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Editorial

Keeping plagiarism at bay—A salutary tale

Abstract

This editorial examines the question of whether plagiarism may be on the increase in the social sciences and, if so, what needs to be done to keep the problem in check. It was prompted by the discovery of an alert reader in June 2007 that a 1993 paper in *Research Policy* appeared to have plagiarised a 1980 article in the *Journal of Business*. The allegation was investigated, and it was agreed by the Editors that the 1993 paper constituted a clear and serious case of plagiarism. However, the author concerned has published over 100 articles and books. Already, two other publications have been judged by the editors of the journals concerned to have plagiarised previous publications. Two more are under investigation, but the great majority of the remainder still remain to be checked. The fact that academic misconduct on this scale has gone unchecked over such a prolonged period raises serious issues about the efficacy of the processes used to police the conduct of researchers. Furthermore, the unexpected discovery that a paper by the author under investigation appears itself to have been plagiarised poses a fundamental question as to whether plagiarism may be far more common than previously assumed. The editorial concludes that a measured degree of vigilance and a greater willingness to pursue any well-founded suspicions of research misconduct are required by editors, referees, publishers and the wider academic community if the scourge of plagiarism is to be kept at bay.

Keywords: Plagiarism; Research misconduct; Peer review; Self-policing; Social sciences; Academic community

1. Introduction

In the world of science, a growing number of cases of research misconduct have come to light.[1] What is not clear, however, is whether the incidence of misconduct is increasing, or whether a greater alertness and better methods of detection simply mean that a higher proportion of the instances of misconduct are being caught and made public.[2] Initially, research misconduct seemed to be concentrated mainly in and around biomedical research,[3] but subsequently it has spread to other scientific disciplines. Up to now, however, there have been relatively few cases in the social sciences[4] (or, at least, few that have become public), apart from in psychology.[5]

Of the cases of misconduct that have been detected and made public, many have involved the fabrication of data. However, another important form of misconduct is plagiarism, the issue examined here.[6] Among

[1] These have often been reported in journals such as Nature, Science and The Chronicle of Higher Education. For reviews of misconduct in science, see Broad and Wade (1982) and LaFollette (1996). (The more specific issue of plagiarism, the subject of this editorial, has been studied by Anderson (1999), Buranen and Roy (1999) and Randall (2001)).

[2] As Fox and Braxton (1994) note, "The relationship between the reported or known cases of misconduct and the actual or underlying distribution from which they are drawn remains as unknown now as it was when Zuckerman emphasized this point nearly 20 years ago (Zuckerman, 1977, p. 98)".

[3] See, for example, the list of cases cited by Fox (1994, p. 298). Franzen et al. (2007, p. 4) identify certain characteristics of biomedical research that might encourage or facilitate misconduct.

[4] Two examples, involving a political scientist and a geographer, are given in Bartlett and Smallwood (2004).

[5] In psychology, the classic example for many years was Cyril Burt – see Kamin (1974) and Hearnshaw (1979). However, later authors have cast some doubt on the original allegations (see e.g. Mackintosh, 1995).

[6] In one of the few empirical analyses of plagiarism in the social sciences, Enders and Hoover (2004) surveyed 117 editors of leading economics journals. These editors reported a total of 42 instances of attempted plagiarism in a year-long period (i.e. where referees or edi-

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researchers, "Plagiarism is widely thought of as perhaps the most grievous academic crime" (Rosamond, 2002, p. 167) because it involves the stealing of ideas or other research material from others in order to pass them off as one's own original contribution to knowledge.

Within universities, plagiarism is well known to be a growing problem among students (see e.g. the review by Ercegovac and Richardson, 2004).[7] The increasing availability of material in electronic form makes it easier and more tempting to 'lift' that material or, more charitably, for 'mistakes' to occur where the author confuses his/her own material with that from other sources. For similar reasons, one might perhaps expect the incidence of plagiarism among researchers to be on the increase. At the same time, the use of search engines and other software makes it easier to detect instances of plagiarism, so this too might lead to an increase in the number of reported cases.

The task of policing the problem of plagiarism falls in part on the editors of journals. Yet they cannot carry out this task on their own (Fox, 1994). They need the help of referees, alerting them if their suspicions are raised about a particular paper or elements of it. Very importantly, they also need the help of readers. If readers spot a paper where a significant element appears to have been plagiarised, they should bring this immediately to the attention of the editor of the journal concerned (or the publisher of the book). Journals and publishers have established procedures to investigate such concerns and to establish whether the allegation is valid or not.[8]

In the last 2 months, *Research Policy* has investigated a serious case of plagiarism involving a paper published by the journal in 1993. The details of the case are given below, followed by a discussion of some key issues that arise.

2. The investigation of the case

The author of the 1993 *Research Policy* paper under investigation boasts an impressive academic record. He has carried out research in a wide range of areas including: operations research; decision support systems; economic modelling and policy analysis; managerial, information and regulatory economics; and energy, environmental and resource economics.[9] According to the Web of Science, he has published around 120 articles and other items in the leading international journals scanned by the *Social Science Citation Index*. He has also published a dozen or so books, many with leading publishers such as Reidel Dordrecht, Wiley, Kluwer and Routledge. His various publications have been cited over 230 times by other researchers in publications scanned by the *Social Science Citation Index*. According to his CV, he has been Professor of Managerial and Industrial Economics at the Institute of Management Science in the Faculty of Economics at Maastricht University from 1983 to the present,[10] and he spent a period as a Visiting Professor at the University of Oxford from 1990–1991.[11] For several years in the 1990s, he worked at the International Institute for Environmental Economics and Management (IIEEM) in Germany.[12] Later, he joined the International Institute of Technology Management and Economics (IITME), also in Germany.[13] According to the official report on the website of the University of Klagenfurt in Austria, he came within five votes of winning the Rectorship of that university in 1995.[14] In 1999, he was appointed Chair of Economics in a major US university.[15]

In 1991, while working at Nuffield College, Oxford, Hans Werner Gottinger submitted a paper to *Research Policy*. This was reviewed by two eminent referees. After the author had made a number of changes in the light of their comments, the paper was accepted and published in 1993. The paper (Gottinger, 1993) attracted little attention; according to the Web of Science, it has never been cited.[16] However, in June 2007, an alert reader spotted that this paper bore a strong resemblance to an article

tors had identified likely instances of plagiarism among the papers submitted to those journals). In a more recent survey by these two authors of 1200 economists, a disturbingly high proportion (24%) of respondents reported that they had been plagiarised in some form or other (Enders and Hoover, 2006).

[7] Woessner (2004) has developed a model that suggests the penalties for engaging in plagiarism are insufficient to act as a deterrent; hence, the temptation to plagiarise might be perceived by some students as a reasonable 'gamble'.

[8] In the case of Elsevier journals, details of the procedure to be followed when handling allegations of plagiarism can be found in the section on 'Scientific misconduct' at http://www.elsevier.com/wps/find/editorsinfo.editors/ethicsglossary. This also provides the definition of 'plagiarism' used in the investigation reported here: "Plagiarism is the copying of ideas, data or text (or various combinations of the three) without permission or acknowledgment". The original source of this definition is the Royal College of Physicians (1991, p. 3).

[9] See the list in the biographical note at the start of Gottinger (2002).

[10] See Gottinger (2002).

[11] See Gottinger (2002).

[12] See e.g. the institutional address given in Gottinger (1996).

[13] See e.g. http://www.inderscience.com/browse/index.php?journalCODE=ijrm. This and the websites cited in subsequent footnotes were all accessed on 18–20 July 2007.

[14] See http://www.uni-klu.ac.at/home/mitteiblatt/old/94-95/mittei31.

[15] See http://www.rpi.edu/dept/catalog/99-00/Faculty/g.html.

[16] Until this article, that is!

published by Frank M. Bass in the *Journal of Business* in 1980 (Bass, 1980). The Editors of *Research Policy* and Elsevier immediately launched a formal investigation.

The two papers were sent to the surviving original reviewer (the other having unfortunately died a few years ago) and to the third person identified as a potential referee back in 1991. They both concluded that this was a clear case of plagiarism. While the introductory two sections and the concluding section are largely different, the intervening sections in the 1993 paper are virtually identical with the corresponding sections in Bass (1980), with much of the text being lifted word-for-word, and with most of the equations being essentially identical (apart from minor changes in notation). In addition, one referee noted that the empirical data used in the last part of the paper looked suspect, not least because the wording of the results section is virtually identical to that in Bass (1980). Given that the latter was based on an entirely different data-set, this would seem intrinsically implausible. It was subsequently confirmed by a referee and Editors that the data in the 1993 paper had not been drawn from the source cited but instead appear to have been fabricated.[17]

The author was asked to account (i) for the close similarity of the two papers and (ii) for the fact that the data reported did not come from the source quoted. He failed to provide an explanation that the Editors considered adequate. As a result, this paper (H.W. Gottinger, 'Estimating demand for SDI-related spin-off technologies', *Research Policy* 22 (1993), 73–80) has now been formally retracted. The Editors and Publisher of *Research Policy* apologise to the family of Professor Bass (who unfortunately died a few months ago) and to the former Editors of the *Journal of Business* (which ceased operating at the end of 2006).

While the 1993 *Research Policy* paper was being investigated, further searches were conducted to establish if this might have been a one-off 'moment of madness' on the part of the author. Fairly quickly, it was discovered that in 1999 the Editors of *Kyklos* had announced that a 1996 paper by Gottinger in that journal had plagiarised a 1992 article by Geoffrey Wyatt in the *Economics of Innovation and New Technology* (Wyatt, 1992). As a result, the *Kyklos* Editors retracted the 1996 paper (see Frey et al., 1999).

Later, we found that a third paper by Gottinger published in 2002 in the *International Journal of Global Energy Issues* bore a striking resemblance to a 1997 article by Zhiqi Chen in the *Journal of Environmental Economics and Management*. The Editor and publisher of this 2002 paper were alerted; they investigated and concluded that the paper had plagiarised Chen. Subsequently, Chen confirmed that the 2002 article was virtually identical to Chapter 4 in his (i.e. Chen's) 1991 PhD thesis, and that this (rather than Chen's, 1997 paper[18]) was almost certainly the original source that had been plagiarised.[19]

At this point in the investigation, the following had become clear: (i) the 1993 *Research Policy* paper was unfortunately not a one-off incident – there were at least three confirmed instances of plagiarism; and (ii) despite the author having been found guilty of plagiarism in 1999 by the Editors of *Kyklos*, this behaviour had not stopped. In other words, this appeared to be a case of serial plagiarism.

By this stage, the normal procedure in such a case would have been to hand over the results of this investigation to the author's employing institution so that they could investigate further, in particular checking whether any of his other 100 or more articles and dozen books warranted closer examination. Since many of his papers including the one published in *Kyklos* in 1996 and the 2002 article in the *International Journal of Global Energy Issues* gave as his address the Institute of Management Science (IMS) at Maastricht University, a search was first carried out for the relevant head of department – i.e. the current Director of the Institute of Management Science. However, it was quickly established that Maastricht University does not have, and has never had, an Institute of Management Science. As a result of our investigation, Maastricht University has now instructed the author to cease claiming that he is affiliated with the University in any capacity.

[17] The data supposedly relate to "SDI-related spin-off technologies" and the author cites as his source a NSF survey of industrial R&D carried out in 1987 and published in 1989. No such data appear in this NSF report. Furthermore, the Strategic Defense Initiative Organization (SDIO) was only created in 1984. It would have taken a decade or so for any data on the spin-offs from the SDI initiative to become available, and appreciably longer to obtain the 10-year time-trends that the author required for his analysis. Unfortunately, this discrepancy was not spotted at the time the paper was submitted.

[18] If Chen had not subsequently turned that thesis chapter into a journal article, this act of plagiarism would most probably have gone undetected. Where the original source that has been plagiarised is unpublished or not widely available in electronic form (as in the case with most PhD theses), such acts of plagiarism are far less likely to be detected. As Rosamond (2002, p. 172) observes, "a 'clever' plagiarist could easily bypass detection through the use of obscure sources or even via the translation of material from other languages".

[19] At the same time, it was also noted that Chapter 6 in a 1998 book by Gottinger entitled *Global Environmental Economics* (Gottinger, 1998) is very similar to Chapter 3 in Chen's, 1991 thesis.

Other journal articles and electronic working papers suggest that in recent years the author has spent periods of time working at a number of other universities and 'International Institutes'.[20] However, no evidence could be found that he is currently employed by any university or research institute, and this has since been confirmed by the author. This unfortunately means that there is no organisational body to which one can now hand responsibility for carrying out a full investigation of the wider body of the author's published work. Consequently, in addition to publishing a retraction of the 1993 article, *Research Policy* is taking the somewhat unusual step of writing this explanatory editorial to bring the matter to the attention of the wider research community. This will serve to alert the journals and book publishers that have published work by Hans Werner Gottinger, and the institutions with which he has apparently been linked, in case they wish to check whether any of his other 100 or more articles and books involve plagiarism. As noted in the conclusions, the lesson from this case would seem to be that the academic community and publishers need to adopt a more pro-active stance with regard to plagiarism if this menace is to be kept at bay.

However, before we conclude with an examination of the wider implications from the case, it is worth reporting a bizarre 'twist in the tale'. The investigation exhibited numerous strange twists and turns; the further one explored, the more mysterious things became. Just when the end seemed to be in sight, there was one final, ironic twist. After the original search of around half a dozen papers by Gottinger had identified one (published in 2002) that plagiarised an earlier publication, a few more were subsequently checked. After about four more, another was found (Gottinger and Weimann, 1992), in which certain strings of words[21] were identical with those appearing in another publication. However, what came as a total surprise was to discover that this second document had not been published before the 1992 paper, but a dozen years later in the proceedings of a conference held in Harare, Zimbabwe, in September 2004. The only logical conclusion would seem to be that the 'author' of this 2004 conference paper had copied sections from Gottinger and Weimann (1992). In short, a case of 'the biter bit'.

3. Concluding comments

The results of this investigation illustrate a number of important points. First, journal editors and referees, however knowledgeable and diligent, cannot prevent all instances of plagiarism and other research misconduct (see also Fox and Braxton, 1994, pp. 376–77). For none of the three papers published by the author in 1993, 1996 and 2002 was the plagiarism detected by the editors or referees at the time of publication. Indeed, in the case of the 1993 *Research Policy* paper, the plagiarism lay undetected for no less than 14 years. Hence, readers of journals and books should be alert to possible instances of plagiarism that may have slipped through the peer-review process.

Secondly, the publishers of journals and books may need to consider undertaking more routine screening of manuscripts using software to detect potential plagiarism. (Editors and referees lack the time and resources to do this effectively.) Clearly, such a step would represent a fundamental shift from the previous basis of trust, in which the default assumption was that all papers submitted for publication are free from plagiarism, to a situation where a much higher proportion of submissions (or even all submissions?) might be subject to such checks in order to remove any doubts. However, as we suggest below, the risk of plagiarism may have reached a level that such a step is now needed in order to keep the problem in check.

Thirdly, if a reader suspects that plagiarism may have taken place, they should contact the editor of the journal concerned (or the publisher of the book) to investigate the matter further. In the case of the 1993 paper, a PhD student spotted the close similarity to Bass (1980) and contacted *Research Policy* directly. The Editors immediately informed Elsevier, and a formal investigation was launched. This is in stark contrast with an earlier, entirely separate case involving an allegation of plagiarism against two papers published by *Research Policy*, which was made in a series of widely circulated anonymous emails. This is

[20] For example, as noted earlier, he claims to have worked at the impressive-sounding International Institute for Technology Management and Economics (IITME), Unterring 21, 85051 Ingolstadt – see http://www.inderscience.com/browse/index.php?journalCODE=ijrm. A search on the web could find no evidence of the institute, and no one else citing the institute as their current or past employer. However, the institute's postal address is the same as that listed in the German telephone directory (see http://www.teleauskunft.de) as the private address of Professor Dr. Hans-Werner Gottinger.

[21] In this case, strings of 4–6 words from the 1992 paper were entered into the Google search engine, the technique recommended by Weeks (2006). This detected that identical strings appeared in a paper in the symposium proceedings to be found at http://www.symposium.rcz.ac.zw/7th_Symposium_Proceedings.pdf (the paper in question appears on pp. 114–124). According to the Introduction, "The papers accepted for publication in the Proceedings of the 7th Symposium were the outcome of a rigorous referee process by experts in the respective fields" (p. 4).

surely not an appropriate way to raise such a serious matter.[22]

Fourthly, where an individual does have good cause to suspect plagiarism or other research misconduct, he or she has a responsibility to raise it with the relevant authority, be it a journal editor, publisher, professional association, funding body or employer (Chubin, 1983). Closing one's eyes to the problem or hoping that someone else will deal with it[23] runs the risk that it will continue unchecked,[24] as happened in this case.

Fifthly, this case raises the question of whether plagiarism may be more widespread in social sciences than previously assumed. Beyond the three papers where plagiarism has already been established, it is not known how many of the author's other 100 or so articles and dozen books may subsequently prove to be dubious.[25] Nor is there any indication whether this individual is the exception, or whether there are other researchers that have engaged in plagiarism but who remain undetected.[26] However, the accidental discovery at the end of this investigation that one of the author's publications had itself apparently been plagiarised leads one to be far less sanguine about this than previously. Given that the incidence of plagiarism is thought to be rare, the chances of a second plagiarist unwittingly picking a publication by another plagiarist[27] from which to copy material would seem to be remote.

Three possible explanations come to mind. One is that this is merely a freak coincidence.[28] A second is that plagiarism is one or even two orders of magnitude more common than previously assumed.[29] If that is the case, all previous assumptions about the efficacy of peer-review processes and the 'self-policing' ability of the scientific community to keep the incidence of research misconduct to a tolerably low level must surely be open to severe doubt, a point to which we return below. A third possible explanation is that the investigation reported here has accidentally chanced upon an area of research that is a relative 'hot spot' when it comes to plagiarism. It may be significant that much of the research by the author investigated is heavily mathematical in

[22] Those allegations were fully investigated and found to be completely without foundation. As a matter of principle, however, no response was made to the anonymous emails.

[23] As Fox (1994, p. 302) witheringly observes: "One of the most insidious features of science and academia, more broadly, is that the players show a preference for talking about, rather than taking action on, offense and offenders. Gossip about, rather than action on, fraud allows people to vent indignation or dissatisfaction yet avoid the due process and accountability of investigation".

[24] A survey of economists by Enders and Hoover (2006) showed that in 19% of cases the suspected plagiarism was not reported. "Even more distressing were the 31 instances in which the plagiarism was reported, but others were not willing to pursue the matter." (ibid., p. 99). This is consistent with the earlier conclusion of Banner (1988) that, even in instances where referees do have suspicions of research misconduct, they often do not alert the editor involved. Furthermore, even when alerted, journals do not always act. Fox (1994, p. 306) cites a prominent case where, even after journal editors had been informed by the university investigating committee involved that certain previously published articles were now believed to be fraudulent, many did not publish a retraction. Sox and Rennie (2006) express similar concerns in another, more recent case, where two of the three journals notified that they had published tainted papers failed to publish a retraction. Apart from the *Kyklos* retraction in 1999 described above, Enders and Hoover (2004) found only one other instance where an economics paper had been retracted after it had been found to involve plagiarism (*Quarterly Journal of Economics*, 1984). Braxton and Bayer (1994) have identified a wide range of factors that may deter people from speaking out or from pursuing their suspicions of misconduct.

[25] About half a dozen of the author's papers were examined before the 2002 article was identified as another instance of plagiarism. This would suggest there may be other cases to be discovered among the remaining 100 or more articles and books. Indeed, since this investigation was completed, attention has been drawn to the fact that the abstract in another paper (Gottinger, 2001) is almost identical to that in a PhD thesis by Ellis (1992) – see http://www.osti.gov/energycitations/product.biblio.jsp?osti_id=7022697.

[26] The somewhat pessimistic conclusion of Rosamond (2002, p. 172) is that "it is almost certainly the case that only a minority of serious plagiarists are discovered". The article by Bartlett and Smallwood (2004) and numerous other reports in *The Chronicle of Higher* Education would seem to confirm that there may be a significant number of plagiarists present in the academic community (see e.g. http://www.capellauniversity.edu/academichonesty/PDFs/news.pdf).

[27] Albeit a publication where, it should be stressed, there is no evidence that this particular one contains any plagiarism.

[28] Some might instead prefer to see it as a form of divine retribution. Or perhaps as proof that there is a Supreme Being after all, and that He/She has a sense of humour!

[29] In their survey of 1200 economists, Enders and Hoover (2006) found that one in four reported having been plagiarised. Each of these respondents had published, on average, 15 articles in journals covered by the *Journal of Economic Literature*. If one assumes that each had, say, another 10 publications in other journals, books and reports, this would lead to the conclusion that approximately 1% of their publications had been plagiarised. However, as Enders and Hoover stress, those who had been plagiarised were probably more likely to respond to their survey (ibid., p. 93), so this would imply that the true figure is actually rather less than 1%. Moreover, of the 295 reported cases of plagiarism, only 20 involved word-for-word copying on the scale involved here (ibid., p. 97 – the remainder involved rather less serious forms of plagiarism, for example, an unattributed sentence, idea or methodology). This would imply that the incidence of serious plagiarism of this type is significantly less than 0.1%. Yet in the current case, only around ten source publications were searched before finding one that had been copied almost word-for-word by someone else. If one were drawing balls from an urn containing 0.1% black balls, with the remainder being a large number of red balls, the probability of drawing a black ball within 10 draws by chance is approximately 1%.

nature. Perhaps referees, editors and even readers of such papers have tended to 'skip over' the mathematical modelling and have consequently failed to check properly whether the work might involve plagiarism. This may be the flaw in the self-policing process that enabled this author to remain undetected for so long, a flaw that a second plagiarist later tried to exploit. If this is the correct explanation, then it clearly has implications for the peer-review process, in particular the need to ensure that at least one referee is willing and able to scrutinise carefully even the most technical sections of a manuscript under review. However, with the limited evidence available, it must be left to others to establish which, if any, of the three explanations offered here is the correct one.

Lastly, the assumption that the scientific community is essentially self-policing[30] may need to be revisited. Hitherto, it has been widely assumed by researchers and others that peer review, in its various guises, serves to ensure that cases of research misconduct are few and far between (Steneck, 1994; Franzen et al., 2007). This, in turn, presupposes that the risks of being caught and the severity of the sanctions that follow are perceived as being so great that few will be tempted to stray down this route,[31] and that none will be able to pursue a long-term research career on this basis.[32] However, the example of the author investigated here throws into doubt the efficacy of this self-policing of the scientific community (see also Chalmers, 2006b). In this case, the plagiarism extended over a period of 10 years (and perhaps much longer); nor was it stopped when first exposed in 1999. Yet there were several occasions where the peer-review process might have detected that his publications or his claimed institutional affiliations were suspicious, for example, when he was on the short-list of three for the Rectorship of a university in 1995, or when he was appointed Chair of Economics in another university in 1999. Exactly what checks took place on such occasions is unclear. What is known, however, is that Maastricht University were only informed about his bogus claim to have been a professor there for over 20 years when the current investigation was being carried out in 2007.

In conclusion, it should be stressed that it is certainly not the intention to launch a 'witch hunt'. Nevertheless, if plagiarists are to be deterred, the balance between the 'benefits' of such misconduct, on the one hand, and the risks of being caught and the severity of the sanctions that follow, on the other, needs to be significantly altered (Hoover, 2005). To achieve this, a measured degree of vigilance and a greater willingness to pursue any well-founded suspicions are required on the part of the wider research community as well as from editors, referees and publishers. Only in this way can the scourge of plagiarism be kept firmly at bay.

[30] For example, Zuckerman (1977) argued that the intensity of competition in science meant that the chances of detecting misconduct were high and that this ensured an effective level of 'self-policing'. In 1981, Philip Handler, President of the National Academy of Sciences, stated to Congress that "The system succeeds in policing itself" (quoted in Steneck, 1994, p. 313). Later, Chubin and Hackett (1990, p. 134) began to question whether the scientific community could continue to rely on "routine processes of self-correction", while Fox (1994, p. 299) was more sceptical about how effective such self-policing actually is.

[31] This assumption has been challenged by Hoover (2005); on the basis of his game-theoretic model, he concludes that "it is rational for individuals in the economics profession to engage in academic plagiarism given current incentives". The solution, he suggests, is to reduce the various 'costs' incurred by 'whistle-blowers' and by those who investigate cases of misconduct and attempt to impose sanctions. In a similar vein, Glenn (2004) argues that the threat of law-suits and other repercussions may be currently deterring universities, professional societies, and academic journals from pursuing and disciplining plagiarists.

[32] In previous decades, cases of serial plagiarism in science would seem to have been extremely rare. So far, this investigation has found only one reported case – the medical researcher described in Broad (1980). However in the last few years, half a dozen more have come to light – see the cases of the political scientist and the geographer reported in Bartlett and Smallwood (2004), the sociologist reported in Collier et al. (2004), the two medical researchers reported in Marshall (1998), and in Chalmers (2006a) and Watts (2007), and the mathematician reported in Bouyssou et al. (2006) and Soifer (2007). There are also a number of highly contested cases in the arts and humanities, where the boundaries of what constitutes 'plagiarism' seem to be more disputed.

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Research Policy is grateful to the reader who first noticed that the 1993 paper might have plagiarised an earlier article and who alerted one of the Editors, and to the two referees who confirmed that it clearly plagiarised Bass (1980). All the Editors and several of the Advisory Editors of *Research Policy* have contributed to the investigation, as has Shamus O'Reilly and Chris Pringle at Elsevier. In addition, a large number of researchers and officials at universities and research institutes around the world have kindly provided further information and helped to arrive at and substantiate the conclusions reported here.

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