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Animal *Telos* and Preference Adaptation

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Abstract

This article considers Bernard Rollin's justification of the genetic modification of the telos of livestock animals for welfare purposes. While agreeing that a pragmatic approach to animal welfare might well reach this far, the claim is that Rollin's approach leaves some important harms out of the picture. Section (1) will outline the rationale for a pragmatic approach towards animal rights. Section (2) will outline Rollin's telos-based argument for allowing modification. Sections (3) and (4) will draw upon analogies that (respectively) lend support to and problematize Rollin's telos-based argument: the production of anencephalic 'Chicken Little' lumps of animal tissue as a way to avoid suffering; and the manipulation of preferences by 'hypnopaedia' in Huxley's *Brave New World*. Section (5) will suggest that this does not rule out modification, but it does require us to recognize that modification involves harms, even if they are sometimes outweighed by benefits.

Keywords

Rollin – telos – genetic modification – ethics – dilemma – pragmatism

1 Pragmatism and Its Limits

I will take it that, over two key and related matters, Bernard Rollin's approach towards ethics is broadly correct. The first of these is his commitment to an interweaving of fact and value. In our best accounts of the world, description and appraisal do not always fall apart. The second is commitment to a

pragmatic version of animal ethics.¹ While there may be a role for intransigent and uncompromising forms of animal rights activism, just as there is a functional role for radical political groupings with impossible programs, the task of moving from protest to actual and extensive change requires an acknowledgment of social constraints. In a sense, *ought* implies *can*, but the bounds of *can* are shaped by political context (among other things). At least some political considerations must, therefore, enter into our construction of a viable animal ethic. The latter cannot be built directly from value theory alone. In other words, even if all creatures are in some sense equal, this will tell us little about the practicalities of what is to be done. Relatedly, while the harms that non-humans suffer are many and distinctive, the extent and distinctiveness of such harms does not spill over into a distinctive set of requirements for impact. The regular conduct of politics and legislative change, under conditions of liberal democracy, apply. This puts animal advocates and rights supporters squarely in the territory of compromise and negotiation. And it does so *irrespective of how radical or even precise our end goals may happen to be*, e.g., ‘animal liberation’, the ‘abolition’ of animals as property, or a return to traditional husbandry.

A rough and ready pragmatism about combatting animal harms comes close to being not only the best, but virtually the only important game in town. What is less obvious is just how pragmatic we get to be, or how pragmatic it is *useful* to be. Pragmatism, like any other response, carries its own risks. Although we may allow that risk is a precondition of accomplishment, legitimate end goals may be frustrated by the wrong sort of compromise. The appearance of negotiated change and of a lessening of evils may cover over a multiplicity of sins, making it appear that the world is getting better when, in fact, the opposite is the case. What are we to say when welfare standards improve in some respects but the numbers of creatures harmed increases, and the ways in which they are harmed is subject to alarming refinements?

This is not, of course, exclusively a dilemma for animal advocates. Similar considerations do not prevent us from making compromises and negotiating lesser evils when it comes to advancing human wellbeing. We do not, for example, reject improvements in rights legislation simply because, at the same time, poverty levels have gone up. And we do not do so even if we regard the legislation as, itself, implicated in right violations. In human affairs, we ordinarily accept alterations in the terms on which injustice continues to be done when we cannot immediately and comprehensively end such injustice. Compromise reaches all the way down from legislation to exploitative forms

¹ This is not to suggest that Rollin is applying some or other specific pragmatist *theory* to animal ethics. For instances of the latter see McKenna & Light (2004).

of wage bargaining in which the securing of *more* is deemed *better* even when the injustices of worldly arrangements are not ended but modified. Some of our best examples of social progress have come through such an approach. Even Lincoln's Emancipation Proclamation required that its beneficiaries be regarded as slaves, otherwise they could not have been confiscated as the property of rebels. A clever lawyer's trick to get the right outcome.

Given that the political necessity for compromise is the norm in relation to humans, unless some manner of exceptionalism applies in the case of non-humans, a reasonable pragmatism will remain the best option. This does, however, leave us with at least two large problems, so large that a definitive solution would extend far beyond the scope of the present text and into a comprehensive account of animal advocacy. The first is the above problem of judgement: knowing when a particular compromise shifts from the reduction (but not elimination) of harm to its facilitation. The bioengineering of animals so that their sufferings are reduced, sits at the sharp end of this concern. The second, is a problem of articulation: how best to frame a pragmatic approach. Above, and elsewhere, I have suggested a closer proximity to the language and norms of mainstream politics as part of a 'political turn' (Milligan, 2015; Cochrane, Garner & O'Sullivan, 1916). Rollin, by contrast, prefers to tackle the problem through the couching of animal ethics in a language of 'common sense,' an Aristotelian concept that he understands via a Platonic analogy with *anamnesis* (unforgetting). The task of persuasion is not, then, to convince others of the rational defensibility of a set of moral principles that they may happen to find alien. Rather, it is closer to a process of *reminding* them of something that they may have forgotten, or something that they know but have tended to overlook (Rollin, 2016, 31–37). Both are useful if limited moves. On their own, neither should be expected to do all of the work that needs to be done.

2 The *Telos* Argument

At least among animal rights advocates, there is a widespread presupposition that the bioengineering of reduced capabilities in animals should not be carried out.² Even if benevolently motivated, it is a compromise option that looks suspiciously like it facilitates *harm*. It does look suspiciously like a compromise

2 Ortiz (2004) surveys a key set of criticisms. Rollin (2006, 129–154) considers a series of objections to the effect that genetic engineering of animals is intrinsically wrong. Cochrane (2012, 103–127) is unusual among advocates of animal rights in his view that animals do not always have a right not to be engineered.

too far. Intuitively, almost or actually as a matter of common sense (however defined), something seems very wrong with the idea that we might deliberately engineer blind chickens (even if they are likely to be calmer and less likely to peck one another), or microencephalic pigs (even if they would be happier pigs, less disturbed by a grasp of their predicament). Given that it is not simply the capability to engage in various behaviors that is to be altered, but also the disposition or desire to engage in such behaviors, these changes *might* as Rollin claims be regarded as alterations of *telos*. The latter, in turn, may be thought of as “The set of needs and interests which are genetically based, and environmentally expressed, and which collectively constitute or define the ‘form of life’ or way of living exhibited by that animal, and whose fulfilment or thwarting matter to the animal.” (Rollin, 1998, 162).

Modification of *telos* along these lines can be opposed specifically on grounds related to animal interests, or on grounds related to an ethical naturalism that sees the products of modification as *artificial* in a negative sense. My concern here will primarily be with the latter although the two kinds of objections do not always or easily disentangle. In the light of this, a rejection of the broader naturalistic objection to animal modification will also be set out in the next section.

Rollin buys into neither critique. He has argued against variants of them in *The Frankenstein Syndrome* (1995), in a series of related articles such as ‘On *telos* and Genetic Engineering’ (1999), and recently in *A New Basis for Animal Ethics: Telos and Common Sense* (2016). His position is that modification for benevolent purposes is a legitimate way to go, as long as the *telos* alteration that it involves is subject to a constraining *conservation of welfare principle*: ‘if we do change *telos* by genetic engineering, we must be clear that the animals will be no worse-off than they would have been without the change, and ideally will be better-off.’ (Rollin, 1998, 169). Strictly, this does not require benevolence and does leave open the justification of what we might call ‘impact-neutral’ as well as ‘impact positive’ changes for other, e.g., scientific or economic, purposes. Nonetheless, the conservation of welfare principle is genuinely constraining. As an extreme case, if the *telos* of some animal were altered to make it into a natural masochist, a pig that wants to be beaten, the principle would clearly be violated. In more mundane (and more realistic) terms, genetic modification to speed up of the laying cycle of battery hens, to make broilers even more front-heavy for the sake of meat volume, or to reduce the mobility of cattle as a way of cutting the wasted ‘input’ that is lost through such motion, would be good candidates for violation of the principle. All other things being equal, the resulting animals would suffer more than they would otherwise do. It is not entirely obvious that such changes would always involve an actual alteration

of *telos*. However, in at least some cases they might do so. Either way, the conservation of welfare principle can be extended to cover genetic modification more generally, even where *telos* remains much the same.

It is also useful to note that Rollin is not attempting to side-step worries about harm through metaphysical claims about time. He is accepting an assumption that is also likely to be important to any critique of genetic modification: *creatures do not need the terra-firma of existence before issues of right and wrong can apply*. A creature born at t_2 clearly can be harmed (wronged) by actions that occur at t_1 . The issue of exactly *when* the harm to the creature occurs (earlier or later, at a specific point in life or through life as a whole) is a secondary matter. The pivotal point is that genetic engineering does not fall outside of the domain of moral judgement about harms because the biological materials in use are not yet our fellow creatures. However, while accepting that creatures may be harmed by genetic engineering he rejects the view that the lives of individual animals would *necessarily* be better without it. Again, it strikes me that this is the right way to go. Some lives might be made better and others made worse, depending upon circumstances and the animals in question. And this is in keeping with a broadly pragmatic approach, even if it is not strictly entailed by it. Pragmatism is at home with an acceptance of both compromise and contingency, even if it does not entail that all proposals are open for negotiation.³

Rollin's legitimating argument in support of the engineering of reduced capabilities plays upon this same assumption that lives *could* be made better. But what this involves is not just a question of pleasure and pain but rather the living of a life that is in line an animal's nature or *telos*. The problems associated with a classic version of hedonism i.e., a reduction of wellbeing (or a good life) to the preponderance of pleasure over pain, are acknowledged. However, the grounds on which Rollin objects to such a hedonism do not involve appealing to considerations that might not be felt: the undiscovered lie or deception, the unfulfilled desire, the place we occupy in a broader set of relations that exceed anything that we might ever be conscious of. Rollin's objection to hedonism works within the confines of consciousness and focuses instead upon the limitations of the classic hedonist account of the latter, its failure to capture a range of felt states that matter to wellbeing. Fear and boredom, for example, 'matter' to animals but it would be odd to describe either as pain, and they are certainly not pleasures (Rollin, 2016, 47). Overall, the quality of animal experience is taken to be pivotal. And a life in which behavior is in line with

3 It is perfectly consistent to adopt a broadly pragmatic approach while acknowledging that, as a point about moral psychology, any actual ethic will keep some things off the table.

an animal's *telos* may be presumed to yield a better quality of experience than one in which its *telos* is frustrated. While behaviors enter into this picture, the quality of experience is still doing a great deal of the work. In line with Rollin's longstanding insistence upon the mindedness of animals, there is no reduction of welfare to strictly behavioral concerns.

While this is clearly a teleological account of things, Rollin's approach qualifies the Aristotelian conception of *telos* in two significant ways. Firstly, the having of a *telos* is not by itself enough for moral considerability. "Plants require water and sunlight to actualize their *telo*i. But it is unlikely that they are aware of such mattering." (Rollin, 2016, 52) Awareness of mattering is, for Rollin, a divide between morally considerable beings and other *telos* bearers. "The kind of mattering that is morally relevant requires consciousness or awareness or caring in the entity in question. For this reason, to enjoy moral status, an entity (i.e., an animal) must have the kind of *telos* whose violation creates some negative mode of awareness in the creature in question." (Rollin, 2016, 53)

Secondly, *telos* is taken to be mutable rather than fixed. Given a succession of animals in a single lineage, *telos* may (eventually *will*) change over the course of time, with or without our deliberate intervention. Accepting this is simply an acknowledgement of evolution. We should therefore, respect the *telos* of the individual creature, but we should not fetishize animal types or reify species into unchangeable units or natural kinds that are to be endlessly preserved. This places Rollin well in relation to arguments that have been used to justify culling on the grounds that it will, somehow, hold species change in check.

As a final clarification, at least with regard to livestock animals, capability reduction through genetic engineering is not Rollin's *preferred* option. Rather, it is a pragmatic compromise. The preferred option is an end to the harms of industrial farming and a return to traditional husbandry, and perhaps also something more (allowing for some reasonable ambiguity in Rollin's idea of the end-game for animal advocacy). Husbandry is taken to be vastly preferable to industrial practices on the plausible grounds that it can yield better welfare conditions and on the more questionable theory-laden grounds that it does so through preserving a traditional contract-like relation between humans and non-humans. As the position on genetic modification stands independently of the contract theory claim I will set the latter aside and focus upon the more direct appeal to animal welfare. The preferred option of traditional husbandry is clearly in tension with the compromise of an engineering of reduced capabilities precisely because of the unfavorable conditions for which such engineering is geared. While this may be an acceptable tension, limiting the sensory capabilities of chickens or producing microencephalic pigs could hardly count as animal husbandry of a traditional sort. Endorsement of capability reduction

may not, then, be the Panglossian best of all possible options, but it may still be a way to make the dreadfulness of industrial production slightly less dreadful for the creatures who are caught up in it. The motivation for the move is also based strictly upon welfare considerations and does not require further justification by appeal to anything like the priority of scientific or commercial agriculture over animal interests.

While there are aspects of Rollin's approach that I want to challenge, I shall be setting aside an indirect objection to genetic modification, one that points out the necessity for animal experimentation if modification is to occur. We may, after all, reach a point in time when modification could be carried out without further experimentation, and at that point bioengineering to alter *telos* could no longer be ruled out on the grounds of its experimental requirements. Allowing for the latter scenario will make it possible to evaluate *telos* modification more directly, and in its own right.

3 The 'Chicken Little' Analogy

With Rollin, I will take it that a naturalistic objection to *telos* modification, one that feeds off of a suspicion about genetic modification more generally, does not give us sufficient ground to rule it out. There may be a case for saying that Rollin's position cuts across an aspect of common sense, one that is sometimes captured by appeal to what Arthur Caplan and Mary Midgley have called the 'yuck factor,' a belief that certain of our visceral responses embody a certain kind of wisdom (Midgley, 2000, 200). However, even given a commitment to a common-sense ethic, and even given the occasional wisdom of visceral responses that body the latter forth, this is not a decisive objection. Nobody is going to claim that all aspects of common sense should be adhered to under all circumstances. Rollin does not, nor should we expect him to do so. Common sense and pragmatism may often align, but they are not the same thing. Pragmatism may accept tensions, but it does require a workably coherent body of beliefs and commitments. Common sense accommodates a far higher level of inconsistency. Adherence to common sense *in Rollin's manner* involves appeal to something closer to a modified version of our common sense that produces a more functional level of coherence. A good deal stays, but some things have to go. One of these is a preference for keeping things as they are even in the face of a large body of evidence that matters might be significantly improved. Resistance to proposed biotechnology changes can still, on this approach, be taken seriously. It may, for example, be conceded that there is a good socio-economic case for constraining (even blocking) the use of

GM foods or therapeutic modification of humans. However, this will not simply be a matter of resistance to an alteration of nature backed up by a visceral preference to avoid unsettling change and conserve things as they are.

Yuck factor appeals may, then, be over-ridden by other considerations such as the avoidance of immense (for most of us, perhaps *inconceivably* immense) suffering. This is a point on which Rollin's case seems entirely plausible, especially given that what is at stake is not our own suffering, but the suffering of others. A rigid adherence to principles for which we are ready to make sacrifices is one thing, but an adherence which requires that others continue to be harmed when the harm can readily be reduced or avoided is quite another. Even if we commit to a rights position, and irrespective of whether it is underpinned by some form of naturalism, it cannot be of a sort that divorces rights from harms and interests and allows the former to trump the latter whenever they happen to clash.⁴ To cash out this intuition in a way which allows that suffering *may* trump visceral unease, we might think of the 'Chicken Little' scenario, drawn from science-fiction but figuring in various discussions of animal ethics (Singer & Mason, 2006, 258–259). Imagine a world in which *in vitro* chicken-flesh is produced as a giant, non-sentient but living grey-brown dome of tissue that might be skimmed daily. In the original version of the scenario, the observer is presented with a striking and somewhat unnerving scene. "It was a great concrete dome, concrete-floored. Chicken Little filled most of it. She was a grey-brown, rubbery hemisphere some fifteen yards in diameter. Dozens of pipes ran into her pulsating flesh. You could see that she was alive." (Pohl & Kornbuth, 2003, 90) Biotechnology may, at no great distance in time, reach thus far. This is an extreme case of bioengineering given that it would not simply involve the reduction of capabilities but a removal of animality. Chicken Little would be an anencephalic lump in the most literal sense.

Given that rights require sentience and that Chicken Little would be without sentience, it would have no rights to be violated. Even the status of Chicken Little as a living organism rather than a mere collection of engineered tissues might be disputed. For the sake of the present discussion, I will, however, accept that it *might* be an organism, and indeed it was regarded as such in the original (if somewhat dated) story. As such, it will automatically have a *telos*. Additionally, while we might imagine it with or without genetic modification such as gene-splicing, insertion, deletion, silencing or activation, it is difficult

4 Animal rights theory comes in two broad sorts. A more Kantian-influenced version that stresses distance from utilitarianism and is associated with Regan (2004), and a more interest-based version drawing from people such as Joel Feinberg and associated with Cochrane (2012) and Garner (2013). Interest-basing also reduces the gap between rights theory and the utilitarian arguments of figures such as Peter Singer.

to see why such technologies would be set aside rather than used to overcome two key problems: (i) the enormous practical difficulties of large-scale production, as opposed to production on the purely experimental scales that are currently in use for *in vitro* meat; and (ii) concerns about pathogens that parallel those already in play in discussions about the cultivation of human organs. Genetically unmodified tissue introduces risks of rejection and infection that might be reduced or eliminated. I will take it that any real tissue mass that was remotely akin to Chicken Little would, in all likelihood, also be genetically modified. And so the issue of such modification is still in play.

For the sake of clarity, I am not suggesting a slippery slope argument such that if we allow benevolent capability reduction through genetic modification then we will inevitably slide down towards something as viscerally repellent as Chicken Little. (In the novel, the central character holds a secret meeting inside the mound because it is that last place that anyone would voluntarily go.) Such a view seems to set aside the variability of other, social and economic factors and (again) the contingency of things. Rather, the thought is that there are analogous features worth attending to in both cases. The Chicken Little scenario and benevolent capability reduction through genetic modification both involve the avoidance of certain familiar and extensive kinds of harm. True, there is something about Chicken Little that is unnerving and not a great deal to recommend it as 'natural produce,' except on an attenuated understanding of the natural as 'everything.' But the same might equally be said about a good deal of current produce on any non-evasive account of our existing systems of production. Modern industrial farming is, in no small measure, a matter of artefact and artifice with more aesthetic appeal at a distance than close up. Seen in detail, it too would be viscerally alarming to those not desensitized in the face of its practices.

Our intuitions here, even with the inclusion of a 'yuck factor' that rebels against anencephalic lumps, may stack up on both sides. On the one hand, there is something morally disturbing about diminishing capabilities. And there is also, for at least some non-idiosyncratic agents, something disturbing about producing meat without producing sentient beings. Vegans, in particular, may not be quite sure about what to make of the latter. Both issues raise reasonable ethical concerns about the actions themselves and about their overall likely impact once societal matters are factored in. Opposition need not be parodied into a primitivist or luddite suspicion about technology or expressed as a fear of (figuratively or literally) altering God's creation.⁵ On the

5 This might, in any case, be unfair to the historical 'Luddites,' depending upon whether or not they were actually opposed to new technology *per se*, or merely opposed to some of its uses (e.g., to displace labor).

other hand, bioengineering when taken to extremes that allow for massive lumps of in-vitro meat to replace actual livestock, will also allow the discourse of animal rights something that it has always lacked, i.e. a plausible story about the end-game, a story about how extensive and seemingly entrenched processes of animal slaughter might actually be brought to a close. Moreover, it is a story that, rather than appealing to an unlikely mass conversion to veganism, might well line-up with dominant technological trends and prevailing economic imperatives. In other words, it is the kind of story that could begin to influence long range policy decisions. And if genetic modification to produce anencephalic lumps might be justified, then any *wholesale* objection to benevolent genetic modification on the basis of opposition to genetic modification alone, will not stand. It will have to call upon something else, and something that could always outweigh the harms suffered by animals. I know of no such consideration that will automatically cover all possible cases.

4 The Preference Adaptation Analogy

The analogy with the engineering of anencephalic lumps works (modestly) in favor of Rollin's approach and against any *wholesale* opposition to genetic engineering. It is not a conversation stopper, but it outlines an option that many supporters of animal rights would either accept or consider accepting on the grounds that the avoidance of animal harms *may* trump a commitment to the visceral wisdom of a yuck factor. However, there is a second analogy that is not quite so favorable. *Telos* alteration for *minded* beings changes not only behavior but the wants and desires that shape behavior. For simplicity, I will refer to these by using the bundle term 'preferences.' In the present context, nothing obvious turns upon the differences that might be drawn between them. The use of genetic engineering in order to adapt preferences in the human case, in order to make them compliant, even content, under conditions of exploitation would be disreputable because it would compromise autonomy. But if it is harm in the human case, why is it not also harm in the animal case? And nothing turns here upon the practicalities of whether or not human preference adaption can actually be carried out in this way: if it could be done then it would (by general agreement) be wrong. Additionally, nothing depends upon the *overall* rights and wrongs of genetic engineering in the human case. Rather, there is a special wrongness about adapting humans for exploitation quite apart from any wrongness that might attach to genetic engineering as such. If preferences could be manipulatively adapted (by other agents) in any other way, that would be wrong too.

The obvious exemplar that we might consider at this point is Huxley's *Brave New World* (1931) where infants are conditioned during their sleep through a process called 'hypnopaedia' so that they will desire to occupy exactly the social role that has been allotted to them. "Alpha children wear grey. They work much harder than we do, because they are frightfully clever. I'm really awfully glad I'm a Beta, because I don't want to work so hard. And then we are much better than the Gammas and Deltas. Gammas are stupid. They all wear green, and Delta children wear khaki. Oh no, *I don't* want to play with Delta children. And Epsilons are still worse." (Huxley, 1977, 33) Of course, *what* the children are taught through this imaginary process is objectionable as well as the manipulation involved in the way that it is taught. The manipulation involves a form of harm that is real even when it is not recognized as harm by the manipulated agents themselves. Perhaps part of the wrongness of Huxlean hypnopaedia, backed up by drug-induced states to paper over any cracks in the process, is that the agents do not or cannot recognize the wrongness of what has been done to them. Here, I will take it that these wrongs are not free-floating but wrongs bound up with harms. More specifically, the lives of those who have been subject to such preference adaptation become those of dupes rather than agents who are capable of a fuller range of autonomous behaviors. They are content, but only because their wants, desires and aspirations have been so manipulated that theirs seems the best of all predicaments, even when its negative aspects are taken into account.

Preference adaptation of this sort would make the lives of the manipulated into 'better' lives if we thought only or primarily about their felt experience. A preference-adapted agent may well undergo less anguish, alienation or anomie. The agent with a fuller range of autonomy would, by contrast, be out of place. This is part of Huxley's storyline. It tracks the cynical reasoning of his (aptly named) Controller, Mustapha Mond, who prefers comfort for the masses rather than poetry, freedom, goodness, sin and what he calls "the right to be unhappy." (Huxley, 1977, 192) His preferences are the ones that count. The reader's sympathies, by contrast, may be with those who claim all of these things. Admittedly, this may be because the *we* who have the leisure to read the novel can afford to do so. There are and have been many human worlds, in the sense of the lives of others both past and present, far worse than those of at least some of the soma-pacified humans in Huxley's dystopia. Better a Beta rather than a galley slave or a field hand in deep areas of the antebellum South or in the mines of antiquity, and some lives of servitude today are (no doubt) just as bad. Perhaps life as one of the lowest of the low, an Epsilon would be a terrible thing but not simply because of preference adaptation but rather because of the particular preferences that have been selected and the life they

have been selected for. But whatever we might think about imagined choices between having autonomy and lacking it under possibly harsher conditions, there is a kind of harm here, a deliberate *constraining* and *limiting* of lives to fit better with the wrongs of the world. If we wish to use Aristotelian terminology, it might be tempting to say that irrespective of *what is experienced*, the excellence of the life has been diminished, or that the life is not excellent at all because there is no real possibility for human *flourishing*, with all of the vulnerabilities that involves.

Huxley is telling us something about what it is to be human in a more than strictly biological sense. Our humanity is closely connected to our vulnerability. Even so, if preference adaptation that facilitates processes of exploitation *is* harm in the human case, even when it reduces individual suffering, then a special story will need to be told about why a comparable adaptation of preferences can be licensed in the case of non-humans. At some point, the analogy between the harm of manipulating human preferences and the manipulating of animal *telos* (which helps to shape preferences) will have to break down. And not just because all analogies break down somewhere, but because it misses something that is salient to the problem at hand. Yet the analogy has at least some strengths. One of these is that it helps us to make sense of the difference between a Chicken Little scenario and more regular forms of sentience-preserving modification without simply appealing to sentience alone. The latter *may* be analogous to preference adaptation but the former cannot be. Producing Chicken Little involves processes that entirely circumvent sentience and *because of this they circumvent anything remotely like preferences* or desires that could be manipulated. What is helpful here is that this story does not simply end with a contrast between a living creature and an anencephalic lump, a move that might ask sentience alone to do more work than it can comfortably perform.⁶

Rollin's response to the analogy, drawing upon Huxley's scenario, has been to accept the wrongness of preference adaptation in the human case but to point to respects in which the analogy is weaker than we might imagine, "we intuitively consider the solution to human suffering offered, for example, in *Brave New World*, where people do not suffer under bad conditions, in part because they are high on drugs, to be morally reprehensible, even though people feel happy and do not experience suffering." (Rollin, 1998, 166) Yet, this moral reprehensibility is not allowed to carry over into the case of animals. A disanalogy

6 This becomes an issue if we take seriously (as I do) various environmental challenges to the 'sentientism' that has often shaped animal rights theory. See Callicott (1980) and the qualification in Callicott (1989).

between the two is taken to arise precisely because classic hedonism is mistaken. Pleasure and pain are not all that ultimately matter to the living of a good life. “Given our historical moral emphasis on reason and autonomy as non-negotiable ultimate goods for humans, we believe in holding on to them, come what may.” By contrast, “In the case of animals, however, there are no *ur*-values like freedom and reason lurking in the background.” (Rollin, 1998, 167) This, however, seems a little convenient. I am not entirely sure why our history of valuing autonomy in our own case, and failing to do so in the case of non-humans, would license us to say that autonomy is a constitutive good for us but not for them. After all, many of our historical attitudes towards ourselves, animals and the contrast between *us* and *them*, have been patently false. Much of Rollin’s own work is geared to showing this, in the case of human reluctance to attribute consciousness to non-humans.

What seems to drive this association of autonomy and the human is a skewing of autonomy in our favor that involves focusing upon capabilities that are simply irrelevant to animal lives. An exemplary case here would be strict Kantian autonomy which requires the capacity to frame and revise moral principles.⁷ What is slightly odd about this is that Rollin and others who adopt a pragmatic approach towards animal ethics are, by and large, skeptical about some aspects of the Kantian influence upon animal ethics. In particular, approaches towards rights that have led to a downgrading of animal interests in favor of other considerations.⁸ When Rollin situates autonomy for animals as a negotiable good rather than a non-negotiable good, the conception of autonomy that is brought into play looks suspiciously like a reversion to a Kantian understanding of this concept, one that is already (and not by accident) modelled upon what is taken to be distinctively human rather than what it is ordinarily like to be human and to exercise human agency under everyday conditions (with all of the autonomy that implies). In point of fact, we are very rarely engaged in the business of framing and revising moral principles, rationally or otherwise. Most human action is simply not like that. It does not involve the kind of deliberative reasoning that is, on a Kantian account, the pinnacle of our accomplishments.

7 The view that autonomy is, at best, a prudential good for animals and not a constitutive good, is also supported by Alasdair Cochrane (2012) and feeds into the view that animals do not always have a right to be non-engineered. But again the conception of autonomy in play is heavily influenced by Kant’s conception of autonomy. For a critique, see Milligan (2015).

8 Francione (2009) is the leading example of an account of rights that is in the Kant-Regan tradition and rejects animal advocacy that concerns itself with improvements in animal welfare which are deemed inconsistent with support for animal rights. When the two conflict, rights are taken to be trumps.

But once we shift the conception of autonomy so that it matches most of our human actions (rather than simply the most distinctive ones) it will include the kind of everyday actions that are much closer to animal lives. It then becomes much harder to see why we would have a non-negotiable interest in being autonomous while they lack such an interest. Such a conception of autonomy focuses upon *agency under the right causal conditions*, e.g., agency that has not been deliberately ‘rigged’ in advance. Clearly, on any common-sense approach, this will remain a constitutive good for humans. However, when we think of animal training (as Vicki Hearne and Donna Haraway do) as more than mere manipulation, but rather as an enhancing of capabilities and as an *enabling* of autonomy to develop, it seems clear that there is a strong case for regarding animal autonomy as also a constitutive good that is ordinarily to be nurtured.⁹ Indeed, a conception of animal autonomy as anything other than such a good will yield a perverse account of such animal training and of what is permissible within the latter. As an extreme example, it would certainly be odd if someone imagined that inducing or blocking particular animal behaviors through direct neural stimulation was just as good as providing the animal with opportunities to develop the right kind of skills to choose behaviorally identical actions under a variety of appropriate (e.g., non-dangerous) circumstances but to refrain from doing so on other occasions.

What I am, then, suggesting is that there is what we might call a ‘localized solution error’ embedded in Rollin’s position. This is not unusual, and I am sure that there are many of these in my own writings and in those of every else who focuses upon animal ethics in a concrete way. Picturing animal lives in ways that solve problems in relation to one set of animals (e.g., livestock) can make far less sense when we picture other animals (such as pets/animal companions) in much the same way. In the present case, a downgrading of animal autonomy that helps to justify a controversial way of reducing harms to livestock, will make it difficult to represent the full range of the harms involved in badly thought-out forms of training, or processes such as the capture and confinement of wild animals where autonomy is much more obviously an issue. It strikes me that we will picture the frustration of *telos* that is involved in the latter more accurately if we regard it not simply as a matter of the frustration of desires to engage in various behaviors, but rather as a matter concerning

9 Hearne (2007) and Haraway (2008) are strongly supportive of companion animal autonomy and its development through training. It is not necessary to agree with the particular training methods used by Hearne and derived from William Koehler in order to accept this point. Elsewhere, I have claimed that they are a little more problematic than Hearne allowed (Milligan, 2016).

behaviors that are freely engaged in. Of course, it is possible to argue that autonomy matters only where it is built into *telos*, and that in the case of livestock animals this is not the case. But such a move would be problematic for the obvious reason that 'livestock' is not a biological classification but a product of social history.

As a qualifier, Rollin is of course correct to add variability to the idea of non-negotiable goods, in a way that allows societal and historical factors to be in some way relevant to what these goods are. There is no obvious reason why autonomy as a good should be immune to variability. It is then tempting to say that the kind of autonomy that is a good for animals *can* vary in ways that are integral to their creaturely *telos* (or in ways that are bound up with the latter). But this is consistent with holding that some kind of autonomy is ordinarily inseparable from an adequate conception of creaturely wellbeing. At least this seems to be the case with the kinds of animals currently under discussion. I make no claim about insects, for some of whom autonomy might actually involve harm. This being so, the use of genetic engineering in order to *telos*-adapt (and therefore preference-adapt) animals may be more ethically problematic than Rollin's position allows him to acknowledge. Such preference adaptation does seem to be analogous to the kind of harms that we would rule out in the human case, even if they resulted in happier people.

5 The Life-Role of Harms

When given the option, I suspect that both Rollin and myself would *always* choose sight and smell, and other sensory goods associated with creaturely *telos*, as the default option for animals that have evolved to possess these capabilities. We would *never*, for example, accept that they can be engineered away simply in order to satisfy a whim. Given a set of humans who cherish their cats but also prefer their cats to be blind and neglect cats of any other sort, we would not support the engineering of blind cats even if they would then enjoy a better range of experiences than those enjoyed by the average un-engineered cat. It is difficult to see how an appeal to better cat experience might, in such a case, either trump or silence our sense of what is morally reprehensible. Of course, there are differences between the breeding of cats and the rearing of animals as livestock, but it is difficult to avoid the view that, in both cases, capability reduction (as part of *telos* adaptation) involves harm.

Yet, if this is true am I now in danger of showing too much? I will say 'showing' and not 'proving' because a great deal of this disagreement turns not upon proof, but upon how best to picture animal lives, animal wellbeing, and animal

harms. How could Rollin be right to say that benevolent genetic modification *can*, at least in principle, be morally defensible? How can we preserve the background pragmatism that he has, quite rightly, brought into play? I want to suggest that the required move is the drawing of a distinction between harms and their functional roles within a life. Even if a harm happens to make a life better, because of some contingent circumstance, it remains (in at least some respects) a harm. Sometimes, of course, we do speak as if certain kinds of harms are not actually harmful at all precisely because of their functional role. So, for example, a person's life may actually be better than would otherwise have been the case as a result of some terrible illness. It may wake them up to life's possibilities or to what really makes a life go well such as love of and for others. Yet it would be misleading to index the illness to an evaluation of their wellbeing as a whole and decide, on this basis, that it wasn't *in any sense* harmful. Similarly, a person might respond to a disability in a way that gives their life a depth and an understanding of the suffering of others that not everyone shares. Yet the disability itself could hardly be said to be good. In much the same way, because of the rather perverse order of things that prevails within industrial farming, certain kinds of animal harms could well play the functional role of improving animal lives overall, *but they are no less harms for doing so*.

Rollin's crucial insight is that bioengineering could, at least sometimes, reduce the overall sufferings that we (or at least others, depending upon how we see complicity as spread around) would otherwise cause. And, given the right conditions and constraints I have accepted that this might well justify at least some capability reductions. However, the right conditions and constraints are many and could turn out to be virtually unrealizable in practice. (To determine this, we would need a more empirical approach informed by multiple disciplines.) The crucial point is, however, that even if there were circumstances in which genetic engineering of reduced capabilities was justified, this would *not* be because it was harm-free. Deliberately preventing an animal from having a capability that we would otherwise regard as a good, and doing so because the good in question *will be turned against the animal*, falls instead into the territory of something akin to tragic dilemma. Yes, it is harm, but it occurs in a context where we have only with *a choice of harms* out of which we will generally opt for what we hope is the lesser.

This appeal to tragic dilemma may, admittedly, raise some alarm among those who wish to press ahead with a concession already made: that the lives of humans and the lives of animals are typically different in ethically significant respects. The thought then may be that tragedy requires something that animal lives do not have: dignity or integrity or a certain kind of meaningfulness

that goes with complex introspection and narrative building.¹⁰ While I suspect that these restrictions are flawed, the point would stand perfectly well even if couched in terms of ‘something akin to tragedy’ rather than tragedy proper. In line with this, inflicting harm, even for a benevolent reason, will remain a cause for regret. But it is a familiar point about tragic dilemmas, or anything structurally akin to the latter, that they give us no simple way to resolve matters one way or another without harm and without giving ourselves cause for regret. It is also a familiar point about tragic dilemmas that they often arise as a result of prior wrongdoing, and not necessarily our own wrongdoing but sometimes that of others. Wrongdoing can create predicaments in which all of our regular obligations and commitments cannot easily be satisfied. Only against a backdrop of dreadful societal-level wrongs does the current predicament of having to even consider the proposed sorts of *telos* modification emerge. Were we able to immediately end the existing wrongs of industrial farming, this problem would disappear and be replaced, no doubt, by others.

Yet if I am willing to go with Rollin thus far, in agreeing that such engineering might conceivably be the right thing to do *under some circumstances*, should we not simply appeal to the pragmatic dictum that there is no real difference that makes no difference? Are we now in the territory of different ways of cashing out the same basic idea? Up to a point, yes. But not entirely. The difference between accepting that we may harm to forestall greater harms, and configuring a notion of harm that may compromise its recognition, is one that is likely to shape the ways in which practical judgements are made. Seeing *telos* adaptation that involves capability reduction as harm, rather than holding that it is merely change, will alter a readiness to sanction or engage in it. This is, in the familiar pragmatic turn of phrase, a difference that might well make a difference.

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¹⁰ Gaita (1991, 114–139; 2003, 171–195) claims that animal lives lack a certain kind of ‘meaningfulness.’ This is not, however, supposed to be a claim about value but about a kind of creatureliness that is bound up with language use.

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