

Reflections on an Animal Ethics Committee

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Serving on an Animal Ethics Committee (AEC) is a rewarding, interesting and important job. I have served on an AEC for approximately 3 years and during that time I have come to appreciate the importance of the science being conducted at the university but also the importance of having the committee as an independent overseer of that science. The results of the research are often important steps in our fight to improve disease prevention, surgical procedures or patient recovery, but animals lose their lives in the process and those lives are important. It is the role of the AEC to ensure those animals are protected from undue suffering and that the results do indeed yield worthwhile outcomes.

Since joining the committee I have been impressed by the attitude and level of dedication of all its members, both internal and external. Everyone is always well prepared for meetings and that may include some Google or other research! The interaction between members is good and the level of trust and respect high. It appears that all members feel free to express opinions, and question the science and the ideas and positions of other members. We also regularly do site inspections as a team and these also work well.

There are a number of aspects of the committee that I think help it to work well. First, the Chair is not involved in research with animals. This means he is truly independent of animal research and brings an outside view to the research being discussed. Also, he never has to leave the room while we discuss

his projects. It does not hurt that he is a statistician and can give an informed opinion on statistical power calculations. Second, the committee receives excellent administrative support and is recognised by the University as important. Finally, there seems to be an excellent understanding of the importance of the Three Rs by all committee members. This means that as an animal welfare member of the committee I am not left feeling like a lone voice for the animals. Everyone looks closely at the numbers of animals requested, the pain relief proposed and whether animals are indeed required.

However, there are other areas that constantly raise concerns for the committee. One is the quality of the proposals. Many of the proposals fail abysmally in their lay language. The committee is aware that sometimes scientific work is difficult to put into lay language but in many cases no attempt appears to have been made. The proposals often appear to have been created through 'cut and paste' exercises from grant applications. In some cases the 'cut and paste' appears to be from a grant application not associated with the particular proposal as the species of experimental animal changes during the proposal. In other cases the description is so simplistic that it fails to capture the complexity of the research, or explain the nature or reason for the research.

The willingness to submit such poor proposals appears to reflect, at the very least, a general attitude of disrespect for the committee and the review process. Some individual researchers appear to be completely ignorant of the law, that the need to submit their work to an AEC is enshrined in the Queensland *Animal Care and Protection Act, 2001*. At times their attitude appears to be 'trust us, we're the experts'. One on-going concern arising from this is the possibility that this

attitude of disrespect is passed on to students. This is an area where we feel ANZCCART can play a role in awareness-raising and culture change.

One aspect that is often poorly written in proposals is the explanation of the number of animals required. We have tried various approaches to improve this; for example, we have asked for tables with breakdowns into treatment groups and explanations of these treatment groups. Even with this the numbers in the table often do not coincide with the number listed as required in that section of the proposal. Each committee member spends time trying to decipher the treatment groups, numbers included in each group and the justification for these numbers. Then during our meeting we compare notes to see if we all came to the same explanation. This is time we should not have to use on this pursuit. This aspect of the application should be clear and well explained.

Unfortunately there appears to be, at least in some quarters, a culture of considering the whole animal ethics process as just another bureaucratic hurdle to be handled in as quick and easy a way as possible. Some researchers appear to consider the committee as either 'difficult', 'power-hungry' or completely unnecessary. With such an attitude engagement with the committee and our communications are less than ideal. However, I must point out that this negative attitude is not held by everyone but by a frustrating few.

There are a number of areas with applications that constantly result in questions and discussion for the committee. One such area is that of judging scientific merit. Research is not ethical if it does not have sufficient scientific merit. Judging merit can be difficult as there may be no expertise on the committee to do so. If work is being repeated either from overseas or with slight modifications from previous work, it is difficult to assess how essential it is for this to be carried out. The signature of the Head of School assuring scientific merit is not felt to be sufficient as the Head of School may not work in that or a related area. Obtaining grant money for the research could be seen as recognition of scientific merit. However, for many grants ethical clearance must be obtained before the funding is granted (a catch 22 situation). We have tried to overcome this to some extent by asking probing questions of the researcher either by email or in person. We feel the research should be able to be justified and in most cases the answers or presentations by researchers are able to convince us of

the merit. We have also asked for outside opinion of merit if we are not convinced even after a discussion with the researcher.

We have had many discussions about who should be listed as the Chief Investigator. In some cases the same Chief Investigator is listed for many projects because, we presume, the person is well known and respected and therefore attracts funding. It appears impossible for this person to really oversee all the projects as at the same time he/she is away travelling as a world-recognised expert in his/her field. The Chief Investigator has ultimate responsibility for the animals and we question how well such a busy and perhaps distant person can fulfil this duty. However, a PhD student as the Chief Investigator causes problems as students tend not to have much authority within the university. If the application is for teaching a specialist course with an outside trainer coming to the university especially to conduct the training, often from overseas, that person cannot be the Chief Investigator. Often the trainer flies in and flies out so any animal care before (or rarely after) has to be done by someone else. We have made the decision that the Chief Investigator at the very least must be employed by our institution.

As mentioned previously, the number of animals asked for is often a contentious issue. Sometimes the number appears excessive (over a thousand mice, for example) and the justification poor. We realise that insufficient numbers can lead to meaningless results so look for well thought-out, justified plans. We rarely want to give permission for 'spares' and ask for researchers to request more animals if the need arises. Also, if numbers appear excessive we may give permission for some of the animals (enough for one or two identified groups) with a request to receive an interim report before allowing the rest to be used. Of course this depends on the nature of the research. It is never our aim to make it difficult for researchers to carry out their research.

Within our University and particularly in the Animal House we have encouraged the development of Standard Operating Procedures (SOPs). The use of SOPs means the applications can be streamlined, there is less reading for each application and we can ensure the SOPs represent best practice. While these advantages may be true, we are not blind to the fact that we do not live in an ideal world. Researchers may quote the relevant SOPs without being fully cognisant

of what they contain and therefore not follow them fully. The process to check whether the SOPs are being followed is difficult to have in place and is not in the remit of the AEC. It depends on Animal House staff and Chief Investigators. Often breaches of the SOPs are only revealed when adverse events occur.

Our University undertakes medical research, some of which can be quite invasive. This type of research is a constant source of ethical concern for the committee: How much suffering will occur and is the suggested analgesia sufficient? Is the after-surgery care sufficient? Are the Animal House staff and researchers able to tell if an animal is suffering? Will the results really benefit mankind? Also, some of the research is into emergency care in various critical situations and the animals have to be subjected to severe insults to reflect what is being investigated. Adverse events are expected. Such work is a constant challenge to all of us on the AEC.

Finally, I would like to reflect on one issue that I find personally very confronting: the Reduction element of the Three Rs. The establishment and maintenance of breeding colonies particularly for genetically modified animals represents a large number of animals that are bred and may not be used for research. While more and more genetically modified animals are created for specific models of research it is impossible to reduce the number of animals. This is a major challenge for the future.

Repeat work, as mentioned earlier, with slight modifications only, requires the use of many animals. Is this research valid and necessary or a means of getting papers published? Is the slight modification progressing science and our knowledge? Does work conducted in another country need to be repeated here under 'Australian conditions'? How many species must research be conducted on? These questions and others resound in my head.

Related to this is the need for control groups. If slight modifications only are being made to the research protocol why must the control groups be repeated? If we ask this question the answer always come back – to be published in a top journal each experiment needs a control group. I understand the principles of good science but wonder if this maxim needs to be examined in the light of Reduction. Well-designed research can certainly aid in this area: for example, using the same control group for several other experimental groups. But I believe there are other ways that should be considered that require a change in mind-set such as allowing a control group from a previous experiment to be used in a subsequent and related experiment, or recognising that if something is well established in the literature a control group is unnecessary. I realise these approaches would mean looking at the statistics differently but believe it is possible if the will was there.

There is one other area I would like to mention and that is taxonomics. I admit immediately that I have little knowledge of this area and neither does anyone in the AEC. However, in this era of DNA testing we question the need to sacrifice animals to take all sorts of measurements that require their death. We ask the 'so what' question of the results, and we question if sufficient safeguards are in place to protect species numbers.

In this paper I have raised a few issues that the AEC and I personally find challenging in the job we do on the committee. Despite these challenges (or perhaps because of them) the job is worthwhile and rewarding. And the job is vital. The AEC must remain vigilant, compassionate and confident. The animals depend on us. They must not suffer or lose their lives for nothing.