BioethicsBytes Extended Commentary

The “Pharmaceutical Farm” - Animal Farm (2)

Introduction to this resource

Welcome to this BioethicsBytes Extended Commentary. These are intended to provide all readers - teachers, learners and members of the public alike – with a more in-depth discussion of issues raised by media presentations of developments in biology and biomedicine. They are supplementary to the posts on the BioethicsBytes website, and elaborate themes identified in the main commentaries.

In general, they deal with one or more very specific bioethical issues raised by featured programmes. They focus on specific quotes, or exchanges, in the source material that illustrate moral concerns or ethical concepts that have application beyond the context of the programme. The extended commentaries draw on a wider range of media and academic texts than can be presented on the main website, and, as such, can provide readers with additional resources on specific topics.

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Introduction to The “Pharmaceutical Farm”¹ - Animal Farm (2)

This extended commentary deals with three ethical issues arising from Animal Farm, Episode 2²:

1. “Speciesism”
2. Boundaries
3. The ethical treatment of experimental animals

1. “Speciesism”

Consider the following exchange between Olivia Judson and Giles Coren featured in Animal Farm, episode 2, concerning sheep with ‘humanised’ organs suitable for transplant into humans (beginning at 00:34:12):

OLIVIA: “What do you think makes us human?”
GILES: “The thing that makes us human and them sheep is the fact that in a minute we are going to climb out of this and go and have a cup of tea, and they are just going to stay here until we choose to kill them. Um, and, I would feel different about that if they were partly human, if they had my liver in them”
OLIVIA: “Would you?”
GILES: “I think so”
OLIVIA: “You wouldn’t want them to be killed so that you could have your operation?”
GILES: “I think not”
OLIVIA: “So you’d prefer to die?”
GILES: “Well, I wouldn’t die to save a sheep…”

There appear to be two ethical issues under discussion here:

1. What is it that makes humans human, sheep sheep, and how does transgenics affect this distinction; and
2. Whether Coren would die to save a sheep.

This exchange is a good example of, what might be seen as a ‘natural’, human tendency to prioritise human interests and/or rights (in this case the right to life) over those of animals. This in itself is an ethical decision based on a particular view of the similarities and differences between humans and animal as morally relevant. In the context of Animal Farm, and transgenics, this can be discussed within the bioethical framework of ‘speciesism’.

Speciesism, a term coined in the 1970s, and discussed at length by animal ethicists like Peter Singer, can be defined as: "the idea that it is justifiable to give preference to beings simply on the grounds that they are members of the species Homo sapiens" (Singer, 2006: 3). Singer treats speciesism negatively, and views it as akin to racism, sexism, ageism, etc.: forms of inequality which most members of our society oppose. However, at root they are all - including speciesism - forms of discrimination between

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¹ Animal Farm, Episode 2. 2007. [TV]. Channel 4, 26th March, time in 00:47:08.
² Originally broadcast on Channel 4 on 26th March 2007; TRILT identifier 0062CC6E.
groups. In the case of racism, this is discrimination based on membership of one 'racial' group or another; in the case of speciesism, this is discrimination based on membership of one species or another.

It is clear in the excerpt from *Animal Farm*, above, that Coren (and Judson as well), are practicing a form of speciesism. Coren ultimately prioritises his life over that of the sheep. However, it takes several minutes to reach this conclusion, ostensibly because they are not talking about an 'ordinary' sheep. They are talking about a 'humanised' sheep; a organism that Coren "feels differently" about killing. One way of interpreting this is that, though Coren ultimately views the sheep as a member of the species 'sheep' and ends up giving himself, as a member of the species *Homo sapiens*, priority, the humanisation of the sheep makes this discrimination just a little harder to make. It seems that, though Coren and Judson - as a meat eater and a believer in the value/necessity of animal experimentation (see Singer, 1999 for discussion of meat eating and animal experimentation as manifestations of speciesism) - are speciesist, the transgenic nature of the animal does have some impact on their ethical decision-making.

2. Boundaries

Closely connected to the way transgenics seems to disrupt our ‘speciesist’ privileging of human interests over animal ones, it may also force us to reconsider what we think of as the ‘boundary’ between species; particularly the boundary between humans and animals (or non-humans, as the bioethicists might say), and indeed whether there is a boundary at all.

Again, when discussing the ‘humanised’ sheep, Judson and Coren, state that this use of transgenics is “breaking down the barrier between humans and animals” (00:25:11), and making the boundary between humans and non-humans “rather more blurred” (00:27:20). Coren later makes this explicit: “So human organs inside sheep…is that not rather blurring the distinction between man and the animals?” (00:33:59).

This is explored more fully when Judson and Prof. Esmail Zanjani discuss the “strange new hybrid” (00:29:52) that the programme suggests may be a possibility should cellular fusion occur between the injected human stem cells and the embryonic sheep cells. While the programme makes clear that no such cells have ever been found by Dr Zanjani, it suggests that an organism containing, or produced from fused cells, could have “the features and characteristics of both sheep and humans” (00:29:54). Such an organism would seem to blur the boundaries to a much greater extent that the chimeric ‘humanised’ sheep, which merely contains cells from both species. While this statement also suggests that it is this feature/characteristic that separates the ‘humanised’ sheep from Judson and Coren, it is notable that in this case it cannot be observed by ‘eyeballing’ the sheep. One is therefore left to wonder, if Coren did not know about the sheep’s humanised organs would he assume it was a ‘normal’ sheep and treat it accordingly?

It is Judson who then relates this to ‘identity’: when the question of an organism with the features and characteristics of both species is raised, she asks, “So they maintain
their identity as sheep?” (00:30:37). Zanjani replies, “They are regular sheep. They behave like sheep, they don’t speak like humans, they don’t behave like humans, and they don’t feel like humans” (00:30:39). What Zanjani is offering here is a list of features and characteristics that distinguish sheep from humans; a list of characteristics that, for him, give sheep and humans their separate identities. Note that this list is not likely to be sufficient for Coren. For him it would seem that having ‘sheep organs’ inside, rather than ‘human organs’, is an important part of the sheep identity. Thus it seems that precisely what gives a species its identity is up for grabs within this programme, and indeed is not resolved in Animal Farm, Episode 3. It may be that with every new transgenic organism that approaches the boundary between human and animal (or non-human), the features and characteristics that give that species its identity may have to be renegotiated (see BioethicsBytes entries Daleks in Manhattan and Evolution of the Daleks for a more extreme example: a human-Dalek hybrid).

3. The ethical treatment of experimental animals

Another important bioethical issue raised in Animal Farm, episode 2, is the treatment of animals in scientific research. For many this is simply a question of welfare, however, within bioethics two issues dominate:

1. the animal’s capacity for suffering, and the implication of this for the morality of using animal in research; and
2. whether the use of animals for this purpose is morally justifiable

Though the programme does not address these questions directly, it does allude to them as issues underlying the creation and use of transgenic animals.

Speaking of a cow that had been genetically modified to produce human antibodies in its plasma, presenter Olivia Judson asks: “how much [blood] can you take from a cow before it starts to feel uncomfortable?” (00:07:22). Here she is apparently expressing a concern that the animal might be suffering or in pain. That is, though she is amazed by the power of this technology, stating that it may be “as important as the discovery of vaccination” (00:07:07), she is also clearly concerned that the animals involved do not suffer unduly.

For bioethicist writers like Peter Singer and Robert Garner, it is the capacity for suffering displayed by non-human animals that most clearly indicates their entitlement to “equal consideration of interests” (Singer, 1999: 464) with humans. For them the principle of equal consideration of interests is a fundamental moral principle, which “applies to members of other species as well as our own” (1999: 464). This seems particularly relevant for an experimental animal, like the cow Judson meets on Animal Farm, who has “an interest in not being tormented, because it will suffer if it is” (1999: 464).

But where does the justifiable use of animals in the types of medical research shown in this programme cross over into “torment” or an unjustifiable level of suffering? Gaverick Matheny (2006), for example, advocates a Utilitarian perspective in

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3 While Prof Zanjani responds to her question as if she is referring to the sheep themselves (i.e. the whole organism), it is possible to interpret Judson’s question as concerning the sheep cells alone – that is the features and characteristics of the sheep cells, rather than the ‘whole’ sheep.
answering such questions. This approach suggests that, when deciding whether or not a particular animal experiment is ethical or not, one should “sum up the interests of all the parties affected by …[the]… action and choose the action that results in the greatest net satisfaction of interests” (Matheny, 2006: 14). Thus, in the case of animal experimentation (including transgenics), where suffering and/or pain are an ever-present possibility, “we should ask if the pain prevented by an experiment is greater than the pain caused by an experiment” (Matheny, 2006: 22). If it is not, then – the philosophers say – the experiment should not be carried out. Matheny apparently includes experiments conducted to “answer intellectually interesting questions” (2006: 22) in this category, though the types of experiments envisaged by Coren when he states “the fear remains that if we unleash all this technology scientists will just end up playing with it” (00:40:04) would be exemplar of the type of research Utilitarian extensions of the principle of equal consideration of interests would prohibit.

However, if the experiment is deemed to prevent more pain than it causes – i.e. to be ethical, then Matheny argues we must ask a further question. This relates to whether the experiment minimises pain as well as maximising benefit. Matheny (among others) suggests that “Most animals used in lab research…are…at least as sensitive to pain a any human infant” (2006: 22), and thus, when we are talking about minimising pain in experimentation, we should be more prepared to use a human infant than an adult dog, primate – or in this case cow. Here a transgenic cow is repeatedly inoculated with, for example, anthrax, in order to build up a sufficient titre of antibodies in its blood, and then it has its blood extracted and filtered 10 litres at a time. However, as Judson notes, we “can’t treat people that way” (00:05:07), implying that we would find it unethical to do this to a person – let alone a baby. It seems that in this case what may appear to be ethically justified at a philosophical level (i.e. experimentation on babies rather than adult animals) does not accord with the types of moral judgments made ‘on the ground’, so to speak.

**References**

