

MORALITY, MODALITY, AND HUMANS WITH DEEP COGNITIVE IMPAIRMENTS

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Philosophers struggle to explain why human beings with deep cognitive impairments have a higher moral status than certain non-human animals. Modal personism promises to solve this problem. It claims that humans who lack the capacities of “personhood” and the potential to develop them nonetheless could have been persons. I argue that modal personism has poor prospects because it’s hard to see how we could offer a plausible account of modal personhood. I search for an adequate understanding of modal personhood by considering existing accounts and sketching new ones. But each account fails, either because it objectionably excludes some deeply cognitively impaired humans from the class of modal persons or because it makes modal personhood doubtfully relevant to moral status. And the modal personist cannot solve this problem by appealing to the misfortune suffered by modal persons.

Keywords: moral status, modal personism, cognitive impairment, intellectual disability, animals, personhood.

Most people believe that humans have a higher *moral status* than other animals—that humans matter more morally in and of themselves. Many philosophers explain this received view by appealing to *personhood*. In the traditional philosophical sense, a “person” is a being—human or otherwise—that has certain advanced psychological capacities such as rationality and self-awareness, or autonomy.¹ But not all humans have these capacities or the potential to develop them. Let’s define *deeply cognitively impaired human beings* as humans who are sentient and have capacities for a range of other mental states, but lack the capacities that constitute personhood and the potential to develop them. What is their moral status?

Here is an argument that looks robust initially but that leads to the strongly counterintuitive conclusion that they have a lower moral status than “persons”.

¹ Frey (1987: 50–2), Singer (2011: 74–5), Kagan (2019: 6–7), and McMahan (2002: 6).

- (1) *Personism*: Persons have a higher moral status than non-human animals because they possess certain advanced psychological capacities.
- (2) *Fact of Impairment*: Deeply cognitively impaired human beings lack these advanced capacities and the potential to develop them.
- (3) *No Relevant Difference*: There is no further ground of moral status that deeply cognitively impaired humans have and that isn't possessed by non-human animals whose psychological capacities don't differ in relevant ways.
- (4) *Same Status as Animals*: Therefore, deeply cognitively impaired humans have the same moral status as non-human animals, whose psychological capacities don't differ in relevant ways, and have a lower moral status than persons.

Many people reject *Same Status as Animals*, and endorse this more palatable view:

Higher Status than Animals: All humans beyond infancy with deep cognitive impairments have a higher moral status than that of non-human animals whose psychological capacities don't differ in relevant ways.²

However, philosophers have struggled to find compelling arguments against *Same Status as Animals*. *Fact of Impairment* (2) is hard to deny.³ Some challenge *Personism* (1) by arguing either that species membership (e.g. Kittay 2005) or the genetic basis of personhood capacities (e.g. Liao 2010) grounds higher moral status or by rejecting the distinction between higher and lower status altogether so that all beings with *moral standing* (defined as any moral status at all) have equal moral status (Donaldson and Kymlicka 2011; Horta 2017).⁴ Others deny *No Relevant Difference* (3), pointing to psychological properties [e.g. reciprocal care capacities (Mullin 2011) or relations e.g. being 'of human born' (Scanlon 1998: 185)], which they think deeply cognitively impaired humans might have but which non-human animals lack. I cannot address these responses here, but they all face serious objections.⁵ One sign of their

² I return shortly to the exclusion of infants. And I'll often refer to animals without making explicit the qualification 'whose psychological capacities don't differ in relevant ways'.

³ I avoid the clinical labels 'severe' and 'profound' impairment (APA 2013) because they might not map onto the set of individuals whose cognitive impairments are extensive enough to preclude personhood. I'm influenced here by Kittay (2005: 126ff), but note that she has distinctive views about personhood.

⁴ As I use the term, moral standing is binary, whilst moral status might admit of degrees or levels. I borrow here from Kagan (2019: 6–8).

⁵ For instance, if we judge that most or all deeply cognitively impaired humans have the capacity for reciprocal care, it's unclear how we can claim that all animals—including highly social animals—lack this capacity. For more problems with her view, see Mullin (2011: 303). Another example is that it's unclear why merely being born to humans matters for moral status. For criticisms of Scanlon's view and some other relational views, see McMahan (2005). For problems with single-status views, see Kagan (2019: esp. 40–78), and my Section I. For objections to Liao, see Grau (2010). For objections to species-based views, see McMahan (2002: 209–28; 2005).

seriousness is that some philosophers accept *Same Status as Animals* (Frey 2011: 185–6; McMahan 2002: esp. 228).

Recently, there has been renewed focus on an alternative explanation of *Higher Status than Animals*. This view relies on how humans with deep cognitive impairments *could have been*. They aren't persons (in the technical sense discussed). Nor are they potential persons. But unlike non-human animals, they *could have been persons*. This is what explains why they have a higher moral status than non-human animals (henceforth just 'animals') whose psychological capacities don't differ in relevant ways. This view—*modal personism*—rejects *No Relevant Difference* in a distinctive way.

Call *modalism* the view that individuals with moral standing can have moral status because they could have had certain properties they lack.⁶ Modal personism is the variant of this view according to which individuals with moral standing can have moral status because they could have had the properties of personhood even though they don't. This view was defended in earlier discussions (Holland 1984; Nelson 1988), but has become especially prominent recently (Kagan 2016, 2019; Smolkin 2019; Surovell 2017).

Here's a reason why modal personism is receiving interest. Common-sense morality assumes that something like the line between humans and other animals is significant for moral status. And this assumption permeates many areas of applied ethics. Moreover, many egalitarian political philosophers make this assumption in order to extend principles of distributive justice and other forms of equal political status to humans, but not animals (e.g. Christiano 2008: 17, 25; see Gosepath 2021). But the assumption isn't easily defended. The traditional speciesist position that mere membership in the species *homo sapiens* grounds status faces formidable charges of arbitrariness (McMahan 2002; Singer 1975). Modal personism may well avoid arbitrariness and successfully defend a rough human–animal division. And if it doesn't, we might be moving towards a more radically inclusive view of the moral status of humans and animals.

This article's main conclusion is that modal personism has poor prospects, because it is hard to see how we might define 'modal person' in a way that implies that most or all deeply cognitively impaired humans have a higher moral status than the relevant animals whilst retaining a sense that modal personhood is a morally relevant property. I reach this conclusion by considering existing and new accounts of modal personhood, formulating objections, and finding ways around those objections.⁷ Even when we carefully refine our account of what it is to be a modal person, we are unable to arrive

⁶ An alternative definition of modalism: One can have moral status based on the fact that one could have had a *higher moral status* in virtue of one's capacities than one in fact does (Kagan 2019: 139). I set this aside.

⁷ The literature contains precious few such accounts. See Surovell (2017: 264–8) and Kagan (2019: 136–40).

at an adequate formulation. I suggest that a definition of ‘modal person’ is adequate only if two criteria are satisfied. The *criterion of separation* is that the definition must yield a variant of modal personism that either explains *Higher Status than Animals*—the premise that all deeply cognitively impaired humans beyond infancy have a higher moral status than psychologically relevantly similar animals—or explains in a morally intuitive way why *most*, but not all, such humans have higher status. I won’t press the demand that modal personists explain the higher status of infants with deep cognitive impairments because I want the criteria to be uncontroversial, and some modal personists, including Shelly Kagan (2019: 138), think that infants cannot be modal persons since they are too young to have been able to become persons.⁸ The second criterion, the *criterion of relevance*, is that modal personhood must be defined in such a way that it seems relevant to moral status. One might in addition request a ground-up argument for why, appropriately defined, modal personhood grounds moral status. I won’t make this request since it’s admittedly hard to provide such an argument for any view of status.

The article’s secondary aim is to engage with perhaps the most popular explanation modal personists have given of why modal personhood is relevant to moral status. Such an explanation is needed to respond to this question: Why can the fact that an individual could have had certain capacities give them moral status when they lack those capacities? There’s an initially attractive answer that appeals to *misfortune*. Many modal personists claim that deeply cognitively impaired humans are *unfortunate not to be persons* (Holland 1984; Nelson 1988; Smolkin 2019. Also see Surovell’s (2017) view, which is similar to, and compatible with, this view).⁹ I argue that appealing to misfortune to support modal personism doesn’t enable us to provide an adequate account of modal personhood.

Before beginning the analysis, I want to acknowledge that some readers will find objectionable and even offensive the terms used to refer to human beings with deep cognitive impairments and the assumptions made about them. Many philosophers have challenged the assumption that these individuals aren’t “persons” (Kittay 2001), the assumption that they are unfortunate (Chapman 2020), and other assumptions and labels (see Carlson 2010). These are vital issues. I operate with these assumptions here because they are needed to evaluate modal personism on its own terms, and that is the aim of the present article.

⁸ I define ‘infancy’, roughly, as the period after birth during which one is not a person, and this is due to insufficient time to develop.

⁹ Surovell (2017) focusses on luck, and is non-committal about whether having a cognitive impairment is good or bad luck. Lloyd (2021) also thinks misfortune is the best response to the question, but isn’t a modal personist.

I. CLARIFYING MODAL PERSONISM

To assess modal personism, we need to grasp why some beings might have a higher moral status than others, and what possessing a higher moral status might mean. One reason to think there's a hierarchy of moral status is that it would explain powerful intuitions about the ethics of killing.¹⁰ Consider this example.

Runway. You must crash-land a plane at an abandoned airfield to save 200 passengers. Landing on one runway would kill Tom, a sulky elderly man without strong social ties. He has a mediocre quality of life. Landing on the other runway would kill two happy, self-conscious adult foxes.¹¹ Tom and the foxes have the same very short time left to live. But the foxes have an affectionate relationship and all they could want, and each has significantly more welfare in store than Tom.

Most people think you should kill the foxes. Without appealing to differences of moral status, though, explaining why is hard. There are more foxes, and each has more welfare in prospect. What else, apart from higher moral status, could favour saving Tom?¹² Moreover, the appeal to moral status provides a strong explanation for the intuitive view. The foxes matter (I assume here sentience grounds some status), but Tom's mattering more in and of himself can explain why we mustn't kill him.

Philosophers disagree about what having a higher moral status entails. We needn't settle this dispute here. We just need to appreciate the plausible options to assess claims about the foundations of moral status. Tom's higher moral status might mean that Tom's welfare matters more than a fox's (see e.g. Kagan 2019: 98); that Tom, but not the foxes, has moral rights (see e.g. McMahan 2008: 98–99); that he has more robust moral rights than a fox (McMahan 2008: 98–99); that only Tom is a subject of distributive justice, or that distributive concerns apply to him in a distinctive way (see Jaworska 2007: 461–2; Kagan 2019: 78; McMahan 1996; Vallentyne 2005).

Now consider *Runway 2*, which is like *Runway* except Tom is deeply cognitively impaired. This doesn't change the intuitive view that Tom mustn't be killed. But if personhood is the sole ground of higher status, we struggle to explain this view. Modal personism promises to deliver the intuitive result in both cases. Tom's higher status in *Runway 2* is grounded in the fact that he could have been a person.

¹⁰ For another argument for hierarchy, see McMahan (1996).

¹¹ If you think that self-consciousness alone grounds higher status, suppose they are non-self-conscious but are for other reasons moderately strongly psychologically related to their future selves.

¹² If the reader's own ethical framework makes it possible to defend saving Tom without appealing to status, we can vary the case.

One important type of modal personism is based on an appeal to misfortune. Alan Holland (1984: 289) claims that humans with deep cognitive impairments ‘have status by virtue of what they, as the individuals they are, might have been but by misfortune are not’. James Nelson (1988: 192) claims that the ‘distinction is this: the birth of a “marginal” human, or the reduction of a normal human to a marginal state, is a tragedy; the birth of, say, a healthy collie pup, whose potentials are roughly on a par with the human’s, is not’. What is the nature of the tragedy? Nelson supposes it may be that ‘things could have been otherwise for this very child’ (Nelson 1988: 192). Doran Smolkin (2019: 83) builds on Kagan, arguing that those ‘that could’ve been persons but failed to become persons are... in some significant sense unfortunate’ and this is a ‘plausible rationale’ for modal personism. And Jonathan Surovell (2017: 258) claims that ‘full moral status belongs’ to those who ‘*would have had* (the potential to develop) ACCs [advanced cognitive capacities], were it not for luck’. One modal personist who doesn’t appeal to misfortune is Shelly Kagan. Kagan (2016, 2019: 144–5) offers the most thorough statement of modal personism, though he explicitly focusses on developing rather than defending it.

There are many other possible ways of supporting modal personism, of course. So, I apply my criticisms to the core modal view itself, regardless of how it is supported. But modal personists should also offer a substantial moral explanation of modal personism, and misfortune is an initially attractive and popular way of doing that. So, I also seek to show that appeals to misfortune do not offer a way for modal personists to circumvent my criticisms and arrive at an adequate account of modal personhood.

One might think: ‘well of course modal personists cannot appeal to misfortune. Non-persons cannot be significantly unfortunate not to become persons since they are only weakly psychologically related to their future selves, or to their future selves-as-persons. So, they have at best a weak interest now in receiving the goods of personhood in future.’¹³ I won’t press this kind of challenge. Instead, I will simply grant to the modal personist that non-persons’ weaker psychological ties to their future or their futures-as-persons do not preclude all attributions of misfortune in not becoming persons. But here’s one way this might be true. Modal personists might distinguish two types of misfortune: misfortune in not securing future welfare and misfortune in failing to obtain valuable properties whose value isn’t cashed out entirely in terms of welfare. Even if the former type of misfortune requires a certain psychological unity, the latter might not (compare Nelson 1988: 192).

We’ll aid our search for an account of modal personhood if we provisionally state some general features of a modal person. A modal person is an individual who isn’t a person, and who lacks the potential to become one, but who would have been a person now if events had unfolded differently. The

¹³ Compare McMahan (2002: 165–71).

events that might have led to their being a person must have been biologically and metaphysically possible. By ‘metaphysically possible’, I and others have in mind a modal status determined by the satisfaction of a specific condition on identity.¹⁴ At some point in the history of the modal person, two possible futures must have been consistent with their identity: one in which they would have become a person and one in which they wouldn’t. However, the path that would have led to their personhood needn’t be practically possible. To be a modal person, it isn’t necessary that actual agents could have made one into a person using available technology or resources (see e.g. Kagan 2019: 137, 140).

The category ‘modal person’ therefore typically includes humans with deep cognitive impairments who are beyond infancy. Does it include impaired infants? We might think not, since in some senses they could not have been persons *now* (Kagan 2019: 138). At best, they could be developing into persons now. Yet common-sense morality suggests we need a way to account for their high status.¹⁵ And the phrase ‘could have been’ might intuitively extend to future possibilities, as in: ‘my ten-year-old could’ve been a pilot, but she’s colour-blind’. But I won’t take a stand on this issue. I set it aside. Infants with typical psychological development aren’t modal persons. We might think of them as *potential persons*. Potential persons have the potential to develop the capacities of personhood, unlike modal persons (unless we define this potential in particular ways, but I set aside the question of how exactly to distinguish modal and potential persons). Modal personists face pressure to maintain that potential personhood grounds status too (McMahan 2016; see Kagan 2019: 130–8): If the fact that one *could have been* a person grounds status, the fact that one *could be* a person also should (McMahan 2016: 26–7). Humans who once had but lost the capacities of personhood can also be modal persons. But I set this case aside, focussing on modal persons who never were persons.

II. THE WIDE VARIANT

How might we define ‘modal person’? Here’s an idea. According to what I’ll call the Wide Variant of modal personism, an individual is a modal person *whenever the individual would have been a person but for some event or events that affected their development*.¹⁶ Modal personists have the option of supporting this view via an appeal to misfortune—a term I’ll use in an intuitive sense rather than the technical sense employed by some philosophers.¹⁷ And in this intuitive sense,

¹⁴ For example, Kagan (2016: 16–7) and Nelson (1988: 192).

¹⁵ See Kagan (2019: 145, n.13) for an alternative suggestion.

¹⁶ Below, I suggest Kagan’s (2019: 140) view is a version of the Wide Variant.

¹⁷ McMahan (2002: 145ff.) introduces a technical sense of ‘misfortune’ that concerns certain welfare comparisons.

misfortune seems modally sensitive in that the degree to which one is unfortunate not to receive a good (whether welfare or another good) depends in part on how close the closest possible world is in which one receives that good (Smolkin 2019: 86). For example, we would say that a footballer is unfortunate not to score if their shot goes narrowly wide, but even more unfortunate if their shot hits the insides of both goalposts and still misses. If our modal personist does appeal to misfortune to support the Wide Variant, they won't want to maintain that just any old misfortune is relevant to moral status, since everyday events (missing a shot, missing the last train) can be misfortunes but aren't relevant to moral status. To narrow down the types of misfortune that are relevant, they can focus on misfortunes in the development of the capacities that ground status. They can say that there's a core case of high moral status, in which an individual has the psychological capacities of personhood, and a derivative case of high moral status, which arises whenever the individual would have had the capacities of personhood but for some unfortunate event or events that affected their development. An individual has moral status in this derivative way when a misfortune helps to explain why they do not have moral status in the core way.

All modal personists face a challenge: to explain why animals are not also modal persons. The Wide Variant is open to the objection that animals would have been persons if certain events had occurred. Here's one example: Certain people have decided against developing gene-editing techniques to make animals into persons in a gradual, identity-preserving way (see McMahan 2016: 29).¹⁸ Some current or future animals might have become persons but for certain events, such as decisions not to develop and apply this technology.

How can proponents of the Wide Variant respond? They cannot say that this involves a mere absence of an event (declining to develop the technology) rather than an event (e.g. dropping a baby). For some humans become cognitively impaired through absences (e.g. of suitable nutrition), and we need to account for their status. A better response is that animals being turned into persons is a remote prospect. Animals remain far, modally, from personhood. The relevant humans are modally much closer to being persons.¹⁹

How can we unpack this response? One possibility is a threshold view: whether one has moral status from a modal source ('modal moral status' for short) depends on whether one is within a certain modal distance of becoming a person, and animals aren't within this critical distance. Alternatively, a gradualist interpretation of the claim says that every increase in modal closeness to personhood elevates moral status. On this view, animals may have modal

¹⁸ When I talk of non-persons becoming persons, I'll typically assume the process unfolds in a way that isn't identity-altering on psychological views of identity over time (e.g. it's gradual and involves a series of small cognitive upgrades).

¹⁹ Kagan (2019: 140) and Smolkin (2019: 85) suggest this response.

moral status, but to a lower degree, depending on how far down the scale of closeness-to-personhood they are.

The threshold view's high explanatory burden gives us a reason to favour the gradualist view. There's a spectrum of modal closeness-to-personhood. And it's doubtful that all deeply cognitively impaired humans beyond infancy sit at one end of the spectrum, with all animals at the other end.²⁰ The situation is more complicated. The relevant humans seem to differ significantly in how modally close they are to personhood, owing to myriad factors including the level of damage to various regions of the brain, and whether their condition was inherited and present before they existed (compare McMahan 2016: 28). Despite this, the threshold view insists on a cut-off point that perfectly separates humans, who are close enough to personhood to have modal moral status, from animals, none of whom are close enough to have any additional status (compare Lloyd 2021: 280–1). This mirrors conclusions that we might already firmly hold about humans and animals, but it's hard to find a principled explanation of this threshold.²¹ Indeed, the most recent proponents of modal personism reject such thresholds (Kagan 2019: 140; Smolkin 2019: 85–86).

But rejecting thresholds and endorsing a gradualist version of the Wide Variant brings a problem clearly into view: The Wide Variant suggests that irrelevant extrinsic factors are relevant to moral status. Consider:

Rare Mineral. Jacob and Kevin are adults with the same set of genetic variations that affect very many different genes. These were present from the moment of the formation of the gametes from which they came. Variants in any one of the affected genes are enough to cause a condition both men have. The condition is not itself a cognitive impairment but produces a chemical that is toxic to the brain and accumulates to arrest development permanently by 6 months. The chemical is causally inert in conditions of near-zero gravity. Suppose that existing in conditions of near-zero gravity is biologically possible but practically impossible since such conditions exist only outside our solar system. Apart from living outside the solar system, the only way for Jacob and Kevin to have avoided deep cognitive impairment was to receive a certain drug within a certain timeframe during infancy. Jacob lived in Society A, whose scientists discovered this cure and which had the rare mineral needed to manufacture the drug. Kevin lived in Society B, which was equally well-off. But Society B's scientists were obliged to work only on listed topics that excluded the condition, and the society lacked the rare mineral. For political reasons, all contact between Societies A and B was

²⁰ I'll stop explicitly including the qualification 'beyond infancy'.

²¹ The literature illuminates the difficulty of justifying thresholds in the relationship between moral status and its grounds. See e.g. Arneson (1999) and McMahan (2008: 93ff). Strategies for justifying such thresholds (see Parr and Slavny 2019: 844–5; Waldron 2017: 120–2) seem inapplicable here.

prevented with total success. Jacob was admitted to the hospital and was correctly diagnosed. But as the doctor approached Jacob with the cure, her shoe split and she fell, spilling the vial. No replacement was available. Kevin never had a realistic chance of receiving the drug. The doctor explained that she couldn't help. Neither infant received the drug, and their psychological development was arrested in an identical way.

Jacob is modally closer to personhood than Kevin. Jacob becomes a person in the extremely near possible world in which the drug isn't spilled. Kevin becomes a person in possible worlds in which Society B's policies and mineral deposits are relevantly different, or in which Societies A and B co-operate in certain ways, or in which he lives outside the solar system. These are all more distant possible worlds. Now, there might be a further possible world where the men are persons. Some philosophers hold that a human could have come into existence with slightly different genes (and still be the same individual) (e.g. Cooper 2015). On these views, could Kevin have come into existence without the condition? It is doubtful, for Kevin has very many genetic variations, each of which is individually sufficient to cause the condition. Either way, Kevin is still at least slightly modally further away from personhood than Jacob.²² After all, Jacob becomes a person in the possible world in which the doctor's untimely shoe mishap occurs at almost any other time. The gradualist Wide Variant therefore implies that Kevin has a lower moral status than Jacob. But it seems unacceptable to hold that Kevin matters morally even slightly less than Jacob—the only difference between them is just how far away each was from obtaining a drug that neither in fact received.²³ This is an irrelevant, extrinsic contingency that cannot affect moral status.

The difference in status may generate further results. Suppose that the reason not to kill an individual is stronger if that individual's moral status is higher. This supposition is compatible with a range of specific views about the implications of moral status, and it helped us to explain intuitions in *Runway* and *Runway 2*. Then we get the result that the reason not to kill Kevin is weaker than the reason not to kill Jacob. But this cannot be right. Regardless of whether we think that extrinsic properties can ground moral status, we can be confident that extrinsic properties that are of the same general form as coming close to receiving a cure that one in fact never receives are irrelevant.

²² Some might think: In a further, equally close possible world, a different sperm fertilises the egg from which Kevin came so that he has none of the genetic alterations and yet (on some views such as flexistentialism) is the same individual. But the empirical evidence I cite in Section III(a) indicates that we could plausibly stipulate that the men's impairments come from a mother whose chromosomal condition means all her eggs contain the genetic alterations. In such cases, changing the sperm or egg makes no difference.

²³ Compare McMahan (2016: 29), who uses a quite different case to note another difficulty modal personists face concerning degrees of closeness to personhood.

It's worth noting that Shelly Kagan's view appears to be a version of the Wide Variant and seems to be undermined by *Rare Mineral*. Kagan's view appears to be that the degree of one's modal moral status depends on the strength of one's past potential for personhood, and that the strength of one's past potential is determined by the likelihood or remoteness of the circumstances in which one would have become a person.²⁴ So, Kagan's view implies that Kevin has a lower moral status than Jacob, since Kevin had a weaker potential for personhood in the past because the circumstances in which he would have become a person were more remote.

Modal personists might appeal to misfortune to try to bolster support for the Wide Variant. They might say that the misfortune of undergoing events that mean one won't become a person is relevant to moral status, and that Jacob does indeed have a higher status as he is significantly more unfortunate in a relevant way. In reply, even if it's true that the men, and Jacob in particular, suffer salient and regrettable misfortunes, it's implausible that Jacob is more important, morally, than Kevin as a result.

Modal personists might argue instead that the conclusion that Kevin has a lower status only follows if we accept the gradualist view that degrees of modal closeness to personhood always matter. But (the objection continues) we could embrace the threshold view sketched earlier, according to which only some differences in modal closeness to personhood matter. Although it is admittedly hard to sort relevant differences from irrelevant ones, not every version of the Wide Variant is undermined by *Rare Mineral*.

But we can just amend the details of a case such as *Rare Mineral*. For any Wide Variant that invokes thresholds, we could imagine a case in which extrinsic factors such as almost receiving medicine place one individual human, animal, or hypothetical being on one side of the threshold, granting them a higher status, and another individual on the other side, with a lower status. So, the objection doesn't relieve the fundamental problem illuminated by *Rare Mineral*. The Wide Variant, then, fails to satisfy the relevance criterion.

III. INTRINSIC VARIANTS OF MODAL PERSONISM

A natural response to this problem is to modify the Wide Variant by distinguishing intrinsic features of the individual from extrinsic features, and to define modal persons just in terms of intrinsic features. The basic idea of an Intrinsic Variant of modal personism is that modal persons are individuals who would have become persons but for some intrinsic event or events that affected their development. This kind of view can declare Jacob and Kevin equals. The extrinsic property of coming close to receiving a capacities-enhancing

²⁴ See Kagan (2019: 140) and (2019: 136), respectively, for evidence of these claims.

medicine is irrelevant since what matters are the intrinsic features of the individual.

Several modal personists have speculated that an Intrinsic Variant of modal personism could work. For instance, Nelson briefly alludes to a view according to which humans without sophisticated capacities merit greater solicitude than animals because humans would have enjoyed a certain form of life were it not for ‘damage’, whereas the limits of animals’ life forms aren’t due to damage. This view seems to latch onto misfortunes—or ‘tragedies’ (Nelson 1988: 192–3)—concerning the intrinsic features of the individual because ‘damage’ concerns the state of intrinsic features, even though damage can be caused by extrinsic factors. And Smolkin (2019: 13–5) argues that beings who are modally closer to personhood have a higher status, and suggests that a relevant sense of ‘modally closer’ might turn on past possession of the intrinsic potential for personhood.

But although modal personists have often alluded to the germ of an intrinsic view, no one has offered a developed intrinsic view.²⁵ The main task is to state what type of change in an individual’s intrinsic nature is relevant to moral status. I’ll sketch three quite different views on the matter, and advance significant challenges facing each.

But first, I want to address an initial, general concern about such views: that in the context of advancing a definition of ‘modal person’, it’s unclear what justifies an appeal to the distinction between intrinsic and extrinsic features. After all, extrinsic factors can affect whether a being could have been a person. Here’s one way of responding. We might understand modal personism as a set of views according to which there is a core case of moral status in which beings have capacities that ground higher moral status, and a derivative case in which beings lack these capacities but could have had them. A plausible and popular view about the core case is that only intrinsic properties can ground status, and that the relations an individual stands in, for instance, to the psychological capacities of other individuals, cannot ground moral status (see e.g. McMahan 2005: 354). If we accept that view, perhaps we should expect the same condition in the derivative case, according to which only the intrinsic properties of individuals can ground modal moral status.

(a) Intrinsic Variant 1: The Developmental Variant

The Wide Variant’s troubles began when it defined ‘modal person’ too broadly, as an individual who would have been a person but for events that affected their development. This is too broad because animals might also fit this description. So, let’s develop an alternative variant that describes a much more specific feature that doesn’t apply to animals.

²⁵ It’s possible that Surovell (2017) is an exception. But this doesn’t seem an explicitly intrinsic view. I return to Surovell’s view in 3c.

Animals might have missed out on the chance of becoming persons through genetic modifications, but they were never actually in the process of *becoming* persons, and so couldn't be subject to that process going awry. This observation inspires the Developmental Variant—the view that a modal person is *an individual who would have been a person if they had not been derailed from the developmental path to personhood, which they were on at some point because of their intrinsic properties*. Humans with deep cognitive impairments seem to be on the 'developmental path' to personhood in the sense that they start developing in a way that's consistent with gaining in future the valuable capacities of personhood. For instance, their neurons and cortices develop along a trajectory consistent with later personhood. This might not be true for animals.

Modal personists have the option of supporting the Developmental Variant by appealing to misfortune. The misfortune of being on the path to personhood before then being derailed from it might seem very salient. It's not the mere loss of a dormant potential. It is the destruction of the potential to become a person that was in the course of being actualised. This potentially significant misfortune may help to explain why modal personhood is status-conferring.

But the Developmental Variant excludes from its scope some cognitively impaired humans. In order to be derailed from the developmental path to personhood, one must be on the path. And in order to be on it, one must have the necessary genetic information to be developing in the required way. But some individuals never have the necessary genes because, at and after the time they came into existence, they didn't have the required genes (compare McMahan 2016: 28). Philosophers take different views on when we come into existence. But they tend to agree that one doesn't exist before conception.²⁶ And the cognitive impairment-causing conditions of some were present before conception, in the sperm or egg from which they developed. For example, some inherit Fragile X syndrome, 'the most common form of inherited intellectual disability in males' (NHGRI 2016). Here, the over-replication of a DNA sequence (NHGRI 2016) interferes with the production of synapses and can cause severe cognitive impairments (Fragile X Society n.d.). Suppose a child is deeply cognitively impaired after inheriting Fragile X syndrome from their mother. Suppose further that the gene that caused this condition was present in the cells of the mother that turned into the egg from which the child came, as can in fact be the case (Medline 2020).²⁷ This child was never actually on the developmental path to personhood. So, the Developmental Variant implies that these individuals have no modal moral status. In such

²⁶ The exception I have in mind are eternalists, but they can just replace this claim with 'one is not located in spacetime before one's conception'.

²⁷ Sometimes, all the gametes a human produces have the condition present in them because, in a typical case, chromosomal conditions are present in every cell in the body (NHGRI 2020).

cases, the proponent of the Developmental Variant cannot point to a misfortune involved in falling off the path to personhood to support their view that this property can ground status, because the individual never was on that path.

Someone might think that my objection assumes that humans have certain facts about their origins necessarily. They may say that I'm assuming something like the idea that a given human couldn't have come from any other sperm-egg combination. But I'm not making such assumptions, because my claim isn't that the individual *couldn't have* been on the path to personhood. It's that they never in fact were on the path in the actual world, which only requires the observation that they originated—perhaps necessarily, perhaps contingently—from a given sperm and egg.²⁸

Proponents of the Developmental Variant could instead say: 'we accept this so-called objection. Excluding this minority of cognitively impaired humans is the intuitively correct position. We shouldn't aim to explain why *all* deeply cognitively impaired humans have a higher status than relevantly similar animals, because some such humans were actually never on the path to personhood. Once we're attuned to their baked-in or congenital genetic variations, we should conclude that like non-human animals, they were simply always heading for a different sort of existence and a different sort of status'. This move parallels one Kagan (2016: 16–7) makes in defending modal personism. He argues that it would be a *virtue* of the view if it excludes humans whose genetics are such that they could never have been persons whilst remaining the same individual—that is, while still existing. These individuals

²⁸ I acknowledge that I've constructed the developmental variant so that it's compatible with the dominant necessity-of-origins view, and we can imagine other variants arising from more controversial metaphysical views. I won't discuss them at length because this paper isn't exhaustive and focusses on variants that don't make particularly controversial metaphysical presuppositions. Instead, I'll sketch two alternative developmental variants, note some challenges, and set them aside. On one view, modal persons are those who *were or could have been* on the path to personhood because of their intrinsic features. If Cooper (2015) is right that one could have existed with slightly different genes, then individuals with Fragile X syndrome could have existed without the condition, and could have been on the path. A problem: This view would need to show, somehow, that cognitively impaired humans with highly varied conditions would have been persons with only slightly different genes, whilst also showing that animals wouldn't be persons with slightly different genes. Or we might endorse flexistentialism (Dasgupta 2018). On this view, there are many entities that overlap where one sits. The entity that matters morally isn't individuated by a sperm-egg combination, but perhaps just by the property of being the parents' first child. Perhaps, then, modal persons are those who would have been persons if their parents had conceived them at another time. This excludes animals, who wouldn't have been persons if conceived by their parents earlier or later. Flexistentialism depends on radical metaphysical theses (and seemingly has at most one proponent). But another problem is that some impaired humans may still not be modal persons, counterintuitively. In possible, and perhaps real, cases, their parents have hereditary conditions such that the time of conception doesn't alter whether they're deeply cognitively impaired.

really couldn't have been persons, so intuitively they have the same status as similar animals.²⁹

But the *basis* on which the variant marks out a higher moral status for some deeply cognitively impaired humans (and not others) is not intuitive. It's hard to believe that the strength of our reason to aid or to desist from harming an individual could depend purely on whether they were once on the path to personhood and derailed, or whether instead their lower capacities are the result of some event that occurred prior to their coming into existence. I'll offer an example, but it won't compare humans because the implicit speciesism of many of our intuitions may distort judgements in my favour by leading us to believe that the two individuals are equals *because* they are humans. So, I'll sketch some hypothetical beings. I use this device only now since hypothetical beings are harder to imagine well and speciesist biases don't muddle the above cases, where the principles illustrated were further afield from speciesist attitudes.

Suppose that an offshoot of the chimpanzee species develops in future. Members of this novel species tend to become persons. *Post-chimps* reason and communicate in complex ways about what to do and how to live. Two post-chimp adults, Eamon and Leo, have the same low levels of cognitive capacity. They both would have been persons, like their parents and the majority of their species, but for a certain genetic issue. The only difference between them is the time at which this genetic alteration occurred and took effect. In Eamon's case, these events occurred early in the reproductive process, say just before conception (or, if you prefer, just before the creation of the egg from which he came). In Leo's case, the alteration occurred and took effect later in the reproductive process, during gestation, and in particular just after Leo came into existence (whenever one thinks that is). Therefore, Leo was on the path to personhood, and was derailed. Eamon's genes were such that he was never on the path to personhood. The Developmental Variant implies that because Eamon was not on the path, our reason to help or not to harm him is weaker than it is in Leo's case—much weaker, it seems, since modal personism needs to place significant weight on modal personhood if it's to succeed in its aim of explaining common-sense intuitions about the relative statuses of humans and animals (see e.g. Kagan 2016: 20). But this is hard to believe. And for reasons discussed above concerning *Runway*, Eamon's lower moral status may imply that killing Eamon is easier to justify than killing Leo. This is even harder to believe.

Proponents of the Developmental Variant can attempt to defend the claim that Leo has a higher status by claiming that his developmental trajectory was extremely unfortunate. But even if this misfortune seems salient, it's irrelevant to moral status. Eamon seems to be Leo's moral equal despite not

²⁹ Kagan (2016: 16–7) notes that whether such cases exist depends on metaphysical issues.

having suffered this particular misfortune. Additional evidence for this is that even if we think that Leo suffered a greater misfortune, this doesn't change intuitions about the ethics of killing. So, in terms of our criteria, the Developmental Variant fails the separation test since it neither implies that all deeply cognitively impaired humans have a higher status nor uses an intuitively *relevant* distinction to secure the higher status of most such humans. It, of course, therefore fails to satisfy the criterion of relevance too.

(b) Intrinsic Variant 2: The Genetic Variant

A more inclusive variant of modal personism weakens the Developmental Variant's requirement that an individual must have possessed all the genes required to be on the path to personhood. A *subset* of genes may be all that's required for modal moral status if this subset is sufficient for the intrinsic potential to become a person. This idea draws on work by Matthew Liao. Liao (2010) develops a non-modal, genetic account of moral status, and argues that it accommodates deeply cognitively impaired humans. In so arguing, he draws a distinction between different types of genes. I modify this distinction and transplant it into our modal context to formulate the Genetic Variant of modal personism.

The Genetic Variant distinguishes between *driver genes* and *facilitator genes*. Driver genes direct the construction of the aspects of the brain that specifically support the capacities of personhood. Facilitator genes help to form the conditions required for driver genes to function, for instance, by transporting chemicals around the brain (compare Liao 2010: 166–7). According to the Genetic Variant, if an individual possesses all the driver genes, this is sufficient for them to be internally directed towards personhood. And internal directedness towards personhood is constitutive of the intrinsic potential to become a person. Some individuals have this intrinsic potential to become a person, but then the driver genes fail because other genes, or other factors, fail to enable them to function. The Genetic Variant is the view that a modal person is *an individual who would have become a person were it not that their intrinsic potential to become a person was not realised because the conditions necessary for their driver genes to function adequately failed to occur*. Drawing a parallel might illuminate the view's appeal. Suppose a person's potential to realise some great musical achievement is thwarted by their not receiving enough food. In both cases, an intrinsic potential exists, and the good is very close, but it's lost just because some kind of enabling factor is absent. The Genetic Variant might be sufficiently inclusive since some scientists think that driver genes remain functional across hundreds of conditions that cause deep cognitive impairment (see Liao 2010: 166–7). The problem lies instead with facilitator genes, such as genes required to break down certain substances. If even one such gene doesn't work, these substances can become toxic to the brain, leading to cognitive impairment (see Liao 2010: 167). Modal personists inclined towards this variant might try

to appeal to misfortune to support the view. They might argue that having the intrinsic potential for personhood and losing it is a salient misfortune.

I take issue with the view that with all driver genes present, the individual's genes are internally directed towards personhood. This claim is unconvincing. If anything, the faulty facilitator genes are directed away from personhood. We cannot accurately describe the individual's genes, taken as a *whole*, as internally directed towards personhood.

We can still construct a weaker Modified Genetic Variant. This still focuses on the importance of the whole set of driver genes but claims only that this is necessary for the intrinsic potential for personhood, not sufficient. On the Modified Genetic Variant, a modal person is *an individual who has possessed all the driver genes—the fundamental elements of the instructions for the development of the capacities of personhood—only for their work to be prevented by some other gene or other event, preventing the realisation of personhood*. The modal personist might also claim that possessing all the fundamentals of the instructions necessary for personhood but still not becoming a person is a salient misfortune.

But this view faces a different problem. We don't know whether the view would exclude some cognitively impaired humans from its scope, and whether it does depends on facts that are irrelevant to status. We don't know whether the view excludes some humans because scientists don't know which genes are directly responsible for the capacities of personhood (see Liao 2010: 164).³⁰ So, we are unsure whether all deeply cognitively impaired humans possess all the driver genes. And whether they do seems irrelevant. Suppose Amy is deeply cognitively impaired because gene A failed. According to the Modified Genetic Variant, the key to understanding Amy's moral status is to discover whether gene A contains the code for the development of a relevant capacity, or whether it facilitates the work of driver genes. If gene A is a driver gene, Amy has a lower moral status than she would have if gene A enabled driver genes to operate. This implication is unacceptable. Whether gene A plays this or that functional role isn't, by itself, relevant to moral status.³¹ This problem isn't alleviated by attending to the possible misfortune of having certain genes but not the outcome they can support. Genetic events might be able to cause misfortunes of moral relevance, but they cannot constitute them. So, this variant runs afoul of the criterion of relevance.

(c) Intrinsic Variant 3: The Intrinsic Closeness Variant (ICV)

The Intrinsic Variants of modal personism sketched so far implausibly distinguish between different deeply cognitively impaired humans. But we can

³⁰ The Genetic Variants face another challenge. Developmental systems theorists, including Oyama (2000) and Griffiths & Gray (1994), reject the idea of a genetic blueprint and the claim genes code for characteristics.

³¹ Compare Grau (2010: 389–91). Grau makes a different point about status using a similar case.

develop a more capacious Intrinsic Variant by departing from the model I've been using to characterise Intrinsic Variants until now. In [Section I](#), I outlined a common assumption made by modal personists, which I've also made: To be a modal person and have modal moral status, an individual must have had the potential to become a person in a manner that is consistent with continuing to exist. Why assume this? If one couldn't have become a person and continued to exist—in the way that a sperm and egg cannot become a zygote and continue to exist—then it may just be false to claim that one could have been a person. Another reason is that we may want an account of misfortune to support modal personism. But if one couldn't have become a person and remained the same individual, then perhaps one cannot be unfortunate not to be a person now. For if the only way personhood could have arisen in the case of an individual is via an identity-altering process, the good of personhood couldn't have come *to that same individual*. This reasoning suggests a further assumption: If one was never able to receive a good, one cannot be unfortunate not to have received it, since misfortune involves a *shift* in prospects. If personhood is the good, this shift involves moving from a time in which receiving the good was possible to a time in which this possibility has ceased. The assumptions I've just outlined aren't obviously arbitrary. However, they could be mistaken, and might be preventing us from explaining the status of those who never had the potential to become persons.³² So I'll formulate a variant that abandons these assumptions to arrive finally at a view that is appropriately inclusive.

The ICV defines 'modal person' as *an individual who has intrinsic features which are almost, but not quite, sufficient for the intrinsic potential to become a person*. [Surovell's (2017: 264–8) view is somewhat similar. Surovell's view isn't couched in terms of intrinsic features. But it also appeals to differences in the size of the changes to one's make-up that would have been needed to make one a potential person].³³ The ICV improves on other views with respect to a case that has caused difficulty so far: the case of inherited cognitive impairment. Suppose Emily has Fragile X syndrome, the inherited condition discussed earlier. Many philosophers think that Emily could not have existed (as the same individual) without Fragile X syndrome. According to this standard view, in the possible world where the individual originates with different genes, this isn't Emily. Others disagree, holding that one could have originated with different

³² For instance, suppose event E is a pre-requisite for X's existence, but E then harms X. In such a case, it's not *obviously* wrong to think X is unfortunate to be harmed by E.

³³ The final view I discuss is the ICV rather than Surovell's view because it has better chances of being sufficiently inclusive. Surovell's view relies on the claim that deeply cognitively impaired humans are potential persons in closer possible worlds than animals (2017: 267). But this claim is at least challenged by cases I've already raised [in [Section III\(a\)](#)] concerning certain inherited cognitive impairments, and Surovell doesn't address any such cases. By contrast, the ICV has strengths in such cases.

genes to some extent or another (e.g. Cooper 2015; Dasgupta 2018). But the standard view poses a problem by implying that Emily could not have been a person. Unlike other variants, the ICV can declare Emily a modal person regardless of which of these camps is correct, since to be a modal person on this view, it's not necessary that one ever had the potential to be a person or that one could have been a person consistent with continuing to exist. All that's required is sheer closeness of one's intrinsic features to those required for potential personhood. And Emily meets this criterion. If only a portion of one gene had not over-replicated (NHGRI 2016), then personhood could have arisen, perhaps not consistently with identity, but consistently at least with sameness of physical being.

Proponents of this variant might try to tie it to misfortune. [Indeed, Surovell (2017: 264–5) takes something like this option, but appeals to luck, not misfortune]. They might say that the physical make-up of a bear's brain seemingly would have required large modifications if the bear were to have the capacities of a person (compare Surovell 2017: 267). We might therefore think that the bear isn't unfortunate, or not particularly unfortunate, not to be a person, as a lot would have to be different for the bear to be a person. By contrast, any deeply cognitively impaired human would have needed very small changes to their physical make-up to have become a person (compare Surovell 2017: 267). We might think that this is evidence of a significant misfortune: that of having intrinsic features that are very close to those required for potential personhood but are not quite enough.³⁴

Even this variant has counterintuitive implications. Consider:

Operation. Scientists are asked whether they can make a bear into a person via genetic engineering. They determine that it's currently not possible, but that it is possible to change the bear's brain to bring it close to having the intrinsic features required to have the potential for personhood. These changes would not in any way affect the bear's actual psychological capacities. Nonetheless, the scientists are asked to change the bear's brain in this way. They succeed.

The ICV implies that the scientists increase the bear's moral status because it holds that modal personhood is just the condition of possessing intrinsic features that are similar to those that are sufficient for potential personhood. And the bear's intrinsic features are now similar to those required for personhood. But intuitively, the operation cannot have elevated the bear's moral status. The scientists effect no change at all in the bear's actual psychological capacities. And the bear still lacks the potential for personhood. Only the *physical make-up* of the bear has changed. It's hard to believe that we have a stronger

³⁴ I thank Victor Tadros for the ideas in this paragraph.

reason to help, or not to harm, the modified bear than an ordinary bear because of its intrinsic features. Modal personists might point out that the bear is now unfortunate because its physical features are close to those required for the potential to become a person. And yet this candidate piece of misfortune doesn't seem to make the bear matter more than unmodified bears. So, this view also fails the criterion of relevance.

I have developed and rejected three Intrinsic Variants of modal personism. Each answered the question: What kind of intrinsic event or state is relevant to moral status? The answers cover a wide range of options, because each answer reflects one of three broad ways in which one might fail to become a person. One might end up not becoming a person because

- (i) one had the intrinsic potential to become a person, *began to actualise* it, but failed to complete the process (reflected by the Developmental Variant);
- (ii) one had the intrinsic potential to become a person but did not necessarily begin to actualise it (reflected by the Genetic Variant);
- (iii) one *never* had—but was close to having—the intrinsic potential to become a person (reflected by the ICV).

I haven't decisively rejected Intrinsic Variants—further variants could be developed. But we can see that defining 'modal person' in terms of intrinsic features isn't promising because we have identified reasons to doubt intrinsic accounts, which reflect each of three broad ways in which an individual can fail to become a person.

IV. CONCLUSIONS

The prospects for modal personism are poor. Modal personism can only be viable if it satisfies the two conditions I identified at the outset: the criteria of separation and relevance. These criteria demand only this: that modal personism grounds status on seemingly morally relevant properties and implies *either* that all deeply cognitively impaired humans have a higher status than non-humans with comparable psychological capacities, or explains in an intuitive way why most, but not all, such humans have a higher status. Yet we cannot seem to find a variant of modal personism that meet these criteria. The Developmental Variant satisfied neither criterion. And the Wide, Genetic, and Intrinsic Closeness Variants failed to satisfy the criterion of relevance. Whenever we tried to flesh out the crucial notion of modal personhood, the intuitive appeal the property might have when stated abstractly evaporated.

The relevance criterion was not satisfied even when we considered how each view might be supplemented by appeal to misfortune. Even where there was a case that misfortune was present and salient, it didn't support an intuition that modal personhood grounds status. This generates a related problem:

If modal personists cannot appeal to misfortune, they may struggle to provide the view with any real moral explanation.

Since no variant satisfies both criteria, none in fact *explains* the premise *Higher Status than Animals*, or an approximation of it. This failure is especially damaging for modal personism, as arguably its chief selling point is that it raises persons above animals whilst explaining why deeply cognitively impaired humans occupy a higher status than animals with comparable psychological capacities and potentials.

My arguments don't show that no form of modal personism can work. Modal personists could still move in at least two directions. First, they could attempt to avoid my objections by defining modal personhood in terms of intuitively relevant properties that don't concern past developmental trajectory, genetic properties, or physical features of the individual. Philosophers who believe that extrinsic properties ground status might try to refine the Wide Variant so that it doesn't imply that intuitively irrelevant kinds of extrinsic properties ground status. Secondly, they could couch the core modal idea entirely in terms of potentiality by drawing on recent literature on masked potentials (e.g. Jenkins and Nolan 2012). Perhaps deeply cognitively impaired humans retain the potential for personhood, but this cannot be manifested as it is masked.

Such avenues would need to be compared with another option. We could reject *Higher Status than Animals* by abandoning all hierarchies of moral status among humans and animals, or by radically flattening them. This strategy would involve explaining away *Higher Status than Animals*—perhaps as a consequence of an indefensible preference for our own kind. Without hierarchies, defending the equality of “human persons” and so-called “human non-persons” becomes easier.

But problems persist: How would we then explain powerful intuitions about prioritising humans in *Runway*-style forced killing cases? Even gesturing at a way forward is difficult. We face a deep puzzle about why human beings and other animals matter. This puzzle bears directly on our everyday lives. And yet we don't seem to have ready answers.

ACKNOWLEDGEMENT

I'm grateful to the reviewers of this article for their perceptive and helpful comments, which significantly improved the paper. I thank Sameer Bajaj, Kimberley Brownlee, Steve Cooke, Thomas Crowther, Tomi Francis, Gary O'Brien, Rhys Southan, and Isa Trifan for their comments on earlier drafts of this article, and I thank Giacomo Giannini for generously providing comments and help on many occasions. And for their tireless work on many drafts of this article over the years, I am most grateful to Victor Tadros and Patrick Tomlin. This work was made possible by funding from the Arts and Humanities Research Council.

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