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## Underdetermined Interests: Scientific ‘Goods’ and Animal Welfare<sup>1</sup>

Degeling C & Johnson J. (2009)

It is well known that the culture within which actors such as scientists and clinicians operate is structured by the mechanisms through which institutional rewards are distributed (Garfield 1979). In the biosciences, citation counts are the accepted markers of a researcher's originality and competence that permit access to funding, promotion and other forms of institutional support. Osborne and colleagues' (2009) study suggests that beneath this publication-driven reward system is a widespread indifference on the part of journals to the ethical/welfare issues that surround the use of animals for the purposes of science. Although the promotion of animal welfare is not necessarily a goal of the vast majority of scientific research, it is arguable that those who distribute the institutional rewards should also be accountable for the harms that occur during efforts directed at their attainment. Other studies of the effects of the dictum “publish or perish” on medicine and sciences such as psychology and ecology indicate that within this professional structure of reward through publication, editorial policies are one of the few levers that can rapidly affect a wholesale change to research practices (Fidler et al. 2004). Consequently the move to assign some responsibility to journals for the maintenance and promotion of animal welfare is a simple but significant step that could change the way the biosciences utilize non-human animals. Although we heartily commend Osborne and colleagues (2009) because their study should provoke some worthwhile ideas and their proposal has a great deal of merit, we believe that any change to editorial policies could, and in fact should, be extended to address other concerns beyond improving animal welfare. Our position is that any editorial prescription for what constitutes ‘good’ animal-based science should also ensure that scientists are aware that the ethical permissibility of their research depends in part on the purpose for which it is undertaken, and the just distribution of any benefits.

While we understand that the empirical focus of Osborne and colleagues' (2009) research limits the types of recommendations that can be made, we believe that any changes to editorial policies should do more to promote the interests of the animal participants than implementation of the 3Rs. The nub of our disagreement with Osborne and colleagues' recommendations rests on the recognition that moral philosophy and animal-welfare science have adopted similar approaches to animal-use in scientific and biomedical experimentation, yet come to different conclusions. This division can be best described as the difference between a focus on the ‘rights’ and a focus on the ‘needs’ of the experimental subject (Fraser 1999). While the move to acknowledge that animals have ‘interests’ has been the basis for the late-20th century reconceptualization of many approaches to the moral status of individual animals, proponents of a science of ‘welfare’ have not been bothered

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with the larger metaphysical questions of how we 'ought' to behave towards other animals. They have concentrated on refining the description and further adaptation of research practices as being 'better' or 'worse' at accommodating the needs of these animals. Consequently it is arguable that welfare-based approaches such as the 3Rs consistently underdetermine the interests of the subject of any experiments because they generally valorise the measurement of the relative conditions in which the animal is kept over any assessment of the potential utility of the knowledge produced for humankind or other animals (Broom 1991). Unfortunately from this perspective what is considered to be 'good' science then becomes a question of harm minimization rather than also providing an assessment of the likely utility or epistemic validity of individual experiments. In his writings on this subject, Bernard Rollin—one of the founders of the welfare-based approach to animal use—has consistently restated the point that science is not a 'value-free' enterprise. What Rollin (2006) means in this context is that sometimes epistemological and ethical issues cannot be clearly separated. While we understand that a pragmatic approach to animal-use focused on welfare is most likely to rapidly improve the lives of experimental animals, developments in the field of translational medicine indicate that perhaps the time for avoiding the larger issue has ended.

The inability of the 3Rs to address the conflation of ethical and epistemological issues is most clearly evident in biomedicine where the continual failure of extrapolation or 'translation' of knowledge to humans has led to repeated calls for animal-based trials to be subjected to similar forms of experimental control and analysis as other types of medical evidence (Hackam 2007). A partial solution might be to reorganize our methods for addressing larger research questions. There are alternate comparative research strategies that come closer to reflecting more of the interests of the experimental subjects while still providing epistemic benefits. It has been argued that the prioritization of patient-focused research combined with the investigation of analogous spontaneous animal diseases is a methodology that is far more likely to provide fruitful models of human dysfunction and pathologies than current biomedical methods (Marincola 2003). As a consequence of this type of research there are now programs where animal patients are trialling potential human therapies—such as autologous stem cells for osteoarthritis and new treatments for some forms of canine lymphoma. If we look to species interest rather than individual interest, a very different idea emerges of how we should act. While the appropriation of 'diseased' rather than healthy animals for medical research may not always promote the interests of the bearer, under the utilitarian framework commonly used to justify these practices it does seem more likely that at least animals of the same species might gain some benefit from this type of research, answering some of the concerns regarding justice in distribution. For us the notion of 'good' in welfare-based approaches is too narrow. It is focused on the idea of the good treatment of animals, not good in the sense of sound or valid science. It also appears to be a conception of good that does little to promote more than the most basic interests of the animals involved in scientific practices.

Hence, it is arguable that to continue to unreflectively emphasize a focus on 'welfare' in the ethical renegotiation of animal experimentation fails to address many of the issues that complicate the necessity and validity (and therefore the ethical permissibility) of these scientific investigations. What is required—at a minimum—is that a further criteria of 'relevance' needs to be added to the 3Rs to force researchers to substantiate the ethical grounds for undertaking each experiment. Even if the issues that surround the extrapolation of animal-based scientific knowledge to humans remain unresolved, and therefore open to dispute, it is possible that within this extended framework ethically and epistemically 'good' science can be nudged even closer to becoming a conjoined

enterprise (Shanks et al. 2009; Steel 2008). Examples of how this could be achieved can be found in medical journals that already demand strict ethical standards. The editorial guidelines for the Lancet and the BMJ for instance require that in each original submission the authors clearly articulate their principle finding; the strengths and weaknesses of the study and its relation to other similar work; and the meaning of the study and its possible implications for other practitioners and policymakers. Although not all animal-based research has a clear application it does not seem unreasonable for authors publishing in the biosciences to clearly state and justify the significance and stated goals of their animal-based investigation, particularly in those cases where the ethical permissibility of the research in some way rests on the potential utility of the findings. Whilst consensus on whether we 'ought' to be conducting this type of research remains out of reach, combining concerns for animal welfare with a range of editorial measures that force authors to clearly state the context, broader significance and likely beneficiaries of their study should provide other species with further protection against unnecessary publication-driven research programs. Our preference would be for the simultaneous valorisation of research methodologies that in some way also reflect a broader conception of the interests of the animal subjects.

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