## Reflections on the Relationship of Research Integrity to Research Ethics in Publishing

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Last year at the meeting of the National Conference in Ethics in Human Research (NCEHR), I discussed three aspects of research ethics and research integrity in relation to journal publishing. These were: conflict of interest; research ethics approval and research funding. This year, I want to reflect on the challenge of research integrity and journal publishing more broadly as well as discuss how these issues have changed over the past thirty years that I have been involved in journal editing. In revising this paper from the discussion at the NCEHR conference this year, I have included reference to the very helpful Singapore Statement on Research Integrity approved this past summer at the Second World Conference on Research Integrity.

I begin with the first case of journal misconduct that I dealt with in the 1980s. An article that was co-authored was sent to one of the journals that I was editing. It was duly blindrefereed and accepted for publication. When it appeared in print, another academic contacted the journal saying that the first 5-6 pages of the article were identical to her article which had appeared in another scholarly journal two years previously. She then faxed her article which was as she had described it. Dealing with the co-authors was complex and unpleasant. One co-author immediately hired a lawyer who sent threatening letters, suggesting both suits to the publisher and personally to me and the editor-in-chief. The other author, among other things, suggested that he had not written any part of the article and that his co-author had forged his signature on the consent to publish form that all authors were required to sign prior to publication. Upon contacting the Vice-President Academic at his university, we discovered that he had included this article on his resume when he applied for promotion. One of the authors blamed his graduate student for being sloppy in entering material that he had only intended to quote and somehow this material had inadvertently been included in the article without due references. I could go on but the behaviour is clear. There was denial, threat, blaming others and deceit involved. There was never any adequate explanation of how a significant part of the article that we accepted was identical to the work of another author that had been published by another scholarly journal two years previously.

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When these events happened, I was a young scholar and was shocked not only by the incident itself but by all of the subsequent behavior on the part of the two co-authors. This consequently became a research interest of mine. As well, my career has subsequently been largely one of academic administration, including Dean, Vice-President Academic and Provost and President and Vice-Chancellor of universities. I should note that I have spent the overwhelming majority of my time dealing with active researchers who conduct themselves with high levels of integrity and commitment to research and teaching excellence. Having said this, this was not the only case of plagiarism or falsification or fabrication of data that I have dealt with in my career either as an editor or as an administrator. But the general concern about research ethics and research has grown over the years and it has unfortunately grown due to egregious violations of research ethics and integrity in the design, methodology, conduct, evaluation and dissemination of results by some researchers.

In the last twenty-five years since my first encounter with author misconduct, the landscape has changed significantly. Technology has been part of that change. It is now much easier to "catch" individuals involved in plagiarism and other issues related to research integrity and publishing. Perhaps as a consequence, many of the allegations of wrong-doing with respect to article publication now come from third parties who read articles and recognize ethical problems with a published article.

Further and more generally, the focus on ethics in research has changed radically over the past three decades. I will not review the research ethics history that every student of research ethics knows but I will reference Canada which is similar in many respects to other countries although the federal-provincial division with respect to governance responsibilities in Canada results in a less regulatory system than one finds in the United States, for example. The Canadian government requires that every university or hospital that receives federal funds from the three main federal granting agencies follow the guidelines of the Tri-Council Policy Statement (1998, currently in revision) on research with human participants. As well, Canadians who conduct biomedical and clinical research with humans are also required to follow Good Clinical Practice (GCP) which is an international standard for ethics and scientific rigour for conducting and reporting research. The requirements and evolution of research ethics and research integrity in Canada is far more complex than this but for our purposes here, it does remind and inform us of the common, minimal standard that countries have established around the world to protect human participants in research and to foster integrity with respect to conducting and reporting on that research.

With respect to publishing, there have also been significant advances, in this case over the past decade and a half. The establishment of the Committee on Publication Ethics (COPE) in 1997 has increased awareness and education. Many journals now require statements from authors that they obtained both research ethics approval on articles submitted for publication as well as increasingly requiring disclosure statements regarding research funding and conflict of interest. Many journals are members of COPE and it is a rich resource when dealing with vexatious allegations and violations with respect to research ethics and research integrity.

As well, as noted above, there is now a world statement on research integrity that was adopted by the delegates on July 24, 2010 at the Sinagpore Second World Conference on research integrity. That statement includes many identified responsibilities that are germane to publishing integrity. These include the following responsibilities that apply specifically to the individual author(s):

3. Research Records: Researchers should keep clear, accurate records of all research in ways that will allow verification and replication of their work by others.



- 6. Authorship: Researchers should take responsibility for their contributions to all publications, funding applications, reports and other representations of their research. Lists of authors should include all those and only those who meet applicable authorship criteria.
- 7. Publication Acknowledgement: Researchers should acknowledge in publications the names and roles of those who made significant contributions to the research, including writers, funders, sponsors, and others, but do not meet authorship criteria.

As well, the Singapore statement includes responsibilities of all researchers to report suspected research misconduct and states further responsibilities for institutions, journals, organizations and agencies to respond to irresponsible research practices as follows:

12. Responding to irresponsible Research Practices: Research Institutions, as well as journals, professional organizations and agencies that have commitments to research, should have procedures for responding to allegations of misconduct and other irresponsible research practices and for protecting those who report such behavior in good faith. When misconduct or other irresponsible research practice is confirmed, appropriate actions should be taken promptly, including correcting the research record.<sup>1</sup>

But if all of this good work has advanced the cause of research ethics and research integrity, what has it done for research integrity for journal publishing? Well, as noted at the beginning of my talk, some practices have clearly been improved. There are now research ethics boards (REBs) or institutional research boards (IRBs) as they are called in the United States, in universities and hospitals in many countries in the world although this is not universal. Where such boards exist, journals can require that proof of research ethics approval was received prior to research with human participants being conducted. Financial conflict of interest statements from prospective authors is more of an honor system requirement on the part of submitting researchers as there is less universal application of such requirements on researchers either from their institutions or from granting agencies although in some countries, universities are required to adopt institutional conflict of interest policies by governments.

From the prospective of journal editing then, it is possible to require that authors sign that they are not in financial conflict of interest and that they have received institutional ethics approval for research involving human subjects or participants. If it comes to light that the author was not truthful with respect to either of these conditions, the editor does have signed evidence that the author was deceptive with respect to these claims. With respect to other research integrity matters, life is more complicated. As with my original case cited at the beginning of this discussion, the relationship between authors and journals is an individual one. Hence, when there is misconduct there are limitations to what can follow. In terms of correcting the research record, the investigation to establish that misconduct has occurred is onerous and often conducted with few resources and little external support. There are small academic journals and large ones. Many editors do their editorial work for no or minimal financial compensation. Sometimes universities recognize the value of the editorship through a reduction in teaching load but often this is not the case. Most editors have no recourse or support from legal counsel. Once the research misconduct has been confirmed through investigation, authors are contacted and presented with the evidence. My first experience with how authors responded has unfortunately been



<sup>&</sup>lt;sup>1</sup> Singapore Statement on Research Integrity, 2010. www.singaporestatement.org.

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replicated over the years. Authors frequently obtain legal counsel and deny all allegations. They often threaten and when there is more than one author blame each other as the guilty party in any breach of integrity. I have yet to encounter any researcher who has been guilty of research misconduct who has shown any remorse for doing so. I can think of one example where someone asked for the raw data for a study where they did not believe that the data seemed compelling and was told by the author that the raw data had been thrown out because the study was complete. This was stated with equanimity and finality.

With respect to the research record, while it is possible to correct the record at the level of the journal (although there is some legal dispute about whether an article can only be retracted by the author), technology mitigates against correction of the record since many journals are in numerous citation indexes so citation indexes send forth the abstract ubiquitously in cyberspace and retracted articles continue to be cited for long periods of time.

With respect to institutional sanctions, universities have collective agreements and disciplinary policy that are individual in nature. Some universities may pursue the matter when an editor informs a university of research misconduct. Others may not. Some jurisdictions have protection of privacy legislation that prohibits publication of the identity of the author who has been found guilty of misconduct.

What is clear from my own experience is that the Singapore statement's prescription that researchers have a responsibility to report research misconduct is a shared value for many researchers. Again from my own experience and the anecdotal reports of other editors with whom I communicate, this is a rich source of reporting alleged misconduct. It is not without limitations, however. Generally, other researchers who make allegations with regard to their colleagues do so with impunity because they do so anonymously. Some people find this unethical as they do with the practice of anonymous whistle-blowing. This is not always the case and I have had people report who accompanied the allegation having done significant investigatory work and who have been willing to be identified. This is the exception rather than the rule. More often, researchers allege the problem and leave it to the editor to do the work. This is particularly daunting when the allegation is self-plagiarism or redundant publication by the author. This is highly problematic for a number of reasons. Practice differs by discipline. In some disciplines it is perfectly acceptable when working on a monograph to explore ideas initially through journal publication. In other disciplines, this is not acceptable. Some researchers are highly suspicious when reading more than one article using the same study. Further, even using software to search for redundancy is a blunt tool that doesn't always lead to the correct conclusion.

## Conclusion

I called this discussion "reflections" for a good reason. I believe that these are early days in our search for improved ethical and integrity standards for the design, conduct and dissemination of results of research. One aspect that I do not personally or professionally like about much of our individual and collective efforts here is the negative sanction for wrongdoing rather than the positive promotion of ethical research practice as part of education of our researchers. In the Singapore statement there are both positive prescriptions and recommendations for actions and practices for those who violate best integrity and ethics practice. That is helpful. More helpful would be mandating ethics education for undergraduate and graduate students. Research integrity is a subspecies of applied ethics more broadly understood and education without an education for ethical life



as practice is seriously wanting. In stating this, I am at one end of a spectrum of debate about what is necessary as part of the curriculum for an educated person. At the other end of the spectrum are those who advocate that there is not enough room for the specialized knowledge required by disciplines and that ethics education is an imposition that cannot be afforded in the time-limited task of producing educated professionals. Further, it is argued it is not clear that ethics education is sufficient to produce ethical behavior. While may be the case, it is surely necessary for ignorance has not resulted in ethical practice. Introducing a mandatory ethics element to education is surely an experiment worth trying and after all, good experiments require evaluation and the production of evidence to assess their efficacy.

