



Bioethics Authorship in Context: How Trends in Biomedicine Challenge Bioethics

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3 Open Peer Commentary on "Criteria for Authorship on Conceptual Publications in Bioethics"
4 by David Resnik and Zubin Master (AJOB 2011)
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7 **Bioethics Authorship in Context: How Trends in Biomedicine Challenge Bioethics**

8 **Introduction**

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10 Resnik and Master (2011) propose a set of authorship guidelines for what they
11 describe as 'conceptual' papers in bioethics. These guidelines specifically address who
12 should count as an author within multiply-authored conceptual research publications, given
13 that various guidelines exist regarding empirical research in bioethics. Their arguments attend
14 to an important and controversial issue, yet they do not take account of the broader historical
15 and social contexts surrounding the growth of multiply-authored research publications. In this
16 paper, we outline some of the characteristics of that context, particularly the rise of 'big
17 science' and its effects on patterns of practice (including authorship criteria) in the
18 biomedical sciences and in turn bioethics. We then point to ways in which taking account of
19 this context leads to challenges to some of Resnik and Master's conclusions, and sketch
20 alternative models that could overcome those difficulties.
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40 **The Rise of 'Big' Bioethics: Challenges to Traditional Models of Authorship**

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42 Within recent years, the issue of authorship has presented challenges for scholars and
43 journal editors alike across all academic fields, but particularly the biomedical sciences.
44 Although debates remain about the trends correlated with the rising average number of
45 authors per publication, such as the relative complexity of the science or the effects of
46 funding on authorship attributions, it is indisputable that the number of multi-authored
47 articles has increased markedly in recent years (e.g., Weeks et al 2004). What has been less
48 well-recognized in debates over authorship in medicine and bioethics (though well
49 documented in the fields of HPS and STS) is that these trends are part of a complex of factors
50 relating to the growth of so-called 'big science.' When used to describe contemporary
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3 science, this term refers not only to the amount of money directed to research, the number of
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5 people engaged in research, or the number of papers published each year, but most
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7 importantly to a different way of understanding the natural world (Capshew and Rader 1992),
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9 which brings with it a radically altered notion of scientific practice typically involving
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11 interdisciplinarity as well as collaboration (Parker et al 2010). Research is now conducted in
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13 teams to which each member often brings a very specific set of skills and a distinct
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15 knowledge base. However, the construction of teams is often rather ad hoc; teams often span
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17 across institutions or even continents, functioning more as loose networks than traditional
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19 research groups. Team members are likely to have local norms for division of labor, what
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21 counts as relevant expertise, and appropriate allocation of responsibilities, which in turn
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23 generate diverse (and often conflicting) understandings of what constitutes a ‘contribution’
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25 (let alone a ‘significant contribution’ as required by many guidelines) to research outputs.
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32 Bioethics undoubtedly has undergone a transformation as a field, in part because of
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34 these broader trends in the biomedical sciences. Not only is there an increasing amount of
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36 empirical research within bioethics publications (Borry et al 2006), but research now often
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38 involves groups of researchers with diverse backgrounds ranging from philosophy, sociology,
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40 law, or religion to clinical medicine or the biological sciences, public health, health policy,
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42 and so on (particularly in research published in outlets not primarily devoted to bioethics).
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44 The dominant models for doing research clearly have outrun the processes of development of
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46 explicit shared norms in bioethics. Nor is the field beginning from a ‘clean slate,’ given that
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48 the various disciplines represented in a typical collaborative research project bring with them
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50 distinct ideas about authorship, expertise, contribution, and allocation of responsibility and
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52 credit.
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58 Further, these trends are occurring in an international context where there has been
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60 increased scrutiny of research outputs (e.g., in Australia and the United Kingdom), including

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3 attempts to gauge quality of outputs in order to move away from ‘counting exercises’ which
4 reward merely quantity of outputs. In many of these assessment exercises, formal authorship
5 claims must be supplemented by substantive information about actual types and extent of
6 contributions made to each research output. This article is not the appropriate forum in which
7 to debate the merit of any one of these schemes, their success, or impacts, but this
8 international backdrop is relevant when analyzing more appropriate authorship models,
9 particularly given the increased presence of cross-national research in bioethics.
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20 Resnik and Master provide a typology of contributions which can be used to
21 determine authorship on conceptual publications. In our view, this model does not capture
22 key types of contributions which potentially may contribute significantly to the formulation
23 of an argument, particularly given the changes in research cultures which we have outlined.
24 Bioethical arguments often are conceived within and at least implicitly refer to specific issues
25 arising in the context of scientific and/or medical research or practice embedded in the kind
26 of loose networks mentioned above. How these issues are framed and investigated is central
27 to the generation and development of what may ultimately appear to be a ‘purely’ (or
28 primarily) conceptual argument. Furthermore, much scholarship in current bioethics is
29 arguably a hybrid of empirical and conceptual content, if ‘empirical’ is taken more broadly
30 than simple data collection and includes reference to diverse types of evidence and styles of
31 argumentation. Resnik and Master acknowledge this oversimplification on their part in
32 passing; although the dichotomy clearly is a product of pre-existence of guidelines for
33 empirical research in bioethics, notably the International Committee of Medical Journal
34 Editors criteria, the implications of assuming it nonetheless cut deeply into their approach.
35 Establishing who made contributions to an argument, no matter how conceptually-driven it
36 may be, is more complex than confirming who was directly involved in thinking through the
37 details and writing the paper (Cronin 2001). A more nuanced and sophisticated picture of the
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3 complex relationship between empirical and conceptual work in bioethics, and the context
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5 within which such work occurs, challenges not only Resnik and Master's specific guidelines,
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7 but the very idea of providing guidelines that are specifically targeted to 'conceptual'
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9 contributions.
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12 13 14 15 **What Are the Alternatives?**

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17 We believe that establishing fixed and rigid norms for who counts as an author of a
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19 conceptual publication is not only difficult, but could even prove counterproductive. As
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21 numerous authors have argued (Rennie et al 1997), explicit dialogue among project
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23 participants must occur on an ongoing basis regarding authorship norms and individual
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25 contributions to particular research outputs, which would facilitate more hybridized notions
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27 of authorship that better reflect the nature of interdisciplinary, collaborative research common
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29 today in the field. As an example of one norm which might provide a useful basis for such
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31 discussions, many scientific journals distinguish between original research, reviews, and
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33 opinion or perspectives-type articles. This distinction does not rely on a strict separation of
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35 conceptual and empirical research, but on the classification of the intent of the authors: an
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37 original research article provides information, usually both conceptual and empirical, that
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39 summarizes new research performed by the authors within the relevant field; a review piece
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41 explicitly summarizes other people's work, which is then acknowledged in citations, to
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43 support the authors' views on how a field, theory, or similar is developing; and an opinion or
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45 perspective piece typically puts forward a provocative argument which represents the point of
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47 view of the author(s), but does not primarily discuss the author(s)' own empirical research.
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49 Another norm which is highly disputed and very discipline-dependent is ascription of
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51 authorship order, where practices range from alphabetical to weighted according to
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53 contribution to reverse seniority (Risenberg and Lundberg 1990). These examples draw
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3 attention to the complex, hybrid nature of types of publications that likely exist in the field,
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5 and to the fact that norms of authorship cannot be based on simple dichotomies about types of
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7 intellectual or epistemic work.
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11 These examples also raise issues about whether authorship *should* be the main or sole
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13 question at issue when considering credit attribution in bioethics. Important norms (and
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15 considerable debates) exist over other means of acknowledging a range of types of scholarly
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17 contributions, including citations and acknowledgments (Cronin 1995). Continuing to foster a
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19 narrow focus on authorship may indeed contribute to a culture where authorship is the ‘coin
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21 of the realm’ (Wilcox 1998), and indirectly obscure the large-scale, interdisciplinary, and
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23 collaborative efforts that are producing knowledge in this field. Perhaps a more radical
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25 approach (particularly to recognizing large-scale efforts) could borrow from the biomedical
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27 sciences to use ‘team descriptors’ to ascribe authorship, as occurred with several of the major
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29 papers published by the International Human Genome Sequencing Consortium in the early
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31 2000s and earlier in model organism research where edited books were ‘authored’ by the
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33 whole community. These models might be especially useful for bioethics publications which
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35 summarize workshop finding or policy recommendations, whose authorship listings often
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37 include many multiple authors.
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47 **Conclusions**

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49 This exploration of the evolving context within which bioethics scholarship occurs is
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51 not intended to provide any simple solutions. While less straightforward and more laborious
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53 than Resnik and Master’s, our recommendation is that more explicit dialogue must occur over
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55 issues of authorship among researchers contributing to bioethics research as well as journal
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57 editors, granting agencies, tenure-granting institutions, and others who read, judge, and
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59 support such research. Such dialogue must respect the complex intertwining of conceptual
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3 and empirical work that characterizes contemporary ‘big bioethics’ scholarship, and look
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5 beyond ascriptions of authorship to building a field which is transparent, ethical, innovative,
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7 and productive.
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