

NORMATIVE DILEMMAS IN SWEDEN'S ETHICAL REVIEW POLICY FOR ANIMAL EXPERIMENTS

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Abstract

Animal experimentation is a contentious ethical issue. In many countries, the debate over the morality of animal research has led to the institution of ethical review systems for animal experiments. This article discusses and problematizes the current regulations, policies, and recommendations governing the ethical review of animal experiments in Sweden. It is argued that the ongoing paradigm shift in society's view of animals prompts a serious re-evaluation of the values underpinning the routine use of sentient nonhuman animals in research. Following from this, two lines of argument are pursued in the article. First, it is argued that the organizational and administrative exigencies of the current ethical committee system in Sweden are likely to work to the animals' disadvantage and undermine a fair assessment of their interests. Second, and more importantly, the article reconstructs the utilitarian principles that the ethical review is supposed to be based on and argues that the reasons given for choosing utilitarian standards are underdeveloped and indicative of a speciesist bias. Moreover, it is held that even if we should accept these principles, the existing ethical review system would fail to meet the demands of a consistent utilitarian calculus due to its outdated understanding of how animal models work and what they allow us to predict.

Keywords

Animal experiments, Animal experimentation, Vivisection, Animal rights, Animal protection, Animal welfare, Animal ethics committees, Speciesism.

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1. Introduction

The use of non-human animals in scientific experiments is a controversial ethical issue. In response to public concern about the animals' well-being, legislators in many countries have opted to regulate the use of animals in research. Often, these legal regulations mandate that the experiments must be considered and justified from an ethical point of view before they are carried out. In Sweden, the regulation of animal research is expressed mainly in the demand that all experimental procedures must be evaluated and approved by an animal ethics committee (*djurförsöksetisk nämnd*). The explicit task of these committees is to weigh the importance of the experiments against the suffering of the animals. It remains unclear, however, exactly how this weighing is supposed to work and by what precise principles it should be guided.

This lack of clarity in the legal framework has led to repeated criticism from animal protection organizations, journalists, politicians, and members of the animal ethics committees. Previous studies of Swedish animal protection legislation have also foregrounded that the current rules about animal research are vague and inconsistent. Legal scholar Katarina Alexius Borgström, for example, has noted that while the existing rules about animal experiments have a broadly utilitarian orientation, it is never spelled out how the utilitarian calculus should work in practice:

Although the rules state a great many circumstances that have to be considered, they do not indicate any method for the concrete weighing of these considerations. The question is whether it is possible at all to compare interests from value contexts that differ so greatly. Yet there is no weighting norm with which to make such different factors commensurable. The decision makers thus have considerable scope for evaluation and action.¹

In addition to these normative issues, there are several organizational, institutional, and social-psychological problems with the ethical review process. As philosopher of science Birgitta Forsman has pointed out, Sweden was the first country in the world to introduce mandatory ethical review of animal experiments.² But even though the introduction of the animal ethics committees in the late 1970s helped

¹ Katarina Alexius Borgström, "Animal Experiment Regulations as Part of Public Law" (2009) 15 *European Public Law* 197, 200. See also Katarina Alexius Borgström, *Djuren, läkarna och lagen – en rättslig studie om djurförsöksetik* (Iustus förlag 2009).

² Birgitta Forsman, "Djurförsök: Forskningsetik, politik, epistemologi: En vetenskapsteoretisk contextualisering" (PhD, Gothenburg University 1992) 173.

raise awareness of laboratory animal treatment as an important ethical issue, the institutionalization of the ethical review process also worked to silence radical critique. According to Forsman, it did not take long before the Swedish committees got entangled in modifying minor technical details of the experiments, while the big ethical issues were pushed to the margins. Already in 1992 Forsman argued that it had become “impossible to successfully use the animal ethics committees as arenas for a general questioning of animal experiments” and that the early ambitions of at least some radical lay members of the committees to use these institutions to mount a critique of the hegemonic scientific discourse had almost completely disappeared.³

Recent studies of the ethical review system have raised similar concerns. In a 2013 study of committee deliberations in three countries (including Sweden), Lonneke Poort, Tora Holmberg, and Malin Ideland argue that when animal biotechnology is discussed in the committees, “technical and pragmatic matters are foregrounded”, while there is “a common silence around ethics and a striking consensus culture”.⁴ Lay committee members representing animal rights organizations in particular “expressed a feeling of being kept hostage in the committee, as their political agenda was more or less impossible to raise without the risk of being categorized as a fundamentalist activist”.⁵ As a result, these members refrained from making principled objections to the use of animals and turned instead to scouring the scientific literature on animal welfare for practical and technical measures to lessen the suffering that they could not end. Other lay members, appointed by the political parties, opted instead for a “strategy of silence” because they felt that the issues were too “difficult” and they did not want to come off as “stupid” in the eyes of the researchers. According to the authors, this turn from ethical deliberation to silence and/or consensus-seeking over technical and methodological issues indicates that the committees remain in the grip of a hegemonic scientific discourse that systematically works to displace and depoliticize alternative perspectives.⁶

³ *ibid* 286 (my translation).

⁴ Lonneke Poort, Tora Holmberg and Malin Ideland, ‘Bringing in the Controversy: Re-politicizing the De-politicized Strategy of Ethics Committees’ (2013) 9 *Life Sciences, Society and Policy* 1.

⁵ *ibid* 5.

⁶ *ibid* 5–6. Similar findings about the conformist expectations in the animal ethics committees are presented in a recent survey of committee members’ experiences – see Charloth Johansson, ‘Djurförsöksetiska nämnder – handläggning ur ett legalitets- och objektivitetsperspektiv’ (Master of Law Thesis, Uppsala University 2012). See also Malin Ideland, ‘Different Views on Ethics: How Animal Ethics Is Situated in a Committee Culture’ (2009) 35 *Journal of Medical Ethics* 258; Helena Röcklinsberg, ‘Lay Persons Involvement and Public Interest. Ethical Assessment in Animal Ethics Committees in Sweden. The Swedish Transition Process of the EU Directive 2010/63/EU with Regard to Harm-Benefit Analysis in Animal Ethics Committees’, *ALTEX Proceedings* (2015).

Observations like these raise critical questions about the ethical review system in Sweden. To the extent that these problems are systemic features of the review process, the lack of normative guidance and the conformist culture of the animal ethics committees is likely to militate against a fair and critical assessment of animal experiments. Given what is at stake in terms of animal suffering and death, a thorough evaluation of the ethical review system is needed.

The purpose of this article is to contribute to such an evaluation by problematizing the Swedish review system for animal experiments. This problematization, however, will not primarily consist in levelling an external critique against the principles behind the ethical review. My main question is rather whether the ethical review process, as it is institutionalized today, can be defended *on its own premises*: Can the ethical review be consistently carried out without violating the stated or implicit normative principles of the regulative framework itself? By analyzing the underlying principles of the existing laws and recommendations pertaining to the ethical assessment of animal experiments in Sweden, I will identify and discuss some of the core dilemmas in the policy field. It is thus by way of an immanent critique (i.e., a critique that uses the policy's own terms and builds on its own foundational assumptions), that I wish I pursue the thesis that the present regulatory framework fails to live up to reasonable moral standards.

The article is organized as follows. In the following section I discuss the changing views of animals in moral philosophy. This section emphasizes the need to revisit the issue of animal experiments considering the risk for speciesist bias, i.e., the arbitrary and unjustified privileging of human interests over animal interests. In the third section, I present an overview of the rules and procedures that govern the ethical review process in Sweden today. This is followed in the fourth section by a discussion of some of the practical and organizational problems with the present order. Here, I present some examples of approved experiments that seem to go against the principles of the Swedish law. I also claim that the reliability of the ethical review process is undermined by the lack of information and the partisan constitution of the animal ethics committees. In the fifth section I discuss the moral principles behind Sweden's animal experimentation policy more in depth. In particular, I focus on the utilitarian underpinnings of the legal framework and argue that the reasons given for choosing utilitarian standards are underdeveloped and reveal an underlying speciesist bias. Furthermore, I argue that even if we were to accept the utilitarian principles, the existing ethical review system would fail to live up to their demands. This failure, I claim, stems mainly from the mistaken assumption that the use of animals as causal-analog models for human diseases can sustain proper calculations of future utility.

2. Changing Moral Attitudes Toward Animals

The conviction that humans have the right to use other animals for their own purposes, including scientific experiments, is an old and widespread view in the western world. Historically, it has found support in religious and philosophical doctrines about humankind's divine chosenness, or in assumptions about man's unique standing as a creature of reason or culture.⁷ Alongside these hegemonic presuppositions, however, there have always been dissenting currents in the European history of ideas. Already in Antiquity there were thinkers and religious groups who emphasized humanity's affinity with nonhumans and called for a re-evaluation of the animals' status as things, tools, and property.⁸ Later developments like the scientific revolution, the Enlightenment, and Darwinism contributed further to the dissolution of the moral barrier between humans and other animals. A stronger identification with animals was also forged by the "back-to-nature" ideals of the Romantic period.⁹

Organized political efforts for the animals saw the light in the nineteenth century when the first European animal protection organizations were founded, and their educational and political campaigns soon led to different kinds of legal regulations.¹⁰ Overt cruelty toward animals was criminalized in many countries from the middle of the nineteenth century. Within a century, many countries had passed comprehensive animal protection laws explicitly geared toward preventing animal suffering by setting minimum standards for animal husbandry and monitoring animal treatment, including the treatment of animals in the laboratories.¹¹

Over the last four decades we have also seen the emergence of different animal liberationist currents in philosophy along with a new social movement for animal rights. These tendencies have become bearers of a radical critique against the assumption that animals exist for humans to use.¹² At the same time we

⁷ See, e.g., John Passmore, "The Treatment of Animals" (1975) 36 *Journal of the history of ideas* 195; Peter Singer, *Animal Liberation* (Ecco 2002).

⁸ Gary Steiner, *Anthropocentrism and Its Discontents: The Moral Status of Animals in the History of Western Philosophy* (University of Pittsburgh Press 2005); Norm Phelps, *The Longest Struggle: Animal Advocacy from Pythagoras to PETA* (Lantern Books 2007).

⁹ Adrian Franklin, *Animals and Modern Cultures: A Sociology of Human-Animal Relations in Modernity* (Sage 1999); Keith Tester, *Animals and Society: The Humanity of Animal Rights* (Routledge 1991).

¹⁰ Richard D French, *Antivivisection and Medical Science in Victorian Society* (Princeton University Press 1975); Nicolaas A Rupke, *Vivisection in Historical Perspective* (Routledge 1990); Karin Dirke, *De vämlösa vänner: Den svenska djurskydds rörelsen 1875–1920* (PhD, Stockholm University 2000).

¹¹ On the development of the policy field of animal protection in Sweden, see Per-Anders Svärd, "Problem Animals: A Critical Genealogy of Animal Cruelty and Animal Welfare in Swedish Politics 1844–1944" (PhD dissertation, Stockholm University 2015) <<http://urn.kb.se/resolve?urn=urn:nbn:se:su:diva-121356>>.

¹² For an overview, see e.g., David DeGrazia, *Animal Rights: A Very Short Introduction* (Oxford University Press 2002); Lisa Gålmark (ed), *Djur och människor: En antologi i djuretik* (Nya Doxa 1997).

should be careful to note that what goes under the name of “animal rights philosophy” is not one homogeneous outlook or one single moral doctrine that stands apart from the established perspectives in normative theory. On the contrary, we are talking about a multiplicity of philosophers and activists with quite different ethical standpoints. Demands for a radical re-appraisal of the moral standing of animals have been raised by utilitarians,¹³ rights theorists,¹⁴ Kantians,¹⁵ contractarians,¹⁶ capacity theorists,¹⁷ conservative virtue ethicists,¹⁸ Marxists,¹⁹ feminist ethic of care theorists,²⁰ and posthumanists²¹ – just to mention a few of the different positions from which a critique has been directed against the current configurations of the human–animal relationship. One could therefore say that what unites this movement is not a given set of ethical axioms, but rather a particular *problematic*, a problematic circling around the radical questioning of species as the principal ethical category to rely on when assessing the treatment of other sentient beings.

Animal rights philosophy, understood in this broad sense, challenges traditional western ethics and its assumption that only humans are worthy of full moral concern. Compared to this normative standard all other animals have typically been seen as “incomplete” creatures and therefore unable to qualify for full moral inclusion. Thus, it has been argued that animals cannot have (a full set of) rights because they cannot think, because they cannot talk, because they cannot use tools, because they cannot enter contractual agreements, because they cannot build civilizations, and so on. However, these defenses of the traditional anthropocentric outlook have become increasingly difficult to maintain. Typically, the

¹³ Singer (n 7); Gaverick Matheny, “Utilitarianism and Animals” in Peter Singer (ed), *In Defence of Animals: The Second Wave* (Blackwell 2006); Torbjörn Tännsjö, *Animal Ethics: A Crash Course* (Thales 2010).

¹⁴ Tom Regan, *The Case for Animal Rights* (Routledge 1988); Tom Regan, *Animal Rights, Human Wrongs: An Introduction to Moral Philosophy* (Rowman & Littlefield 2003); Gary L Francione, *Introduction to Animal Rights: Your Child or the Dog?* (Temple University Press 2000); Gary L Francione, *Animals as Persons: Essays on the Abolition of Animal Exploitation* (Columbia University Press 2008).

¹⁵ Julian H Franklin, *Animal Rights and Moral Philosophy* (Columbia University Press 2005); Christine M Korsgaard, “A Kantian Case for Animal Rights” in Margot Michel, Daniela Kühne and Julia Hänni (eds), *Animal Law: Developments and Perspectives in the 21st Century* (Dike 2012); Christine M Korsgaard, “Kantian Ethics, Animals, and the Law” (2013) 33 *Oxford Journal of Legal Studies* 629.

¹⁶ Mark Rowlands, *Animals Like Us* (Verso 2002).

¹⁷ Nussbaum MC, ‘Beyond “Compassion for Humanity”: Justice for Nonhuman Animals’ in Martha C Nussbaum and Cass R Sunstein (eds), *Animal rights. Current debates and new directions* (Oxford University Press 2004); Martha C Nussbaum, *Frontiers of Justice: Disability, Nationality, Species Membership* (The Belknap Press of Harvard University Press 2006).

¹⁸ Matthew Scully, *Dominion: The Power of Man, the Suffering of Animals, and the Call to Mercy* (St Martin’s Press 2002).

¹⁹ Ted Benton, *Natural Relations: Ecology, Animal Rights, and Social Justice* (Verso Books 1993).

²⁰ Carol J Adams and Josephine Donovan (eds), *Beyond Animal Rights: A Feminist Caring Ethic for the Treatment of Animals* (Continuum 1996); Carol J Adams and Josephine Donovan (eds), *The Feminist Care Tradition in Animal Ethics: A Reader* (Columbia University Press 2007).

²¹ Cary Wolfe, *Animal Rites: American Culture, the Discourse of Species, and Posthumanist Theory* (University of Chicago Press 2003); Cary Wolfe, *Zoontologies: The Question of the Animal* (University of Minnesota Press 2003); Cynthia Willett, *Interspecies Ethics* (Columbia University Press 2014).

critics have highlighted the moral arbitrariness of treating similar individuals in different ways just because they happen to belong to different species.²² To classify living organisms as belonging to different species categories may well be useful from the standpoint of zoology or evolutionary biology, but why should such a categorization have any bearing on the normative question of how we ought to *treat* nonhuman animals? Is that not just as arbitrary as it would be to grade our moral concern for the interests of different human groups just because we have decided to distinguish between different genders or “races”?

Instead of accepting the moral gulf between humans and other animals, the critics of traditional morality have highlighted the similarities between different species when it comes to their morally relevant characteristics. In addition, they have worked to reveal the hidden layers of anthropocentrism and speciesism in our language and in our typical modes of ethical thinking. So, for example, animal rights philosophers have emphasized that many species, just like ourselves, can experience pain and suffering as well as happiness and well-being. Moreover, they have argued that premature death always represents a permanent loss for the afflicted individual, no matter what species the individual belongs to. Facts like these, the critics hold, remain morally relevant regardless of whether the individual who suffers and dies exhibits a capacity for rational thinking, language, reciprocity, or any other purportedly “unique” human trait. Instead, they argue that many other species ought to have their interests, experiences, and lives treated with full moral respect. If we fail to live up to this demand, the critics argue, we make ourselves guilty of *speciesism* (here understood as a parallel concept to racism and sexism).²³

Just like racism and sexism, speciesism can be understood in many ways,²⁴ but for our purposes here we can stick with Joan Dunayer’s general definition of speciesism as “a failure, in attitude or practice, to

²² See, for example, Singer (n 7) 1–9; James Rachels, *Created from Animals: The Moral Implications of Darwinism* (Oxford University Press 1999) 173–175.

²³ Richard D Ryder, “All Beings That Feel Pain Deserve Human Rights” *The Guardian* (August 6, 2005); Joan Dunayer, *Speciesism* (Ryce 2004).

²⁴ One simple way to think of speciesism is as a discriminating “prejudice against animals,” i.e., as an arbitrary moral attitude that results in negative treatment of someone solely based on that individual’s species. But speciesism can also be understood in a wider sense, as an institutionalized order or a structured regime of practices covering many areas of society, culture, and politics. In this regard, speciesism would be akin to concepts like structural racism or patriarchy. Thus, some critics have tried to coin new terms like “anthroparchy” (Erika Cudworth), “carnophallogocentrism” (Jacques Derrida), “domesecration” (David Nibert), “misotheory” (Jim Mason), or “andro-anthropocentrism” (Lisa Gálmark), to capture the institutionalized, structural, and intersectional characters of many speciesist practices. When I speak here of the “speciesist society” or the “speciesist order,” it is in line with these later usages. See Erika Cudworth, *Social Lives with Other Animals: Tales of Sex, Death and Love* (Palgrave Macmillan 2011); Erika Cudworth, “‘Most Farmers Prefer Blondes’: The Dynamics of Anthroparchy in Animals’ Becoming Meat” (2008) 6 *Journal for Critical Animal Studies* 32; Jacques Derrida, *The Animal That Therefore I Am* (Fordham University Press 2008); Jim Mason, “Misotheory: Contempt for Animals and Nature, Its Origins, Purposes, and Repercussions” in Linda Kalof (ed), *The Oxford Handbook of Animal Studies* (Oxford University Press

accord any nonhuman being equal consideration and respect.”²⁵ This definition is “general” in the sense that it does not assume any particular substance in what should count as “consideration” and “respect.” I will not spend any time here defending any particular idea of what should be put into these terms. What I will do instead, is to depart from the normative principles that are expressed in Swedish animal experimentation policy and discuss whether these principles – on their own terms – can avoid the charge of speciesist bias.

3. Animal experimentation and legislation in Sweden

In 2012 the total number of animals used in experiments in Sweden was 720,572.²⁶ The use of animals in research in Sweden is mainly regulated via the EU directive on the protection of animals used for scientific purposes,²⁷ the Swedish Animal Protection Act,²⁸ the Animal Protection Ordinance,²⁹ and the Swedish Board of Agriculture’s (*Jordbruksverkets*) Code of Regulations and General Advice on Animals Used in Experiments.³⁰ Further restrictions are given in the Swedish criminal code’s paragraph on animal cruelty.³¹

2015); Lisa Gålmark, “Aristotle Revisited: Anthro-Androcentrism and Meat Normativity” in Ragnhild Sollund (ed), *Global Harms: Ecological Crime and Speciesism* (Nova Science Publishers 2008); David Nibert, *Animal Oppression and Human Violence: Domestication, Capitalism, and Global Conflict* (Columbia University Press 2013).

²⁵ Dunayer (n 21) 5.

²⁶ See Jordbruksverket, “Användningen av försöksdjur i Sverige under 2012” (2013) Dnr 31-3698/13. According to Swedish law an “animal experiment” (*djurförsök*) is defined as any use of an animal for scientific research, diagnosis of disease, development and production of pharmaceuticals or chemical products, and education (if the animal is killed, subject to surgical procedures, injections, bloodletting, or if there is a risk for suffering in general), or similar purposes. According to the Swedish definition of animal experiments, test fishing is also counted as animal experiments. In 2012, more than 4.5 million fishes (and probably a vast number of other marine animals) were caught during test fishing, but these animals are discounted in the figure for animal experiments given here. The European Union’s definition of animal experiments is more narrow and only includes those animals who are subject to some kind of invasive procedure. Due to the lack of data it is difficult to say how many animals are used in experiments worldwide. Estimates by Taylor, Gordon, Langley and Higgins for the year 2005 suggest that at least 58.3 million animals were used for purposes that correspond to the EU definition of animal experiments. However, the authors also argue the real number of animals was probably in excess of 115.3 million. See K Taylor and others, “Estimates for Worldwide Laboratory Animal Use in 2005” (2008) *Alternatives to laboratory animals: ATLA* 327. If the Swedish definition of animal experiments had been used for this assessment, we can assume that the numbers would have been significantly higher.

²⁷ Directive 2010/63/EU of the European parliament and the council of 22 September 2010 on the protection of animals used for scientific purposes. [2010] OJ L276/33.

²⁸ Animal Protection Act (*Djurskyddslag*) (SFS 1988:534).

²⁹ Animal Protection Ordinance (*Djurskyddsförordning*) (SFS 1988:539).

³⁰ The Swedish Board of Agriculture’s Code of Regulations and General Advice on Animals Used in Experiments (*Statens jordbruksverks föreskrifter och allmänna råd om försöksdjur*) (SJVFS 2015:38 Saknr L150).

³¹ Chapter 16, Article 13 of the Swedish Criminal Code (*Brottsbalk*) (SFS1962:700).

In the current Swedish animal protection act from 1988 it is stated that “Animals are to be treated well and protected from unnecessary suffering and disease”.³² This general goal, however, may be set aside when it comes to animal experiments: “Animals used in research should not be considered subject to unnecessary suffering or disease if the usage has been approved by an animal ethics committee.”³³ In practice, this means that there is no legally defined upper limit to the amount of suffering an animal can be subjected to in experiments.³⁴

Permission from an animal ethics committee is needed to conduct experiments on the animal classes mammals, birds, reptilians, amphibians, fish, cyclostomata, and octopuses. Licenses to conduct experiments at a given facility is granted by the Board of Agriculture for five years at a time. Each individual animal experiment (or, rather, each set of experiments – one “experiment” can encompass thousands of animals) must then go through ethical review. An application should be signed by the overseer of the experiments and the director of the experimental facility and handed in to one of the six regional animal ethics committees. These committees are tasked with reviewing all applications from an ethical point of view, and no experiment may commence before it has been reviewed and approved by a committee.

Each animal ethics committee has fourteen members. The president and secretary are appointed from the field of law. Six members are researchers, animal experiment technicians, or animal research staff. The remaining six members are laymen. Two of the layman seats are usually reserved for representatives of animal protection organizations, while the rest are usually recruited from the political parties.³⁵

According to the Swedish Animal Protection Act, an application to perform animal experiments can be approved “only if such a use of animals can be regarded as important [*angelägen*] from a public perspective [*från allmän synpunkt*]”.³⁶ Moreover, animal experiments are only permissible under the following conditions:

³² ”Djur skall behandlas väl och skyddas mot onödigt lidande och sjukdom.” Section 2 of the Swedish Animal Protection Act (SFS 1988:534).

³³ ”Djur som används i djurförsök skall inte anses vara utsatta för onödigt lidande eller sjukdom vid användningen, om denna har godkänts av en djurförsöksetisk nämnd.” Section 2 of the Swedish Animal Protection Act (SFS 1988:534).

³⁴ See Staffan Persson, “Etisk prövning – nästan alla djurförsök godkänns” (Animal Rights Sweden [*Djurens rätt*] 2009).

³⁵ For a history of the animal ethics committees in Sweden, see Alexius Borgström, *Djuren, läkarna och lagen – En rättslig studie om djurförsöksetik* (n 1); Alexius Borgström, “Animal Experiment Regulations as Part of Public Law” (n 1); Forsman (n 2) 286.

³⁶ See supplement SFS 2005:1226 to the Animal Protection Act (SFS 1988:534).

1. that the intended purpose of the activity cannot be achieved with another satisfactory method that does not use animals.
2. that as few animals as possible are used.
3. that the activity [*verksamheten*] is carried out in such a way that the animals are not subject to more suffering than what is absolutely necessary, and
4. that no other animals are used in the activity [*verksamheten*] than those bred for the purpose.³⁷

In addition to these guidelines, the animal ethics committees are responsible for ensuring that the significance of the animal experiments is evaluated in relation to the suffering of the animals (see below).

4. Practical and Organizational Problems of the Ethical Review Process

These extensive regulations notwithstanding, the use of animals in experiments in Sweden has often been criticized. Many of the objections have emphasized that the experiments cause an unreasonable amount of pain and that animals are often used in ways that contradict the Animal Protection Act's dictum that animals should be treated well.

We can illustrate this problem with a few examples. In 2015, the organization Animal Rights Sweden (*Djurens Rätt*) highlighted several approved applications where the purposes of the experiments either appear quite trivial in relation to the animal suffering involved, or where approval has been granted based on insufficient information. Among the examples can be mentioned the use of over 1,000 rodents to study the addictive effects of combining alcohol with energy drinks. According to the application to the animal ethics committee in Uppsala, 800 mice would be injected with different combinations of "predominantly" (*framför allt*) ethanol, taurine, and caffeine, after which they would be tested in an activity box.³⁸ According to a related application to the Gothenburg animal ethics committee, 500 rats would be given caffeine and/or taurine and then be injected with alcohol until they "crash" (*däckar*), after which the

³⁷ These principles largely correspond to what is called, after a classic article by Burch and Russell, the "3 R's" – "Replace," "Reduce," and "Refine." See Rex Burch and William Russell, *The Principles of Humane Experimental Technique* (Methuen 1959). These principles are today adopted as core guidelines for the ethical review process in many countries. The only significant addition in the Swedish legislation is that the animals in question also need to be purpose-bred. This addition is probably founded in the assumption that animals who "do not know anything else" will not suffer as much from laboratory life. But the rule probably has another background in historical scandals regarding pets who were allegedly stolen and then used in experiments (see Birgitta Carlsson, *Djurens rätt 125 år. En framgångsrik agitator för djuren* (Djurens Rätt 2007).).

³⁸ Uppsala animal ethics committee, Dnr 215-2014.

animals would be placed on their backs and the time would be measured until they sober up and can turn around to their normal position.³⁹ Both applications were approved in November 2014.

In two other experiments at the Karolinska University Hospital⁴⁰ and at Gothenburg University⁴¹ 300 mice and 600 rats, respectively, would be used in experiments related to the effects of passive smoking. At the Karolinska University Hospital, pregnant mice will be exposed to nicotine or the nicotine by-product cotinine in search of a way to block cotinine receptors and thereby avoid the dangerous effects of smoking. In the Gothenburg experiment, the rats would be injected with nicotine, cocaine, amphetamine, morphine, PCP, “or another addictive substance” to study the addiction-inducing effects of the substances. These applications were approved in December 2011 and October 2012, respectively.

According to an application from the Swedish university of Agricultural Sciences in Alnarp, 5,000 young pigs would be used in experiments aiming to “reduce the mortality among small pigs in Swedish pig production.”⁴² A comparison would be made between sows in conventional holding systems (unrestrained in a box), and sows who are held fixated in up to five days in connection to their giving birth (something that is not allowed according to the current regulations). The application was approved in March 2015.

According to an application from Linköping University⁴³ 195 rats would be used in experiments to study the healing of tendons. In the experiment, the rats would be injected with Botox, after which the Achilles tendon would be cut off on one of the legs. 60 rats would also be hung by their tails so that they can only walk on their forelegs. The rats would remain hanging for seven days, after which they would be killed. According to the application, this model for tendon healing has been used in Linköping for twelve years. The latest application was approved in April 2013.

At the AstraZeneca pharmaceutical facility in Mölndal, 300 dogs would be used in toxicology testing of different substances. In the application to the regional animal ethics committee the following symptoms were stated as cut-off points for the experiments: repeated vomiting (more than five times within two hours); the animal harms itself by biting or clawing; there are respiratory issues with strengthened breathing sounds (squeaky breathing). If the dogs exhibit significant sustained cramping or lose more

³⁹ Gothenburg animal ethics committee, Dnr 215-2014.

⁴⁰ Stockholm North animal ethics committee, Dnr N-573-11.

⁴¹ Gothenburg animal ethics committee, Dnr 267-2012.

⁴² Malmö animal ethics committee, Dnr M-38-15.

⁴³ Linköping animal ethics committee, Dnr 21-13.

than 20 per cent of their weight, they will be euthanized. The substances to be tested are not specified in greater detail than as “future medications” (*blivande läkemedel*).⁴⁴ The application was approved in May 2013.

While all these experiments are legal in the sense that they have been approved by an animal ethics committee, it can be argued that they go against the spirit of the Animal Protection Act and its claims that animals should be treated well. It can also be questioned whether the experiments fulfill all the necessary legal requirements like being important from a “public perspective,” using a minimum number of animals, and subjecting the animals to as little suffering as possible. Moreover, some of the applications can be criticized for providing insufficient information to base an ethical decision on (e.g., by only providing vague references to tests with “predominantly” this or that substance, “another addictive substance,” or stating that the goal is “future medications”). Animal advocates have repeatedly criticized issues like these, yet it remains extremely rare that researchers are reprimanded, much less charged with transgressing of the law.

Many objections have also been directed against the procedural and institutional conditions under which the ethical review is carried out. One of the most common complaints have been that the animal ethics committees approve almost all animal experiments. Between 2004 and 2008, for example, 98.7 per cent (8,551 in absolute numbers) of all applications were approved (only 112 were rejected). 25 per cent of the rejected applications were subsequently approved with amendments or added conditions (like for example the addition of pain relief measures or demands that the experiments should be aborted if there are certain signs of suffering).⁴⁵ Animal advocates have argued that the high rate of approved applications indicates that animal interests are regularly ignored when they come into conflict with the researchers’ ambitions. Even if the researchers do not constitute an absolute majority on the committees, they possess a significant advantage in terms of their scientific authority and technical knowledge. In the face of this authority the lay members have often found it difficult to raise objections or be heard at committee meetings.⁴⁶

The committees have also been criticized for the way they are organized. The committees have a significant workload, but they have no assigned administrative assistants. All the work, therefore, falls on the committee members themselves, who often lack both the time and the competence that would be

⁴⁴ Linköping animal ethics committee, Dnr 65–13

⁴⁵ Persson (n 35).

⁴⁶ Forsman (n 2) 173, 286; Poort, Holmberg and Ideland (n 5) 5–6; Ideland (n 5).

needed to pass a considered judgment. This, in combination with the fact that many applications are vague; that there is no coordination between the regional committees; that there are is no clear system for documentation; and that some animal experiments are classified, further diminish the committees' ability to carry out the review that they are assigned to do.⁴⁷

There are, however, other reasons to problematize the ethical review process. These reasons go deeper than highlighting organizational–administrative problems and posing external animal rights-informed objections. These objections question the *internal* coherence of the principles that have been put forward to furnish the review process with moral legitimacy. If these principles turn out to be inconsistent or untenable it matters less how the committees operate in practice. If the immanent critique that I propose is successful, the committees' decisions would lack justification according to the principles behind the regulative policies *themselves*. In the following sections I will try to develop such an immanent critique by exploring the preparatory documents behind the laws, along with the official recommendations that have been offered to govern the animal ethics committees' work.

5. The Principles behind the Ethical Review of Animal Experiments

What, then, is the principled basis for the current system of ethical review? When the animal ethics committees were founded in the late 1970s, their explicit task was to limit and control animal experimentation.⁴⁸ This would be done chiefly by subjecting all plans for animal experiments to ethical review before the experiments started. However, no explicit instructions were given about the ethical principles that the review should be based on. When Sweden got a new animal protection act in 1988, the ethical framework was somewhat clarified. From this point on, it was said, animal experiments should be “limited to refer to such cases when it is important from a public standpoint to conduct the experiments [*försöken*].”⁴⁹ Still, it was never specified what would count as “important” or what the “public standpoint” meant.

A more detailed argumentation was offered in the government-commissioned report *Ethical Review of Animal Experiments (Etisk prövning av djurförsök)* from 2002.⁵⁰ The concrete suggestions of this report

⁴⁷ *ibid*

⁴⁸ Government Bill 1978/79:13.

⁴⁹ Government Bill 1987/88:93.

⁵⁰ Djurförsöksetiska utredningen, “Etisk prövning av djurförsök” (Näringsdepartementet 2002) SOU 2002:86. For a discussion, see Alexius Borgström, *Djuren, läkarna och lagen – En rättslig studie om djurförsöksetik* (n 1) 136–137.

were largely carried over and turned into law via the government's 2004 bill on ethical review of animal experiments.⁵¹ Although not a binding law in itself, this report contains the most ambitious semi-official attempt to date to interpret and express the principled basis for the ethical review of animal experiments. It also contains concrete recommendations for the review process in the form of discussion points that have served as practical guidelines in actual committee deliberations.⁵²

In the report's section on animal ethics it is stated that the Swedish animal experimentation policy is based on two ideas: "The Swedish regulations about animal experiments are founded on the one hand in notions about the special status of humans [*människans särställning*] in relation to animals, and on the other hand on the idea that animals have a value in themselves."⁵³ Exactly what this "special status" of humans is founded in is not developed in the report, nor is it clarified what it means that animals have "a value in themselves." (It is, however, explicitly stated that the inherent value of animals does *not* extend as far as it does among some radical animal rights theorists like Tom Regan.)

To say that someone has an intrinsic value [*egenvärde*] does not automatically mean that this individual's intrinsic value is considered to carry the same weight [*anses vara av samma dignitet*] as the intrinsic value of other individuals. It is perfectly possible to combine the view that both animals and humans have intrinsic value, but that the value of animals is not as important as the value of humans and that humans may therefore claim the right to use animals for purposes that benefits humankind.⁵⁴

Thus, both animals and humans are accorded an intrinsic value on the individual level. At the same time, the intrinsic value of animals is taken to be less than the intrinsic value of humans. According to the report, this difference in value means that animals have a right to use animals, even if this use also has certain limits. These limits, it is said, are primarily manifested in the Swedish criminal code's paragraph about animal cruelty, as well as in the Animal Protection Act and its associated regulations about how animals should be kept and treated.⁵⁵

⁵¹ Government Bill 2004/05:177.

⁵² Djurförsöksetiska utredningen (n 51) 180–181.

⁵³ *ibid* 99.

⁵⁴ *ibid*.

⁵⁵ *ibid*.

When it comes to animal experiments, the report states that the right to use animals is applicable only to “situations when the importance of the animal experiment outweighs the suffering of the animals.”⁵⁶ In this regard, the preferred ethical framework is explicitly consequentialist and utilitarian:

What this means is in other words a weighing of costs and benefits. Such tradeoffs [avvägningar] are characteristic of utilitarian principles. The utility [nyttan] for some individuals are weighed against the disadvantages for other individuals and the possible action [handlingsalternativ] that brings the most utility should be chosen.⁵⁷

The report also recommends that the animal ethics committees should start from the assumption that “animals feel pain in a way similar to that of humans,” and that the committees should put “the individual’s suffering in focus [*i centrum*] of the review of animal experiments.”⁵⁸

The report justifies the choice of a utilitarian logic as the basis for the ethical review with the claim that it is “best suited for the purpose.”⁵⁹ Even though the report discusses several of utilitarianism’s weaknesses, it ends up making the overall assessment that

a utilitarian ethical basic principle – like the one we have today – is best suited as a basis for the ethical review of animal experiments. This is because utilitarian theories provide tools for solving conflicts of interest.⁶⁰

Exactly why utilitarianism is best suited to deal with conflicts of interest is explained in the report by reference to the ethical theory of the British philosopher R.M. Hare.⁶¹ Hare’s version of utilitarianism can be described as a combination of act utilitarianism and rule utilitarianism. In general terms, one could say that act utilitarianism holds that the morally correct action is the one that maximizes the sum of utility minus suffering in the world.⁶² Rule utilitarianism on the other hand, claims that the right action is the one that corresponds to a moral rule, which, if it is universally observed, will lead to the greatest utility.

⁵⁶ *ibid.*

⁵⁷ *ibid.*

⁵⁸ *ibid* 174.

⁵⁹ *ibid* 100.

⁶⁰ *ibid.*

⁶¹ RM Hare, “Ethical Theory and Utilitarianism” in HD Lewis (ed), *Contemporary British philosophy* (Allen & Unwin 1976); RM Hare, *Moral Thinking: Its Levels, Method, and Point* (Oxford University Press 1981).

⁶² This general formula, however, does not define what is to be maximized, i.e., what is to be counted as “utility.” The report is vague in this respect and it only mentions the “significance” of the experiments and contrasts this with the pain and suffering of the animals before it is concluded that these different “interests” should be weighed against each other. Nowhere in the report, or in the law, is the “currency” of the consequentialist good defined in greater detail.

In Hare's philosophy, the two principles of act utilitarianism and rule utilitarianism correspond to two tiers of ethical thought. If we wish to live ethical lives, Hare argues, we ought to adopt a certain set of intuitive rules of moral conduct, which, if they were generally adopted, would be likely to maximize the good (rule utilitarianism). On occasion, however, we will encounter complex situations in which important values come into conflict and our everyday moral guidelines fail us. In situations like these, Hare advises, we should switch to the other level of ethical thinking where we analyze all relevant factors and let our actions be governed by what is likely to produce the optimal outcome in the specific case (act utilitarianism) – even if the recommended action would contradict our typical moral standards. Hare also insists that the second type of critical ethical thinking should be put to work in selecting the moral rules that ought to govern everyday behavior.

Not unexpectedly, the Swedish report's author draws the conclusion that it is the second kind of critical, ethical thinking along act utilitarian lines that should guide the ethical review of animal experiments:

This kind of ethical thinking ought to be used when one faces a conflict of interests or when one chooses between doing a greater or lesser evil. In these situations, an analysis of the situation and the consequences that may result from each choice is needed.⁶³

It is also stated that even if the report talks about utilitarianism, the terminology is less important than the basic principle. In reviewing animal experiments from an ethical point of view, the important thing is always to perform “a weighing of the interests in favor of carrying out of the experiment and the interests that speak against it.”⁶⁴

However, this account for the principles that should underlie the ethical review process raise several questions that prompt convincing answers if the legitimacy of the experiments is to be maintained. These questions can be divided in two categories. The first category concerns the justification offered for the choice of utilitarianism as the main guiding principle of the ethical review. The second category concerns the practical possibility to live up to the utilitarian principles once they have been chosen. In the following sections I will discuss these aspects in turn.

⁶³ Djurförsöksetiska utredningen (n 51) 101.

⁶⁴ *ibid* 102.

The report's motives for choosing utilitarian principles

One possible objection to the report's framing of the issue is that it is not at all apparent why a consequentialist or utilitarian position is the most "suitable" one to adopt. The report's argument against deontological (i.e., duty or rule based) principles is that these cannot say "anything about what should happen if different rights come into conflict with each other."⁶⁵ In other words, utilitarianism is thought to be better equipped for the job because it provides a straightforward principle for conflict resolution. But it is not difficult to imagine that many proponents of rights- or duty-based perspectives would object to this characterization. Even if rights and/or duties cannot be weighed against each other like units of happiness or utility, it is not unusual for the former to be ranked in hierarchical or lexical order so that a first-order principle needs to be considered before a second-order principle can come into play, and so on. Such arrangements, as philosopher John Rawls has argued, are concerned with putting the right before the good: the maximization of the good (however conceived) should not come at the price of violating a more fundamental right.⁶⁶ It is certainly possible that such a lexical ordering of rights would be more cumbersome to deal with in practice. It is also true that it could sometimes lead to counterintuitive conclusions. At the same time, this kind of perspective would sidestep the most common reason that make people shy away from utilitarianism, namely that the latter is prepared to sacrifice *anything* to achieve a "greater good." It is also perfectly possible to argue that a rights perspective could be designed to allow the balancing of different rights against each other if they come into conflict. The report, however, does not address these issues and does not provide a more detailed argument for the pro-utilitarian stance it takes.

It can also be noted that the report starts out from a problem representation where human and animal interests are assumed to be in conflict with each other (humans have an interest in research advances and medical developments that are dependent on animal experiments; animals have an interest in avoiding pain and suffering). This framing of the situation draws on a familiar trope, namely the idea that what we face an urgent choice between two evils, one greater and one lesser. This kind of thinking tends to persist in debates over animal ethics, and is usually employed to disparage the claim for non-human rights. Rhetorical questions like "If your house is on fire, who would you save – your child or the dog?" are often posed in attempts to show that animals are worth less than humans.⁶⁷ But while this mode of

⁶⁵ *ibid* 101.

⁶⁶ John Rawls, *A Theory of Justice* (Belknap Press of Harvard University Press 1999) 30.

⁶⁷ See e.g., Gary L. Francione, *Introduction to Animal Rights. Your Child or the Dog* (n14).

thinking may be useful as a heuristic device to contemplate the relative value of different lives, it is not at all apparent that it should apply to the ethical review of individual animal experiments. On the contrary, it could be argued that the assumption of a conflict of interests presents us with a false choice. If we absolutely must choose between a greater and a lesser evil, it seems reasonable to go for the lesser one, but it is in no way clear that this is the kind of choice committee members face in every decision they make. Rather, it could be argued that the typical task of a committee member is to weigh an *actual* evil against a *hypothetical* good.⁶⁸

Indeed, the framing of the review process as an urgent, forced decision in which some interests must be sacrificed to immediately achieve a greater good is questioned even by pro-experimentation advocates. For example, in the Animal Procedures Committee's *Review of Cost-Benefit Assessment in the Use of Animals in Research*, published by the UK Home Office in 2003, this kind of argument is explicitly dismissed. The authors write: "[I]n animal research we are rarely, if ever, presented with the stark situation in which we can save the life of a child by taking the life of an animal."⁶⁹ In a far more critical report from the Oxford Centre for Animal Ethics it is similarly concluded that "[i]n fact, in the entire history of experimentation on both humans and animals, there is not one direct choice of the kind supposed."⁷⁰ The burning house scenario, then, may not exist in the laboratory, since a causal link between an individual animal experiment and a successful therapy cannot be assumed before the experiment is carried out. Moreover, scientific progress does not stem from individual experiments but from an institutionalized regime of practices, the specific utility of which is very difficult, if not impossible, to assess.⁷¹ Nonetheless, the burning house scenario persists as a problem representation that privileges, indeed, makes imperative, urgent action in a case where the really pressing question might

⁶⁸ Hugh LaFollette and Niall Shanks, *Brute Science: Dilemmas of Animal Experimentation* (Routledge 1995) 254–255; Working Group of the Oxford Centre for Animal Ethics in "Normalising the Unthinkable: The Ethics of Using Animals in Research. A Report by the Working Group of the Oxford Centre for Animal Ethics" (Andrew Linzey and Clair Linzey eds, Oxford Centre for Animal Ethics Commissioned by the BUAV and Cruelty Free International 2015) 33 <https://www.researchgate.net/publication/280718607_Normalising_the_Unthinkable_The_Ethics_of_Using_Animals_in_Experiments>.

⁶⁹ Animal Procedures Committee, "Review of Cost-Benefit Assessment in the Use of Animals in Research" (Home Office, Communications Directorate 2003) 15. <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/119027/cost-benefit-assessment.pdf> As an anonymous reviewer pointed out, it could be argued that utilitarianism is already equipped to handle this problem, for example by according lesser weight to hypothetical benefits in the overall calculus. However, while it is always advisable to err on the side of caution, this strategy does not help us overcome the central problem we encounter when we deal with non-linear, complex systems like living animal and human bodies – namely, that we cannot properly estimate hypothetical benefits in advance. I will return to this question later in the paper.

⁷⁰ Working Group of the Oxford Centre for Animal Ethics (n 69) 33.

⁷¹ For an in-depth discussion of how to assess the merits of animal research as an institution LaFollette and Shanks (n 69) chapter 10.

actually be about something quite different – namely, whether we are justified in causing actual harm in the hope of attaining a hypothetical good.

As we have seen, the government report's justification for bringing in utilitarianism was the said doctrine's capacity to handle conflicts of interests. But it could also be argued that the utilitarian perspective does not *solve* this conflict of interests as much as it *creates* it. For the question is not just whether there are incompatible interests out there in the world (obviously, there are numerous interests and preferences that cannot be satisfied without blocking the realization of some other interests or frustrating some other preferences). The more important question is whether the utilitarian framing of this situation as a conflict is the only reasonable one. From a rights-oriented perspective (à la Tom Regan or Gary L. Francione), for example, it could be argued that there *can be no* morally significant conflict of interests when it comes to the issue of animal experiments, since the rights perspective does not recognize the possibility to outweigh one individual's loss with the gain of another to begin with.⁷² Where utilitarianism only considers individuals as “containers” of varying amounts of utility, the rights views emphasize that these containers *themselves* are worthy of respect. To act immorally, from this perspective, means failing to show proper respect by reducing other sentient individuals (or “subjects-of-a-life” in Regan's terminology) to mere means for one's own ends – or, perhaps even worse, to reduce them to a means for advancing an abstraction like the “total utility.”

From this standpoint, the “conflict” between my interest in using someone else in an experiment, and this individual's interest in avoiding being experimented on is misconceived from the beginning. Indeed, if the rights view is correct, I simply *cannot construct* a legitimate case for intruding on the autonomy of another subject-of-a-life in the name of an abstract greater good.⁷³ But that is an external objection. The main point that should be made here is that the report's preference for utilitarianism as the most “suitable” option to resolve the conflict between human and animal interests is an idea that already moves within the horizon of utilitarianism. For utilitarianism to emerge as the unassailably “rational” option, we must already have committed to defining the problem of animal experimentation as a matter of costs and benefits understood in consequentialist terms. Here we must ask whether the choice of a utilitarian logic is really justified by the latter's capacity to solve a pressing moral problem, or whether it is foregrounded

⁷² Francione, *Introduction to Animal Rights: Your Child or the Dog?* (n 14); Francione, *Animals as Persons: Essays on the Abolition of Animal Exploitation* (n 14); Regan, *The Case for Animal Rights* (n 14); Regan, *Animal Rights, Human Wrongs: An Introduction to Moral Philosophy* (n 14).

⁷³ This deontological position does not deny that different interests may come into conflict, it only claims that it is illegitimate to resolve this conflict by a balancing trade-off or by appealing to some greater good.

as an appropriate choice because it helps *construct* the problem (and its solution) in a way that is desirable from the standpoint of the authors of the report – not to mention from the standpoint of the animal research community.

Finally, it is possible to question the choice of utilitarianism on grounds of its inconsistent application in the report. The report appeals to utilitarianism by saying that it can help resolve a crucial conflict of interests. But this does not amount to a wholesale endorsement of utilitarianism’s felicific calculus as the *only* standard of ethical reasoning. As we have seen, the report takes two distinctly non-utilitarian ideas as its starting point (albeit without qualifying them). First, the report argues that humans have a “special status” in relation to animals, and second, that “animals have value in themselves.”⁷⁴ But utilitarianism, as famously intuited already by Jeremy Bentham,⁷⁵ is essentially species-neutral. It does not allow for any special treatment of the interests of certain select species. Utilitarianism is interested in the maximization of the good, period – it does not matter whether the individuals who contribute to the sum of this good are humans or if they belong to another species. As Gaverick Matheny has put it, according to utilitarianism’s principle of equal consideration of like interests, “interests matter, regardless of *whose* interests they are.”⁷⁶ In other words, the report seems to take an inconsistent, or at least underargued, stance when it tries to combine human exceptionalism and (some kind of) intrinsic animal value with the universalizing, strictly consequentialist, and aggregative logic of utilitarianism. Once again, one gets the impression that the report’s endorsement of consequentialism does not stem from a coherent set of first principles, but from an urge to find a philosophical principle that could reaffirm the challenged legitimacy of animal experimentation.

⁷⁴ Djurförsöksetiska utredningen (n 46) 99.

⁷⁵ Jeremy Bentham, *The Principles of Morals and Legislation* (Prometheus Books 1988) 310–311.

⁷⁶ Matheny (n 13) 16 emphasis in original. It could be said, of course, that some animals, due to their specific disposition possess more or stronger interests of a certain kind, and that therefore, under normal circumstances, individuals of given species typically carry a set of interests that weighs heavier than the typical interests of individuals of other species. This is the preference utilitarian argument that Peter Singer used to promote in his books *Animal Liberation* and *Practical Ethics*. According to Singer, adult humans typically have a more extensive set of interests than most other animals – for example in terms of the formers’ more developed plans for the future – which means that, *ceteris paribus*, more preferences would be frustrated if a human dies than if a non-human dies. In this sense, and in this sense only, humans are “worth more” than animals in Singer’s early work. This, however, does not affect utilitarianism’s general commitment to treating like cases alike and promoting equal consideration of like interests on a case-to-case basis. See Peter Singer, *Practical Ethics* (3rd edn, Cambridge University Press 2011); Singer (n 4).

Are the animal experiments consistent with utilitarianism?

So far, I have discussed the government report's reasons for basing the ethical review of animal experiments on a utilitarian calculus model. I have also argued that these reasons are incomplete and/or compromised by other, unstated, concerns. However, even if we should go along with the report and accept the basic utilitarian principles, there are some important questions that need to be raised about the possibility of these principles to achieve their stated goals.

For a utilitarian calculus to live up to reasonable demands for internal consistency, some criteria need to be fulfilled. Philosopher Elisa Galgut has defined four such criteria when it comes to assessing animal experiments.⁷⁷

1. All the involved interests need to be treated with equal consideration (regardless of the species of the involved parties).
2. The consequences of the experiments must be measurable and predictable.
3. There must be actor neutrality (that is to say, all involved actors would rank the possible outcomes in the same way).
4. The outcome may not be affected by any morally irrelevant factors.⁷⁸

In addition to these criteria, I would like to add that a strict version of (act) utilitarianism is rather unforgiving when it comes to defining permissible actions. In its commitment to maximize utility minus suffering in the world, utilitarianism carries with it a built-in criterion of *optimization*. This means that *only* that action that results in the optimal consequences is permissible. *All* other actions are morally wrong.⁷⁹

⁷⁷ Elisa Galgut, "Raising the Bar in the Justification of Animal Research" (2015) 5 *Journal of Animal Ethics* 5.

⁷⁸ *ibid* 7.

⁷⁹ The online Stanford Encyclopedia of Philosophy, for example, contends that classical utilitarianism builds on act consequentialism, defined as "the claim that an act is morally right if and only if that act maximizes the good, that is, if and only if the total amount of good for all minus the total amount of bad for all is greater than this net amount for any incompatible act available to the agent on that occasion." See Walter Sinnott-Armstrong, 'Consequentialism' in Edward N Zalta (ed), *The Stanford Encyclopedia of Philosophy* (Winter 2015, Metaphysics Research Lab, Stanford University 2015) <<https://plato.stanford.edu/entries/consequentialism/>> As previously noted, the Swedish report defines the founding principle of the ethical review model in a very similar way: "What this means is in other words a weighing of costs and benefits. Such tradeoffs [*avvägningar*] are characteristic of utilitarian principles. The utility [*nyttan*] for some individuals are weighed against the disadvantages for other individuals and *the possible action* [*handlingsalternativ*] that brings the most utility should be chosen." Djurförsöksetiska utredningen (n 51) 99, emphasis added. (It should be noted, however, that

Judging from what has already been said above, there are reasons to question whether the conditions regarding equal consideration, actor neutrality, and moral relevance are typically met in the ethical review process as it looks today in Sweden. Given the unequal composition of the animal ethics committees; the pressure on members to conform to a discourse in which animal experiments are considered “normal”; the risk for moral blunting (committee members growing indifferent and insensitive) due to the bureaucratized distance to the animals; the high workload; and the lack of information to base decisions on, it is easy to imagine that the interests of the animals risk being undervalued. Furthermore, morally irrelevant factors (like the researchers’ prestige or the enormous amount of capital invested in animal research) may introduce substantial bias in the ethical review process.

Can animal models fulfill the criteria of measurability and predictability?

In addition to these organizational problems we also need to ask the difficult question about whether the results of the animal experiments can fulfill Galgut’s criterion for measurability and predictability. Where the fulfillment of the other criteria are practical issues that could be subject to empirical, sociological scrutiny and assessment, this final question takes on a more principled significance because it affects the ontological and epistemological assumptions that lend legitimacy to experimental animal research. What is at stake here is the very *possibility* to conduct the prescribed weighing of human benefits versus non-human suffering in an intelligible way.

The social legitimacy of animal research rests on the assumption that it is a fairly straight-forward process to calculate the costs and benefits for the humans and animals involved. Moreover, it is typically assumed that the road between animal experiment and therapeutical application of the research results is relatively short. It is taken for granted that the use of animals to mimic human diseases is, generally, a methodologically sound approach. Naturally, researchers are aware that different species have different characteristics, but the basic assumption is nonetheless that the animal models are sufficiently similar to *Homo sapiens* for experiments on the former to produce reliable biomedical knowledge about the latter.

These assumptions, however, can be criticized. Philosophers of science Hugh LaFollette and Niall Shanks, for example, extensively discuss the problems with animal models in their book *Brute Science: Dilemmas of Animal Experimentation*.⁸⁰ Their main objection is that animal experimentation as we know

the Swedish report does not promote a specifically *hedonistic* version of utilitarianism, but is much vaguer about the “currency” of the moral good.)

⁸⁰ Hugh LaFollette and Niall Shanks (n 69).

it bases its claims to legitimacy on an outdated understanding of biology.⁸¹ According to LaFollette and Shanks, the view of living beings that underpin the practice of animal experimentation rest on a rather crude and mechanistic understanding of biological systems. This view goes back to the nineteenth century and the birth of physiology as a science. This was a time when pioneering experimentalists and vivisectionists like François Magendie and Claude Bernard laid the basis for the hypothetico-deductive paradigm in the life sciences. Their extensive use of animals made both Magendie and Bernard infamous among the animal protectionists of the time.⁸² But from a scientific point of view, the hope that these early physiologists placed in animal experiments seemed fully justified. According to the then reigning scientific paradigm it was perfectly reasonable that conclusions about the human body could be derived from facts observed in other species. At the time, it was assumed that the differences between humans and animals were primarily differences in *degree* and not differences in *kind*. Biological systems like human and animal bodies were conceived as systems organized according to linear principles. Simply put, laboratory animals were seen as small furry people, and the only real problem with translating research results between species was to find the right coefficient by which to recalculate the findings. Given this outlook, it was also easy to jump to the conclusion that animal experiments would lend themselves well to a rational cost/benefit calculus. When a biological function or a mechanism behind a disease had been found in a non-human animal, it was often assumed that a corresponding function in the human body could be inferred. This is the background to what LaFollette and Shanks call the “causal-analog” view of animals as models for humans, a view that still has strong purchase on our assumptions about the scientific status of animal experiments.⁸³

The problem with this causal-analog view is that it became outdated a long time ago. In contrast to the understanding of Magendie, Bernard, and their contemporaries, modern biology perceives living organic systems as nonlinearly organized and characterized by emergent properties at every level of complexity. According to LaFollette and Shanks modern, evolutionary biology does not predict that humans and other animals are reliable causal analogues. On the contrary, given the assumptions of the current paradigm in

⁸¹ Similar arguments are advanced in C Ray Greek and Jean Swingle Greek, *Specious Science: How Genetics and Evolution Reveal Why Medical Research on Animals Harms Humans* (Continuum 2002); Niall Shanks and C Ray Greek, *Animal Models in Light of Evolution* (BrownWalker Press 2009); Niall Shanks, C Ray Greek and Jean Greek, “Are Animal Models Predictive for Humans?” (2009) 4 *Philosophy, Ethics, and Humanities in Medicine*: PEHM 1.

⁸² LaFollette and Shanks (n 69); Anita Guerrini, *Experimenting with Humans and Animals: From Galen to Animal Rights* (The Johns Hopkins University Press 2003).

⁸³ LaFollette and Shanks (n 69) 61–67.

biology, the so-called “modern evolutionary synthesis,”⁸⁴ we have good reason to expect at least three different kinds of *disanalogies* between different species.⁸⁵ These *disanalogies* are:

1. *Intrinsic disanalogies*. Since all animals have evolved and adapted to different circumstances they may exhibit intrinsic differences at any level of their biological systems. For example, different species are genetically different, and even if they also exhibit genetic similarities the differences are often more important; the presence or absence of a single gene in an animal’s DNA may mean that organisms that are mostly identical at a genetic level to develop in very different directions. This means that the causal properties of the bodies of different species may differ in unexpected and unpredictable ways.
2. *Systemic disanalogies*. Human and animal bodies are complex systems composed of mutually interacting sub-systems. And just like the interplay between different genes may result in unexpected outcomes at the level of the whole organism, small differences in the interactions between different organs and organ systems may give rise to big differences between species when it comes to their reactions to diseases, would-be medications, and toxic agents.
3. *Intervention disanalogies*. Apart from these potential biological differences between the model animal and the target animal (the human), there are also an unknown number of potentially relevant factors related to environments of both species (including the effects that the laboratory environment may have on animals unadapted to this situation).

The big problem with these *disanalogies* is that they appear as “emergent” properties, i.e. they emerge only at the systemic level and are irreducible to properties found among the individual parts of the system. The whole, according to this kind of complexity theory, is more than the sum of its constituent element. It follows from this view of species difference that experiments on one nonlinear system (one species) do not lend themselves to a simple re-calculation of the results to fit other nonlinear systems (another species). It is certainly true that humans share many biological properties and functions with other species, but we cannot assume beforehand that they are fully parallel in all the aspects that we are interested in. This has serious consequences for the utilitarian logic that the animal ethics committees are supposed to adhere to. As Jeremy Bentham himself pointed out, a utilitarian weighing of the

⁸⁴ For an introduction to the new synthesis in biology, see Ernst Mayr, *This Is Biology: The Science of the Living World* (Belknap Press of Harvard University Press 1997); Ernst Mayr, *What Evolution Is* (Basic Books 2001).

⁸⁵ LaFollette and Shanks (n 69) 113–114.

consequences of different actions must always consider the *probability* that a given action will produce the desired result.⁸⁶ A sound utilitarian justification for an animal experiment, therefore, must begin with a plausible account for the probability that the experiment will produce more benefits than suffering. To make this case, it must be shown that the animal models and the target humans are plausibly similar in their causal biological mechanisms. But it is precisely here that the disanalogies may come into play and disturb our assessment. As LaFollette and Shanks emphasize, an observed similarity of biological *function* in two different species does not allow us to infer a similarity in their underlying biological *mechanisms*. Nor does a difference on the level of causal mechanisms allow us to infer a difference in functional properties (since a combination of different underlying mechanisms may very well give rise to identical functions at a higher level of complexity).⁸⁷ The crucial point here is that we can only determine whether one or more of the disanalogies have come into play after we have access to reliable findings from *both* humans and animals. But this renders the modelling redundant and leads to a deadlock for the utilitarian probability calculation: We cannot prove that an animal is a reliable, predictive causal-analog model for humans (in a given respect) unless we already have relevant human data to compare with. But if we already have reliable human data we do not need the animal model to begin with.⁸⁸

These objections to the viability of the utilitarian calculus, however, do not completely rule out that animal experiments may be meaningful in research. Animals may not be reliable *causal* models, but they could still be used as heuristic aids. By studying animal bodies researchers may very well discover previously unknown mechanisms and functions that *could* have their parallels also in the human body. In this sense, animal experiments can certainly be used to build a kind of “reservoir” of hypotheses about the human body and human diseases.⁸⁹ This argument, however, brings us to another paradox, namely that the social legitimacy of animal experiments relies almost exclusively on their use in *applied* research, while *basic* research on animals is often considered indefensible because the latter is seen as a kind of aimless probing rather than as a goal-oriented utility-seeking activity. But based on the argument advanced here, the situation might be the reverse: the “aimless” basic research may well be a more fecund source of scientific hypotheses, and therefore ultimately a richer source of utility, than applied research.⁹⁰

⁸⁶ Bentham (n 76), see sections IV.2, 7, 17.

⁸⁷ LaFollette and Shanks (n 69) 233.

⁸⁸ Another important consequence of this is that the disanalogies between species may produce results that point the researcher in the wrong direction, thereby leading our scientific efforts astray. See, for example, LaFollette and Shanks (n 69) 14–16.

⁸⁹ LaFollette and Shanks call such animal models “heuristic” or “hypothetical” animal models rather than causal-analog animal models. LaFollette and Shanks (n 69) 194.

⁹⁰ *ibid*, chapter 12.

If one is looking for the strongest utilitarian case for animal research, it may have to be sought here, rather than in the field of applied medicine. Nonetheless, the major critical point remains: Hypotheses about analogies between humans and other animals can neither be verified nor falsified by experiments on animals alone. To bridge this chasm, we always need human data for comparison. The probability that a given animal really is a reliable model for the human cannot be determined in advance.⁹¹

This revisionist view of the reliability and validity of animal models raises serious concerns. Most importantly, it questions whether a full utilitarian calculus lies within the realm of the possible when we are trying to extrapolate results from animal models. Nonetheless, this is the task that the Swedish animal ethics committees have been given. But this weighing process cannot be completed without an estimation of the probability that the experiment will produce a beneficial result. It is the reliability of this component in the review process that is called into question by the recognition of biological disanalogies and emergent properties in complex systems. As LaFollette and Shanks put it, researchers (or, in our case, the animal ethics committees) “have to *show* – and not merely assume – that the product of the probability and utility of benefits to humans is greater than the product of the certain suffering of laboratory animals (adjusted for the diminished value of the animals) and the number of animals who suffer. This is easier said than done.”⁹²

6. Conclusions

In this article I have argued that the regulatory policies and guidelines for the ethical review of animal research in Sweden need to be problematized, particularly considering the radicalization of animal ethics and the serious critique of speciesism that has emerged in recent decades. The task of weighing animal suffering against human benefits that is placed on the animal ethics committees is surrounded by many practical and theoretical problems that call into question its viability as a framework for a fair and impartial assessment of animal experiments. The practical problems include the organizational culture of the committees that have been shown to favor consensus and conformity over ethical contestation; the strong influence of a scientific discourse on the committees’ priorities; the lack of sufficient information

⁹¹ There are some exceptions from this, however, like when animals are used as bioreactors, as a source for human replacement parts, to diagnose disease, or to test the potency of an already known substance (e.g., a vaccine). In these cases the goal is not to produce new knowledge about humans. And since there is no claim about the *predictive* power of the animal use in these cases, they are not included in the definition of animal *models*.

⁹² LaFollette and Shanks (n 69) 254.

to ground ethical decisions; the high workload and the lack of administrative support for committee members. The theoretical problems include an inconsistent, or at least incomplete and underargued, set of founding principles for the ethical review process. This is particularly problematic, I have argued, when it comes to the review model's reliance on a consequentialist, utilitarian mode of reasoning, as promoted in the most important government report on the topic. Not only is the choice of a utilitarian framework insufficiently explained and justified to avoid the charge of speciesism, there are also good reasons to doubt its usefulness for assessing actual experiments on its own terms. The difficulty of using the utilitarian logic of weighing interests as a principle for decision-making is a well-known philosophical problem, but it is vastly exacerbated when the logic is applied to non-linear systems like living beings characterized by emergent properties at every level of complexity. The idea that other animals are appropriate causal-analog models for human diseases and conditions has been thoroughly undermined by modern biology, and this paradigm shift also undercuts utilitarian review models – like the Swedish one – that are dependent on probability/utility calculations for their philosophical consistency, scientific credibility, and public legitimacy.

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