the abbreviation COI to refer to any situation where a secondary interest risks unduly influencing an author's primary responsibilities, such as advancing knowledge (Thompson, 1993; see also Box 1 for terminology). We will *not* be concerned with conflicts of interest that editors or reviewers might experience during the peer review process (e.g., if they have a personal or professional relationship with the authors, a competing research agenda, or are the author of citable references; see, e.g., Greenwald, 2009), or those of funders and publishers, who might have a vested or financial interest in publishing certain types of studies or in publishing studies with specific conclusions. It is quite clear that these represent conflicts of interest that need to be disclosed. Instead, we will focus here on the interests of *authors*, specifically those who seek the publication of their work.

The understanding of COIs has been traditionally associated with financial ties between researchers and private companies. In public perception, COIs are most commonly seen in scenarios where a company funds scientific studies with the expectation that the outcomes will favor their product, for instance, when a researcher is funded to investigate the effectiveness of a drug produced by a pharmaceutical company. This understanding emphasizes the risk of biased results driven by the funder's commercial interests, which can undermine trust in the research's credibility. As such, COIs are frequently equated with industry sponsorship aimed at shaping evidence to support marketing goals, while other, less visible forms of COI such as personal, ideological, or institutional interests tend to receive less attention in public discourse. In this paper, we argue that COIs extend far beyond this common understanding and can apply to any researcher, whether they are funded by commercial entities or not.

**Box 1.** Terminology

Term	Definition	Reference
Conflict of Interest or Competing Interest (COI)	A situation where a secondary interest (e.g., career advancement) risks unduly influencing primary responsibilities (e.g., advancing knowledge)	Davis and Johnston (2009); Hazari (2019); Thompson (1993)
Structural Incentive	A condition embedded in institutional systems that encourages behavior aligned with professional success, which may or may not constitute a COI depending on context and transparency	Bero and Grundy (2016); Olssen and Peters (2005)
Disinterestedness	The idea that scientists should act for the benefit of a common scientific enterprise, rather than for personal gain	Merton (1942/1973)
Opportunistic Biases	Practices that increase the likelihood of obtaining publishable findings (e.g., selective reporting, misrepresentation). Also referred to as <i>prepublication bias</i>	Chalmers et al. (1990); DeCoster et al. (2015)
Motivated Reasoning	Reasoning that is influenced by motivation such that one relies on a biased set of cognitive processes whereby individuals selectively gather, interpret, or evaluate information in ways that support their preexisting beliefs, preferences, or goals	Kunda (1990)
Positionality	The stance or positioning of the researcher in relation to the social and political context of the study, including the community being researched, which influences how knowledge is constructed	Conry-Murray et al. (2024); Foote and Bartell (2011); Jafar (2018)
Reflexivity	The process of reflecting critically on the self as researcher, examining one's own desires, goals, assumptions, beliefs, biases, heuristics, and judgement systems, and how these influence and are influenced by the research process before, during, and after its implementation	Jamieson et al. (2023); Pillow (2003)

Recognition of COIs in psychology has been slow and rather undecided. The *American Psychological Association (APA)* treats COIs in the *Ethical Principles of Psychologists and Code of Conduct*:

Psychologists refrain from taking on a professional role when personal, scientific, professional, legal, financial, or other interests or relationships could reasonably be expected to (1) impair their objectivity, competence, or effec-

tiveness in performing their functions as psychologists or (2) expose the person or organization with whom the professional relationship exists to harm or exploitation. (APA Ethical Principles of Psychologists and Code of Conduct 2002, Including 2010 and 2016 Amendments, Effective date June 1, 2003 with amendments effective June 1, 2010 and January 1, 2017).

Furthermore, the APA requires authors to fully disclose their interests upon publication in its journals; a practice that many journals in psychology now follow. The Full Disclosure of Interests form (<https://www.apa.org/pubs/journals/resources/journals-publication-forms>) focuses on authors' economic and commercial interests. While some obvious examples of such conflicts are given like research grants and consulting fees, the APA recommends disclosing all "activities and relationships that, if known to others, might be viewed as a conflict of interest, even if you do not believe that any conflict or bias exists."

The brevity of the APA's treatment of COIs and the absence of any ethical principles in its guidelines has been repeatedly criticized (Greenwald, 2009), although awareness of its importance has increased significantly in the wake of the so-called replication crisis. This crisis of confidence revealed how distorted the published output in psychology and related disciplines is (Ioannidis, 2005; Ioannidis et al., 2014; Open Science Collaboration, 2015) owing in part to questionable research practices linked to researchers' motivated reasoning (e.g., Fanelli, 2010; Garcia et al., 2016; John et al., 2012).

Compared to psychology, medicine has an extensive tradition of discussing COIs, presumably because industry funding is more pervasive in medicine than it is in psychology. Which relationships, activities, and interests are considered COIs, however, is also much more debated within medicine than in psychology (Bekelman et al., 2003; Brody, 2011; Davis & Johnston, 2009; Dunn et al., 2016; Hazari, 2019; Thompson, 1993), which may come as a surprise seeing that psychologists might be expected to have a privileged position in recognizing researchers' biases. As an example of the *broader* interpretation of COIs in medicine, let us refer to the International Committee of Medical Journal Editors (ICMJE), a group of general medical journal editors and representatives of selected related organizations working together to improve the quality of medical science and its reporting. Their approach to COIs is distinctive and wide-ranging. Upon publication of a manuscript, they propose disclosing the following through a submission form:

All support for the submitted manuscript; grants or contracts; royalties or licenses; consulting fees; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events; payment for expert testimony; support for attending meetings and/or travel; patents planned, issued or pending; participation on a data safety monitoring board or advisory board; leadership or fiduciary role in other board, society, committee or advocacy group, paid or unpaid; stock or stock options; receipt of equipment, materials, drugs, medical writing, gifts or other services (ICMJE, 2025).

At the same time, the disclosures are also rather specific in that authors are only asked to disclose relationships/activities/interests that are related to the *content* of the submitted manuscript. This is perhaps inevitable since the request is being made by the journal at the point when the manuscript is submitted to it, but it means that there is no requirement to disclose benefits that are unrelated to individual studies like the use of publications for hiring and promotion.

## The goals and risks of disclosures

According to the ICMJE disclosure form, “Disclosure represents a commitment to transparency and does not necessarily indicate a bias.” This statement indicates that COIs may be differently conceptualized and operationalized in academia. Formal disclosures tend to focus on financial ties and conflicts that are present during peer review such as submitting a paper to a journal that one edits. In contrast, anticipatory benefits and relational or intellectual ties such as the advancement of junior colleagues and individual attachment to theories and conclusions (Greenwald, 2009) are mentioned less. Table 1 lists the various potential conflicts that emerged during our discussions, and that will be further discussed throughout the paper.

Declaring a COI presupposes a degree of awareness, yet as feminist philosophy of science and related traditions have emphasized, many interests that shape scientific practice are *structurally embedded* and not easily recognized by individual researchers (e.g., Haraway, 1988; Harding, 1991). Such latent influences may be understood as *collective interests* — systemic orientations that guide research priorities, interpretive frames, or standards of evidence across entire communities. While these interests are rarely disclosed — because they are often invisible to those operating

**Table 1** Typology of interests with examples

Type	Examples
Financial	Funding by company to research effectiveness of product; Financial bonus for publishing an article
Anticipatory Financial	Publishing in hopes of securing future consulting roles, book deals, or keynote invitations
Professional Advancement	Publishing to secure promotion, tenure, funding, or complete PhD requirements
Relational	Publishing to support collaborators’ careers (e.g., students or junior staff)
Editorial Position	Publishing in a journal where one holds an editorial position
Intellectual	Strong commitment to a theory or prior work influencing interpretation or reporting
Public Advocacy	Publicly supporting a policy position related to the research area. Includes participatory research and the affiliation with any organization that espouses or extends viewpoints aligned with one’s scholarly research, entrepreneurship, and service
Collective (Ideological)	Operating within dominant paradigms (e.g., neoliberal, Western epistemologies) or side-taking in controversial issues

We deliberately do not indicate the degree of conflict, since this is partly contextual.

within them — they nonetheless shape the production of knowledge and deserve critical scrutiny in discussions of COI and scientific integrity (Harding, 1991; Longino, 1990). What is more, they shape research differently for different persons. Bias, for example, is more likely to be systematically interrogated when expressed by those outside dominant epistemic and institutional norms. Researchers in precarious positions are more likely to have their motivations for research questioned and the objectivity of their findings challenged (Albayrak, 2018). This asymmetry highlights how COI may not be a neutral descriptor but a *political tool*, which can be mobilized selectively to maintain the authority and legitimacy of mainstream researchers and norms while marginalizing others. As a result, the decision to disclose one's interests may come with different unwanted consequences for different researchers and requires careful consideration. We will come back to this issue in the General Discussion where we will tackle the issue of researcher *positionality* (Conry-Murray et al., 2024; Foote & Bartell, 2011; Jafar, 2018), a form of perspectivity that is rooted in social, cultural, historical, and political positions of researchers, and that of *reflexivity* (Jamieson et al., 2023; Pillow, 2003), the process of understanding the bidirectional relationship between the research and the researcher(s). Below, we will first describe the outcomes of the discussions we had about the four questions.

### **Question 1: What is the evidence that many researchers have a (financial) conflict of interest when publishing?**

The hackathons identified a lot of evidence and literature that suggests researchers may have financial interests when seeking publication of their work. As Mahoney (1985, p. 30) noted, publications lie at “the very heart of modern academic science — at levels ranging from the epistemic certification of scientific thought to the more personal labyrinths of job security, quality of life, and self-esteem.” They are instrumental in advancing knowledge but also the currency of advancement in academia; as such they often come with tangible financial benefits, even if these are not always as immediate as the cash rewards for publishing in high-impact journals that some institutions still offer to their researchers. After all, publications are heavily used in high-stakes hiring, tenure, and promoting decisions, and influence prize nominations and grant awarding decisions (Miller & Serzan, 1984; Peters & Ceci, 1982) which all come with financial benefits.

Many researchers experience structural pressures to publish that are intimately tied to academic progression and professional stability. Doctoral candidates, for example, may be required by institutional policies to produce a minimum number of publications before being permitted to defend their dissertations (Larivière et al., 2015). Early-career researchers similarly face pressure to demonstrate productivity in order to secure postdoctoral positions, fellowships, or tenure-track appointments (Münch, 2014; Stephan, 2012). These publication imperatives are not only internalized as individual career goals but also arise from external performance demands, such as meeting the expectations of funders who condition future support on timely, visible outputs (Hackett, 2005; Hammarfelt & de Rijcke, 2015).

Researchers may also be subject to a range of anticipatory financial incentives. These include remunerated roles such as membership of advisory boards, consultancy engagements, book contracts, and appearances on the corporate speaking circuit, as well as less obviously transactional opportunities such as invitations to deliver keynote lectures, contribute to prestigious journals, or editorial positions. Although these benefits may not yet have materialized at the time of writing, the prospect of such rewards can exert a subtle yet powerful motivational influence on research behavior (Cain & Detsky, 2008; Zingales, 2013). As such, the incentive to publish may stem not simply from current financial entanglements, but from the perceived necessity of building a high-impact publication record that enhances visibility and credibility in ways that open the door to such opportunities (Fanelli, 2010).

Researchers often feel a responsibility to publish in order to support the continuity and visibility of collaborative projects, especially when such outcomes affect the employment, mobility, or training of graduate students and junior collaborators (Fanelli, 2010; Mahoney, 1985). In this context, publication is not merely a mark of scholarly contribution, but a means of remaining viable within an increasingly competitive and resource-constrained academic environment. The imperative to maintain an active publishing profile is thus deeply entwined with the ability to access research funding, attend conferences, and participate in broader scholarly networks (Burrows, 2012; Shore, 2008). This forward-looking dimension of financial conflict complicates conventional models of disclosure, which often presume a narrow, time-bound conception of conflict and thus overlook the structural incentives that shape researchers' strategic publication choices over the long term (Bero & Grundy, 2016; Dunn et al., 2016). Some researchers, for instance, choose their research projects based not on intellectual interest or societal importance but rather on the prospect of personal gain (Nelson, 2024), which can lead to academic fads that ultimately amount to little other than research waste (Sunstein, 2001).

To the extent that publishing is structurally incentivized and rewarded, it will be in scientists' personal interests to publish, whether or not the published findings are true, meaningful, or relevant (Hackett, 2005; Marder, 2024; Martin, 1992; Sovacool, 2008). Researchers should perhaps not be thought to be disinterested (Merton, 1942/1973) but to make decisions that also serve career advancement (Fanelli, 2010). This will often take the form of actively seeking positive (i.e., statistically significant) results, given that these facilitate publishing (Forstmeier et al., 2016; Giner-Sorolla, 2012). There is much potential for "convenient" errors in the research process. Some of these errors might be intentional, such as when researchers make analytic decisions that favor statistically significant results, selectively report results, or misrepresent their findings to increase the likelihood of publication (Head et al., 2015; Simmons et al., 2011). These practices are appropriately termed *opportunistic biases* (DeCoster et al., 2015). Chalmers et al., 1990, p. 1392) identify "ignorance, sloth, or greed" as the main causes of this type of *prepublication bias*. Researchers admit that they commit these questionable research practices in order to remain competitive in their field and to meet institutional and career-oriented incentives (Bruton et al., 2020; Sacco et al., 2017; see also Baker, 2016). Other errors are probably not so accessible to scholars' awareness. Researchers may unintentionally influence the results of their studies through their involvement in experimental procedures (Rosenthal & Fode, 1963; Rosenthal & Jacobson, 1968). They are also susceptible to a host of cognitive biases when doing

research (Cain & Detsky, 2008; Munafò et al., 2017); at least some of these might be related to anticipated financial incentives. For example, we are more likely to accept results that match our expectations than those that do not, accepting them uncritically when our hypothesis is confirmed but scrutinizing them heavily when it is not (Bastardi et al., 2011; Ditto & Lopez, 1992; Trouche et al., 2015). Confirmation bias may also be present in the way data are interpreted, affecting which results are emphasized or reported, and even which follow-up studies are conducted (Nickerson, 1998). This way, confirmation bias might be at the basis of publication bias and theory persistence — the tendency for a scientific theory or explanation to stand even in the face of new, contradictory evidence (Akerlof & Michaillat, 2018). Theory persistence may also be exacerbated by the personal and professional investment of its proposers. Abandoning one's theory is both psychologically difficult and professionally costly to the extent that it may hurt one's productivity and reputation (Tiehen, 2022). Researchers may therefore be more interested in reconfirming their own previous work than “bending over backwards to show how [they are] maybe wrong” (Feynman, 1985, p. 343). The *sunk cost bias* may underlie researchers' attachment to their own works (Haita-Falah, 2017). When researchers have already invested a considerable amount of time, energy, and funding into a project, they could feel compelled to complete it and pursue publication in order to get at least some reward for all that effort.

Most participants in our hackathons seemed to accept the presence of motivated reasoning (Kunda, 1990), whereby researchers interpret scientific evidence in light of their own beliefs and desires rather than objectively, but they disagreed as to whether publishing in itself constitutes a COI. After all, publishing is a central part of many researchers' jobs, so such a position would amount to saying that doing one's job inherently is a COI. The word *conflict* may not be appropriate here, as it may connote a problematic tension between personal gain and professional duty. In contrast, the desire to publish is often aligned with institutional expectations and the broader goals of scientific advancement. A more accurate framing might focus on incentive structures and/or interests rather than conflicts. Researchers work in systems where they are rewarded for being productive, visible, and impactful. These rewards can influence their decisions in small but important ways. However, having incentives does not necessarily mean someone will actually engage in wrongdoing. In fact, incentives often encourage hard work, new ideas, and high-quality research. Open and fair competition can also help progress science. The real issue is not that researchers are motivated, but whether that motivation leads to *hidden or unfair bias* that erodes the values of honest and careful science, similar to how industry-sponsored research can skew results (Bekelman et al., 2003; DeAngelis & Fontanarosa, 2008; Friedman & Richter, 2004; Hansen et al., 2019; Mandrioli et al., 2016; Oreskes & Conway, 2012; Perlis et al., 2005).

Although most participants in the hackathons concluded that financial incentives are *not* high on most researchers' minds,<sup>3</sup> they *did* agree that such incentives constitute the background against which academic work is performed and that the influence of professional goals on research choices can vary widely across individuals

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<sup>3</sup> The colloquial argument being that lucrative positions are more likely to be found outside of academia, suggesting that money is not an important driver of most academic researchers.

and contexts. In the following section, the participants explored the potential benefits and drawbacks of explicitly acknowledging that publications are often a tool for professional advancement.

## **Question 2: What are the benefits and downsides of explicitly acknowledging that publications are the currency of advancement in academia in COI statements?**

### **Benefits**

The disclosure of non-financial COIs can be valuable for meta-researchers in several ways. First, they allow them to reflect on how intellectual, professional, or relational interests may influence research findings and interpretations, going beyond financial bias. The individual COI statements at the end of this article, for instance, clearly indicate that the experienced conflicts can differ considerably depending on the authors' contexts. Meta-researchers can analyze patterns in how these COIs are disclosed across disciplines or journals, assess the consistency and clarity of reporting, and explore whether such interests correlate with research outcomes such as confirmatory findings or favorable interpretations. Disclosure of non-financial COIs also helps in mapping invisible networks of influence, including epistemic communities or collaborators, which can shed light on how ideas circulate and are endorsed within specific scholarly circles. Additionally, by studying the prevalence and impact of COIs, meta-researchers can develop increasingly sophisticated disclosure guidelines, improve editorial policies, and enhance researchers' and reviewers' awareness of bias.

Even if the drive to publish may not universally qualify as a formal COI, it is still important for individual researchers to reflect on how these incentives shape their own work. Therefore, researchers should critically assess whether these motivations significantly affect their academic behavior. This critical self-examination can be seen as an embryonic form of *reflexivity* (Jamieson et al., 2023; Pillow, 2003). Such reflection may help researchers recognize the discrepancy between their current and ideal selves (Higgins, 1987), which can evoke emotional discomfort. This discomfort may, in turn, motivate self-corrective behavior aimed at reducing the gap between the ideal situation and the current state (Watson et al., 2014). Researchers may, for instance, feel less inclined to present their findings in ways that increase the chances of acceptance, thus improving reporting accuracy (but see Cain et al., 2005, and Loewenstein et al., 2012, for contrary arguments).

Reviewers and readers are also susceptible to confirmation bias (Garcia et al., 2016; Nickerson, 1998). Increasing transparency around potential ulterior motives behind research publications could foster greater critical scrutiny, thereby contributing to improved research evaluation practices. It may also remind journalists to interpret study results more cautiously when communicating them to the general public. Particularly, it may prompt them not to amplify any bias that is already present in the publication, for instance by refraining to write sensational narratives that suggest groundbreaking discoveries.<sup>4</sup> Such cumulative distortions can result in significant

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<sup>4</sup> This may be hard, however, as they may also face career incentives.

misrepresentations of the original research, sometimes with serious consequences and widespread overstatement of scientific claims, which are then consumed by unaware laypeople (Broersma, 2010). Greater transparency among academics when publishing scientific papers may thus have carryover effects, potentially contributing to broader cultural change and encouraging integrity, accountability, and critical thinking not only in academia, but also in public discourse and policy-making.

There are many pieces of knowledge and norms that are essential to academic success but often unremarked on — also known as the *hidden curriculum* (Kärner & Schneider, 2023). The complex of knowledge and norms that surrounds incentives to prioritize publishing may represent such implicit information. Explicitly acknowledging how publishing influences academics' careers is a step towards unveiling the hidden curriculum and making the incentives of the academy *common knowledge*. Although accomplished academics may perceive statements which remark on them explicitly to be rather obvious and mundane,<sup>5</sup> it may illuminate career advancement practices for early career researchers and stimulate discussions about their desirability.

Even though it is often thought that there is a crisis of trust in science, global trust in science and scientists is actually high (Cologna et al., 2025). However, science-industry COIs are one area where the public does not believe scientists are being transparent, at least in the United States (Funk et al., 2019). To repair trust, transparency is considered crucial (Sharma et al., 2023) and perceptions of transparency have been demonstrated to increase trust at the individual (Tomlinson & Schnackenberg, 2022) and organizational levels (Auger, 2014). Based on these findings, acknowledging that researchers are influenced by the incentive to publish might increase perceptions of transparency, which could ultimately help to earn and maintain the trust of the general public. Transparency has been repeatedly heralded as a mechanism to address problematic research practices (Simmons et al., 2011; Wicherts et al., 2016) and it may also support more accurate knowledge of scientific epistemology. Modern thinking, at least since the Age of Enlightenment, has assumed that disinterestedness is necessary for rational knowledge and objectivity, and much science since then has adopted this stance. In the twentieth century, this assumption was increasingly called into question by researchers who emphasized the interest-bound and socially situated nature of all knowledge (among others by Fleck, 1935/1981; Haraway, 1988; Harding, 1991; Kuhn, 1962). Such an expansion of the perspective on scientific practices and artifacts could be better attained if researchers were to refrain from consistently declaring they “have no COIs”.

## Downsides

A variety of downsides to increased transparency about researchers' incentive structures were identified as well. Some of them are general, while others may affect researchers differently. With respect to general downsides, it is not clear that such an

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<sup>5</sup> Interestingly, being “in the know” may prevent established academics from seeing the value that more elaborate disclosures can provide to naive readers, as knowledgeable individuals generally overestimate the knowledge of novices (Tullis & Feder, 2023).

acknowledgement contributes any new information to readers of scientific research who are even moderately well-informed about the way academia works or amounts to much more than moral grandstanding (Tosi & Warmke, 2016). This is especially apparent when listing interests that essentially every researcher has, such as publishing papers for advancing their career. Such supposed COIs could fill up statements with verbiage and increase workload at the cost of other essential academic activities. If everyone were to disclose this information, the effectiveness of its signal would rapidly become diluted as readers would become desensitized to the message. Regularly declaring conflicts that exist for all researchers may also distract attention from major conflicts of interest that not all researchers have (Bero & Grundy, 2016). Examples are large patents, payments for publications, or commercially funded research. Another hurdle would be added to the already complex, administratively-driven process of publishing. Declaring these interests may also increase stress on authors as well as the potential for accusations and slander. Perhaps most importantly, it is not clear what effect these disclosures would exert. Simply stating a conflict does not change anything at all, because it does not allow any definitive conclusions to be drawn about the publications themselves. And even if conflicts are disclosed, this will not necessarily reduce problematic practices that undermine the integrity of research.

As mentioned, there are also different consequences for individuals due to different positions, but also different personal values. As yet, it is not clear when a COI exists or where to draw the line that separates a conflict from a non-conflict. For instance, during the peer review of this article, an anonymous reviewer suggested several other interests that we had not considered (e.g., efforts to appear virtuous, gain social approval, enhance personal reputation, or attract a mate through enhanced status). Furthermore, it may be necessary to weigh the same behavior differently in established or less established researchers. There may be researchers, such as well-established senior scholars who are close to retirement, who really do have little in the way of a COI when writing a paper. As it is not clearly defined where the line to a significant conflict is crossed, inexperienced researchers as well as more conscientious, honest, or cautious individuals may be more likely to indicate a conflict, whereas more robust personalities and experienced scientists may not. That is, people might systematically over- or undercorrect. To put it bluntly, declaring COIs may end up *measuring personality* rather than actual conflicts and interests. Such differences in reporting could introduce biases against groups or personalities. Similar risks would follow if a COI declaration system was introduced but not everyone were to use it. In that case it would be impossible to decide whether only those using it have COIs.

Whereas greater transparency was suggested to increase public trust in science, there is, however, also a very real risk that it could backfire and *erode trust in scientists*. Elaborate disclosure of interests might inadvertently provide ammunition to people who want to dismiss scientific research as being generally corrupt and untrustworthy.

Taken together, the discussed downsides of increased interest disclosure are not only numerous but also potentially impactful. The stated objections can be categorized as problems in *implementing disclosures* like increased verbiage and work,

and deciding what to report; and problems arising from *potential consequences* like disproportionate effects on specific groups, compromising trust in science, and unknown impacts. The former objections place additional load on researchers, which may result in them either creating or looking for a standard template of interests to disclose, which could then become “just another checklist” that researchers mindlessly complete when preparing a manuscript for publication. In the worst case, such structures might actively hinder author reflexivity if the habit of defaulting to standard responses becomes too strong, which in turn could lead to important COIs for specific projects being overlooked because they are not on the standard list. Compared to stating no COIs, such an incomplete COI statement might be more damaging due to the (false) suggestion of reflexivity it communicates.

The potential negative consequences of COI reporting for individuals constitute a classic social dilemma. In an environment where the majority of the field does not declare certain widespread COIs (such as professional advancement), individuals pioneering this practice risk negative outcomes in order to foster improvement of reporting standards. However, in the current environment of greater commitment to open science principles, it could be argued that these risks are smaller than they may have been in the past. Perhaps more important are the potential impacts on public perception of science. In general, a shift in COI reporting norms could foster perceptions of transparency, which in turn could increase trust. However, it is also likely that specific interest groups might latch onto COI statements in research they disagree with to discredit legitimate scientific positions or even science as a whole. Nevertheless, compared to their *absence*, the transparency provided by COI statements might make it easier to refute such attacks. If more detailed COI statements were common practice, this might help contextualize their relative gravity in such discussions. In the following section, we elaborate on the various formats for disclosing COIs that were discussed during the hackathons.

### Question 3: How should such conflicts be addressed?

If one entertains the position that all researchers have COIs when publishing their work, declaring that one does *not* have a COI would constitute an *error of omission*. Errors of omission have been countered with calls for increased transparency (Simmons et al., 2011; Wicherts et al., 2016), improved reporting standards (Kazak, 2018), and explicit statements that commit authors to certain things, voiding later deniability. As an example, consider the 21-word solution that was offered in response to the replication crisis in psychology (Simmons et al., 2012): “We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study.” To increase awareness of COIs in general, encourage reflexivity, and promote critical engagement with the published work, authors could include a similar statement in the main text along the following lines:

“We report conflicts of interest and have provided a comprehensive disclosure of interests.”

Such a statement presumes that potential COIs are explicitly provided in some form or shape. Disclosure of interests forms are probably the most well known way for authors to disclose potential interests upon publication. These forms are generally provided by the publishers or by the professional societies responsible for the publication (e.g., APA, 2002; ICMJE, 2025). Some universities require their researchers to complete annual COI disclosure forms and presumably keep a record of this, albeit not necessarily one that can be publicly consulted (e.g., University of Pittsburgh, 2025). Some individual researchers maintain websites that document potential conflicts (e.g., Eisen, 2016; Russell, 2010). Interestingly, these also illuminate the criteria that colleagues use to classify matters as COIs or not.

The initiator of this COI project, SV, a tenured Assistant Professor, has been using the following short description in the COI section of his submitted papers (e.g., Zaman et al., 2023):

“The evaluation, opportunities for promotion, and ability to obtain research funding of SV are partly dependent on the number of articles he publishes.”

It has the advantage that it is easily adaptable to a range of situations like for a master’s student who may write: “The possibility of XX to obtain a PhD position and pursue an academic career would be enhanced by a demonstration of their ability to publish an academic paper.”

It has, however, been met with reservations from co-authors, reviewers, and editors. For instance, one co-author, who was close to retiring, felt the concerns voiced in the statement no longer applied. They were therefore adjusted to include: “except for XX, who because of his position and age, no longer needs to worry about these things.” With others, compromises were found such as: “The authors declare no competing interests, notwithstanding that academic promotions and access to grants depend in part for them on the publication of articles in peer-reviewed journals.” The following quote from an anonymous reviewer is exemplary for the most common reaction, which also seems to be shared by many participants in the hackathons:

The authors state that they have a conflict of interest to report, followed by a commonplace description of our current academic system. However, I see no reason as to why these circumstances should compromise the objectivity and integrity of their research or should have influenced the study’s design, analysis, or reporting (other than giving an incentive for doing excellent work). The description gives no indication that these factors do involve any unusual personal gain that might bias the research beyond what is standard practice. My worry here is that disclosing every element of the academic system as a potential conflict could dilute the impact of significant conflicts (such as working for the tobacco industry or pharmaceutical industries when doing research on smoking or drugs) that should indeed be disclosed.

The diversity of approaches and reactions illustrate the challenge that must be met by any solution: There is no general consensus on what constitutes a “real”

COI, nor what risks are or are not significant enough to warrant disclosure. Thus, in the absence of such a consensus, institutions, societies, and journals would first need to establish more precisely what constitutes a COI. Absent such a definition, a generalized solution is impossible to find.

However, to provide a starting point we consider two potential ways forward. One would be to acknowledge that not all potential COIs call for the same type of response. Some interests — particularly financial, anticipatory financial, and editorial — align closely with traditional definitions of COIs and are probably most appropriately disclosed in formal conflict of interest statements. These involve tangible, direct benefits that could be expected to influence research outcomes and are typically subject to journal or institutional disclosure requirements. Other interests, such as public advocacy or intellectual commitments, are less about direct gain and more about value alignment. These may be better addressed through *positionality statements*, which allow researchers to reflect transparently on how their social, political, or theoretical commitments may shape the research process. Still other forms — particularly professional advancement, relational, and collective (ideological) interests — may not lend themselves to explicit disclosure without risking overstatement or misinterpretation. These are often implicit, systemic, or structurally embedded in the academic profession itself. In such cases, *reflexivity* may be the most appropriate approach: engaging in ongoing, critical self-awareness about how one's position within academia, disciplinary norms, and institutional expectations might influence research choices and interpretations. Recognizing that different interests call for different responses could help avoid both over-disclosure and under-reflection, supporting a more nuanced and responsible research culture.

A second, pragmatic approach would be to understand COIs as information about a researcher that would cause an observer to *reevaluate the conclusions* of that researcher's work due to potential bias, as tacitly implied in both the APA's recommendations and the examples mentioned above. In this case, a COI requires a motivation towards a particular conclusion. For example, the initiator of the current project states a COI due to professional advancement being dependent on publishing research. If, for example, publication is systematically dependent on positive results (e.g., Forstmeier et al., 2016; Giner-Sorolla, 2012), then this motivation can be considered a COI. However, in order for a COI to manifest as a risk of bias, it would further require the researcher to plausibly be able to influence their conclusion. For example, if a co-author of a publication is credited only with the execution of data collection, but not with experimental design, analysis, or writing, that author's motivation towards a specific conclusion might not be perceived as a risk of bias.

Using this or a similar working definition, it would become possible for institutions and journals to identify common COIs as well as provide guidelines for evaluating individual cases. From an institutional perspective, this could inform research ethics policies and best practices guidelines explicitly. For journals, this would allow for more concrete management of COI reporting, such as by creating checklists of different common COI types with space for authors to add details if any apply, similarly to the ICMJE system mentioned above (ICMJE, 2025). Such systems could help researchers to self-reflect, removing some of the load for them. Paired with education initiatives from institutions and professional societies to inculcate the real

potential for research bias from COIs, such checklists might be less likely to degenerate into meaningless formalities. More impactful COIs could also be required to be explicitly mentioned in the Methods sections of manuscripts, although this would have to be balanced with the potential chilling effect due to the increased need for justification.

More broadly, such a consensus would also be needed for standards of updating and retaining COI information over time. For example, if a researcher accepts a paid consultancy position, they would be required to report this only in future publications. However, it could be argued that their recent relevant publications should also be updated with a relevant statement because anticipated financial benefits could have motivated them.<sup>6</sup> Similarly, it remains an open question as to how long past affiliations should be reported as COIs. Centralized standards could help alleviate these issues as well as provide guidelines for who is responsible for enacting solutions. Should the authors themselves maintain their COI statements? If so, adoption into existing author-level databases such as ORCID or Web of Science might be a useful goal. Or should this task fall to journals and research institutions? This would remove some of the burden from researchers, but may entail loss of information when they change institutions, as well as create difficulties for researchers without institutional affiliations. Some scholars have suggested that public registries could be created for long-term COI data management (Dunn et al., 2016). Such an approach would address some of these problems in a similar way to data repository sites, which have helped solve analogous problems for datasets.<sup>7</sup>

It is apparent that there are numerous concrete risks associated with elaborated COI statements in any form. While these risks could be balanced by the potential gains, any attempt to change COI reporting norms would be well served by a structure that explicitly addresses the risks, for example by making sure adoption is widespread and by linking COIs explicitly to arguments in scientific works.

#### **Question 4: Are concerns about potential conflicts of interest voided in case of pre-registration and/or registered reports?**

Discussions of COIs, research practices, and ethics, fall within the realm of open and responsible science. Transparency is one of the hallmarks of the Open Science movement (Simmons et al., 2011; Wicherts et al., 2016). Over the past few years, this movement has introduced various tools that are meant to explicitly disclose how scholars conduct research with the goal of avoiding motivated reasoning and questionable research practices and allowing other scientists to transparently evaluate how severely a claim has been tested (Lakens et al., 2024). Pre-registration and registered reports, for example, are a commitment to specific procedures and analyses

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<sup>6</sup> An obvious difficulty here, is – of course – the contingency on successfully obtaining the anticipated benefit.

<sup>7</sup> Including COIs as machine-searchable metadata for datasets might offer additional advantages, both contextualizing datasets and facilitating metascientific research concerning COIs.

prior to knowing the research results. This commitment is publicly documented on a secure online registry, where neither the researchers nor publishers can make changes without a traceable request (Nosek et al., 2018; van den Akker et al., 2023, 2024). The registries make the study details public, either immediately or after an embargo period. In the case of registered reports, the study plans are formally peer-reviewed before registration. By outlining the study plan in advance, without seeing the data, pre-registration aims to decrease the impact of motivated reasoning on the research process and its outcomes (Bakker et al., 2020; Choi, 2024; Hardwicke & Wagenmakers, 2023; Tierney et al., 2020). Some COIs can thus be combated by making transparent which analyses were pre-planned and are therefore less liable to be influenced by post-hoc biases. Incentives to obtain particular results (e.g., significant results) are effectively done away with by registered reports. When reviewers greenlight the proposed design and analysis plan of a study, the journal issues an in-principle acceptance, committing to publishing the results of the study regardless of its outcome, provided the study is conducted as planned. Evidence is accumulating that registered reports demonstrate less publication bias than traditional publications do (Allen & Mehler, 2019; Scheel et al., 2021; Wiseman et al., 2019).

While pre-registration and registered reports are powerful tools for enhancing research transparency and mitigating certain biases relevant to data analysis and selective reporting (Chambers & Tzavella, 2021), they do not eradicate the potential for COIs to influence research outcomes. These practices primarily address biases arising *during and after data collection* by pre-specifying study design and analysis plans, thereby limiting opportunities for data manipulation (Bakker et al., 2020). However, the inherent subjectivity involved in the study planning including the selection of research questions, methodological approaches, participant recruitment strategies, measurement tools, experimental paradigms, and pre-processing pipelines presents a critical juncture where biases can still subtly or overtly shape subsequent findings (Gould et al., 2025; Loenneker et al., 2024; Tierney et al., 2020, 2021). This highlights that while pre-registration enhances the rigor of the analytical stage, the potential for COIs to exert influence is still present in the earlier, less scrutinized study planning phase.

The pursuit of research integrity necessitates a critical examination of potential biases that extend traditional (financial) COIs. As Sulik et al. (2025) contend, fundamental differences in researchers' cognitive frameworks can foster intellectual camps, potentially leading to subtle, yet influential, intellectual, and/or ideological biases that are rarely explicitly acknowledged, despite researchers being more likely to find evidence in favour of their own theories. These biases are more likely to manifest in early stages of research. Therefore, while acknowledging the value of pre-registration, additional explicit disclosure of potential COIs may be warranted.

Many researchers fail to report their COIs, assume their interests are not important, or fail to recognize them altogether. As a result, the reasoning behind several research design decisions remains hidden. If they were to be disclosed, the rigour and validity of the research might be scrutinized more, including adherence to the pre-registration, which is often overlooked (Syed, 2025; van den Akker et al., 2024). The disclosure of COIs might even be a reason to engage in verification practices or replication (Grant et al., 2025; but see Cain et al., 2005, and Loewenstein et al., 2012, for arguments to the contrary).

## General discussion

### Disclosure as a first step, not a panacea

Research should be shared in a transparent manner. Among other things, this involves the application of responsible research practices and accurate reporting of results. Credible publication practices safeguard the scientific record, protect intellectual property, and help maintain public trust in research outcomes. In this paper, we discussed whether transparent reporting should also involve disclosing all financial and non-financial interests researchers have while conducting their work.

Although increasing transparency through disclosure of all of one's interests is an admirable goal, it is unlikely to be a sufficient remedy for the deeper structural problems that scientific research faces. Disclosures alone are expected to do little to prevent bias, particularly when the underlying incentive systems that shape scientific behavior remain intact. Worse, overreliance on disclosure may create a false sense of principled sufficiency, distracting from more ambitious reforms aimed at aligning scientific practice with epistemic integrity. As several scholars have noted, disclosure can sometimes function as a moral license — enabling problematic behavior by making it appear appropriately acknowledged or accounted for (Loewenstein, et al., 2012). In this section, we argue that disclosure is best understood as a minimal component of broader efforts to improve research quality. It should be viewed as an invitation to scrutiny rather than as a stand-alone solution.

For the moment, we do *not* advocate sweeping changes to submission or publication procedures. From our discussions it has become clear that a consensus on what constitutes a COI is not evident and the effects of any attempts to deal with them are unforeseeable. We also presume that any recommendation for change may be quickly outdated as other researchers weigh in on the discussion. That is why, following Kozlowski (2015) and Cain and Detsky (2008), we endorse a *pragmatic stance*: assume that *some* COI is always present and therefore treat every study — our own included — with healthy skepticism. Universal vigilance should be complemented (not replaced) by the “baseline hygiene” of managing and disclosing *financial* relationships, a practice long recognized as essential to preserving research integrity and warding off undue influence (DeAngelis & Fontanarosa, 2008; Oreskes & Conway, 2012). Journals should be very specific as to what they consider to be COIs so that when authors are asked to disclose them, it is clear for all parties involved (authors and readers) what their implications are. This is also recommended in the guidelines by the Committee on Publication Ethics (COPE, 2018). Individual researchers are of course free to supplement COI statements with disclosures that are not recognized by the journal, but should be aware that this may come with consequences as to how their work will be scrutinized.

Note that by arguing for the explicit disclosure of financial interests, we are not arguing against any form of financial support as industry and public funding are vital to support research and innovation; researchers ought to be able to conduct their work in decent professional conditions that also allow them to live healthy personal and professional lives. We should not endeavour to return to a situation wherein only the financial elite can conduct science.

## Enculturation and early COI literacy

Becoming a scientist involves a gradual enculturation into a community of practice. Lave and Wenger (1991) described this trajectory as a shift from peripheral to full participation in the sociocultural life of a discipline. Accordingly, COI literacy should be nurtured in the formative stages of training rather than relegated to an after-the-fact checklist at manuscript submission. Undergraduate seminars that invite students to identify their own potential biases, as advocated by Lampe (2012), can serve as an entry point. Simple self-affirmation exercises — brief reflections on one's core personal values — may reduce defensiveness when ethical lapses come to light and thus increase receptivity to COI discussions (Cohen & Sherman, 2014). Reflexivity journals, peer-led audit groups, and recurring ethics labs can extend this formative work throughout graduate study (Jamieson et al., 2023). Early, dialogic engagements of this sort may yield the epistemic (self-)analysis championed by Scharlau et al. (2020). These measures speak directly to Aczel's (2023) call for training programs that make scientists fluent in recognizing and correcting human errors in their work. We consider the resources provided in this paper (e.g., the box with terminology) as a way to facilitate this.

In philosophy of science, interest refers to the values, goals, or practical concerns — social, political, economic, or personal — that influence the direction, focus, and interpretation of scientific research. Ludwik Fleck (1935/1981) and Thomas Kuhn (1962) were among the first to consider sciences not as purely logically operating communities, but as endeavors with specific collective or institutionalized perspectives (aka *thought collectives* or *paradigms*). After them, numerous empirical studies showed how all the many aspects of science are dependent on social and technical context (Knorr-Cetina, 1981; Latour & Woolgar, 1986). Feminist epistemology especially (Haraway, 1988; Harding, 1991) challenged the ideal of value-free science by emphasizing that what scientists choose to study, how they interpret data, and how knowledge is applied are often shaped by non-epistemic interests. While such descriptions are known and accepted in the philosophy and sociology of science, they seem to be largely ignored in the sciences and in science education.

Integrating researchers into reflective scientific communities of practice not only helps guard against malicious influences but, more fundamentally, cultivates the development of epistemic virtues. The practice of science is inherently difficult. This is why apprenticeship — where novice researchers learn by observing and emulating experienced practitioners — remains crucial to scientific enculturation. Through this process, communities transmit not only tacit knowledge and technical skills but also essential virtues like intellectual humility forged through the inevitable setbacks and failures of knowledge-seeking, struggles that are typically erased from polished final publications (Delamont & Atkinson, 2001). We recognize a need to foster epistemic empathy when engaging with competing theoretical frameworks, and intellectual courage to challenge established paradigms when evidence demands it, among other virtues. Through cultivation of those virtues, we can form resilient researchers capable of maintaining scientific integrity even when faced with external pressures or internal temptations to compromise epistemic standards.

## Extending the conversation beyond academia

The public, too, benefits from understanding the human context of scientific knowledge production. Embedding COI literacy in science curricula may help non-scientists appreciate why uncertainty and revision are integral to research. The scientific enterprise is fundamentally a method for navigating uncertainty, rather than a source of definitive answers. Empirical claims are provisional, open to revision in light of new data or improved methodologies. Helping the public recognize this epistemic humility as a strength rather than a weakness is essential for sustaining trust in science, particularly during crises such as pandemics or climate emergencies where knowledge evolves rapidly. However, this requires a shift in public expectations: rather than demanding certainty, society must learn to value responsiveness, transparency, and methodological rigor as indicators of scientific trustworthiness (Oreskes, 2019). Journalists share in this obligation: Careful contextualization of preliminary findings can prevent the reification of tentative results as immutable truths, and reduce the whiplash effect that occurs when studies are later contradicted or revised. Cultivating a more realistic public understanding of how science operates — especially its iterative and self-correcting nature — can strengthen resilience against disillusionment and misinformation. Ultimately, preserving trust in science does not require erasing uncertainty, but embracing it as a constitutive feature of inquiry.

## Aligning incentives with scientific quality

Disclosure of interests or incentives is a superficial fix for a deeper issue. Disclosing that institutional or individual pressures may make one investigate popular or accessible topics, selectively interpret and report results, cut corners, or even commit questionable research practices does not do away with them. The long-term solution is an incentive architecture in which doing research “right” is also the most efficient route to career advancement. Ebersole et al. (2016) and Lishner (2015) argue that *getting it right* ultimately trumps *being right*, at least in the perception of lay audiences. Realigning incentives toward methodological rigor and open practices, therefore, serves both epistemic and reputational ends. Ideally, excellence in research quality — and not the sheer number of publications — would become the strongest predictor of career advancement. Achieving that alignment will likely require decoupling promotion criteria from volume-based metrics and crafting new evaluative rubrics that reward transparency, reusability, replication, and community engagement. If that alignment is achieved, the question of whether earning a living through research constitutes a conflict in itself becomes void. Any serious treatment of COI must therefore interrogate the reward structures of departments, faculties, universities, and funding agencies. These institutions themselves harbor conflicts — some financial, others reputational — which they tacitly transfer to individual scientists, and hence warrant explicit examination (Krimsky, 2004). At present, they still often value rapid, high-volume publication, while giving scant weight to

community-building, mentoring, open-data stewardship, and other collective goods. This dynamic has been linked to decreased research quality and scientist well-being (Heuritsch, 2021). Although the centrality of publications to academic prestige cannot be ignored, it should be balanced by a holistic appraisal of scholarly contributions and by an explicit commitment to an equitable research culture (Roberts et al., 2020; Steltenpohl et al., 2021).

### **Additional COI and bias mitigation strategies**

The mere disclosure of interests is unlikely to change behavior meaningfully (Cain et al., 2005). To further mitigate bias, journals and funders might consider independent assessments in which external analysts review both data and adverse events (DeAngelis & Fontanarosa, 2010). Multisite, many-analyst designs — where multiple laboratories and diverse statistical teams reproduce or replicate a study — also dilute any single group’s incentives to manipulate results (Wagenmakers et al., 2022). Studies with declared COIs could be a special target for replications and multiverse analyses to ascertain the validity of the results (Kamer-mans et al., 2025). Quantitative bias analysis offers a complementary strategy: By formally testing how sensitive outcomes are to systematic error, researchers can publish bias-adjusted estimates alongside primary results (Lash et al., 2009). More generally, researchers may want to look for research questions where any answer is of interest and potentially publishable (including null results).<sup>8</sup> One way to achieve this would be to engage in adversarial collaborations, in which researchers with contradictory theoretical views work together to design, conduct, and interpret a study aimed at resolving their disagreement through empirical evidence (Kerr et al., 2018; Rakow et al., 2015).

### **Outstanding questions and the imperative for empirical evidence**

Many of the authors of this paper hail from psychology or the psychology of science, making us especially sensitive to the human element in scientific practice. Most contributors are also strongly committed to meta-science and open science and, therefore, attentive to questions of incentive structure and research culture. It is notable that even within this group, we did not reach consensus on the desirability of “radical” openness. As researchers, we also have a vested interest in public confidence in science. Through rationalization, motivated reasoning, and hidden bias, we could have overestimated our own immunity to the COIs discussed here and may have overlooked others. This, in turn, might have affected our recommendations. External scrutiny is thus vital, particularly because despite decades of debate, large knowledge gaps remain regarding what ought to be a well-studied topic.

Most COI research originates in medicine and the pharmaceutical sciences; far less is known about how the matter is perceived and approached in other disciplines.

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<sup>8</sup> We thank an anonymous reviewer for this suggestion.

Moreover, existing disclosure statements are often perfunctory and therefore uninformative, leaving us unable to judge how serious certain interests are perceived to be or the extent to which they bias outcomes in practice. The pivotal issue is whether an interest bears directly on a study's subject matter — a matter of degree that remains partly subjective. Before mandating new policies, we believe additional empirical work is essential. To that end, we invite readers to share their perspectives through this [survey](#).

This survey constitutes a next step in our attempt to address the normative scientific conflict under discussion. It is part of an ongoing Action Research project (Cornish et al., 2023) to which we are actively inviting new stakeholders in order to reflect on and conduct research about COIs, with the ultimate goal of taking concrete action on the matter. We are curious to learn how well this approach will fare in tackling a normative scientific conflict, compared to more established procedures such as adversarial collaborations (Kerr et al., 2018; Rakow et al., 2015) and adversarial commentaries (Heyman et al., 2020).

### Author positionality

As already alluded to throughout the paper, a more enduring conflict lies in the inherently positional and relational nature of all scientific work. Every researcher brings their own background, social location, and institutional embeddedness into their scientific practices. It is at least difficult, but according to various theorists also impossible, to become fully and transparently aware of this positionality (e.g., Harding, 1991; Rose, 1997). Perhaps because of this, positionality is not equally acknowledged as traditional COIs although it also represents an interest and thus potentially a conflict. Although this bias exists for everyone, especially researchers in precarious positions are – as already mentioned in the introduction – likely to have their motivations for research questioned and the objectivity of their findings challenged (Albayrak, 2018). A striking example of this can be seen in conducting research in different countries. When an African scholar conducts research on European contexts, their positionality is frequently problematized or framed as a potential COI. Yet, when a European scholar studies African contexts, their work is rarely subjected to the same scrutiny, and is instead often assumed to be objective, rigorous, and unbiased. This asymmetry highlights how COI can be mobilized selectively to maintain the authority and legitimacy of mainstream researchers and norms while marginalizing others.

Moreover, precarious academics are often excluded from decision-making structures and yet expected to reproduce the norms that sustain the system (Adams et al., 2019; Afonso, 2016). This includes adhering to dominant methodological conventions that prioritize quantitative, experimental designs, and easily accessible samples (Sassenberg & Ditrich, 2019). When precarious researchers challenge these norms or engage alternative epistemologies, they are frequently seen as biased or “agenda-driven” while those upholding the status quo remain unmarked. This dynamic not only delegitimizes critical or decolonial approaches but also

obscures the embedded biases within mainstream science itself. As a result, the internalization of precarity often leads scholars to self-regulate and conform to dominant norms (Albayrak-Aydemir & Gleibs, 2023), reinforcing a system in which objectivity is performative rather than actual. Compliance becomes a survival strategy and positional bias is framed as problematic only when it threatens dominant paradigms, even though it is universal for every researcher. To confront this, we should move beyond narrow definitions of COI and recognize how academic legitimacy is bound up with structural power. Transparency should not only be concerned with financial disclosures, but must also engage with the broader, relational dynamics that shape scientific research. How we define and deploy the concept of COI should consider a genuine commitment to epistemic justice, demanding a shift toward plurality, reflexivity, and critical discomfort (Decolonial Psychology Editorial Collective, 2021; Reddy and Amer, 2023). Without this shift, disclosures risk reinforcing existing hierarchies under the guise of neutrality or objectivity.

## Conclusion

COIs are neither rare nor easily eliminated. Yet by embedding COI awareness in early training, revisiting institutional incentives, adopting proactive methodological safeguards, and cultivating an informed public, the research community can move toward an ecosystem in which transparency is the norm and methodological rigor is its own reward. We therefore call on journals, institutions, and individual researchers to treat COI disclosure not as a bureaucratic formality, but as a productive and intrinsically valuable step in one's research journey. Increased transparency about structural incentives is not a confession of wrongdoing or ineptitude — it is an invitation to building trust and enacting reforms.

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**Data availability** Not applicable.

## Declarations

**Ethical approval** Not applicable.

**Conflict of interest** Ensar Acem: As an early-career researcher, my ability to advance in academia and secure future funding is partly dependent on the number and visibility of my publications.

Balazs Aczel: I publish regularly to make thoughts and results visible but I acknowledge that both my institutional evaluation and grant opportunities partly depend on the number of my publications.

Nihan Albayrak: To be competitive in academia, I must publish in recognized journals and cite mainstream work even though it reinforces the very structures I critique. This tension shapes how I frame my arguments and select references. I acknowledge this as a structural conflict of interest embedded in my academic life.

Nicholas J. L. Brown: I have no conflict of interests to declare. Sue me.

Leonie A. Dudda: My opportunities to pursue a scientific career partially depend on the number and the quality of the articles that I publish.

Biljana Gjoneska: As a tenure-track researcher from a non-WEIRD setting, my ability to remain competitive on the global research market is partly dependent on the number of articles I publish. For clarification purposes, increased competitiveness comes with increased mobility and freedom to choose between research settings (in case of sudden change in the living prospects at the home institution and country).

Marta Kowal: As a post-doctoral researcher in Poland, I must publish papers to advance my academic career. In Poland, we earn “points” for publishing in journals included on the government’s official list. The more—and especially the higher point papers—we publish, the more points we accumulate in our evaluations. These points affect our financial benefits, promotions, and success in securing research funding. Therefore, the more papers I publish, especially in high-point journals, the better my prospects for both scientific advancement and financial security.

Anand Krishna: I have no conflicts of interest to declare. Lucky me.

Szymon Miłkoś: My interests in studying and improving scientific inquiry synergize with this paper’s content rather than conflict with it. My contribution is part of my work to reform scientific practice, which has a systematic orientation (whether biased or heuristic). I have never tried to publish before, and this is my first paper — a fitting irony that reinforces my prior motivation for truthful, useful, and elegant scientific practice.

Mahmoud Medhat Elsherif: Their evaluation, opportunities for promotion, and ability to secure research funding are partly contingent upon the quantity of their published articles. This creates a potential incentive to prioritize the number of publications over other important factors, such as the quality, rigor, or impact of the research. In addition, as they are neurodivergent, nonbinary, from the Global South but grew up in the Global North throughout the majority of their lives, their conflict of interests and positionalities may conflict but are driven by a complexity of nuances that occurred in their lives. If they have forgotten any conflict of interest, please do not assume malicious intent; it might be because they are like all scientists, highly human.

Mariola Paruzel-Czachura: The university’s annual evaluation, academic promotion, and receipt of research funding depend partially on the quality and number of articles I publish.

Jay Patel: I do not seek a typical career as a research professor after completing my doctoral degree. However, I consider the publication of any research paper to be a mild Conflict of Interest because I may pursue research occupations that require publications in relevant venues.

Katarzyna Pypno-Blajda: As a doctoral student, I am required to publish a specific number of articles as part of my degree requirements. Additionally, the quantity and visibility of these publications directly influence my prospects for securing postdoctoral positions or academic research employment after completing my PhD.

Ingrid Scharlau: My ability to obtain research funding and my evaluation is partly dependent on the number of articles I publish. I also want to add that I might not be aware of all conflicts of interest.

Steven Verheyen: My evaluation, opportunities for promotion, and ability to obtain research funding are partly dependent on the number of articles I publish.

Benjamin Zubaly: As a young researcher, my ability to continue in academia partly depends on the number of papers I publish. My opinions are surely biased by my hope that in the future my career will be assessed by a more valid measure of scientific contribution.

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