Reviewer’s report

Title: The Use of Empirical Research in Bioethics: A Survey of Researchers in twelve European countries

Version: 0 Date: 12 Sep 2017

Reviewer: Stacy Carter

Reviewer’s report:

Dear colleagues

Thanks for the opportunity to read your manuscript. A big survey like this is a serious undertaking and it's great to see a study that takes in so much of the European academic community.

I found writing this review quite challenging. I don't want to be unnecessarily restrictive, and can see some value in the questions being asked, but I also have some concerns about the appropriateness of the methodologies and methods you've employed to answer the research questions.

In my view, you are asking two main types of questions.

One type of question is about the methods being used in bioethics, especially empirical bioethics, including the degree to which empirical methods are being bridged to normative arguments and conclusions. To my mind these would be better answered via a critical systematic review of the literature. In the discussion you note some similarities and differences between your findings and those of existing reviews, and it seems to me these comparisons do raise some questions about the status of the knowledge you've created.

The other type of question you've asked is about the experience, background and perspectives of people who are doing work in bioethics. These are interesting questions. However I'm not sure about the approach you've used to answer these questions either. My main concern here is selection bias/representativeness. You mention this issue briefly (although not in these terms) in the discussion. 42.1% is not terrible response rate in social science research as you say but it's not great, and this could easily be a biased sample (the proportion of respondents who said they were using empirical methods, for example, seemed higher than I would have expected). Much of your analysis turns on descriptive statistics enumerating the prevalence of certain attitudes or experiences or practices among your sample. So because it's difficult for the reader to determine the degree to which your sample may or may not be representative of bioethicists in Europe, it's very difficult to evaluate or interpret your findings. I think most of these questions may have been better answered via qualitative interviewing with a purposive sample that sought meaningful diversity across the known characteristics of bioethicists.
But of course there's nothing more annoying than a reviewer saying that you should have done a different study. So let me try to make some more useful suggestions.

First, I would try to add anything you can to bolster transparency and trustworthiness of the findings for the reader. You could put some materials in supplementary e.g. the centres you approached, and the number of people you contacted in each of those centres (this doesn't seem to me to reveal anything problematically identifying, although you may disagree), a more detailed diagrammatic representation of the sampling process including when inclusions and exclusions occurred and why, the actual questionnaire with an explanation of the survey logic process.

More importantly though, is there any way that you can provide some kind of comparison between the characteristics of your 42% sample and your survey population? Is there any data publicly available from the institutions' websites that you could use to do a rough comparison, even on demographics? Could you go further, perhaps, by doing some kind of prima facie assessment of how the whole population present/describe themselves publicly (even on basic demographics like gender and seniority; ideally on more meaningful variables like their disciplinary background and whether they are doing empirical work)? Then could you compare that to your sample to get some sense of how representative they may or may not be? Without that it's hard to know what to make of the findings.

These are my main big-picture concerns. Detailed comments below.

Detailed comments

Your Line 85: The sampling process is generally well-described, see suggestions above for possible additions. Why did you exclude whole countries if more than half the centres identified in them didn't list email addresses? I would have thought you could have a more inclusive sample and just exclude countries from the by-country analysis if there was an insufficient sample for that country?

Your Line 106: Suggest a slightly more detailed explanation of survey logic

Your line 140ff: The text on respondent demographics and training doesn't add much to what's already presented in the tables. I'd be inclined to rely more heavily on the tables and use the text space to consider more closely how these demographics might compare to the broader population (they're not very meaningful without this interpretive context).

Table 2: This may be clearer if the questionnaire was in supplementary, but I wondered about the items 'proportion of time spent on empirical work' and 'proportion of time spent on normative work'. This seems to presume a hard dichotomy between these two, whereas I would see them as interleaved and somewhat inextricable. It's also a bit confusing - proportion of what time? Research time? Or all time? Did each respondents %s have to add up to 100?
Section commencing your Line 186 and throughout next few sections: There seems to be an implicit assumption that everyone only ever has one project going at once? This doesn't seem realistic (at least not in my academic culture). Could you clarify this for the reader?

Table 4: Some tallies would be useful here- could you tally the rows and also provide a % of total sample figure? Also the numbers in the text and the numbers in the table contradict - need to check. Note that I would consider some of the things you label as methods to be methodologies (e.g. phenomenology, grounded theory).

The findings in Table 4 do worry me a bit actually: to me this was one of the more interesting findings. You mention in passing and quite generously in the discussion that perhaps people are claiming more competence than they actually have, given that their responses don't make methodological sense (especially with respect to the integration of empirical and normative). I wonder whether you should make more of this—I think it may be the most interesting finding, along with the findings reported in Table 6.

With respect to Table 6, I'm not sure how much we can make of the distinction between non-empirical and empirical researchers because the number of non-empirical researchers is so low. The comparison between integrators and non-integrators has better numbers for comparison, but I wasn't completely sure how you constructed these categories. Were the integrators only the ones who had integrated in the past, or also the ones who intended to integrate in future? And did you run analyses of intenders vs actual integrators separately, and if so were there differences between the intenders and the integrators? And then if the non-integrators think that empirical work isn't valuable for normative analysis, I wonder why they are doing it? This seems like an odd finding. It would be good to try to unpack this a little if you can.

Discussion: in general the discussion repeats findings quite frequently. It would be good to focus the energy of the discussion on drawing out patterns and making arguments.

Your line 316 ff: your comments on Borry et al go to the heart of my concern about the appropriateness of your methods to answer some of your research questions. I don't understand what you mean by the sentence "However, the data collection methods utilized by the 'empirical researchers' were similar to what is reported in available literature." Borry is—I think—a systematic review of (some of) the available literature, so isn't that an indication of what's in the available literature? Are you saying here that you disagree with Borry's sampling methods? I think you need to address the selection bias issue much more clearly in this section.

Your line 350: I think your "unusual methods" comment is admirably generous but maybe a little too kind. Either the respondents misinterpreted the question or they are not fully competent. You might need to be a little stronger in your interpretation here. This again goes to the heart of the suitability of the methods you have used - I'm not sure they are necessarily giving you the insight you need to answer your central research questions (you can't assess, for example, why these respondents are giving answers that don't make sense).
Your conclusions about the need for training are reasonable but I wonder whether we needed this study to make them? Could you push a little harder on what appear to be the particular strengths and weaknesses of the field (within the limitations of the sample)? That seems to be the most important interpretive work to be done here.

All the best with your manuscript and thanks for the opportunity to read it.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?
4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

No competing interests other than working in the field myself

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal