

Can a consensus be reached on the ethical review of animal experimentation for livestock species?

Hervé Acloque based on peer reviews by *Patrick Gonin, Leon borgdorf* and *Christian Nawroth* ^(D)

Birte L. Nielsen, Huw D.R. Golledge, Jen-Yun Chou, Irene Camerlink, Péter Pongrácz, Maria Camila Ceballos, Alexandra L. Whittaker and I. Anna S. Olsson (2023) Ensuring ethical animal welfare research: Are more ethics review committees the solution? OSF preprints, ver. 3, peer-reviewed and recommended by Peer Community in Animal Science. https://www.doi.org/10.31219/osf.io/s6459

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"Ensuring ethical animal welfare research: Are more ethics review committees the solution?" by Birte Nielsen and colleagues [1] provides food for thought on the ethical assessment of experiments involving farm animals. While regulations can provide a precise framework, they differ from country to country and do not consider several cases, mainly when the experimentation involves non- or minimally invasive manipulations. It is also the case when research projects use farmed animals that do not fall within the scope of the regulations on animal experimentation but have undergone practices that can be authorised on farms but may raise ethical questions (tail docking, live castration, tooth filing, beak trimming, dehorning). On the other hand, the heterogeneity of the criteria taken into account by the ethics committees, when they exist (and this can differ greatly from one country to another), do not necessarily correspond to the criteria of the journals, the reviewers and the bodies brought in to evaluate the research project, or to the regulations specific to each country.

All these paradoxes lead the authors to propose solutions, the most straightforward and spontaneous of which is to ask ourselves questions about this issue upstream of the experimental design required to answer a given scientific question. While increasing the number of ethical review committees may be an insufficient option, the authors insist on the importance of improving committee members' training, taking into consideration jurisdictions' differences between countries and spending more time on ethics evaluation during manuscripts' reviewing. In addition, the upstream assessment of research projects by ethics committees,

specific to an institution (research institute, universities, companies), a scientific publisher or even a dedicated international ethical review board may also be a good option.

The ethical evaluation of research projects is a question at the heart of our research activities, for which we do not have all the answers. As with scientific reviewing, we must take on the role of evaluator or be evaluated ourselves, using criteria and feelings that are not always consensual. The heterogeneity of evaluation systems within the scientific community, the lack of training for scientists in the fundamentals of ethical evaluation, and the different perceptions of the animal condition between countries and cultures can lead to a reciprocal lack of understanding between evaluator and evaluated, and sometimes a feeling of injustice, as some research may be easy to conduct in one country but difficult in another. Indeed, it is exciting to read the exchanges between the authors and the three reviewers who assessed this opinion paper to appreciate the diversity of points of view and see specific points of divergence.

In addition to animal experimentation, the judgment handed down on 30 June 2023 by the French court penalising a pig farmer for the abusive use of an authorised breeding practice (tail docking) is a perfect illustration of the fact that the ethical assessment of practices and handling of farm animals now extends far beyond the scientific world and is becoming an increasingly important factor in the relationship between society and animal breeding. Failure to consider this evolution, whether in experimentation or animal husbandry, may have legal consequences and increase the lack of understanding between our practices and how society perceives them. The questions raised and the solutions proposed in the article by Nielsen et al. are central to our concerns, not only for the scientific community but also to meet the expectations of all stakeholders.

Finally, although the authors do not directly address the question of genome editing and research using edited farm animals, this is and will be at the heart of future issues concerning the ethical evaluation of research projects. As with practices and manipulations, the intentionality of the modifications induced leads us to question and evaluate, in farmed species, their consequences on animal welfare and their relevance to society and the development of more sustainable and socially accepted animal husbandry.

References:

[1] Nielsen, B. L., Golledge, H. D. R., Chou, J., Camerlink, I., Pongrácz, P., Ceballos, M., Whittaker, A. L., Olsson, I. S. (2023) Ensuring ethical animal welfare research: Are more ethics review committees the solution? OSF Preprints. Ver. 3 peer-reviewed and recommended by Peer Community in Animal Science. https://doi.org/10.31219/osf.io/s6459

Reviews

Evaluation round #1

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Authors' reply, 27 July 2023

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Decision by Hervé Acloque, posted 18 June 2023, validated 19 June 2023

minor revision

Dear Authors, I invite you to read and consider the comments of the three reviewers and to submit a revised version. Sincerely, Dr. Hervé Acloque

Reviewed by Patrick Gonin, 19 May 2023

Download the review

Reviewed by Leon borgdorf, 15 June 2023

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Reviewed by Christian Nawroth ^(D), 16 June 2023

It was a pleasure to review this thoughtful commentary on the limitations and challenges of (animal) ethical review boards. I very much liked the outlining of the problems and the discussion about the proposed solutions, but in some cases, those fall a bit short and/or put too much effort on the individual researchers, rather on systematic changes. In other cases, coherence in arguments was lacking.

I have a few questions and potential recommendations that will hopefully prove helpful and will make the case (and the arguments) of this piece even stronger.

1. Initial argument / Setting the stage: First, it appears as the phrase "Are more ethics review committees the solution" is a reference to a previous argument being made (taken from another publication, a blog, on social media, etc) but is never referenced as such. This way, it reads a bit artificial as the reader does not understand the contextual setting of the article. Second, the same phrase is a bit misleading, as it is not clear whether this refers to the type of committee, the number per institution, the number in general; what is a "solution" needed for, etc. I understand the placative writing to increase engagement with the text, but am wondering whether a different, more concise title, would help the reader to identify the main arguments earlier.

2. Clarify key audience: Who is the supposed main audience of the manuscript? From the title, it suggests animal welfare researchers. However, many of the examples and challenges are also faced by scientists working with animals without a welfare background. I would recommend aligning this throughout the manuscript, as it right now artificially narrows the target audience as the statements in the manuscript can be of wider relevance. It should also be clarified whether the main focus is on animal ethics boards (needle-prick criteria), or also human ethics boards (which are stated frequently in the text). This mix of general vs narrow audience statements makes it sometimes a bit hard to identify the main challenges and solutions from the text.

3. Putting the responsibility on the individual researcher: The manuscript, directly or indirectly, hints that it may be up to the researchers to make a decision on whether a study protocol needs ethical review (line 47, lines 166-168). Although I understand this reasoning from the point of having only limited resources for ethics committees, many researchers do not have ethics training and might not be able to judge this appropriately. This makes it even more difficult when the authors suggest that authors should outline their reasoning, in particular when approval was not obtained, in their manuscript – in that case, data has already been collected (e.g., it is too late to amend the design). This procedure might only work out in the case of RRs, as the authors appropriately stated (lines 147-152). Wouldn't the most obvious solution be to enable those review boards themselves to assess whether a study protocol would need review or not (i.e., via initial screening, without going through the full procedure)? In some countries with national ethics committees, it is possible to get a procedural number in the case that the ethics review was waived (although I might be a bit biased here). On a final note, I fully understand the argument of adding additional information about the harms and benefits of

the study protocol, but this might extend a scientific manuscript considerably – maybe an additional/alternative solution would be to add this information as ESM or link to a repository – this can even be the text that has been submitted (and evaluated) by the ethics committee! I understand that many of these suggestions stand and fall with differences in national and institutional jurisdictions, but so do most of the other solutions.

I also have some rather minor comments:

Lines 34-39: this part falls a bit short on the details of an ethical review process – it might be good to elaborate – e.g., also stating some guidelines, international recommendations, etc

Line 59: please explain 3Rs here (as they have not been introduced before) and provide a reference

Lines 74-80: this part does not really fall beyond the scope of "when is ethical approval needed" as it rather highlights limitations to having access to review committees per se

Lines 83-106: half of this part focuses on human participants – although relevant, this might be a bit heavy for an article arguing about ethical approval in animal (welfare) research. E.g., you could elaborate on other criteria than the needle-prick criterion, how psychological stress might be difficult to assess, etc

Lines 89-92: I think elaborating here would help the reader to further understand why one decision of one ethics committee might different to the decision of a different committee. Where in the decision process does national jurisdiction end, where does subjective judgement start, etc.

Line 96: What about social sciences/psychology departments here? Can't they be a source of expertise in this regard (surveys, interviews, and beyond)

Line 103: by starting the sentence like this, I would assume that I will now read content that is part of the "ways to move forward" heading

Lines 117-130: This is all well-intentioned, but the article doesn't make clear how this can be achieved – we, as humans, are all biased, so many colleagues might falsely judge their expertise in the ethical treatment of animals as (very) good. We, as a field, would need training and workshops on these issues. These need to be standardized to a certain degree and best adopted by corresponding national jurisdictions

Lines 126-130: These sentences read a bit off as the main part of the paragraph refers to a lack of appropriate training

Line 151: Peers can judge the technical soundness of a study protocol, but often do not necessarily have the expertise in the ethical treatment of study animals – thus, an independent ethical review is always necessary. In an ideal world, this technical (peer-reviewed stage 1 RR) and ethical review (ethics committee) would be streamlined/merged to avoid conflicting suggestions on how to improve the study design.