



Discussion

Moral Status, Speciesism, and Liao's Genetic Account

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Abstract

This paper offers several criticisms of the account of rightholding laid out in S. Matthew Liao's recent paper 'The Basis of Human Moral Status'. I argue that Liao's account both does too much and too little: it grants rightholder status to those who may not deserve it, and it does not provide grounds for offering such status to those who arguably do deserve it. Given these troubling aspects of his approach, I encourage Liao to abandon his 'physical basis of moral agency' account of moral status and instead adopt a position closer to a traditional 'speciesist' view.

Keywords

instrumental value; intrinsic value; moral agency; moral status; speciesism

S. Matthew Liao's paper, 'The Basis of Human Moral Status', offers an original and important argument for the claim that 'virtually all human beings' are rightholders.¹ More specifically, he argues that it is a sufficient condition for being a rightholder that a creature possess 'the genetic basis for moral agency', and since virtually all humans do possess this genetic basis, we should view those individuals as having the moral status of rightholders. In this paper I'll offer several objections to Liao's account, and argue that Liao would in fact be better off with something closer to a traditional speciesist view, according to which all human beings are rightholders by virtue of their species

¹ S. Matthew Liao, 'The Basis of Human Moral Status', *Journal of Moral Philosophy* 7.2 (2010): 159–79. Subsequent page references are given in the text.

membership (rather than their possession of the genetic basis for moral agency).

The Genetic Basis for Moral Agency Account

According to Liao, to be a rightholder something need *not*:

- (a) be a moral agent
- (b) have the potential to be a moral agent
- (c) be of a kind (species) whose normal members are moral agents.

Instead, Liao argues that it is a sufficient condition for being a rightholder that an organism have ‘integrated’ into itself the genetic basis for moral agency (178). By ‘integrated’ Liao means that the genes that comprise the genetic material for agency must be ‘activated and coordinating with each other in an appropriate way’ (165, 178). Liao further claims that it isn’t the fact that such material is *genetic* that is morally relevant, so he admits that a non-organic entity which possessed something ‘functionally similar’ to the genetic basis for moral agency (what he calls ‘the physical basis for the development of moral agency’) would also count as a rightholder on this account (169).

Liao is motivated to put forward this new account because he accepts the widely-held conviction that all human beings are rightholders but also acknowledges the apparent illegitimacy of favoring one species over another without adequate justification. Wanting to avoid the unsavory label of ‘speciesist’, Liao has developed an account of rightholding that does not, in principle, exclude members of other species from being rightholders. Not only does Liao’s account not exclude members of other species from being rightholders, it also offers us a species-neutral criterion that can be employed for objectively evaluating when it is that members of other species deserve that same status.

It is easy to sympathize with Liao’s goals here. Offering a comprehensive theory that can account for the very strong intuition that all human beings are rightholders while avoiding the charge of speciesism would be a very significant philosophical accomplishment. But the theory Liao presents and defends falls short in two very important respects:

1. It doesn’t show that all human being are rightholders, as it allows that there could be (and perhaps are) human beings who lack the relevant genetic basis for moral agency.
2. It does, however, grant rightholder status to entities that are *not* human and that do not, intuitively, seem to deserve such status.

Humans Lacking the Genetic Basis for Moral Agency

Regarding point one, Liao bites the bullet and admits that it is theoretically possible that someone could lack the genetic basis for moral agency and yet still be a human being, and thus his approach does not justify attributing the status of rightholder to such individuals.² He also (more reluctantly) admits it is possible that there really are such human beings: for example, it is an open question whether some cases of anencephaly have the sort of genetic cause that also affects the genes necessary for moral agency.³ In addition, he does not deny that there could be cases of severe retardation caused by damage to the genetic basis for moral agency. Nevertheless, Liao does his best to downplay the possibility that some humans might not count as rightholders due to genetic damage. He points out that many genetic defects are caused by the mutation of a single gene, and there is the implication that since only one gene is involved, the chances of the genetic material responsible for moral agency being damaged are slim. However, Liao does not have an account of *which* genes *are* relevant for moral agency. Given the possibility that the necessary genes may be widely diffused throughout the genome, taken together with our knowledge that damage to just one gene can cause devastating results affecting the whole range of human functioning, it seems plausible that, on a reasonable sketch of what counts as ‘the genetic basis for moral agency’, some existing single-gene defects may turn out to involve genes that are a part of that genetic basis. If so, then we may have many real-life cases in which damage to one gene can be correctly described as a ‘genetic defect to the genes that make up’ the capacity for moral agency.

Liao resists this sort of reasoning and instead argues that much genetic damage should be seen as simply ‘undermining’ an attribute rather than counting as ‘damage to the basis of that attribute’. As evidence for this claim, he points to the fact that in some cases of single-gene defects early medical intervention can still allow the human in question to develop normally:

Mental retardation and other defects are typically caused by abnormal build-ups of certain amino acids that become toxic to the brain and other tissues, because the cell is unable to process these amino acids owing to the mutation. But with treatment of a low enzyme diet as soon as possible in the neonatal age, normal

² Liao concedes this point on p. 167, ‘It might be necessary to concede that there is a theoretical possibility that a human being could lack the genetic basis for moral agency, even if all present cases are not ones in which human beings lack this basis’. Liao does not go on to consider the difficulties that this concession raises for his approach.

³ Liao also seems to accept this point in n. 19 on p. 166 of his essay.

growth and cognitive development can be expected in many cases. For our purpose, this shows that the brain tissue has initially developed normally and would have continued to do so except for the abnormal build up of the amino acids. Therefore, following the distinction between genetic defects of the genes that make up an attribute and genetic defects that undermine the development of the attribute, single gene defects seem to be cases of the latter rather than the former. Given this, one can say that human beings who have these kinds of genetic defects most likely have the genetic basis for moral agency (167).

I worry that Liao moves too quickly in generalizing here. It may be that *some* single-gene genetic defects are such that a human possessing them can develop normally if given early treatment, but it just doesn't follow that we should thus presume (as he does) that all single-gene defects ought to thus be classified as cases in which the development of moral agency is 'undermined' rather than prevented due to damage to the relevant genes.

Perhaps Liao will turn out to be right about single-gene defects, however. Let's grant that at this stage we simply do not know enough about our genetic makeup to determine which genes are relevant for moral agency, and so it *could* turn out that there are currently *no* human beings with defects of the genes that make up the capacity for moral agency. It may be that all the varieties of genetic damage that currently prevent some humans from possessing moral agency can be accurately characterized as damage that merely undermines the capacity for such agency. From the comfort of my armchair I'm happy to admit this, but I don't think it ultimately helps Liao's case. This is because it is the mere *possibility* that the moral status of a human could hinge on that sort of empirical claim that highlights the deeper difficulties with Liao's approach.

Consider the following hypothetical scenario: due to your being exposed to a new and dangerous type of radiation, your child (let's call her Betsy) suffers from a genetic disorder that has left her alive and conscious but with a level of intelligence that falls well below what is necessary for ever exercising moral agency. This disorder is new, very rare and not well understood, but the doctors, having performed many tests, assure you that, though your child's genetic damage does *permanently undermine* her capacity for moral agency, the damaged genetic material is not among the material that makes up 'the genetic basis for moral agency'. As a Liaoian, you breathe a sigh of relief, confident that your child is in fact deserving of the moral status we extend to most humans. However, imagine that several months later the doctor calls back: there's been a terrible mix up, and your child's test results were swapped with those of another severely disabled child. It turns out that your child does, as a matter of fact, suffer from genetic damage to the relevant portion of the genome responsible for moral agency, for she is missing a single highly relevant

gene. ('Sorry honey, the new results are in, and it turns out Betsy may not be a rightholder after all!')⁴

Surely there is a problem with any account of moral status that could (even just theoretically) put you in this position. How can something which matters *so much* (your child's moral status as a rightholder) reasonably hinge on something that seems to matter *so little* (whether damage to some portion of genetic material should be construed as *removing* a capacity or instead permanently *undermining* it)? Keep in mind that in the example your child is no different phenotypically from the other: they are equally sentient, equally intelligent, and equally incapable of ever being a moral agent regardless of whether genetic damage has removed the capacity for agency or is instead best construed as undermining it.

Ultimately Liao's theory seems to require that we place tremendous moral weight on a relatively trivial distinction that just can't be expected to bear that weight. This is a serious difficulty for this sort of approach, and it is one that doesn't disappear if, due to empirical happenstance, it turns out that (for the moment) all humans with genetic damage lack damage to the particular genes deemed necessary for moral agency. I'll say more later about why I think Liao's approach ends up in such an uncomfortable position, but next I want to consider additional counter-intuitive aspects of his theory.

Non-Humans Possessing the Genetic (or Physical) Basis for Moral Agency

Liao's approach casts the 'moral status' net wider than many other approaches do, and includes children, embryos, and probably most anencephalic infants within the class of rightholders. An obvious danger of this approach is that the net is cast *too* widely. While for many the inclusion of embryos and anencephalic infants is already a sign that the net is too large, I'm not going to quibble with those inclusions here. Rather, I want to focus on cases that I think are significantly more problematic.

⁴ Liao would presumably protest at this point that he's only offering a *sufficient* condition, and *perhaps* some other condition could be introduced that would cover Betsy as a rightholder on different grounds. Perhaps, but until Liao offers a plausible account of such a condition (and that would need to be an account which does not, in the process, make his 'genetic' condition for rightholder status appear redundant and thus toothless), the story of Betsy provides a significant challenge to the plausibility of Liao's approach.

Liao briefly discusses an example involving a non-human organic entity that nonetheless possesses the genetic basis for moral agency usually found in humans:

For example, suppose we injected these genes into a cabbage, would the cabbage be a rightholder? To answer this question, we should inquire whether these genes are integrated into the cabbage or not. If they are, then the cabbage may no longer be a cabbage, since its nature may have changed. In such a case, the resulting being may be a rightholder, given that it has the genetic basis for moral agency (178).

Liao understandably tries to soft peddle the strangeness of this result, suggesting that the cabbage may well no longer be a cabbage but has instead become something much closer to a human being. Perhaps it has, though it is very hard to be sure since Liao doesn't include an account of what would amount to proper 'integration'. However, let's consider a variant case in which the cabbage possesses (in a 'properly integrated way') the genetic basis for moral agency, but nonetheless that cabbage is damaged such that the capacity for moral agency, along with the capacity for sentience and rational agency, is permanently undermined. (Like an anencephalic infant that possesses the genetic basis for moral agency, this cabbage would appear to be a rightholder on Liao's account, even though it lacks both actual moral agency and the potential for moral agency.) While I'm sure intuitions will vary here, I'm also certain that many people will find this exotic, damaged, insentient, rightholding cabbage a rather unhappy consequence of Liao's theory.

To make clearer just how counter-intuitive this case is, consider that, while Liao leaves open the possibility that other creatures that lack the genetic basis for moral agency could also possess rights, he gives in his paper examples of non-human sentient creatures (such as turtles) as non-rightholders:

Suppose this is correct, and suppose rightholding has the function I suggested, this means that if and when the interest of a normal adult human being conflicts with the comparable interest of a normal adult turtle, one ought to give the interest of the human being more weight. Hence, if a normal adult turtle and a normal adult human being both require rescue (suppose both are crossing the street and are in danger of being hit by oncoming traffic), and suppose that one can only save one of them, then one ought to save the human being, because the turtle is not a rightholder while the human being is. If one did not do this, then one would be acting wrongly (172).

Substitute the example of a human being as a rightholder with the earlier example of a genetically modified rightholding cabbage (an entity which, because of undermining genetic damage, lacks even the potential for moral agency) and we end up with the conclusion that one ought to give that

cabbage more weight morally (other things being equal) than a turtle. Indeed, we also ought to give the cabbage more weight than any sentient animal lacking the genetic basis for moral agency, e.g. a great ape or a grey whale. To put it mildly, this is a result that seems to have very little intuitive support.

Things get stranger, however. Remember that on Liao's view an entity need not actually possess the *genetic* basis for moral agency: it is sufficient if the entity possesses something 'functionally similar'. So, instead of a cabbage, let's imagine an artificial machine (such as a lawnmower) that has had the relevant hardware and software needed to count as 'functionally similar' to the genetic basis for moral agency. Imagine also that this machine has that hardware and software present and 'integrated' but permanently undermined due to damage (like the anencephalic infant). This lawnmower would be a rightholder even though it will forever lack sentience, moral agency, and even the potential for moral agency. It, like the cabbage, would have a moral status that (other things being equal) would trump that of a sentient animal lacking the genetic basis for moral agency. Further, on this account the modified lawnmower would appear to trump a *human being* that possesses sentience but lacks the relevant genetic material for moral agency (such as Betsy, mentioned earlier). I think this apparent *reductio ad absurdum*, while not conclusive evidence of the falsehood of Liao's theory, does suggest that the supposed virtues of this approach deserve another look.

The Value of the Genetic Basis for Moral Agency

I've argued that Liao's theory both accomplishes too much and too little: it grants rightholder status to those who may not deserve it (e.g. the cabbage and lawnmower), and it does not provide grounds for offering such status to those who arguably do deserve it (e.g. humans with a particular sort of genetic damage). Liao is aware of at least some of these quite striking consequences of his theory, and presumably thinks they are a worthwhile price to pay for an approach that extends rights to most humans while avoiding speciesism. Perhaps this would be a reasonable concession if the worries that ground charges of speciesism have been avoided, but there are several reasons for doubting that the real difficulties have been dodged.

It is true that Liao's theory is not one that could fairly be accused of speciesism: it does not, after all, attribute moral status on the basis of species membership. However, the reason speciesism is taken to be morally problematic is not simply that the speciesist attributes moral status on such a basis. Rather, the *problem* with the speciesist, as Liao points out, is that she is seen as

attributing such moral status ‘without sufficient justification’ (160). In other words, species membership itself is not taken by the anti-speciesist to be a *morally relevant* feature of an individual. (Contrast this with the capacities for sentience or moral agency, which are accepted by many, though of course not all, as morally relevant features.) With this in mind, the crucial question in evaluating Liao’s theory is whether it *does* designate moral status on the basis of morally relevant features. The troubling cases I’ve already discussed should have aroused suspicion that this theory is not in fact tracking a morally relevant feature in placing moral weight on the genetic basis for moral agency. I think there are also more general reasons for doubting that his account identifies a plausible basis for moral status.

Though Liao doesn’t directly address this issue, presumably he thinks that the genetic material relevant for moral agency possesses some sort of intrinsic or final value.⁵ If not, it is quite hard to explain why we should grant it the moral importance that he thinks it deserves. Liao has argued forcefully that the genetic material should *not* simply be valued instrumentally – it is not to be seen as valuable only because it can allow for either actual moral agency or the potential for moral agency. This seems to leave him with the view that the material must be valuable in itself. Can this possibly be right, however? Indeed, doesn’t the fact that Liao allows for ‘functionally similar’ non-organic material to serve the same role show that the genetic basis for moral agency is valuable not *in itself* but because of what it (normally) *produces*? In other words, isn’t it an excellent example of something with a high degree of *instrumental value*?

Consider again the ‘physical basis of moral agency’ possibility that Liao discusses. He allows that an appropriately programmed machine could possess the physical basis of moral agency and thus possess the moral status necessary to be a rightholder. To the extent that this seems at all plausible, I would argue that it is because we naturally think of such a machine as at least potentially capable of *exercising* moral agency: what is valuable about that relevant series of 1s and 0s (embodied in hardware) is that they normally produce moral agency. In other words, that physically-realized stretch of programming code

⁵ ‘Intrinsic value’ is a difficult term that gets used in a variety of problematic ways. All I mean to refer to here is a sort of value that is *not* instrumental – such non-instrumental value is sometimes called ‘final value’ rather than ‘intrinsic’. I leave open the question of whether (on Liao’s account) the relevant genetic material should be thought of as possessing non-instrumental value in virtue of its intrinsic properties alone, or whether extrinsic properties also factor into the final value. (My hunch is that given Liao’s insistence on ‘integration’ extrinsic relational properties will also be relevant here.) For more on the possibility of final value based on non-intrinsic properties, see Wlodek Rabinowicz and Toni Rønnow-Rasmussen, ‘A Distinction in Value: Intrinsic and for its Own Sake’, [*Proceedings of the Aristotelian Society* 100 \(1999\): 33–52.](#)

is instrumentally valuable because it normally allows for the entity to possess something that seems valuable in itself: actual moral agency. It seems highly implausible to think that, on top of its obvious instrumental value, that series of code *also* possesses some sort of non-instrumental moral value. (Certainly it may possess *aesthetic* value if it happens to be a particularly elegant stretch of coding, but that isn't the sort of value Liao needs in order to do the ethical heavy lifting that is necessary here for his account.) The lesson in all this, I think, is that insofar as we have a tendency to value the genetic (or physical) basis of moral agency, what this shows is not that that bit of genetic material (or physical information) is morally relevant, but that moral agency is.⁶

Speciesism Reconsidered

At reaching this point in the argument, some will conclude that Liao would do best to abandon his theory and instead adopt a more conventional approach that attributes moral status on the basis of either actual or potential moral agency. The difficulties with such approaches have been usefully highlighted by Liao; however, they tend to exclude some humans that many think deserve moral status as rightholders. Because I share Liao's belief that defending the notion that all human beings are rightholders is a worthwhile endeavor, I encourage him to reconsider the dreaded speciesist option.⁷

I won't attempt a complete defense of a speciesist approach here – instead I'll simply highlight the benefits of such an approach for someone with Liao's conviction that all human beings are rightholders.⁸ As should be obvious,

⁶ It is ironic that early on in his paper Liao dismisses the idea that all humans possess 'intrinsic worth' as grounding moral status because, as he says, it is not a notion that one can 'empirically identify and assess' (161). As I hope is clear, his own account ends up relying on something very much like a notion of intrinsic worth, but he must attach that value to the genetic material necessary for moral agency – a significantly less intuitive and thus less plausible move than linking such value to sentience, actual agency, or even just the bare fact that one is a human being.

⁷ I'm not as fond of the language of rights as Liao, so I'd prefer to couch things in terms of all humans possessing a basic moral status (which I think probably amounts to much the same thing), but for the sake of simplicity I follow Liao and refer to 'rightholder' status here and elsewhere in this piece.

⁸ An approach with which I am in sympathy can be found in the Bernard Williams article that Liao cites in n. 2 of his essay (Bernard Williams, 'The Human Prejudice?', in A.W. Moore [ed.], *Philosophy as a Humanistic Discipline* [Princeton, NJ: Princeton University Press, 2008], pp. 135-54). Also recommended is Cora Diamond's essay, 'The Importance of Being Human', in David Cockburn (ed.), *Human Beings* (Cambridge: Cambridge University Press, 1991), pp. 35-62. Compelling criticisms of such approaches can be found in Jeff McMahan's 'Our Fellow Creatures', [*Journal of Ethics* 9\(3-4\) \(2005\): 353-380](#).

granting that membership in the species ‘human being’ has moral relevance easily allows one to cover just the cases Liao wants to cover: all human beings can be viewed as possessing the moral status needed to qualify as rightholders. We have no worries about some humans being left out or some exotic cabbages being let in. This is because this approach is indeed tracking something many take to have non-instrumental moral value: membership in the class of human beings. Also, a sensible speciesist will follow Liao’s lead and grant that species membership should best be understood as simply a *sufficient*, but not a *necessary* condition for the relevant sort of moral status. It can be left open whether other criteria are *also* sufficient for attributing the status of rightholder to, say, a non-human animal, an alien, or a machine. Relatedly, the fact that species membership is taken to be morally relevant for a particular individual should not be seen as excluding the possibility that other features of that individual, such as the capacity for sentience, or the potential for moral agency, may also be morally relevant.⁹ Indeed, it could turn out that the moral weight of these other features is significantly greater than the weight of species membership. The speciesist need not claim that being human is the *only* thing that grounds moral status – she just claims that it is among the many things that can matter morally.

Defending the idea of species membership as in itself morally relevant is understandably controversial, but as I hope has become clear in the course of this discussion, attributing moral relevance to the genetic basis for moral agency appears to be significantly *more* controversial – in fact it leads to consequences many will find absurd. In the end, Liao’s approach does not fit nearly as well as a ‘speciesist’ account with the intuition that he wants to defend: the idea that all human beings share a fundamental moral status.¹⁰

⁹ Here and elsewhere when I refer to the concept of species (and in particular the species human being) I am not referring to some particular *scientific* notion of species (which could, after all, turn out to be false), but rather the *folk* concept of species as a kind. For more on this distinction, see Timothy Chappell, ‘On the Very Idea of Criteria for Personhood’ (unpublished draft).

¹⁰ I’d like to thank Matthew Liao for helpful discussions of his position and related issues. I’d also like to thank Daniel Callcut, Tim Chappell, Jeff McMahan, Valerie Tiberius and audience members at the Society for Applied Philosophy Congress at St. Anne’s College, Oxford, for comments on earlier drafts of this paper.