DOI:10.1111/j.1741-2005.2007.00201.x

The Necessity of Design

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Abstract

In Jeff McMahan's *The Ethics of Killing*, an example involving a congenitally retarded child and a dog of similar cognitive ability is used to attempt to show that arguments about the potential to manifest traits are morally irrelevant to the abortion debate. McMahan argues that our intuition to enhance the child rather than the dog may be irrational. I explain that the only way to maintain common-sense ethics and strongly held intuitions about function and dysfunction is to accept a theory of design and to think, not in terms of "species" but, in terms of *kinds of things* that are designed to function in specific ways, where the failure of an individual of the kind to manifest characteristic functions is indicative of a privation rather than evidence that the individual is not – or not yet – a member of that kind and thus not as morally significant as members of the kind.

Keywords

Design, Species, Health, Function, Person

In his book, *The Ethics of Killing*, Jeff McMahan attempts to illustrate that potentiality is irrelevant to the abortion debate with several scenarios. In one interesting example, he tells the story of a congenitally retarded child and a dog.[1] In his example, the child has about the same cognitive capacities as the dog. We are to suppose that there is some sort of genetic treatment that can enhance the cognitive ability of a subject to that of an "average person" but it is in such a limited supply that the procedure can only be done on either the child or the dog but not on both. To whom do we give the treatment?

Our intuitions seem to indicate that we should give the treatment to the retarded child and not to the dog. The problem lies in grounding those intuitions in such a way that the charge of speciesism[2] cannot

[1] This example is found in section 6.3 of McMahan's *The Ethics of Killing*.

[2] "Speciesism" is generally regarded as a bad thing due to its arbitrariness. For a full discussion of "speciesism," see Peter Singer's *Animal Liberation* (The New York Review, 1975).

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https://doi.org/10.1111/j.1741-2005.2007.00201.x Published online by Cambridge University Press

be properly predicated of our motivations. McMahan concludes that it cannot be done and that our intuition to pick the child might just be irrational. I disagree.

Our intuition that we ought to administer the treatment to the child and not to the dog is grounded in the idea that there is something wrong with a human child that has the cognitive capacities of a dog but that there is not something wrong with a dog that does not have the cognitive capacities of a human being. With the child, a trait that ought to be present is absent. With the dog, there is no such privation. The problem is that, in this specific case, the grounds we have for saying that the child has a privation seem weak because it was congenitally determined to be in the state in which it is.

A central element to this problem lies in the concept of "personhood" and the moral value attached to it. McMahan and countless other philosophers base their determination of "personhood" (and the moral value that goes along with it) on things an individual *does* – or is perhaps physically capable of doing. Usually, the determination is directly connected to the manifestation of cognitive abilities and of abilities to act or will. It is my view that to take up this method of determining "personhood" is to confuse that which a thing *is* with that which *that sort of thing characteristically does*. A "person" *is* a being that characteristically *has* certain powers – for example: will and intellect. However, even if these powers are merely metaphysically potential to the substance and never actually manifest, all that would mean is that the person was in a privative condition – something that ought to be there (i.e.: these powers) was absent – not that it wasn't a person.

It is also extremely important to understand what is meant by other terms frequently used in this discussion. For 'human being,' Patrick Lee's definition is most useful for our purposes. Lee defines humanity thusly: "The humanity of the embryo is shown by the fact that its sources are two humans, it has the genetic structure that is typical of members of the human species, and its development, barring accidents, ends in a recognizable human individual.[3]" Generally speaking, it makes sense to define a human being as an individual from two human parents, with a genetic structure typical to other members of this class, and for immature members of this class, that they will develop into a recognizable member of this class baring intervention or accident. This definition works in all but a few theologically important cases – namely: Adam and Eve, both of whom were simply *made* by God and had no parents, and Jesus Christ, who only had

[3] Lee, Patrick *Abortion and Unborn Human Life,* Washington D.C.: The Catholic University of America Press, 1996, p. 4.

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one human parent: the Blessed Virgin Mary.[4] Incidentally, at this time and to the best of our knowledge, this group of individuals coincides with the things we generally classify as *Homo Sapiens* but, as I shall show shortly, this connection is not metaphysically necessary.

I shall show that the congenitally retarded child is obviously a human being and that this human being has a privation – something that ought to be present is absent. We ought to treat the child as a "person," even though its potential to manifest the traits typically associated with "personhood" are only rooted in the fact that it is a human being, not in the probability – or even the physical possibility – of their being actualized. It is my contention that the sort of thing that a human being is necessarily entails personhood – though not all persons are human beings[5] – whether or not the individual human being has developed enough to manifest "personhood traits" and whether or not the individual human being has some disorder that has caused these traits to not/no longer be manifest.[6] Thus, the state of being a human being – irrespective of developmental state or the presence of privations – carries with it the highest rights to protection and responsibilities for us to aid this individual, simply because of the sort of things that human beings are.

Perhaps the best way to show that there is something wrong with the congenitally retarded child is to give a good account of what is entailed in the concept of "health." Congenital retardation seems to qualify as a dysfunction or somehow as "unhealthful," in the sense that it inhibits functions that "normal" human beings ought to be able to carry out. However, as this intuition might be taken as "begging-the-question,[7]" let us examine one of the most widely discussed accounts of the concept "health" and see if this case qualifies as some sort of dysfunction.

Boorse on "Health" and "Disease"

Christopher Boorse's discussion of "health" is one of the most complete and thorough treatments on the subject. In his article, *Health as a Theoretical Concept*, he proposes a definition of "health" that I shall investigate.

[4] Though some might speculate about the possibility of us genetically engineering something that is human but did not have human parents, via cloning or some other method, the source of the materials used for this kind of thing would be an individual, or individuals, that fit our definition and, therefore, this new being could be said to ultimately come from human parents though it was developed in a laboratory setting.

[5] For example: God and angels are persons but are not human beings.

[6] For example: injury, Alzheimer's disease, retardation, etc.

[7] It could be said that I am assuming that which I seek to prove, namely that there is something wrong with the retarded child.

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Boorse begins by contrasting health with disease, saying that it is traditionally held that: "Health is the absence of disease" while disease is: "anything inconsistent with health."[8] Boorse puts forth his own definition: "health is normal functioning," qualifying this definition by stating that, "the normality is statistical and the functioning is biological."[9]

Boorse then proceeds to examine the most widely accepted definitions of health in the literature; all of which he rejects as, at least, incomplete. He begins with the notion that health is desirable, which seems to entail that disease is undesirable. In most cases this seems to be true but one can think of cases where disease can be desirable – he uses the example of cowpox during an outbreak of smallpox, the infection of the former could save one's life under those circumstances. Obviously it would be more desirable to have neither, but when a smallpox epidemic occurs, having cowpox is quite desirable. One counterexample is all that is necessary to disprove the definition and thus health cannot be a question of value, alone.

Secondly, he examines the idea that all diseases are things that are treated by physicians. This seems, however, to rule out untreatable diseases. In addition, there are examples of things that physicians treat that are not diseases, for example: elective cosmetic surgery. Thus it seems that the "treatment" definition is neither a necessary nor a sufficient condition for being a disease.

Thirdly, Boorse looks at the idea that health is normal while disease is abnormal. Though he uses this as an element of his own definition, he claims that statistical normality, alone, is neither necessary nor sufficient for health or disease. It seems that several "abnormal conditions" cannot be seen as diseased – he gives the example of red hair – and many "normal conditions" can't be seen as healthy – even though the majority of the sexually active population has HPV[10] it is still a potentially life-threatening disease.

The fourth idea that Boorse attacks is the suggestion that disease carries with it pain while health does not. He points out that there are a number of life-threatening diseases that involve essentially no pain until the final stages. In addition, things like childbirth are extremely painful but cannot be seen as a disease. Similarly the fifth theory, that disease involves disability, fails – pregnancy is debilitating but is

[8] Boorse, Christopher "Health as a Theoretical Concept," in *Philosophy of Science* vol. 44, no. 4 (Dec. 1977), 542.

[9] IBID, Boorse 542.

[10] "Human Papilloma Virus" is the sexually transmitted disease that causes genital warts and cervical cancer. Approximately 75% of sexually active Americans have HPV. (source: Koutsky LA, Kiviat NB. Genital human papillomavirus. In Holmes KK, Mardh PA, Sparling PF, et al., eds. *Sexually Transmitted Diseases*. 3rd ed. New York, NY: McGraw Hill, CO; 1999: 347–359.)

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not a disease and many dangerous diseases cause no disability, until the patient dies of course.

The sixth theory is that health has to do with adaptation to a given environment; thus health would be environmentally relative. The problem is that situations such as poor nutrition leading to stunted growth would then be seen as a healthy condition if one is a coal miner. Also, many abilities might help people live well – he uses the examples of impersonating a President or tightrope walking – but the lack of them is not a diseased condition.

Finally, Boorse addresses the popular idea that homeostasis is health and the lack thereof is disease. This seems to make sense until one sees that things like growth, movement, and having babies are very disruptive to the maintenance of equilibrium. Thus, this theory fails as well.

The problem with these ideas is that they have exceptions, not that they are generally untrue. A good definition must cover all of the cases. As Boorse sees it, much of the problem is that the notion that health is the absence of disease would necessarily entail us including all sorts of things – like congenital retardation, or all manner of injuries – as diseases that we normally would not so classify.

Boorse suggests that the solution to the problem is to think of "health" in terms of function. In this, he assumes: "the physiological functions of a trait are causal contributions it makes to its bearer's survival."[11] He argues that these are species-typical norms. Thus, he claims that, "abnormal functioning occurs when some function's efficiency falls more than a certain distance below the population mean."[12] Thus, he defines health as: "normal functional ability: the readiness of each internal part to perform all its normal functions on typical occasions with at least typical efficiency" and disease as: "a type of internal state which impairs health, i.e., reduces one or more functional abilities below typical efficiency."[13] "Typical," is judged as that which is typical of the species of which one is a member.

This theory has the benefit of recognizing that the lack of the ability, in a human being, to regenerate a limb is not a dysfunction, though it would be with certain types of lizards. Also, his theory does not fall victim to the counterexamples used in the earlier discussion. However, Boorse lists a few problems with his view. The most important problem – and the only one I shall discuss – is the problem of universal diseases. Let us suppose that the entire population of a species suddenly developed a major disorder – an entirely

[11] IBID Boorse, p. 556.
[12] IBID Boorse, p. 559.
[13] IBID Boorse, p. 562

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possible state of affairs, perhaps do to a global environment change or some other catastrophic event. Given the above definition, this would not be a dysfunction due to the fact that it would be the norm for the species. One could answer that perhaps we could take "species-norm" to be understood as "over the entire history of the species". This would solve the problem for the case given, but suppose that we change the example and say that a vast majority of the members of the species, throughout history, develop some sort of painful cancer and die a short time after sexual maturity. It seems that it would make no sense to say that this is a healthy condition in those who develop it.

Problems with appeals to "Species"

The most significant problem with Boorse's theory is that it relies on the notion of species. The concept "species" is extremely problematic. To begin with, it is not entirely clear that "species" can be understood properly as anything other than a class that can be reduced to particular individuals in a particular location at a particular time.[14] Also, even if this is not the case, there are several different ways of classifying species,[15] and thus it seems that it is entirely conceivable that a given individual could be considered a member of more than one distinct species, and thus have vastly different standards of heath, simultaneously. Finally, it seems that the first members of a new species would be neither healthy nor unhealthy as there would, as of yet, be no species norm.[16] The ontic/epistemic distinction aside, if this were the case, it would be entirely impossible to determine proper functions – and therefore to treat disease, or maintain health – if this determination is based on species membership. Let us then examine these arguments individually.

In his article, *A Matter of Individuality*, David Hull makes some interesting statements about the concept of "species" that are particularly relevant to my argument. He begins by explaining that "species" have generally been understood as "spatiotemporally unrestricted classes," but his position is that this understanding is false. Rather, he argues that "species" are actually "spatiotemporally localized individuals, historic entities".

He argues that the only things that are spatiotemporally unrestricted classes are things like scientific laws. A scientific law will apply, no matter where or when one applies it – laws of gravity always apply. However, Hull points out: "If statements of the form 'species

[14] This idea comes from David Hull's article *A Matter of Individuality*.
[15] This idea comes from Philip Kitcher's article *Species*.
[16] I am indebted to David Hershenov for this idea.

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X has the property Y' were actually laws of nature, one might rightly expect biologists to be disturbed when they are proven false. To the contrary, biologists expect exceptions to exist."[17] Exceptions are not compatible with laws, or spatiotemporally unrestricted classes for that matter.

The point is that "species" are historically localized things. Hull explains: "If a species evolved which was identical to a species of extinct pterodactyl save origin, it would still be a new, distinct species."[18] This is a claim, he points out, that is entirely consistent with Darwinian theory.

Accepting the idea that species are historically localized things also solves a major problem for biologists in that: "it frees them of any necessity of looking for any lawlike regularities at the level of particular species."[19] As was shown earlier, developing proper laws about individual species is next to impossible as there will always be a counterexample, thus falsifying the universal.
Hull writes:

> If species are interpreted as historical entities, then particular organisms belong in a particular species because they are part of a genealogical nexus, not because they possess any essential traits. . . . Just as not all crows are black (even potentially), it may well be the case that not all people are rational (even potentially). On the historical entity interpretation, retarded people are just as much instances of *Homo sapiens* as their brighter congeners. The same can be said for women, blacks, homosexuals and human fetuses. Some people may be incapable of speaking or understanding a genuine language: perhaps bees can. It makes no difference. Bees and people remain biologically distinct species. On other, non-biological interpretations of the human species, problems arise (and have arisen) with all of the groups mentioned. Possibly women and blacks are human beings but do not "participate fully" in human nature. Homosexuals, retardates and fetuses are somehow less than human. And if bees use language, then it seems we run the danger of considering them human.[20]

The problem is that if Hull is correct about "species," the concept of species cannot be helpful in determining health or disease. If traits are irrelevant to class membership, how can being a member of a species determine the proper function of the members of a given class? In other words, if Hull is correct it seems that Boorse will be unable to claim that health is tied to the proper functions of a species, as there would be no such thing as a proper function of a species, *per se*.

[17] David Hull *A Matter of Individuality*, p. 353.
[18] IBID, Hull p. 349.
[19] IBID, Hull p. 354.
[20] IBID, Hull p. 358.

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In his article, *Species*, Philip Kitcher offers a different view of "species". To begin with, he says that Hull is completely wrong and that "species" *are* proper classes. However, Kitcher's view does not provide any help for a species-based account of health.

In answering Hull, one of Kitcher's criticisms is that there *can* be things like laws governing a species. He explains: "'All S are P', where S is a species and P a property . . . the property P would have to be so deeply connected with the genetic constitution of members of the species that alterations of the genome sufficient to lead to the absence of P would disrupt the genetic organization, leading to inviable offspring or to offspring of a new species."[21]

If this is the criterion of a species law, it seems that there *could* be laws, but the laws would be about different traits than we generally would think are essential, especially for personhood. For example, we could not say that "All humans are rational," as there are clearly some human beings who are irrational and might even be said not to have the ability to develop rationality. We would be able to say that "All humans breathe oxygen." Clearly, if a human offspring could not breathe oxygen it would die, or, if it survived, be something different than a human being. It is still, however, clear that statements like "most humans . . ." would not qualify as a law.

Kitcher goes on to give several definitions of 'species', given by various scholars. Mayr's view is: "species are groups of interbreeding natural populations that are reproductively isolated from other such groups".[22] Simpson, Hennig, and Wiley hold the view that species are: "the set of organisms in a lineage (a sequence of ancestral-descendant populations) bounded by successive speciation events."[23] Simpson qualifies their position by claiming: "Speciation events themselves can be understood either as events in which a descendant population becomes reproductively isolated from its ancestors."[24] Or, as Hennig and Wiley add: "as events in which an ancestral population gives rise to two descendant populations which are reproductively isolated from one another."[25] The view of van Valen with regard to speciation is that it is: "a process in which descendant populations are ecologically differentiated from their ancestors."[26] Sokal and Sneath argued that this classification ought to be done by: "dividing organisms into species by constructing a measure of overall similarity and taking species to be sets of organisms which are

[21] Philip Kitcher *Species*, p. 312–3.
[22] IBID, Kitcher p. 316
[23] IBID, Kitcher
[24] IBID, Kitcher
[25] IBID, Kitcher
[26] IBID, Kitcher

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clustered by this measure."[27] And others, such as Nelson and Platnick, have argued that: "a species is a set of organisms distinguished by their common possession of a 'minimal evolutionary novelty'."[28]

The point of Kitcher listing these various theories about "species" is that it would appear that there are a rather large number of ways of categorizing and understanding "species". Kitcher, however, is not dismayed by the many different options. He insists that "species" are real things that exist in the world. However, he claims that there are legitimately many possible ways to classify species. He contends that this plurality is based on the diversity of the aims of categorization. Thus, it is entirely acceptable for there to be different criterion and still such a thing as species. He writes: "There are many different contexts of investigation in which the concept of species is employed, and . . . the currently favored set of species taxa has emerged through a history in which different groups of organisms have been classified by biologists working on different biological problems."[29]

While Kitcher's view is acceptable with respect to embracing diversity and might be pragmatically acceptable to a wide range of biologists, this view offers no help to a species-based account of health. If Kitcher is correct, then it is entirely possible that a given organism could be classified as species A under one classification system and classified as species B under another. If a given individual can legitimately be classified in a multiplicity of species and species membership is the basis of health, then a given individual can have a multiplicity of criterions for its health. This raises the possibility of an individual being healthy under one standard while being unhealthy under a different standard, simultaneously. In most situations this would be equivocal, with the individual being healthy in one respect and unhealthy in another, but it seems entirely possible that a situation could arise where we actually would have to say that the individual was both healthy and unhealthy simultaneously, in the same respect. It seems counter-intuitive that a single individual could be simultaneously healthy and unhealthy.

Even if Kitcher's view is correct, all it shows is that the concept "species" is extremely messy. It is entirely unclear and unlikely that this understanding of "species" can help Boorse's theory to develop anything resembling a notion of proper function. Thus, "species" remains a serious problem.

Finally, assuming that we can ever come up with a good definition of what a species is, there are still serious problems with grounding notions of proper function in something that is so very vague – even in the best accounts.

[27] IBID, Kitcher
[28] IBID, Kitcher
[29] IBID, Kitcher p. 331

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Let us suppose that there is a terrorist attack on New York City such that the entire population of the city is exposed to a mutating chemical. This chemical changes the reproductive capacity of any human being who comes in contact with it such that that individual can only reproduce with other individuals who have been in contact with the chemical. It looks like we would have an entirely new species that – other than reproductively – would be indistinguishable from the species *Homo sapiens*. While a biologist might not see a problem with this, it would be problematic in terms of proper function for the concept of health. It seems obvious that a chemical attack that alters one's reproductive capabilities ought not to be considered a healthy thing. But under the criterion of "species-norm" all of the members of that new species have this condition. Are they a functional new species, or a dysfunctional group from the original species?

Let us suppose that a very small group of human beings, living on an island and so entirely isolated from the rest of the human population, evolves into a new species but that it is too early to tell that they are a different species. Suppose that the first few members of this new species have the same physical limitations as regular humans, but are unable to reproduce with anyone not from the new species who all live on the island. However, after a few generations, it becomes clear that this new species, in addition to being only able to reproduce with others from the new species, have super-human physical abilities; they have much better lung capacities than *Homo sapiens*, need only one hour of sleep, don't need to eat nearly as much as *Homo sapiens*, can run much faster and farther than *Homo sapiens*, are much stronger than *Homo sapiens*, and have far more acute senses than do *Homo sapiens*. The species-norms are these "super" traits. The problem is that the first generation were true members of the new species but had *Homo sapiens*-like traits. While they were alive, no one would have thought that they had any dysfunction whatsoever, with regard to these traits. However, generations after they have died, it would appear that they were quite sub-par. One could easily say that they suffered from massive dysfunction.

The problem is that when we determine health based on species-norms, the first members of the species are neither healthy nor unhealthy because there is not yet a species-norm. It is only much later, when we have more observable subjects, that we can determine that they were unhealthy. It seems strange to claim that something that lived a healthy life was unhealthy, years after it has died.[30]

It seems that no matter how we look at the concept of "species" it provides no help for a species-based account of health. If this is the criterion for Boorse's notion of health it seems that Boorse's

[30] I am indebted to David Hershenov for these last two examples.

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theory is a failure. However, it seems that a notion of proper function is absolutely necessary for determining whether or not something is wrong with a given individual. The problem does not lie in the notion of function, but in the reference point of that function. In other words, the problem is that Boorse judges proper function based on species-norms and the concept of "species" is – at best – extremely problematic. Therefore, let us explore a solution that solves the problems of appealing to "species", gives us a solid understanding of human function, and can thus tell us why we ought to administer the treatment to the retarded child and not the dog.

The Necessity of Divine Design

In chapter eleven of his book, *Warrant and Proper Function*, Alvin Plantinga explores the question of whether a naturalist account can ever give a satisfactory account of proper function. After exploring three of the most philosophically important attempts, he comes to the conclusion that in order to have a naturalist epistemology we must adopt a supernatural ontology.

First of all, Plantinga addresses the position that something is functioning normally if it functions in the way it does most of the time – the "usual way".[31] He counters this position with a litany of conditions – like elderly carpenters with missing fingers, sperm that fail to fertilize an egg, or baby turtles that do not reach adulthood – which though statistically more common can't be seen as proper functions of the individuals involved.

Secondly, Plantinga addresses the position that proper function has to do with powers that account for the individual's survival or the survival of its ancestors.[32] He begins by answering that it is not necessary for a thing to have ancestors for it to have a proper function; it seems clear that Adam's heart had a function even though he was the first man. Then he goes on to explain that just because a trait contributes to an individual's survival that does not mean that the trait is functioning properly. He illustrates this point with a story about an evil leader inducing a mutation that causes pain and dramatically reduced sight into a sub-set of a racial minority and then killing the rest of that minority. It seems clear that those with the mutation survived because of it but it also seems that it is a mistake to say that their eyes are functioning properly in this condition.

[31] Pollock, John "How to Build a Person" in *Philosophical Perspectives, 1, Metaphysics,* ed. James Tomberlin, Atascadero, CA: Ridgeview, 1988.

[32] Millikan, Ruth Language, Thought and Other Biological Categories. Cambridge: MIT Press, 1984.

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The third position Plantinga addresses is the view that something has a function when it makes it more likely that a creature who has it will survive in its natural habitat – 'natural habitat' can be understood as 'healthy organism' when we are dealing with organs rather than organisms.[33] The first point Plantinga makes here is that this definition is circular: "natural habitat" implies "proper function". Secondly, he uses the same objections as before to show that enhancing the chances of survival is neither necessary nor sufficient for proper function.

Plantinga concludes by stating: "if, as it looks, it is in fact impossible to give an account of function in naturalistic terms, then metaphysical naturalism and naturalist epistemology are at best uneasy bedfellows. The right way to be a naturalist in epistemology is to be a super-naturalist in metaphysics."[34]

The point that Plantinga is trying to make here is that if we are to salvage our notion of proper function in things, which seems not only obvious to our general intuitions but absolutely necessary for any cogent notion of health, then we have to have an ontology that includes a super-natural, intelligent designer.[35]

This solution may be the only way to salvage our intuitions that there is something wrong with the congenitally retarded child and not with the dog. It seems that we must appeal to some notion of design to remain true to our intuitions that there is something wrong with the child and not the dog. The problem is that when we discuss a design, we imply some sort of designer. But, if Plantinga is correct, then our problem is solved.

Boorse's theory of health seems good at first glance. He takes a naturalistic approach to proper function and claims that we can tell what something's function is by making reference to its species. Thus, anything that is a member of a given species yet functions below the species-norm is in a dysfunctional state.

When we apply this theory to the retarded child, it seems to satisfy our intuitions. The child is a member of the species *Homo sapiens*. Its parents were *Homo sapiens*. There is no indication that it will be unable to reproduce with *Homo sapiens*. It has all of the general morphological traits of *Homo sapiens*. It seems that there is no good reason to say that the child is not a member of the species *Homo sapiens*. However, its cognitive abilities are significantly lower than the species-norm for *Homo sapiens*. It would seem safe to say that the child could be said to be dysfunctional with regard to this particular trait.

[33] Bigelow, John and Pargetter, Robert "Functions," in *Journal of Philosophy* (1987) 189–94.

[34] Plantinga, Alvin *Warrant and Proper Function*. (Oxford: Oxford University Press, 1993), p. 221.

[35] All of the Plantinga material is found in Chapter 11 of: Plantinga, Alvin *Warrant and Proper Function*. Oxford: Oxford University Press, 1993.

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The dog is not a member of the species *Homo sapiens*. Its parents were not *Homo sapiens*. It cannot reproduce with *Homo sapiens*. It has none of the general morphological traits of *Homo sapiens*. It seems that there is no good reason to say that the dog is a member of the species *Homo sapiens*. Rather, it seems that the dog belongs to a different species. The species-norm of cognitive ability for the dog's species is the same as the cognitive ability the dog possesses. It would seem safe to say that the dog could not be said to be dysfunctional with regard to this particular trait.

The solution in Boorse's account seems fairly obvious. There is no dysfunction in the dog. There is a dysfunction in the child. If there is a treatment available and we are inclined to enhance something's cognitive capacities, it seems that it makes sense to enhance the child who is in a dysfunctional state – and thus bring him up to the species-norm and eliminate the dysfunction – and not to enhance the dog, which is in a perfectly normal state. Boorse's theory seems perfectly consistent with our intuitions.

The problem is that species-based accounts of health do not work. Let us suppose that we listed only the most basic, life sustaining functions of a human being – such as breathing oxygen – as essential to species membership. In this account, there is nothing wrong with the congenitally retarded child. After all, it was born that way – genetically determined – and does not appear to suffer. Why should we say that there is anything dysfunctional about its condition? Additionally, if there are many different acceptable ways to classify species, why ought we to say that the child is even a member of the same species as human beings who have higher cognitive capacities? It would not be the first time that it was claimed that certain individuals that most would intuitively claim were human were classified as non-persons, or at least substantially less morally relevant.

However, if we adopt a Plantinga-type solution, all of the problems with Boorse's theory disappear. If design and proper function are not determined by species classification – which seems dangerously close to arbitrary – but rather by a designer, namely God, then we have our solution. The category "human being" or "dog" is not an evolutionary, transitional concept – as "species" is – but a real category in the mind of God. So, the category in question is "*Human Being*" rather than "*Homo Sapiens*". Coincidentally, these categories share the same members – to the best of our knowledge – but this need not be the case. God, theoretically, could create another group of human beings, on a different planet, who would be essentially identical to the human beings on Earth with the exception of the history of their origin. These two groups would both be human beings but only the human beings that originated on Earth would be *Homo Sapiens*.

God designed things to function in certain ways. We can generally observe the evidence of this in that while the naturalistic categories

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https://doi.org/10.1111/j.1741-2005.2007.00201.x Published online by Cambridge University Press

fail, groups still seem to function in consistent ways. This is why our intuition is such that if something deviates from this norm, it is dysfunctional or has a privation.

This norm is not statistical, by any means. Let us suppose that all of a sudden, every human being had only one leg and all of our future offspring had only one leg. A universal condition like this is a problem for a species-norm account because it would be hard to say that this was dysfunctional. For the Divine design account, there is no problem. Yes, our intuitions are correct and there is something wrong with this situation, not because it deviates from the species-norm, but because it deviates from the norm of God's design. So, even if nearly everyone was dysfunctional, that would not thereby make the dysfunctional functional nor would it make the functional dysfunctional.

This also solves another serious problem in the philosophical discourse on personhood. As I explained at the start of this paper, "personhood" is generally identified with specific traits – the most common is rationality. The problem with this is that human beings manifest these traits over time and these traits also tend to fade over time. It, also, is not entirely clear that other things that we are reluctant to call "persons" do not have these traits as well – higher mammals, super-sophisticated computers, etc. I do not believe that our reluctance to call these other things "persons" is based in something like "speciesism."[36] Rather I think that this intuition is based on our knowledge – at some level – that we, human beings, are significantly different than these other things. How are we different? We were designed by God in such a way that we are fundamentally different from everything else in His creation.

Many religiously oriented thinkers mistakenly defend "speciesism." However, they do not actually mean that human beings have greater moral significance than animals because of our reproductive community,[37] which is contingent and might be said to be morally irrelevant. Rather, what these individuals actually mean to defend is a position like that which I have just asserted: human beings have the highest moral worth because God designed us in that way.

The traits that we associate with "personhood" are simply characteristics that human beings are supposed – were designed – to have. By virtue of being a human being, these traits ought to be present or develop in the individual. It is a mistake to speak of human beings as if they were ever other than "persons". When speaking of a pre-born human being or a small child as a "potential person" it is more proper to say that these human beings have the potential to manifest X, Y

[36] Nor do I think that these things actually posses the intellective powers that human beings posses.

[37] I.e.: that we are members of the species *Homo Sapiens*.

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and Z personhood-traits. When there is a situation, such as the congenitally retarded child, where it seems impossible for the individual to develop these traits, it is proper to say that the individual suffers a privation – something that ought to be present, according to God's design, is absent – not to say that the congenitally retarded child is not a person.

It makes little to no sense to determine an individual's moral status based on the manifestation of traits. All human beings are morally significant, deserving of the highest degree of protection, and requiring of the highest responsibility from others to provide necessary aid, whether or not they manifest the traits commonly associated with "personhood". The reason does not lie in some preference of a biological class, it lies in the fact that part of the design that human beings have been endowed with by God is that we are of the highest moral significance. In other words, we are not morally significant because of the manifestation of certain personhood traits, but because God designed us so to be.

Let us, then return to assertions that I made at the beginning of this paper. I stated that many philosophers base their determination of "personhood" (and the moral value that goes along with it) on things an individual *does* – or is perhaps physically capable of doing. It is my view that to take up this method of determining "personhood" is to confuse that which a thing *is* with that which *that sort of thing characteristically does*. I then stated that a "person" *is* a being that characteristically *has* certain powers – for example: will and intellect. However, even if these powers are merely metaphysically potential to the substance and never actually manifest, all that would mean is that the person was in a privative condition – something that ought to be there (i.e.: these powers) was absent – not that it wasn't a person.

In light of the Divine design account, this explanation can be given with much more detail. If we ought not to understand human persons – remembering that angels and God are also persons – based on the manifestation of "personhood traits," how then ought we to understand them? A human person is a being that was made in the image and likeness of God, and is thus unique and of the highest moral significance amongst all of creation (see: Genesis 1:26–7). It seems obvious that being created in the image of God does not entail having all of the traits of God – God is all-powerful and we are not, God is all-knowing and we are not, God is eternal and we clearly have at least a beginning point, God is one in being and three in persons, and we certain are not, etc. The traits that we share with God, the ways in which His image is manifest, are: intellect, will, and moral understanding.

Intellect, the higher understanding of the theoretical, for example: things like universals (not to be confused with basic rational processes, which at least some other creatures seem to share), is unique

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to humanity. Will, most easily shown to be distinct from mere desire by the ability to act counter to that which one desires for a higher ideal – acts of will are caused by the agent acting rather than a mere response to an exterior stimulus, is also uniquely human. And only human beings contemplate the moral repercussions of their actions – lions do not think about the pain felt by the zebra they are tearing to pieces and then ponder moral grounds for becoming vegetarian.

The fact remains, however, that there are cases in which these traits are not manifest in some human beings. This raises the question as to how, if we are designed by God – who is perfect – to have certain traits, is it possible that we do not manifest the traits associated with that design. The answer lies in the "Fall of Man".

In the Fall, humanity was fundamentally altered by sin. Not only was this alteration significant in spiritual terms, but it was manifest in the physical as well. For example, it was at that time that death became a reality for humanity. It was sin that brought death into the world (see: Genesis 2:17, 3:3, 3:19, Wisdom 1:13–16, Romans 5:12, 6:23). Therefore, the Fall is the reason why human beings experience privations. However, God did not abandon the beings He made in His own image to this end.

The redemptive sacrifice of Christ restores us to our true nature. This restoration is not accomplished, or at least not entirely, in this life. Rather, at the end of time, we shall be restored to our natural, intended condition. Of the "Resurrection of the Body" at the end of time, St Thomas Aquinas wrote: "The same body that is now with its flesh and bones will rise again. . . . [but] They will be of a different quality from that which they have now. . . . [We] will rise with all the bodily integrity that pertains to the perfection of man."[38]

Therefore, we can conclude that human beings were designed such that all of the traits we associate with personhood ought to be manifest by each human individual. However, because of the Fall, our nature is damaged, such that privations of the original design occur. Through the redemption of Jesus Christ, we can be restored to our original design, at the end of days. Thus, we can see that even though individual human beings may not manifest, may not *yet* have manifest, or may have ceased to manifest the traits we typically associate with "personhood," these individuals are still persons because it is the design of God that all human beings are persons – irrespective of the manifestation of personhood traits – and are thus to be regarded as creatures with the highest of moral status.

The Divine design account provides a viable solution to the problems found in all of the "naturalistic" accounts of health and human nature. Certainly, there will be some who reject this account because

[38] Aquinas, St. Thomas *The Aquinas Catechism*. Edited by Ralph McInerny. Manchester, New Hampshire: Sophia Institute Press, 2000.

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God is involved. However, if there were individuals who did not believe in the number 3, that state of affairs would not change the proper answer to the equation 1 + 2 and it would be ridiculous to drop the correct answer because of their disbelief. Commonsense ethics require a divine foundation. In order to maintain our most deeply held intuitions, adopting a supernatural ontology is absolutely necessary. The alternative is to give up our notions of health, disease and proper function, not to mention our deeply entrenched beliefs about our responsibility regarding cognitively impaired human beings.

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