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How Ought We To Live With Nonhuman Animals? Peter Singer's Answer: Animal Liberation Parts I & II (two papers)

PART II

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In the previous paper I resituated Peter Singer's *Animal Liberation* within the larger context of the historical development of the animal activist movement. This paper directly follows on from the previous one, but here I take a closer at the book itself, focusing on 'Tools for Research', the second chapter in which Singer discusses animal experimentation particularly. My aim is to draw attention to the tactics adopted by Singer, which given the historical development of the movement, as detailed previously, are indeed activist, and offer some account of why they are morally persuasive.

The Activists, their Strategies, and their Critics

In the previous paper, we got a good sense of the activist strategy adopted by Hageby and Schartau. Theirs was the strategy of infiltrating the experimental space, in this instance as students, and describing to the public in some detail what they saw there, both in terms of the practical actions of all who participated and their collective attitude. An example of this strategy of infiltrating a research laboratory is also briefly described in 'Tools for Research' although the exposé in question took the form of video footage rather than a written account. The content of both however is surprisingly similar.

In the second edition to *Animal Liberation* Singer describes a particular case in which activists belonging to the *Animal Liberation Front* infiltrate the laboratory of Dr. Thomas Gennarelli at the University of Pennsylvania and steal a number of video recordings showing various experiments conducted on baboons. Singer tells us that the aim of the experiments was to inflict head injuries on otherwise healthy baboons

in order to study the nature of the damage to their brains. The apes were supposed to be anaesthetised at the time but Singer writes:

When they viewed [the tapes], they saw conscious, unanesthetized baboons struggling as they were being strapped down before the head injuries were inflicted. They saw animals writhing, apparently coming out of anesthesia, as surgeons were operating on their exposed brains. (Singer, 1995: 81)

What is similar to the Hageby-Schartau case is that the participants, all of whom were researchers involved in the study including Gennarelli himself, could be seen and heard laughing and mocking the animals during the experiments. Here again collective behaviour more akin to entertainment than medical research could be seen; here again, a spirit of jocularly seemed to prevail. Singer writes that eventually, after the public airing of the tapes and much lobbying by various people including members of PETA, funding for the research was withdrawn by the secretary of health and humans services, although no-one was formally charged with cruelty to animals (Singer, 1995: 81).

The researchers, from the public point of view, had overstepped some mark. It was not solely that the animals were seen to be suffering horribly; critical to public outrage was their attending to the situation in such a way as to view it with dismay or disgust, or indignation (anything but delight). This was something the researchers had not done. Rather, they had ridiculed and made fun of the animals who in no way could have responded or defended themselves. The apes were not simply restrained by actual straps and cords and made objects of experimental research, they were made the victims of unsavoury jokes and taunts by people in particular positions of power whose ordinary sensibility failed them, which, in having the situation exposed, the public brought to bear on the case. It was this mark, as much as any other, that the researchers, from the public point of view, had overstepped; as was similarly the case in the situation described by Hageby and Schartau. I flag this idea of bringing to bear a common-sensibility as one that will be more fully developed a little later.

Cobbe's 'Light in Dark Places'

Written in 1883, *Light in Dark Places* offers an insight into the routine beliefs and practices of the social world of the vivisector. Cobbe's general focus at the time was on the science of physiology and so the content of her pamphlet reflects this commitment. Her declared aim was to clarify for the public what the word 'vivisection' actually meant in practice, but the motivation for the pamphlet was certainly to convince readers to reject the practice. As a member of the Victoria Street Society at the time, only 'the total suppression of vivisection' was an acceptable outcome for Cobbe.

The pamphlet contains various descriptions and illustrations of the equipment used by physiologists at the time, including tools and tables and specialised 'ovens', all of which were taken from the vivisector's own publications or 'letter-press descriptions'. Every illustration, Cobbe assured her readers, 'may be taken with certainty to be *a Vivisector's own picture of his own work*, such as he himself has chosen to publish it' (Cobbe, 2004 (1883): 293, her emphasis). The same can be said of the experiments she describes for all are taken from the vivisector's own reports, and in most cases

reprinted in their own words. Apart from one or two, all the experiments included in the pamphlet, she says, were routinely performed, so much so, that they represented the expected level of competency for any physiologist worthy of the title. She writes: '[the experiments] are gone over by each new recruit in the army of science who takes up the study of the organs concerned, and may be likened more properly to the scales and exercises of the musical practitioner, than to the purposeful operations of the surgeon' (Cobbe, 2004 (1883): 294).

At the outset readers prepared to take comfort in the view that the animals were rendered 'insensible to pain' in these experiments are confronted with some experimenters' own concerns regarding the use and effectiveness of anaesthesia. Citing, for example, Claude Bernard's work, Cobbe informs readers that 'morphia', the most important of anaesthetics at the time, may plunge dogs into a state of immobility but it does not render them insensible, for 'if we pinch the animal', says Bernard, 'he moves and cries' (Cobbe, 2004 (1883): 296).

From here Cobbe introduces readers to illustrations of the various tools used by vivisectors, most of which were reproduced from Bernard's *Physiologie Opératoire* (1879). There are illustrations of knives, saws, scissors, hooks, screws, pincers, scalpels which are quickly followed by illustrations and descriptions – generally taken from the same source – of vivisector's tables and other restraining devices. Readers are invited to view an instrument for producing artificial respiration, several tables of various sizes and design and the methods by which animals are restrained (that is, by providing illustrations of restrained animals), a suspension device used to hold animals upright during the experiment and a jaw clamp, a machine for measuring the rate of the blood-current in the arteries or rabbits, and Bernard's famous stoves in which he placed otherwise healthy animals and increased the temperature until the animals died of heat exhaustion. According to Bernard's results says Cobbe, dogs, pigeons and rabbits expired at temperatures of 90 or 100 degrees centigrade in 6 minutes, 10 minutes and 24 minutes and at higher temperatures at different intervals (Cobbe, 2004 (1883): 298-310).

In conjunction with illustrations of this latter experiment, are Bernard's own descriptions of what went on. Here Cobbe cites Bernard directly:

The animals exhibit a series of symptoms always the same and characteristic. At first the creature is a little agitated. Soon the respiration and circulation are quickened. The animal opens its mouth and breathes hard. Soon it becomes impossible to count its pantings; at last it falls into convulsions, and dies in uttering a cry. (Cobbe, 2004 (1883): 310)

Citing further material from Bernard's work, Cobbe draws readers' attention to the fact that these experiments were part of a series of lectures given to students; they represented routine experimental procedures and conventional teaching material for training future members of the profession.

Bernard's experiments were not the only ones to be cited by Cobbe. She also took examples from the work of French physiologist Elie de Cyon (cited earlier), from his *Methodik der physiologischen experimente und vivisectionen* (1876). Regarding an experiment on the head of a rabbit, de Cyon writes:

The rabbit is firmly fastened to the ordinary vivisection table by means of Czermak's holder ...now holding the head of the animal very firmly, the blade of the knife is directed backwards and downwards and pressed hard in this direction against the base of the skull. The nerve is then generally cut behind the Gasserian ganglion, which is announced by a violent cry of agony of the animal. (cited by Cobbe, 2004 (1883): 317)

Readers again get a very clear sense of the didactic nature of this description, of the aim of the vivisector to not only report on the results, but to teach those desiring to become physiologists at that time and place in history. Interestingly, Cobbe cites a long passage of de Cyon's in which he gives an apparently 'well-known' description of the 'true' vivisector. The passage is worth citing in full, both to appreciate the artistry of the description itself with its clear sexual overtones, and also to appreciate the sense in which one of physiology's leading exponents likened the practice to any other art form; likened the vivisector to any other artist, to people with particularly imaginative sensibilities, which when placed side by side with the illustrations and descriptions of the suffering endured by the animals and taken outside of its usual readership – that is, by fellow vivisectors or students in the field – might serve to persuade otherwise, hence its inclusion in *Light in Dark Places*.

Citing de Cyon Cobbe writes:

The true vivisector must approach a difficult vivisection with the same joyful excitement, and the same delight, wherewith a surgeon undertakes a difficult operation, from which he expects extraordinary consequences. He who shrinks from cutting into a living animal, he who approaches a vivisection as a disagreeable necessity, may very likely be able to repeat one or two vivisections, but will never become an *artist in vivisection*. He who cannot follow some fine nerve-thread, scarcely visible to the naked eye, into the depths, if possible sometimes tracing it to a new branching—with joyful alertness for hours at a time; he who feels no enjoyment when at last, parted from its surroundings and isolated, he can subject that nerve to electrical stimulation; or when, in some deep cavity, guided only by the sense of touch of his finger-ends, he ligatures and divides an invisible vessel; to such a one there is wanting that which is most necessary for a successful vivisector. The pleasure of triumphing over difficulties held hitherto insuperable is always one of the highest delights of the vivisector. And the sensation of the physiologist, when from a gruesome wound, full of blood and mangled tissue, he draws forth some delicate nerve-branch, and calls back to life a function which was already extinguished—this sensation has much in common with that which inspires sculptor, when shapes forth fair living forms from a shapeless mass of marble. (Cobbe, 2004 (1883): 305-7, my emphasis)

The passage itself was taken from the preface to de Cyon's work on physiological methods cited above. Animals in this context, like the canvas of the painter or the wood of the carpenter, are the materials by which the vivisector-artist creates. Put along side the illustrations of tools and tables, they are much like the tools themselves, for nowhere does de Cyon mention the animal to which he is referring – it could be any animal, anywhere, anytime. Furthermore, nowhere in this passage do we get a sense that this is something we should not be doing to an animal, rather we should be doing it and taking delight in what we are doing. This is what apprentices in the field should be aiming to achieve, this is how the superior vivisector works – and it is

this 'how to go on', 'how to do it' that we become privy to as outsiders of the discipline.

I have offered a sampling of the various experiments and illustrations contained in Cobbe's pamphlet. There is little theoretical discussion or philosophical argument contained in the work. Something about the descriptions and illustrations, Cobbe believed, would stand on their own as testament to the necessary cessation of vivisection as a scientific practice. To her mind, readers attending to the practice as it was performed by physiologists who could be named and their actual experiments described was a valuable strategy in making vivisection a matter of common concern. Peter Singer adopts a similar strategy in 'Tools for Research' that the following summary will show.

Singer's 'Tools for Research'

Scattered throughout Singer's chapter are summaries of actual experiments conducted on animals by real scientists whom Singer indeed names. And like Cobbe, in summarising the various experiments Singer often cites the practitioner's own scientific account of what went on. Unlike Cobbe's focus on physiology, many of the experiments Singer attends to are those from the field of psychology. I will outline some of these examples and Singer's associated commentary but certainly not all for his citations are extensive and for the purpose of identifying his strategy citing all of them is unnecessary.

Part way into the chapter Singer describes a series of experiments conducted by Dr Harry Harlow and others studying social isolation in particularly infant monkeys, presumably, although it is not stated by Singer, to act as models for understanding and human psychopathology of the same order. Singer (1976: 43) begins citing from one of the researchers' own publications:

For the past ten years we have studied the effects of partial social isolation by raising monkeys from birth onwards in bare wire cages...These monkeys suffer total maternal deprivation...More recently we have initiated a series of studies on the effects of total social isolation by rearing monkeys from a few hours after birth until 3, 6 or 12 months of age in [a] stainless steel chamber. During the prescribed sentence in this apparatus the monkey has no contact with any animal, human or sub-human.

In a series of subsequent experiments, Singer tells us, the researchers designed surrogate 'monster mothers' (their phrase) in order to induce depression in baby monkeys. The researchers write in another publication:

The first of these monsters was a cloth monkey mother who, upon schedule or demand, would eject high-pressure compressed air. It would blow the animals skin practically off its body. What did the baby monkey do? It simply clung tighter and tighter to the mother, because a frightened infant clings to its mother at all costs. We did not achieve any psychopathology. (cited by Singer, 1976: 44)

The researchers go on to describe various other types of monster mothers that failed to produce the required psychopathology in the infants, eventually giving up on artificial mothers, finding they could produce real live ones as Singer (1976: 44-45) describes:

To produce such mothers, they reared female monkeys in isolation, and then tried to make them pregnant. Unfortunately the females did not have normal sexual relations with male monkeys, so they had to be made pregnant by a technique that Harlow and Suomi refer to as “a rape rack”. When the babies were born the researchers observed the monkeys. They found that some simply ignored the infants, failing to cuddle the crying baby to the breast as normal monkeys do when they hear their baby cry.

Through a further extract of the researchers’ own work, readers discover that other ‘monster mothers’ were more brutal in their rejection of their babies, sometimes crushing the skull of the infants with their teeth or by smashing the infant’s face into the floor and rubbing it back and forth (Singer, 1976: 45).

Regarding the results of particularly the artificial monster mother experiments, Singer notes that the researchers themselves remarked that it was not surprising to them that the babies kept returning to the monster mother, since ‘the only recourse of an injured child is to cling to its mother’ (Singer, 1976: 44). In terms of Singer’s own commentary, he suggests that despite the great pain caused the many animals he had described no momentous or vital new knowledge had been generated. Animals have become, he says (1976: 46):

for the psychologist and for other researchers, mere tools. A laboratory may consider the cost of these “tools”, but a certain callousness toward them becomes apparent, not only in the experiments performed but also in the wording of the reports.

I offer one more example of an actual experiment that Singer describes, which also concerns the work of a psychologist. He provides readers with an insight into the work of Martin Seligman who performed a series of experiments designed to generate a state of ‘learned helplessness’ in dogs. The following extracts Singer takes from Seligman’s various publications and so constitute Seligman’s own descriptions:

When a normal, naïve dog receives escape/avoidance training in a shuttlebox, the following behaviour typically occurs: at the onset of electric shock the dog runs frantically about, defecating, urinating and howling until it scrambles over the barrier and so escapes from shock. On the next trial the dog, running and howling, crosses the barrier more quickly, and so on, until efficient avoidance emerges (cited by Singer, 1976: 39)

And in subsequent shuttlebox experiments after the dogs have been administered electric shocks in harnesses from which they have no means of escape, Singer tells readers, again citing Seligman’s own words that:

[the] dog reacts initially to shock in the shuttlebox in the same manner as the naïve dog. However in dramatic contrast to the naïve dog it soon stops running and remains silent until shock terminates. The dog does not cross the barrier and escape from shock. Rather it seems to “give up” and passively “accept” the shock. On succeeding trials the dog continues to fail to make escape movements and thus takes 50 seconds of severe, pulsating shock on each trial....a dog previously exposed to inescapable shock...may take unlimited shock without escaping or avoiding at all. (cited by Singer, 1987: 39).

In the second edition to *Animal Liberation*, Singer (1995: 47) informs readers that 'learned helplessness' experiments continued into the 1980s with research switching to experiments on rats and fish.

It is also in the second edition that Singer introduces the notion of 'conditioned ethical blindness', a concept he borrows from an ex animal experimenter who later became an active member in the liberation movement. Don Barnes says that during the many years of his involvement in experimenting on animals he was never confronted either formally or informally with the ethical issues concerning the use of animals, rather 'his entire life had consisted of being rewarded for using animals, treating them as sources of human improvement or amusement...' (cited by Singer, 1995: 71). In Singer's (1995: 71) words: 'just as a rat can be conditioned to press a lever in return for a reward of food, so a human being can be conditioned by professional rewards to ignore the ethical issues raised by animal experiments'.

He describes some of this conditioning. For example he states that detachment is often made easier through the use of technical jargon and hygienic-sounding terminology (Singer, 1995: 51); that the gradual "indoctrination" of students begins early with the dissection of, for example, frogs in biology classes in schools and that passing certain university courses often depends on students performing experiments on live animals (Singer, 1995: 70). Also, that when animal experimentation becomes the accepted mode of research in a particular research field the process is self-reinforcing in the sense that publications, promotions, awards and grants become geared towards that mode of research as does the public money, derived from taxation, which funds much of the research in the biological sciences (Singer, 1995: 72-74).

Part of Singer's rationale for including reports of actual experiments, he says (1976: 36), is to 'illustrate not sadism on the part of the individual experimenters [named] but the institutionalised mentality of speciesism that makes it possible for these experimenters to do these things without serious consideration of the interests of the animals they are using'. Singer would likely explain the purpose of Cobbe's pamphlet in a similar way. The similar strategy adopted by both of reporting experiments outside their usual publication setting provides a valuable insight into the scientific communities' routine beliefs and practices concerning the treatment of animals. Certainly, Cobbe and Singer adopt this strategy in order to problematise that which is taken for granted and regarded as morally unproblematic by members of the scientific social world experimenting on animals. Interestingly, the title of each work might equally apply to the other, for Cobbe implicitly suggests that animals are analogous to a vivisector's tools, and Singer aims to expose the scientific social world of the experimenter and their collective ways concerning the treatment of animals which he regards, in many cases, to be callous and cruel.

The Critics of these Strategies

Writing in 1883, Elie de Cyon published a work criticising anti-vivisectionists and the strategies they employed to influence the general public. He does not single out

Cobbe's pamphlet for criticism, but the judgments he makes might well apply to her work and indeed to Cobbe herself for he repeatedly refers to the 'old maids' of the movement in this article, of which he thought Cobbe to be one. Over a century later, Sharon M. Russell and Charles S. Nicoll, research physiologist and professor of physiology respectively, published two articles criticising Peter Singer's *Animal Liberation* generally and his 'Tools for Research' chapter particularly, raising criticisms similar to those made by de Cyon against anti-vivisectionists one hundred or so years earlier. These criticisms include: the misrepresentation of scientific research through propagandist means; taking experiments out of context and not citing their rationale; the counterclaim of sentimentalism and irrationality on the part of the activists, and the bringing to bear on the scientific social world criticisms from people who are naïve outsiders to this world.

In de Cyon's *The Anti-Vivisectionist Agitation* (1883), he refers to the activists as 'unreasonable adversaries', 'fools', 'outsiders', 'hysterical sentimentalists' and 'old-maids' and in relation to the last he writes:

Let my adversaries contradict me, if they can show among the leaders of the agitation one young girl, rich, beautiful, and beloved, or one young wife who has found in her home the full satisfaction of her affections! (de Cyon, 2004 (1883): 232)

The two examples of Louise Lind af Hageby and Leisa Schartau aside (who were young, and rich, and quite likely beautiful women), de Cyon's commentary on young women and their dissatisfactions will not be pursued here. At the outset of his discussion he admonishes his colleagues for engaging with the activists, and that this was their crucial mistake. The scientists he says have not shown 'an excessive condescension' which they should have, for if the public have been misled

the fault must rest first of all with the physiologists themselves, who, in deigning to enter the arena at all with such adversaries, gave them unmerited credit with the crowd. (de Cyon, 2004 (1883): 225)

Also, in committing themselves to such debate, the scientists are forced to address their 'refutations of the foolish accusations brought against them' to the general public, to members of government and to members of parliament whose judgment as *outsiders*, he says, have 'no value at all in matters of science' (de Cyon, 2004 (1883): 225).

Concerning the physiologist's own experimental work and the way in which activists have used it, de Cyon has this to say:

...they mutilated the texts, distorted quotations, and held up to public animadversion the experiments described in memoirs intended for specialists, in which, very naturally, no mention was made of the anaesthetics to be used, their employment being taken as a matter of course. (de Cyon, 2004(1883): 225)

Cobbe, as we saw, did mention anaesthetics in her pamphlet, but problematised their use according to the scientists' own citations; de Cyon would likely argue that even these quotations were taken out of context. As an example, he takes issue with those whom he sees as having 'distorted' his description of the 'true vivisector', Cobbe in this instance being one of them. He rejects the suggestion that the pleasure which comes to a vivisector as he has described it in the passage can be interpreted as

pleasure derived from the suffering of the animal, and to conclude from this that the 'practice of vivisection develops cruelty' in the vivisector. Rather, in reading the passage within the context in which it was intended, readers will see that an earlier part of the chapter set forth 'the rules to be followed for sparing pain to the animals during vivisection' (Cobbe 2004 (1883): 230). They include always using anaesthetics and avoiding the vivisection if the vivisector can 'attain by other means the object in view' (de Cyon, 2004 (1883): 230).

Against accusations that vivisectors are cruel and callous people, de Cyon offers himself as an example: that as a passionate hunter and rider, he is a man with a strong attachment to horses and dogs, and so cannot be accused of a cruel disposition. Rather, he says, feelings of either cruelty or of compassion are not the motives by which a physiologists decide to perform vivisections (de Cyon, 2004 (1883): 231).

The motives underlying scientists' use of animals is an issue that Sharon M. Russell and Charles S. Nicoll likewise pick up on in their criticisms of Singer's work. In their articles *Animal Liberation: An Exchange* (1992) and *A Dissection of the Chapter "Tools for Research" in Peter Singer's Animal Liberation* (1996), Russell and Nicoll (1996: 110) accuse Singer of misrepresenting the truth about animal research, that 'objective but scientifically naïve readers' of his chapter would probably come away thinking that while 'giving animals the same moral consideration one normally extends to humans is not a rational concept, most or all of animal research must be cruel, painful, useless'. What Singer fails to offer his readers, they say, are the motives or *rationale* for the experiments. Russell and Nicoll (1996: 114) treat the Harry Harlow experiment as a case in point.

...Singer does not "allow" Harlow to explain why he did the research in the first place. In the paragraphs preceding the quote, Harlow notes that social isolation in humans is "recognised as a problem of vast importance" and that "it is difficult or impossible to study scientifically the impacts of culturally produced social isolation at the human level". Thus, his laboratory developed a monkey model for this condition in order to "find insights into the problems created by human social isolation from study of social isolation in monkeys".

Russell and Nicoll cite similar problems with Singer's use of Seligman's 'learned helplessness' experiments on dogs. Again, they say, he does not offer readers of 'Tools for Research' reasons for the experiments and indeed misrepresents the nature of some of them. In terms of the latter, their claim is that in the reporting of one experiment, Singer fails to acknowledge that the 'alleviation' of learned helplessness was the issue in question rather than its inducement in naïve dogs and that the purpose of the study was to 'investigate therapies for learned helplessness'. Russell and Nicoll also point to what they see as an irony concerning the case. Seligman himself had 'qualms about the ethics of animal research' having done philosophy as an undergraduate major at university, yet overcame these qualms because of a conviction 'that only through well-controlled experiments using animals could causes and cures for emotional illnesses be found' (Russell and Nicoll, 1996: 118). Readers of Seligman's book, they claim, will learn a lot about how and why experimentation on animals is carried out in the discipline of psychology.

Russell and Nicoll proceed to challenge most of the examples of experiments Singer provides in 'Tool for Research' in the same way that they have done in the two examples cited. In their view, the chapter is 'cleverly constructed to appeal to a target audience of impressionable animal lovers or the already true believers in the cult of animalism—giving them many examples of luridly portrayed research in the same tones one might use to describe an ogre under the stairs in a story designed to frighten children' (Russell and Nicoll, 1996: 110). Beyond the criticisms they make of the specific examples of experiments, they claim that it is a chapter rife with anti-science, anti-intellectual, and anti-American sentiment. A scientist's need to acquire knowledge, they say (1996: 136), 'must not be encumbered by silly philosophies that are based on emotionalism and sentimentality (such as Singer's), rather than on rationality and objectivity'.

Singer offers a rebuttal to Russell and Nicoll's of which I will say little other than that he rejects claims that he does not offer readers the rationales for the experiments and that his work does not employ emotional language, citing several reviewers who agree (for example, a reviewer from the NYRB describes Singer's book as "unrhetorical and unemotional"). Regarding the language, he says, it is almost impossible not to arouse emotional responses when reporting on what happens to animals in experiments, that is why the language he chose to use was the language of the experimenters themselves precisely in order to avoid accusations of emotional overlay.

Reflecting on the persuasiveness of Singer and Cobbe's work

There are a certain group of experiments that I now wish to return to, which Russell and Nicoll criticise Singer's reporting on, that I will refer to here as the Gennarelli experiments or the Gennarelli case and which involve his research into head injuries in baboons. The Gennarelli case is useful because it brings out some of the underlying assumptions made by members on both sides of the general debate about experimenting on animals and exposes some of the problems with Singer's arguments.

Russell and Nicoll take particular issue with the 25 minute 'exposé' that PETA put together from the hours of footage that came into their possession and with Singer's claims that the baboons were conscious during the experiments. According to Russell and Nicoll (1996: 130-31), no evidence exists to indicate that any of the animals shown on the film were suffering or were frightened when the experimenters were 'permitting themselves some unfortunate "gallows" humor' (that is, laughing and mocking the animals during the experiments). The real issue they say is that important research was halted that was very important to helping save human lives and to treating those affected by head injuries, which when combined with issues relating to rehabilitation was costing the U.S. government (at the time) over \$25

billion annually (Russell and Nicoll, 1996: 131). I flag their criticism as something that I will return to shortly.

As has been the case for all the experiments cited so far, and on both sides of the debate, the issue of sentience, understood as the capacity to suffer, has been central. In the Gennarelli case what Singer emphasised was the suffering of the baboons involved which Russell and Nicoll reject. They claim rather that that there was little or no suffering on the part of the baboons: the animals were 'in fact heavily sedated and probably insensible' (Russell and Nicoll, 1996: 130).

If we come down on the side of Singer, that is, that the baboons were indeed conscious during the experiments and therefore suffered then there are grounds for claiming that the experimenters involved were guilty of wrongdoing. The researchers were guilty of speciesism because they did not give due consideration to the suffering of the animals involved in the experiment. If we come down on the side of Russell and Nicoll however, and make their claims stronger, that is, that the animals were rendered insensible then there is nothing morally problematic about this case according to Singer's arguments. The animals could not feel anything as they were rendered insensible and so the researchers could not be accused of speciesism. Their laughing and mocking of the baboons holds no weight in terms of Singer's arguments because the animals did not suffer from the teasing of the experimenters; they were not aware of it. Without the issue of suffering involved on the part of the animals then it would seem that the critics could be right to insist that our responses are simply the responses of sentimentalists and that our judgements therefore have no bearing on this case.

But to people who are not sadists (adopting Singer's turn of phrase) there is very clearly something morally problematic about an experiment in which researchers laugh and mock the animals that they are in the process of deforming. The researchers may not be guilty of speciesism but there is something about their actions that is nevertheless important to consider in the debate over animal experimentation. Their behaviour represents a degree of callousness on their part that is not captured by Singer's arguments and which is nevertheless important to consider. This is something that Singer himself recognises in 'Tools for Research' but loses sight of when he links what he calls conditioned ethical blindness to the institutionalised mentality of speciesism (Singer, 1995: 71).

One way of responding might be something like this. Given, as Russell and Nicoll claim, the vital nature of the research where human lives and the wellbeing of human lives is at stake, why were the researchers laughing and joking and mocking the animals? How is this appropriate behaviour for people involved in, as Russell and Nicoll say, the very serious business of saving human lives? On this score, their behaviour was not simply 'unfortunate' it was unacceptable, appalling and shameful. It showed an attitude wholly inappropriate to the purpose of the research, which, ironically, is precisely what Russell and Nicoll accuse Singer of: of not taking human lives seriously enough.

The same argument might be made in relation to Francis Power Cobbe's work. Like Singer, she takes sentience as the most important moral marker. In an article published in 1863, Cobbe writes that an animal's capacity to suffer is cause sufficient why we should refrain from inflicting pain. We have a duty, she says, to avoid inflicting pain and to bestowing pleasure on creatures with the capacity to feel both. This is the bottom line principle to which we must subscribe; we need not get below it (Cobbe, 2004 (1863): 14). What is interesting here is that Cobbe's argument does not really explain why de Cyon's description of the vivisector is morally problematic if we take it that the animal(s) he is referring to in his description are rendered insensible and so therefore do not suffer. Cobbe is forced into the position of problematising the use of anaesthesia, which is precisely what she does, but this sort of discussion ends up focussing on technical/medical issues rather than focussing on the moral issues involved. Rather, what is at issue here, as it was in the Gennarelli case, is the exposing of a degree of callousness on the part of the experimenter that public readers are reacting to.

The notion of sensitised people is a useful place from which to begin teasing out some of the issues brought to light by the above discussion. Researchers working in those scientific fields which take experimenting on animals as a central practice become sensitised to it. As we have seen in the discussion so far, and as Singer himself has pointed out, once researchers reach this point in their profession the work they produce is recognised and treated as credible by their fellow members in their respective disciplines: the practice of experimentation on animals is central to what these researchers do, they have learned how to approach the research situation. One of the interesting claims that could be made here is that the demand for objectivity essential to the development of science promotes moral detachment in scientists and it is perhaps this moral detachment that we are seeing in the descriptions and the researchers involved cited above. The question is how to develop this line of thought without falling into the same trap Singer and Cobbe fall into in making sentience (or some other capacity) the marker of moral significance.

Cora Diamond associates moral detachment on the part of the experimenter with a 'compartmentalisation of mind' where in which the experimenters, having become inured to the practice, can simply get on with the job (Diamond, 1995c: 355). There is a lot more to her claim, and I will return to this shortly. At this point I want to say why I believe Singer and Cobbe's works are persuasive, which has little to do with their moral arguments and much to do with their displacement of the experiments from the context in which they are traditionally embedded. In drawing this claim out I will return to Diamond's 'compartmentalisation of mind' on the part of the researcher.

What we as general readers bring to bear on the experiments is an ordinary, everyday sensibility towards animals *that itself has been collectively produced*, which is facilitated by the activists' relocating the experiments outside their conventional publication space and conventional readership and so disrupts the expectations of how the experiments should be read. Whether experiments using animals yields morally and intellectually responsible knowledge, the practitioners would have us believe, depends in large part on the surety of the scientific community in which the

experiments are conducted and not outside it: how the community sees the experiments determines their acceptability and their worth. But the important point here is that the way in which the community sees the experiments and offers its assurance has itself been produced: scientists and researchers have been taught how to attend to the descriptions as part of their professional training, whereas the public have not been conditioned in the same way. And so when de Cyon, Russell and Nicoll talk of outsiders or naïve readers, they are talking of people who are strangers to a scientific practice and the way that these practices are to be seen that they, as trained practitioners, are not. The further inference that they make is that anyone not trained in the ways of that social setting, which includes how one attends to the descriptions, has little to say that is of value to those who have the collective authority to pass judgment. It is of little surprise then that those on the 'inside' equate the concept of naivety to those on the 'outside'. What is interesting is that they further equate this idea of an uncomplicated or unconventional reading with an excessive and seemingly unwarranted expression of emotion. How then might we deal with these claims and counter-claims of sentimentalism and callousness from those on both sides of the debate?

I return now to Cora Diamond's characterisation of the debate, which draws out the subtleties surrounding these very claims.

Diamond characterises these two sides in terms of their differing views with regard to the use of animals in experimentation. View One (V_1) says that 'within limits, experimental animals may be regarded as delicate instruments, or as analogous to them, and are to be used efficiently and cared for properly, but no more than that is demanded.' View Two (V_2) on the other hand says that 'within limits, animals may be regarded as sources of moral claims. These claims arise from their capacity for an independent life, or perhaps from their sentience, but in either case the moral position of animals is seen as having analogies with that of human beings' (Diamond, 1995c: 339). From the summary already provided, Singer's work very clearly fits with V_2 , likewise Cobbe's, for she too is concerned with sentience.

de Cyon, Russell and Nicoll accept V_1 concerning animal experimentation, which is borne out in their criticisms of Cobbe and Singer respectively. We saw earlier that de Cyon cited two 'rules to be followed for sparing pain to the animal during vivisection' (Cobbe 2004 (1883): 230) and so we can take pain relief to represent de Cyon's minimal standard that experimenting on animals need meet in order to be justifiable. Russell and Nicoll are less explicit in what they regard as the minimal standards, but the issue of pain, and pain relief is certainly consistently raised throughout their discussion, so we may presume that like de Cyon, alleviating pain where it does not interfere with the aims of the experiment represent their minimal standards. Beyond these minimal standards, according to V_1 , there are no grounds for criticism from the moral point of view (Diamond, 1995c: 336).

One of the important observations that Diamond makes at the outset of her paper and one that is consistent with the discussion so far is that the dispute between V_1 and V_2 should not be seen as one between 'those who attach greater and those who attach

lesser weight to the interests of animals in the clash between their interests and ours' (Diamond, 1995c: 340). In other words, we need to move away from claims of 'speciesism' in order to get to the heart of the debate. Rather, what is of interest is the idea of an area, that is the experimental setting, in which one 'can simply get on with the job of asking and answering scientific questions, treating animals solely as our instruments in doing so' (Diamond, 1995c: 341). And here again we should not simply equate this with Singer's account in terms of the institutionalised mentality of speciesism. Diamond offers a well-chosen case study of her own to show how we might otherwise understand what is going on.

In scientific expeditions where sled dogs are used, the dogs endure prolonged pain and suffering, and much discomfort. She says that while many people would think that should a situation arise in which the dog's interests clashed with those of the humans involved then the dog's would properly be sacrificed, they would *also* think that at the end of the journey the dogs should not be killed because of the costs involved in shipping them back (Diamond, 1995c: 340). The same cannot be said for dogs in experiments whose suffering might be greater and this difference in treatment is best explained with reference to modes of treatment associated with the experimental setting itself. Diamond writes:

...in the experimental setting, the dog may come to be thought of merely as a useful and disposable object; we may come automatically to take it that there simply is *no room* for thinking of it as a being with a life of its own. We do not see it (for example) as a being to which something may be owed, in at least that minimal sense in which we may feel something—*analogous*, at least, to gratitude—is owed to the sled dog after what *it* has gone through. The animal seen in the laboratory setting becomes something we may respond to in accordance with quite a different set of ideas from those which are natural and quite common with the sled dog. (Diamond, 1995c: 340-1)

What is interesting here, and which opens the way for an understanding of what she means by a compartmentalisation of the mind, is that holders of V_1 may very well regard the sled dogs as sources of moral claims, *but* within the experimental setting of practical activity, and assuming that the minimal standards have been met, the dogs – husky or otherwise – can be treated 'as practicality dictates, and no moral concern, it is held, is appropriate' (Diamond, 1995c: 341).

de Cyon unwittingly offers an example of what is being spoken of here when he speaks of his fondness for dogs and horses. The image he offers is one of a man who takes a keen interest in these particular animals and who is very much concerned for their welfare and upkeep, but it is an interest that is context dependent, for in the very next sentence he says that he has 'performed a great number of vivisections on dogs' and 'even operated on horses' (de Cyon, 2004 (1883): 231). Of course, at an earlier point in the discussion he wrote of his commitment to minimising suffering in the experimental animals, but this further serves to exemplify Diamond's point: assuming that the minimal standards have been met – and for de Cyon this is the alleviation of pain – no moral concern is held to be appropriate!

Accusations of callousness against de Cyon and others who hold V_1 should, says Diamond, be connected with the 'idea that it leads to a harmful compartmentalization

of mental life, in which one does not bring to full imaginative realization what one is doing' (Diamond, 1995c: 356). It is to cease taking in what one is doing to the dog, or horse, or monkey or rat as something which 'one would oneself in other circumstances regard as deplorable, and which one therefore should, at the very least, notice, be concerned about, regret and regard as something one should try to avoid, and so on' (Diamond, 1995c: 355). Otherwise humane people like de Cyon, set apart the experimental setting as one in which they 'simply cannot bring in the sorts of consideration that play a role in judging how animals are treated outside that area' (Diamond, 1995: 355). In this setting one quite naturally comes to apply a different standard of what counts as humane treatment that is distinct from other settings: one does not see the treatment of animals in this setting as raising any questions for it is part of the normal life of animals in the laboratory (Diamond, 1995c: 355).

In my view Diamond's account of what makes up the accusation of callousness better explains the persuasiveness of Singer's chapter and Cobbe's pamphlet than their respective arguments do, which both focus on sentience. What readers are bringing to their reading are the imaginative responses of those who (for the most part) do not share the compartmentalisation of mind of which Diamond speaks, and this in large part is due to the decontextualising of the descriptions that the activists employ as a tactic. What they do is to invite readers to read 'against the grain' so to speak, to use the normal language of the scientists against itself, to invite readers to think "How horrific!", "How horrible", "That is no way to treat an animal"—for readers to bring to bear on the descriptions the kind of responses that humane people would bring in any other context when confronted with descriptions of, for example, baby monkeys deliberately isolated from their mothers and any wider social contact. This is not to say that their tactics are persuasive for everyone, or that they are not in some way flawed. One of the obvious problems with the tactic is to elicit from readers the view that holders of V_1 are cruel and callous people generally, that they are simply inhumane people. And further, that all experimentation on animals is unwarranted and that it ought be stopped immediately. The problem that holders of V_1 say is the most significant however is that of eliciting sentimentalist responses from readers: views that are sentimentalist have no value in judgments regarding experimentation of animals. But what does this claim amount to? Diamond offers an answer.

What is at the heart of their accusation, she says, is the claim that it is sentimental to take experimental animals' lives seriously 'when the serious business of our lives requires that we treat the area of experimentation as one in which such considerations are simply irrelevant' (Diamond, 1995c: 359). What readers are doing in aligning themselves with V_2 , according to holders of V_1 , is to fail to 'treat scientific investigation in an appropriate and realistic way' and to fail to take into account its enormous significance for humanity (Diamond, 1995c: 359). On her reading then, what one side takes to be callous is precisely what the other side takes to be required by science in the name of humanity more generally:

From the First View, the imaginative realization of what is done in experimentation to the individual animals is self-indulgent sentimentality; from the Second View, it is a form of callousness to set this area apart as one in which imaginative attention to what is done is out of place. (Diamond, 1995c: 359)

Importantly, this deep disagreement, she says, is a disagreement about ‘how people should live, about the place of science in life and the place of imagination in it, and the role...of getting on with the job’ (Diamond, 1995c: 360).

We seem to have come full circle. We began implicitly with the question of how we should live with animals, examining Peter Singer’s answer of animal liberation along the way, and we have returned to it as that which is at the centre of the dispute over experimenting on animals. While we might align ourselves with the sentiment expressed by his answer, it is not simply through his arguments of equal consideration of interests that I believe we do so. ‘Tools for Research’ is persuasive because of the opportunity it provides readers who have not been sensitised in the way that scientific researchers have, to bring to bear on the descriptions an ordinary everyday sensibility that is indeed not unfamiliar to practitioners, but one that they have been conditioned to ignore. Decontextualising the descriptions also does something else, which challenges the place of science in the social order.

There is a conception of scientific investigation that Diamond’s characterisation of the debate exposes, and which ‘Tools for Research’ in employing the tactic of decontextualising rejects. On this conception scientific investigation itself is understood as ‘a special sort of activity, whose special character is marked by...its immunity from some sorts of ordinary moral criticism’ (Diamond, 1995: 360). Using a spatial metaphor to explain this conception: it is treated as a sphere outside the ordinary where one can attend to reality with great scientific respect but nevertheless ‘fail to take the things one is studying seriously except as things it is fascinating and rewarding, or frustrating, to study’ (Diamond, 1995c: 361). What Singer’s chapter does, if we read it without the overlay of speciesism, is to reject ‘the pretension of any activity to special moral status’ (Diamond, 1995c: 361). Decontextualising the descriptions amounts to stripping away this special status and re-grounding scientific investigation in the social order of the ordinary everyday. It is only on this basis that Russell and Nicoll’s (1996: 127) claims that Singer attempts to defrock scientists of their cloak of respect, and to discredit science generally make any sense. They are attempting to reclaim for scientific investigation immunity from the ordinary moral considerations that apply when seen as grounded in the ‘ordinary sphere’.

‘Tools for Research’ as Cobbe’s ‘Light in Dark Places’ before it, asked readers and scientists alike to take seriously the lives of animals involved in experimentation. According to the authors, they did so on the grounds that the animals involved suffered and that we should take that suffering into account in our considerations. As I have argued here using both Kathryn Pyne Addelson’s notion of sensitised people and Cora Diamond’s work to develop the notion in much greater detail, there is another way of understanding the persuasiveness of Singer’s and Cobbe’s work, which moves away from justifications that focus solely on animal suffering towards those which take seriously the view that answers to questions of how we should live with animals are created in the process of living our everyday lives together. What Cobbe’s and Singer’s works do is to provide readers with an opportunity to respond to the treatment of animals within the experimental setting as they would ordinarily to such treatment outside that setting and for this reason their work is persuasive.

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