Retraction statements and research malpractice in economics

Adam Cox[a,*], Russell Craig[a], Dennis Tourish[b]

[a] *University of Portsmouth, Portsmouth Business School, Portland Street, Portsmouth, PO1 3DE, United Kingdom*
[b] *University of Sussex, Falmer, Brighton, BN1 9RH, United Kingdom*

A R T I C L E I N F O	A B S T R A C T

We draw on rational crime theory to help analyse 55 articles that have been retracted from 734 peer-reviewed journals in the field of economics. We highlight and discuss what these findings indicate regarding the nature and pattern of research malpractice in that discipline. Particular attention is given to exploring "no reason" retractions and the policy guidelines of publishers regarding retracted papers. We conclude that the frequent vagueness of retraction statements, and a reluctance to signal research malpractice, generally results in little damage to the reputation of caught, and known, offenders. Thus, a key deterrent to engaging in research malpractice is lacking. To reduce the incidence of research malpractice, we offer several recommendations for publishers and journal editors.

1. Introduction

Growing concern about the substantial scale of research misconduct (Martin, 2013) has pointed to the need for additional empirical evidence regarding questionable research practices (henceforth, QRPs) in all disciplines. Biagioli and Kenney (2016, p.1944), for example, have called for more information regarding forms of "traditional misconduct – fabrication, falsification, and plagiarism …[and]… new misconduct … fake peer reviews and citation rings."

There is clear evidence that academic economists engage in QRPs (Necker, 2014; Wible, 2016). Studies by Karabag and Berggren (2012, 2016) have analysed QRPs in 6 and 43 retracted papers in economics, respectively. However, knowledge of the frequency, nature and pattern of research malpractice within the discipline remains rudimentary. To address this, we analyse 55 articles that have been retracted from 734 peer-reviewed journals in economics. This is the largest evidential base of retractions analysed to date in peer-reviewed studies in the field of economics. Nonetheless, the results should be regarded as indicative, rather than exhaustive. They draw attention to problems of poor research practice in the field.

As Fanelli (2013, p.1) has argued, it is likely that the statistics obtained in studies of the type we conduct "are proportional not to the prevalence of misconduct but to the efficiency of the system that detects it." Given the secretive and often shameful nature of research

malpractice, a complete picture of its prevalence seems unlikely to be obtained. Therefore, we do not suggest that an increasing level of retractions can be equated with an actual rise in research malpractice. Rather, increased retractions seem likely to be caused by increased vigilance on the part of editors, publishers, reviewers and readers. Mindful of these caveats, we contend that the data analysed here offer valuable insight into the forms of malpractice that occur, even if their full extent is not fully documented. Our analysis also raises important issues about the high incidence of "no reason" retractions in economics journals.

We make three important contributions. First, we highlight the forms of malpractice that drive retractions in peer-reviewed journals in economics. In doing so, indicative data regarding the frequency and nature of research malpractice in the discipline are provided. We also explore the incentives that prompt (allegedly) "rational" researchers to use QRPs. This leads us to suggest ways of eliminating those incentives in order to improve the integrity of research. Second, we recommend some actions that publishers and journal editors should take to deal more effectively with research malpractice. The associated discussion highlights the incidence of "no reason" retractions, reviews publisher guidelines on retraction, and proposes ways of reducing the frequency with which journals retract papers without stating a clear reason. Third, we propose a global protocol for dealing with retracted papers.

We illuminate the incentives for research malpractice with a view to

identifying possible remedies. We conclude that the vagueness of retraction statements, and a general reluctance to signal research malpractice, often results in little damage to the reputation of known offenders. Thus, a key deterrent to partaking in research malpractice is lacking. Moreover, deterrents are constrained by the limited resources applied to detection. For example, it is not sufficient to rely on the goodwill and discretionary time of editors and reviewers to assess academic research content. The incentive structures that influence journal editors are generally unhelpful. Editors are likely to be concerned that any signalling of research malpractice will damage the reputation of their journals. Thus, some editors may be less likely to offer clear signals regarding the prospect that QRPs have been employed in the writing of papers they publish.

The present exploration of research malpractice in economics analyses articles retracted from economics journals ranked in journal lists issued by the U.K.'s Chartered Association of Business Schools (ABS) and the Australian Business Deans' Council (ABDC). Both of these lists are used widely beyond the UK and Australia, particularly in countries where formal assessments of research quality occur. Despite much criticism that ranking lists distort research by prioritising the status of individual journals above the content of the articles they publish (e.g. Tourish and Willmott, 2015), these lists are much favoured by university managements because of their convenience and auditability.

We begin by reviewing existing evidence of research malpractice in economics, before describing the research methods we employ. Then we present findings, discuss how retracted papers are dealt with by journals, and highlight the need to examine the corpus of publications of authors who have had papers retracted. To improve current practices in respect of retracted papers, we conclude by offering some recommendations to editors and publishers.

2. Literature review

Here we review studies of cost/benefit incentives in the context of research malpractice, before clarifying the meaning of "research malpractice" and then reviewing prior studies of research malpractice in economics.

Our analysis of researcher engagement in QRPs is informed by traditional economic behaviour theory. This assumes that individuals will seek to maximise their private gain whenever they can. In particular, we follow an "economics of rational crime" framework, drawn from Becker (1968) and Ehrlich (1974, 1996). Becker (1968) theorized that there were parallels between how people respond to opportunities for criminal activity and how they behave in a normal commodity market. Thus, in invoking an "economics of rational crime" framework, we consider the behavioural relations that exist between perpetrators of crime, victims of crime, and those attempting to stop crime.

Becker (1968) and Ehrlich (1974, 1996) have contended that the decisions of a potential criminal follow a rational economic choice: that is, a rational individual will weigh the perceived benefits of a decision to commit a crime against the perceived costs of doing so. The cost to an individual of committing a crime includes the resources used evading apprehension, the punishment if convicted, the probability of being apprehended, the foregone wages, and the taste (or distaste) for crime (which includes the impact on an individual's moral values, predisposition towards crime, and risk preferences) (Ehrlich, 1996). The costs are greater when the punishment and the chances of apprehension are higher, when the costs of avoiding detection are higher, when an individual has a higher moral objection to crime, and when an individual is more risk adverse. Becker (1993, p. 5) enters the caveat that although "many people (are) constrained by moral and ethical considerations… police and jails would be unnecessary if such attitudes always prevailed." Calculation, he argues, is built into criminally-oriented decisions.

Consistent with this theoretical lens, obvious *benefits* are obtainable from research malpractice, including relief from the time and costs involved in data collection and analysis. Beyond that, Craig et al.

(2014) highlight how a culture of routinely subjecting research outputs to performance audit has taken hold in universities, especially those which are determined to improve ranking positions in (inter)national league tables. One consequence of this is that academics are under more pressure than ever to publish in reputable journals. They are rewarded by universities through career progression and salary increases if they do so, but are often penalised if they do not (e.g., by being moved to teaching only contracts) (McNay, 2016).

Offsetting the benefits of engaging in malpractice are the *costs* of doing so. These can be imputed as a combination of the probability of detection, the likely severity of punishment, and the perceived reputational damage to the perpetrator. Such theorising leads to a conclusion that the likelihood of a researcher engaging in QRP's is reduced by any increase in the probability of detection, and in the penalty (including reputational damage) if detected (Wible, 2003; Collins et al., 2007). In line with this, a recent review of rational choice perspectives on crime by Pogarsky et al. (2017, pp. 85–86) concluded that:

> The results of longitudinal studies of panel data have revealed that offending is negatively related to the perceived certainty of punishment… and perceptions of sanction certainly are responsive to whether an actor has been punished for past offending experiences… Moreover, the results of randomized experiments have shown that *rule breaking is reducible by clearly communicating an elevated risk of punishment to potential offenders* (italics applied).

In addition, we should be mindful of research findings revealing that ethical dispositions can be overwhelmed by the situations and opportunities people face, to the point that they also sometimes overcome the fear of detection and sanction (Clarke and Cornish, 1985).

If rational academic economists consider that the benefits accruing from engaging in research malpractice outweigh the likely costs, at least some of them are likely to be tempted to engage in research malpractice (Rose-Ackerman, 1978). Lacetera and Zirulia (2011) have argued that the chances of being detected are small because of the unobserved nature of some of the practices involved (e.g., fabrication of data or the gifting of authorship). They contend also that research malpractice is likely to be widespread and hard to detect in research fields (such as economics) where incremental advances are provided, and where there is low or non-existent scrutiny of the authenticity of research data. Thus, there is ample encouragement for a rational researcher in economics to engage in research malpractice (Misangyi et al., 2008; Pillay and Kluvers, 2014).

In many fields (including economics) the cost of engaging in research fraud is lowered by the reluctance of social science journals to publish replication studies.[1] Replications hold a strong prospect of confirming the strength of a field or illustrating problems within it. Yet, many researchers report grave difficulty in publishing replications, particularly in journals where the replicated studies originally appeared (French, 2012). The infrequency of replication allows poorly supported or erroneous findings to remain undetected (Madden et al., 1995; Eden 2002; Stroebe et al., 2012; Ioannidis, 2012; Bakker et al., 2012; Denison et al., 2014). This encourages those who are contemplating engaging in research malpractice to actually do so.

In accord with such a view, Hoover (2006) argued that it is rational for an author to engage in malpractice, given current incentives and problems of detection. For example, a plagiarist might be emboldened by knowing that the sole responsibility for exposing a plagiarist falls to an original author or whistle-blower, rather than an impartial sanctioning body. There are likely to be high financial and emotional costs borne by an individual in exposing a plagiarist. This paper promotes discussion of how the processes of detection, deterrence and retraction can be improved.

---

[1] For example, in psychology, Martin and Clarke (2017) report that only 3 per cent of journals accept replication studies and that one third actively discourage them.