

COGNITIVE DISABILITY AND COGNITIVE ENHANCEMENT

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Abstract: This essay explores problems of consistency among commonsense beliefs about the comparative moral status of animals, fetuses, and human beings congenitally endowed with cognitive capacities and potential no higher than those of higher animals. The possibility of genetic cognitive enhancement exacerbates some of these problems, but also offers new resources for understanding the basis of our moral status as inviolable.

Keywords: cognitive limitation, cognitive disability, cognitive enhancement, abortion, moral status of animals.

Introduction

At the conference from which this collection of essays is derived, I was asked what my purpose has been in writing about the moral status of human beings with extreme forms of cognitive limitation. The question arose because some of what I have written challenges certain assumptions we tend to make, yet these challenges can be painful, particularly for relatives of those with severe cognitive limitations and for people who themselves have milder forms of cognitive disability. There is, moreover, a risk that raising questions about the moral status of those with severe cognitive limitations could ultimately lead to their receiving worse treatment—a real danger given the neglectful and cruel treatment to which they have been and sometimes continue to be subjected. So why raise the issue of their moral status? What can this accomplish, I was asked, other than to promote an “ethics of exclusion”? This essay is in part an answer these questions, though its broader aim is to contribute to our understanding of the moral status of those with severe cognitive limitations.

To avoid the use of terms that may have different connotations to different people, I refer to human beings in the category with which I will be concerned as the “radically cognitively limited”—though here, for the sake of concision, I will abbreviate “radically cognitively limited” to “cognitively limited.” These are human beings who are capable of consciousness but whose cognitive capacities and congenital cognitive

potential are no higher than those of the most highly psychologically developed nonhuman animals.¹

Animals

The moral status of cognitively limited human beings first became a topic of philosophical discussion in the writings of philosophers whose aim was to challenge complacent beliefs about the morality of various harmful uses of animals, such as raising and killing them for food. These philosophers recognized that most people, when challenged to defend their view that human beings are inviolable in ways that animals are not, typically cite certain superiorities of human psychological capacity, such as self-consciousness, the ability to act on the basis of reasons, and so on. They also noticed, however, that some human beings *lack* these capacities. Fetuses and infants, for example, are neither self-conscious nor autonomous. Yet there are obvious responses to the concern that our beliefs about the permissible treatment of animals are inconsistent with our beliefs about the permissible treatment of fetuses and infants. One is that most of us do in fact accept that even those fetuses with the capacity for consciousness are not morally inviolable in the way that adult persons are. Most people accept that it can be permissible to kill a conscious fetus via abortion for reasons that would be insufficient to justify the killing of an adult person. Moreover, even though fetuses and infants are not capable of self-consciousness or action on the basis of reasons, they nevertheless have the potential to develop those capacities. Similarly, persons who have become irreversibly demented or comatose may also lack these capacities and even the potential to have them in the future, but they differ from animals in having had them previously.

To challenge people's complacency about harming animals, therefore, it was necessary to press them to defend the consistency between their beliefs about animals and their beliefs about the permissible treatment of human beings who not only lack certain psychological capacities but also, like animals, lack the potential to have them, as well as a history of having had them. How could people cite certain psychological capacities as morally differentiating human beings in general from animals, yet treat animals in ways in which they recognized that it would be wrong to treat human beings who lack those capacities?

The aim of those philosophers who introduced the cognitively limited into the discussion about the moral status of animals was to use the common belief that the cognitively limited share the inviolability of cognitively normal human beings as a fixed point in the set of our moral

¹ Eva Kittay raises questions about what it means to suppose that there are such human beings in "At the Margins of Moral Personhood," *Ethics* 116 (2005): 130. For a short response, see McMahan 2009, 241–42.

convictions in order to criticize common beliefs about animals as inconsistent with it. While some may have believed that the cognitively limited have a lower moral status, or came to believe this in the course of thinking through the argument, it was no part of their motivation to question the status of the cognitively limited.

The challenge these philosophers posed has never, in my view, been satisfactorily answered.² Most people believe that it would be permissible, and perhaps morally required, to kill an adult chimpanzee if the transplantation of its organs could save the life of an adult human being. Yet no one in our society has suggested, or would suggest, that it could be permissible to kill a cognitively limited human being, even if his or her psychological capacities were lower than those of a chimpanzee, and even if his or her organs could be used to save the lives of *several* cognitively normal human beings. And probably no more than a few people believe that it could be permissible even to allow a cognitively limited human being to die for this purpose. Indeed, most people accept that it would be impermissible to allow such a human being to die for *any* reason other than one that would also justify allowing a cognitively normal human being to die. Most people believe instead that we ought, as a society, to devote significant resources to life-sustaining medical treatments for cognitively limited human beings, including those with no living relatives. Yet no one has yet shown how the belief that chimpanzees are sacrificeable can be reconciled with the belief that human beings with comparable psychological capacities and potential are not.

Saving people's lives is of course one of the most important aims one can have. But our harming and killing of animals very seldom serves that end. The reason for which people in the United States slaughter billions of animals each year, causing most of them long periods of suffering beforehand, is to enjoy the difference in pleasure between meals with meat and meals without meat. I believe that this difference is trivial and that those who sincerely believe otherwise have a distorted sense of what significant deprivation involves. Thus, when combined with the demand for moral caution, the challenge to consistency posed by the comparison between the cognitively limited and animals with comparable cognitive endowments ought, as a matter of moral and intellectual integrity, to move those who argue and campaign for the rights of the cognitively limited to accept the inconveniences of being vegetarian.

Fetuses

Perhaps the main reason I began to think about the moral status of the cognitively limited is that I realized when I began to study the morality of

² For criticism of the responses with which I am familiar, see McMahan 2002, 203–32, and McMahan 2005.

abortion as a graduate student that liberal beliefs about the morality of abortion are doubtfully consistent with common beliefs about the moral status of the cognitively limited. It seems likely that most of those who have offered secular arguments for the view that the cognitively limited are morally inviolable also accept that abortion can be permissible in a wide range of cases, even after the onset of fetal consciousness. Yet because some cognitively limited adults have cognitive capacities no higher than those of a conscious fetus, these people cannot consistently believe that psychological capacity is the basis of inviolability; therefore they cannot believe that the permissibility of late-term abortion depends on the psychological nature of the fetus. It cannot, on their view, be connected with the fetus's lack of the capacity for self-consciousness, or with its lack of the ability to care about its own future, or with the fact that even if it were to live it would be psychologically related to itself in the future in only the most attenuated ways. For many cognitively limited adults also lack these properties.

Liberals naturally assume that a permissive view of abortion must be compatible with a strong duty of care for the cognitively limited, who are among the most vulnerable of all the disabled. Yet at least in the case of fetuses with the capacity for consciousness—and in this discussion I will be concerned solely with fetuses that have this capacity—the relevant facts suggest otherwise. Like a cognitively limited child, but unlike an animal, a conscious fetus is both a member of the human species and the biological offspring of human parents. And because the capacity for consciousness arises after the current point of viability, such a fetus is capable, with medical assistance, of independent life in the external world. It is, of course, both true and important that most cognitively limited human beings have cognitive capacities higher than those of any conscious fetus. But what seems necessary for a liberal view of abortion to be compatible with the view that cognitively limited human beings are inviolable is that there should be a threshold on the scale of psychological capacity that separates the violable from the inviolable and that conscious fetuses should be below it, while most older cognitively limited human beings are above it. That such a significant threshold would neatly divide conscious fetuses from most cognitively limited human beings would be highly serendipitous. More importantly, there would be unacceptable intuitive costs to finding the threshold at this point; for premature infants, whose psychological capacities are no higher than those of fetuses at the same stage of development, would be below this threshold, while higher animals with capacities comparable to those of cognitively limited adults would be above it.

One intrinsic difference between almost all conscious fetuses and all cognitively limited human beings is that while the former have the potential to develop high cognitive capacities, the latter do not. Because most people tend to attribute moral significance to potential, and because

conscious fetuses share with the cognitively limited other properties to which our intuitions respond, such as membership in the human species and kinship with persons, it seems that the comparison between fetuses and older cognitively limited human beings, in conjunction with the assumption that the cognitively limited share our inviolability, challenges the liberal view of abortion. Unlike the comparison between animals and the cognitively limited, which challenges the traditional view of the moral status of animals, the comparison between fetuses and the cognitively limited *supports* the traditional, conservative view of the moral status of the fetus. If liberal defenders of the inviolability of the cognitively limited are unable to identify a morally highly significant difference between the cognitively limited and conscious fetuses, consistency may require that they abandon their permissive view of abortion. If psychological capacity is irrelevant to an individual's status as inviolable, the idea that abortion is permissible may seem to be a widely accepted and therefore conspicuously successful dimension of the "ethics of exclusion."

Those familiar with the philosophical literature on abortion may be undismayed by this problem of consistency. For they may expect to be able to solve it by availing themselves of some version of Judith Jarvis Thomson's argument for abortion, which makes no appeal to assumptions about the moral status of the fetus but instead seeks to justify abortion by claiming that, at least in most cases, the fetus has no right to draw life support from the pregnant woman when this requires that it occupy her body. Since it has no right to the use of her body, she does not violate its rights by expelling it from her body, even if this requires killing it in the process, as abortion sometimes does.³ Many people have seen it as an advantage of this argument that it demonstrates the permissibility of abortion without entailing or even supporting the permissibility of infanticide, even if there are no intrinsic differences between a late-term fetus and a premature infant at the same stage of development. But it could also be invoked to show that a liberal, permissive view of abortion is compatible with recognizing the inviolability of *all* human beings with the capacity for consciousness: conscious fetuses, infants, and all cognitively limited human beings. For what it purports to show is that conscious fetuses can share our status as inviolable yet still not be morally protected against abortion, since inviolability of the sort that we possess does not guarantee immunity from lethal expulsion if we invade or trespass upon another person's body.

This would be a happy solution to the problem of consistency if Thomson's argument had no unacceptable implications. But I believe that it has an implication that no one can reasonably embrace. This is that the infliction of grievous but nonlethal prenatal injury could *in principle* be

³ Judith Jarvis Thomson, "A Defense of Abortion," *Philosophy and Public Affairs* 1 (1971): 47–66.

justified whenever abortion is. Imagine a case in which a pregnant woman has an interest that is frustrated by the fetus's presence in her body and that is sufficiently important that, according to Thomson's argument, she would be justified in having an abortion to satisfy the interest. Yet suppose she could also satisfy the interest in a way that would merely injure the fetus, causing it to suffer moderate pain intermittently throughout its life, but allowing it to have a life that, despite the pain, would be well worth living. In these circumstances, in which the woman's interest could be satisfied either by having an abortion or by doing what would injure her fetus, and in which it is better for the fetus to be injured than killed, she ought to do what will injure the fetus rather than kill it. In injuring it, she would not, according to Thomson's argument, be wronging it. Since she has no duty to allow the fetus to remain in her body, the fetus may continue to live only on her sufferance. An injury may simply be the cost it must bear for the sake of the benefit of using her body for life support.

This conclusion is unacceptable. It is false that a woman may permissibly injure her fetus, thereby causing it to suffer lifelong problems, whenever (1) it would be permissible for her to have an abortion, (2) her aim in having the abortion could be equally well served by an act that would injure the fetus but not kill it, and (3) it would be better for the fetus to be injured than to be killed. This is not only counterintuitive but also misunderstands the moral difference between killing and injuring a fetus. Killing a fetus via abortion frustrates only those interests it has at the time, which are weak for reasons that I explain in the following section. Nonlethally injuring a fetus, by contrast, may frustrate not only those weak interests but also the stronger *future* interests of the adult into whom the fetus will develop.⁴ Because Thomson's argument has unacceptable implications for prenatal injury, it cannot provide the moral justification for abortion, which must instead appeal to facts about the nature and status of the fetus. Hence the problem remains of achieving consistency between a liberal view of abortion and common beliefs about the status of the cognitively limited.

There are of course various possible ways of resolving the apparent inconsistency: one can abandon the liberal view of abortion, retain the liberal view but reject the inviolability of the cognitively limited, make less substantial adjustments to one's beliefs about the moral status of *both* fetuses and the cognitively limited, or find an alternative argument for the liberal view of abortion that neither appeals to the nature of the fetus nor

⁴ For further discussion, see McMahan 2006. One might argue that the proponent of Thomson's argument could consistently rule out the permissibility of causing prenatal injury on the ground that the strong and enduring interests of a person that the injury would frustrate can override the right of the pregnant woman to deny a fetus unimpaired access to the use of her body. But those interests do not provide a reason that is stronger than one's reason not to kill a fetus *if* it is inviolable.

implies the permissibility of causing prenatal injury. I will offer no recommendations here. But unless we can resolve this apparent inconsistency, we cannot claim to understand the basis of our own moral status.

Cognitive Enhancement

This problem of consistency can be rendered even more acute by considering the possibility of genetic cognitive enhancement. Most people seem wary of genetic cognitive enhancement. They seem to believe that there is no moral reason to enhance the future cognitive capacities of a cognitively normal fetus, and perhaps even a reason *not* to, at least by genetic means. Yet even those who claim that disabilities are not misfortunes tend to concede that there is a moral reason, if possible, to enhance the cognitive capacities of a fetus that would otherwise be cognitively limited, and to do so *for its own sake*. Here as elsewhere in debates about genetic enhancement, many people attribute great significance to the distinction between therapeutic enhancement, or enhancement that brings an individual up to the norm, and enhancement beyond the norm.

Many of those who believe that there is a moral reason to provide cognitive enhancement for a cognitively limited fetus also believe that it can often be permissible to kill a cognitively limited fetus, or indeed a cognitively normal fetus, via abortion. But are these beliefs compatible? If we examine the considerations that might favor cognitive enhancement, we can determine what they imply about the morality of abortion.

The intuition that there is a moral reason to provide cognitive enhancement for a cognitively limited fetus might be explained and justified in three possible ways. The justification might appeal (1) to the present interest of the fetus, (2) to the interests that the individual affected would have later in life, or (3) to the idea that it would be better in impersonal terms for there to be a cognitively normal adult rather than a cognitively limited adult in the future.

Consider first the present interest of the fetus, on the assumption that the fetus and the adult into whom it will develop are identical—that is, one and the same individual at different times. (Assuming that the fetus has the capacity for consciousness, this assumption is plausible on most views of our identity.) There are two general ways in which the fetus's life might proceed. Without enhancement, it will become a cognitively limited adult. With enhancement, it will develop normal cognitive and other psychological capacities. Because it will later have more dimensions of well-being accessible to it if it develops normal cognitive capacities, it will be better for it, considering its life as a whole, to receive cognitive enhancement.

Most people assume that the difference in value between the two possible lives determines the strength of the individual's present interest in the better of the two, even when the individual is a fetus. If this is right—that is, if the cognitively limited fetus has an interest in having the better of the two possible types of life that is proportionate in strength to the extent to which a life with normal cognitive capacities would be better—then its present interest in receiving enhancement must be exceedingly strong. And to the extent that the strength of moral reason to satisfy an individual's interest varies with the strength of the interest, the reason to provide the enhancement must be correspondingly strong.

If, however, a cognitively limited fetus has a strong interest in having a future life with normal cognitive capacities rather than a life with radically limited capacities, it seems that a normal fetus must have a comparably strong interest in having a future life with normal cognitive capacities rather than no future life at all. If we compare the two possible types of life it could have, depending on whether or not an abortion is performed—that is, a life of normal length with normal cognitive capacities and a life that ends prior to birth—it is obvious that the former is the better of the two. Assuming that the extent to which the longer life would be better is the measure of the strength of the fetus's present interest in having the longer life rather than the shorter, its interest in avoiding an abortion must be exceedingly strong. And to the extent that the strength of the moral reason to satisfy an individual's interest varies with the strength of the interest, the reason not to perform an abortion must be correspondingly strong.

Indeed, a normal fetus's interest in continuing to live should be even stronger than a cognitively limited fetus's interest in receiving cognitive enhancement. This is because a future life with radical cognitive limitation is significantly better than no future life at all; hence a future life of normal length with normal cognitive capacities is better than no future life at all by significantly more than a life of normal length with normal capacities is better than a life with radical cognitive limitation. Considering only reasons derived from fetal interests, therefore, the reason not to kill a normal fetus via abortion should be significantly stronger than the reason to enhance a cognitively limited fetus. There are, moreover, other considerations that may widen this gap even further. For example, abortion is an instance of *doing* harm, while the failure to enhance a cognitively limited fetus merely *allows* an undesirable condition to persist.

I have argued elsewhere that this way of understanding the strength of the fetus's interest in continuing to live is misleading. The strength of the fetus's interest in continuing to live *at the time*, and thus the strength of the moral reason to preserve its life *for its own sake*, depends not only on how good its future life would be but also on the extent to which it would be psychologically related to itself in the future were it to live. The strength of what I have called its "time-relative interest" in continuing to

live is, in other words, discounted for the degree of psychological discontinuity between itself now and itself in the future, were it to live.⁵ Given the tenuousness of the psychological relations between a conscious fetus and itself at any time after its birth, death would not be a great misfortune for it. It is this, together with the nature of the fetus as a being lacking the capacity for self-consciousness and other higher psychological capacities, that makes the killing of a fetus substantially less serious morally than the killing of a person.

But if this is correct, it undermines not only the view that fetuses have a strong interest in continuing to live but also the view that a cognitively limited fetus has a strong interest in being cognitively enhanced. For a cognitively limited fetus would be no more closely psychologically related to itself as an enhanced, cognitively normal adult than a normal fetus would be to itself as an adult. So just as a normal fetus's comparatively weak interest in continuing to live grounds only a weak moral reason not to kill it, so a cognitively limited fetus's comparatively weak interest in having normal cognitive capacities as an adult grounds only a weak moral reason to provide it with cognitive enhancement. In short, what seems to me to be the best defense of the liberal view of abortion implies that the moral reason to enhance the cognitive capacities of a cognitively limited fetus for its own sake—that is, the reason deriving from its own interests—is even weaker than the comparatively weak moral reason not to have an abortion. (It is weaker because the alternative to enhancement—a life of cognitive limitation—is better than the alternative to not having an abortion: no life at all.)

One might respond to this point by noting that whereas abortion prevents further interests from arising, and thus affects *only* the interests that the fetus has at the time, which may all be quite weak, the failure to provide cognitive enhancement for a cognitively limited fetus not only affects its present interests but also will affect the *future* interests of the adult it will become. While there might be only a very weak reason not to kill a cognitively limited (or cognitively normal) fetus via abortion, since that would frustrate only its weak present interests, there might nevertheless be a strong moral reason to provide it with cognitive enhancement *if* it will live, since the failure to do so would doom many of its future interests to frustration.

This is in fact the correct way to distinguish morally between abortion and most forms of prenatal injury. It may seem paradoxical that considerations that could justify *killing* a fetus via abortion might not be sufficient to justify injuring it in some nonlethal way. But there is no

⁵ McMahan 2002, 80 and 269–80. In this book, I understand psychological continuity as admitting of degrees. In Parfit's canonical understanding of the notion, it is not a matter of degree. (See note 7 below.) For reasons of brevity, I will refer here simply to interests rather than time-relative interests.

paradox if one realizes that while abortion frustrates only the present interests of a fetus, which may all be weak, prenatal injury can frustrate the interests of a later adult, which may be significantly stronger and more enduring. And one might think of the failure to provide cognitive enhancement for a cognitively limited fetus as a passive form of prenatal injury—a form of injuring via allowing rather than by doing.

The problem with this appeal to future interests, though, is that the interest of a cognitively limited adult in having normal cognitive capacities is not significantly stronger than the interest of a cognitively limited fetus in becoming a cognitively normal adult. For whenever an individual with initially very low psychological capacities develops high capacities, whether through artificial enhancement or natural maturation, there is necessarily substantial psychological discontinuity between the two phases of the individual's life—just as there is when brain damage or progressive dementia causes a parallel decline from high capacities to low. If, moreover, the strength of an individual's interest in some future good is discounted for psychological discontinuity between that individual now and itself at the time it would experience the good, then there can be no point in the life of a cognitively limited adult at which he or she has a strong interest in having greatly enhanced cognitive capacities. It follows, therefore, that it cannot be a strong moral reason to provide cognitive enhancement for a cognitively limited fetus that the failure to provide it would frustrate the much stronger future interests of the adult into whom it would develop.

Failing to provide cognitive enhancement for a cognitively limited fetus—or indeed *causing* a normal fetus to become cognitively limited—is therefore relevantly different from most other forms of harmful prenatal neglect or prenatal injury. Action or omission that arrests the development of the fetus's psychological capacities at or near their initial level thus precludes the kind of psychological continuity over time that is a necessary condition of a strong present interest in having normal adult psychological capacities. This is not true, however, of prenatal injuries that result in physical impairment. These may make the life of the person into whom the fetus develops more difficult and less fulfilling than it would have been without the impairment. And, although the injury occurs while the victim is a fetus, the harm is suffered later, when the victim is a person; thus the injury frustrates the strong interests of a person rather than just the weak interests of a fetus.⁶

In summary, the appeal to interests, both present and future, when discounted for psychological discontinuity, yields the following conclusions. The interest of the fetus in continuing to live is comparatively weak and grounds only a weak objection to abortion. The interest of a

⁶ For an important complication that I cannot pursue here, see Robert M. Adams, "Existence, Self-Interest, and the Problem of Evil," *Noûs* 13:317–32.

cognitively limited fetus in receiving cognitive enhancement is similarly weak and grounds only a weak reason to provide it with cognitive enhancement. The future interests of the person into whom a normal fetus will develop, if it lives, are likely to be strong and to ground a strong reason not to cause most forms of prenatal injury. Yet the interest of a cognitively limited adult in acquiring normal cognitive capacities is weak for the same reason that the interest of a fetus in developing adult cognitive capacities is weak. Because of this, one cannot argue in favor of cognitive enhancement for a cognitively limited fetus on the ground that the failure to provide the enhancement will frustrate that individual's future interest in having normal rather than radically limited cognitive capacities. Assuming that there is a morally significant difference between doing and allowing, there is a stronger moral reason not to cause a normal fetus to become cognitively limited than there is to enhance the capacities of a cognitively limited fetus; but even that reason is not as strong as commonsense intuition supposes that it is, *if* it is assumed to derive from the present interest of the fetus or the future interest of the cognitively limited adult. Finally, it is worth noting that another implication is that there is no significant reason to enhance the cognitive capacities of an animal for its own sake—again because of the psychological discontinuity there would be between the unenhanced and the enhanced animal.

Some of these implications of focusing on interests will be pleasing to many people. Many will welcome the liberal implication about abortion, most will welcome the basis for objecting to most forms of prenatal injury, and virtually all will welcome the conclusion that there is little or no reason to enhance the cognitive capacities of an animal. But the other implications—that there is only a weak reason to enhance a cognitively limited fetus or adult, and that there is only a somewhat stronger reason not to cause a normal fetus to be cognitively limited—are highly counter-intuitive.

Perhaps the best option for avoiding the unwanted implications is to abandon the focus on interests—that is, to abandon the effort to account for and justify our intuitions about cognitive enhancement by appeal to “individual-affecting” reasons, or reasons concerned with what is better or worse for individuals. We might instead seek to defend our intuitions by appeal to “impersonal” reasons—that is, reasons that, though they may be concerned with considerations of well-being, need not make any essential reference to what is better or worse for individuals. To borrow the kind of example that Derek Parfit made famous in his seminal work on the Non-Identity Problem, suppose that one has a choice between having a child now, when any child one might have would be cognitively limited, and waiting some months, after which one could have a *different* child with normal cognitive capacities. And suppose, for the sake of argument, that one's choice would be on balance neither better nor worse

for other existing and future people. Most of us believe that one nevertheless has a strong moral reason to postpone having a child. Yet this cannot be explained by reference to what is better or worse for individuals. If one has a cognitively limited child now, that will not be worse for that child, or even noncomparatively bad for it, if its life will be worth living. Similarly, if one waits to have a child with normal cognitive capacities, that will not be better for that child than never existing would have been. For if that child had never existed, there would have been no one for whom that would have been worse. And because “better for” and “worse for” are essentially comparative terms, existing cannot be better for an individual if never existing could not have been worse for that individual. It seems, therefore, that one’s reason to have the cognitively normal child rather than the cognitively limited child is an impersonal reason. This reason is related to the fact that a cognitively normal child can reasonably be expected to have a richer, better life than a cognitively limited child, but the reason cannot be that the cognitively normal child’s life would be *better for it* than never existing would be.

If, however, there is a strong impersonal reason to cause a cognitively normal child to exist rather than a different cognitively limited child, it seems there must also be at least as strong a reason to provide cognitive enhancement for a cognitively limited child, so that, again, a cognitively normal life will be lived rather than a cognitively limited life. Consider, for example, the following two choices.

- (1) One can cause a cognitively limited individual to exist or cause a *different* cognitively normal individual to exist.
- (2) A fetus that does not now exist but will exist will initially be cognitively limited. One can act now to ensure that this fetus will receive cognitive enhancement that will enable it to have normal cognitive capacities; otherwise it will remain cognitively limited. Whether one acts now to ensure that it will be enhanced will not affect its identity, or the identity of the adult into whom it will develop.

In case 1, one’s choice will determine whether a cognitively limited individual or a different cognitively normal individual will exist. In case 2, one’s choice will determine whether a particular future person will be cognitively limited or have normal cognitive capacities. (I have stipulated that the individual in case 2 is not a currently existing individual in order to avoid engaging intuitions about the distinction between existing and future individuals, which I suspect are more influential than most of us realize.) In both cases, the choice is between there being a life with radical cognitive limitation and a life of cognitive normalcy. The difference is that in case 1 these would be lives of different individuals, while in case 2 they would be alternative possible lives of the same individual.

According to Derek Parfit's No-Difference View, this difference between the two cases is of no significance.⁷ Parfit introduces this view in a discussion of two hypothetical medical programs, one of which would cure a thousand fetuses that will later exist independently of whether the program is implemented and will have a certain disability if it is not implemented, while the other would enable a thousand women to have a child without that disability rather than a *different* child with it. Parfit suggests that, if we can implement only one of these programs, it makes no difference which we choose. What matters is that there should be a thousand future lives lived without rather than with the disability; it makes no difference whether these will be the lives of future people who would have been disabled if a different program had been adopted or whether they will be the lives of people who would never have existed (so that different people with the disability would have existed instead) if a different program had been adopted. If one agrees with this conclusion, one might take this to show that, in some cases at least, impersonal reasons can have the same weight as individual-affecting reasons.

The comparison between cases 1 and 2 suggests a different conclusion (not one that is incompatible with Parfit's but merely different). As in the choice between medical programs, the possible outcomes in each case are, under certain descriptions, the same: either a life will be lived with radical cognitive limitation or a life will be lived with normal cognitive capacities. In case 1, the impersonal reason to cause the cognitively normal life to be lived seems quite strong. And intuitively the reason to cause the cognitively normal life to be lived in case 2, via cognitive enhancement, seems equally strong. Yet I have argued that the *individual-affecting* reason one has to provide enhancement—that is, the reason to enhance the fetus for its own sake—is comparatively weak. I do not think, however, that the comparison between these cases requires the retraction of that claim. That the individual-affecting reason to ensure enhancement for the fetus is weak is compatible with its being true that the reason to ensure enhancement is as strong in case 2 as the reason to cause a cognitively normal individual rather than a cognitively limited individual to exist is in case 1. For the strong reason to ensure enhancement could be, like the reason to cause a cognitively normal individual to exist, *impersonal* in character.

This is in fact the conclusion I think we should draw. Even though the fetus will, because of its psychological isolation from its future self, have only a weak interest in cognitive enhancement, and even though this would remain true if it were to develop into a cognitively limited adult, there is nevertheless a strong reason to ensure that a life will be lived with normal rather than radically limited cognitive capacities. One ought to

⁷ Derek Parfit, *Reasons and Persons* (Oxford: Oxford University Press, 1984), 366–71. Also see his *On What Matters* (Oxford: Oxford University Press, forthcoming), chap. 22.

ensure that the enhancement is provided not so much for the sake of the fetus itself as simply to ensure that a better life is lived rather than a worse life. It seems that Parfit is right that it makes no difference whether or not this is the life of an individual who would otherwise have been cognitively limited.

It is worth noting that although there *is* a weak individual-affecting reason to ensure enhancement in case 2, it does not combine with the impersonal reason to form an overall stronger reason. If it did, one's reason to ensure enhancement in case 2 would be stronger than one's reason to cause a cognitively normal rather than a cognitively limited individual to exist in case 1. But that seems implausible. I infer from this that, at least in this case, the individual-affecting and impersonal reasons are not additive.

I earlier claimed that the interests that ground an individual-affecting reason to enhance a cognitively limited fetus also ground an individual-affecting reason of at least equal strength not to kill a normal fetus via abortion. But I then argued that both those reasons are quite weak. I have now suggested that there is an impersonal reason to enhance a cognitively limited fetus that seems quite strong—at least as strong as the impersonal reason to choose to have a cognitively normal child rather than a cognitively limited child. This raises the question of whether the considerations that ground the impersonal reason to ensure cognitive enhancement for a cognitively limited fetus also ground an equally strong impersonal reason not to kill a normal fetus via abortion. If they do, it will be difficult, if not impossible, to defend a liberal view of abortion, assuming that the failure of Thomson's argument shows that the moral case for a liberal view has to rest on claims about the lower status or weaker interests of the fetus. For if the reason to have a cognitively normal rather than a cognitively limited child is strong, and if the impersonal reason to provide cognitive enhancement for a cognitively limited fetus is at least equally strong, and if, finally, there is an impersonal reason not to kill a normal fetus that is as strong as the reason to enhance a cognitively limited fetus, then it seems to follow that there is a strong impersonal reason not to have an abortion.

At this point, however, it must remain a matter of speculation what the implications are for the morality of abortion of the claim that there is a strong impersonal reason to enhance the cognitive capacities of a cognitively limited fetus, so that it would develop normal cognitive capacities. For at this point we do not know the content of the relevant impersonal moral principle. It might plausibly be claimed that if there is a strong impersonal reason to choose that a life will be lived with normal cognitive capacities rather than that a life will be lived with radical cognitive limitations, there must also be a strong impersonal reason to choose that a life will be lived with normal cognitive capacities rather than that no life will be lived at all. If that is correct, the impersonal reason to

enhance the cognitive capacities of a cognitively limited fetus may well imply that there is an impersonal reason of comparable strength not only not to kill a normal fetus but also to cause individuals to exist with normal human cognitive capacities rather than not to cause such individuals to exist. An impersonal reason to enhance a cognitively limited fetus might, in other words, imply both an objection to abortion and a further impersonal reason to cause new individuals with lives worth living to exist.

But while it is possible that the considerations that ground the impersonal reason to enhance the cognitive capacities of a cognitively limited fetus also ground an impersonal reason not to kill a normal fetus, it is also possible that they do not. To explain why, it will be helpful to review the argument for thinking that if there is a strong reason to enhance a cognitively limited fetus, it must be an impersonal reason. The presupposition of that argument is that the relation between a fetus and its future self is psychologically so tenuous that the choice between providing and not providing cognitive enhancement for a cognitively limited fetus is relevantly like a choice between causing an individual with normal cognitive capacities to exist and causing a cognitively limited individual to exist. The explanation of why the reason to provide enhancement is impersonal rather than individual-affecting is thus that the two possible futures that the fetus might have are relevantly like the possible lives of different individuals. Mere identity without any significant psychological continuity cannot ground a significant individual-affecting reason for enhancement.

The psychological discontinuity between a normal fetus and its future self is just as great as that between a cognitively limited fetus and its future self (with or without enhancement). Abortion is, therefore, relevantly similar to preventing an individual from ever existing, and a choice not to have an abortion is relevantly similar to allowing an individual to come into existence.⁸ (Note that I say “relevantly similar” rather than “exactly like” or “equivalent to.”)

With this as background, it seems, intuitively, that one ought to be able consistently to hold both of the following views:

- (1) If one or the other of two different individuals will exist, there is a strong impersonal reason to choose that it be the one who would have the better life. Hence if either a cognitively normal or a cognitively limited individual will exist, there is a strong

⁸ For a detailed defense of these claims, see McMahan 2002, 169–71. If we thought that there was an *individual-affecting* reason to enhance a cognitively limited fetus that was as strong as the impersonal reason to have a cognitively normal rather than a cognitively limited child, that *would* seem to imply that there is an even stronger *individual-affecting* reason not to kill the fetus.

impersonal reason to choose that it be the one with normal cognitive capacities.

- (2) There is no significant impersonal reason to cause that same cognitively normal individual to exist rather than not to cause anyone to exist.

The parallel claims concerning fetuses, cognitive enhancement, and abortion are these:

- (3) If the cognitive capacities of a cognitively limited fetus can be enhanced to the normal level, there is a strong impersonal reason to enhance them so that the fetus's future will be that of a cognitively normal individual rather than that of a cognitively limited individual.
- (4) There is no significant impersonal reason to preserve that same cognitively limited fetus's life rather than to have an abortion.

It may be that the impersonal reason to enhance the cognitively limited fetus's capacities is conditional on the decision to allow it to live. That is, there may be no significant impersonal reason not to have an abortion, though *if* an abortion is not performed, there is then a strong impersonal reason to provide enhancement, so that the life that will be lived will be one of cognitive normalcy rather than radical cognitive limitation.

I mention these possibilities without knowing how to proceed to determine which is correct, or closer to being correct. The second possibility—that the strong impersonal reason to enhance a cognitively limited fetus is compatible with the absence of a strong impersonal reason to preserve a fetus's life—is considerably more intuitive, at least for those who think that psychological capacity is relevant to moral status, but that alone does not guarantee that is correct, or even coherent.

This is one of two problems—or, rather, of at least two problems—that I will leave unresolved. The other concerns the cognitive enhancement of nonhuman animals. Assuming that the reason to enhance a cognitively limited fetus is impersonal in character, there seems to be no ground for supposing that it is only in the case of *human* lives that it is impersonally better for a life to be lived with higher rather than lower cognitive capacities. One response to the problem of defending the intuition that there is no impersonal reason to enhance the cognitive capacities of an animal is that the level of psychological capacity that it is good for an individual to have is a function of that individual's essential *nature*, which is determined by its *species*. I have, however, argued extensively against this view in various places and will not rehearse those arguments here.⁹

⁹ See, for example, McMahan 2002, 145–49; McMahan 2005; and McMahan 2009.

Supra-persons

According to commonsense morality, it is a defining feature of our moral status that we are *inviolable*. This means, among other things, that we cannot permissibly be sacrificed for the benefit, even the greater benefit, of others. Most people, or at least most people with secular moral views, now accept that fetuses are in certain ways violable, and thus do not share our moral status. These people accept that a fetus may be sacrificed if its presence becomes seriously burdensome to the woman carrying it. This suggests that the basis of our inviolability cannot be species membership alone.

There are, however, certain forms of sacrifice to which more people think that even fetuses are not morally vulnerable. No society, to my knowledge, accepts the permissibility of killing a fetus in order to *use* it in some opportunistic way—for example, to use its organs for transplantation. Yet even here many people distinguish between embryos, which they think may permissibly be used, and older developing human organisms, which again suggests that mere membership in the human species is not the basis of our status as inviolable (assuming that embryos are members of our species).

Yet most people believe that animals are violable. Most people have no qualms about using them for food, clothing, sport, experimentation, and many other purposes. By contrast, few would accept that it could be permissible to sacrifice a cognitively limited human being, even one whose psychological capacities are uniformly lower than those of some animals we sacrifice for certain purposes, irrespective of whether the sacrifice would be to eliminate a burden this individual imposed or to provide a benefit to others. Most accept, as I have noted, that post-fetal cognitively limited human beings share our inviolability, which suggests that most do not accept that psychological capacity is the basis of moral inviolability.

This leaves us with strong intuitions without any apparent foundation. We do not appear to have a coherent understanding of the basis of our own inviolability. What is more, most people do not really believe that we are literally inviolable. Most people—or at least the great majority of people whose moral views are not dictated by ancient religious texts—are not moral absolutists. They accept that all substantive moral principles may be overridden in conditions of extremity. For example, most of us who believe that it is wrong intentionally to kill an innocent person nevertheless accept that it would be permissible to kill an innocent person if that were necessary as a means of preventing a very large number of other innocent people from being intentionally killed by others.

We are right to reject absolutism, which necessarily bases momentous all-or-nothing moral judgments on considerations that are intrinsically morally trivial. Consider, for example, the only type of act that many contemporary liberals claim is absolutely prohibited: torture. For it to be

true that torture is absolutely prohibited, there must be a determinate distinction between acts that constitute torture and those that do not. Consider, then, the kind of act among all those that count as torture that is least bad for the victim. If there is an absolute prohibition of torture, there is no goal, however important, that could justify committing an act of that sort against another. Next consider an act that is only slightly less bad for the victim that does not constitute torture and, though generally wrong, is not absolutely prohibited. The difference between this act and the least bad act of torture may be trivial. Yet this act can, by hypothesis, be justified in certain conditions—for example, if it is necessary to prevent a great catastrophe. Yet, according to absolutism, an act that is only trivially worse for the victim will count as torture and thus cannot be justified even to prevent a catastrophe that would be *vastly* worse. This is arbitrary.

This objection to absolutism is quite general. For every important concept that figures in an absolute prohibition, and thus must have a determinate extension, there are phenomena that lie just outside the extension of the concept and differ only trivially from ones that lie just inside. If, for example, certain acts of killing are absolutely prohibited, there must be acts that are outside the scope of the absolute prohibition that differ only trivially from some of those within—because, for example, they do not count as instances of *killing* because the causal path from the act to the death is slightly less direct. Or if what is absolutely prohibited is the killing of the *innocent*, there will be some acts of killing that are just outside the scope of the prohibition, but differ only trivially from some that are absolutely prohibited, because, for example, the victim just barely fails to satisfy the criteria for innocence.

What most people really believe, therefore, is that all individuals are morally violable, but to greatly varying degrees. Judging by their behavior, most people believe that animals are sacrificeable for almost any reason that would serve human interests, however trivial, such as the interest in having a meal with meat rather than a slightly less appealing meal without it. Normal adult human beings, by contrast, are almost universally regarded as having an extremely low degree of violability. The sacrifice of an innocent person can be morally permissible only if it is necessary to prevent a substantially greater harm to many other people. Commonsense morality seems to assign fetuses an intermediate degree of violability, yet attributes to cognitively limited human beings beyond the fetal stage a low degree of violability comparable or identical to our own.

Assume, for simplicity, that we have identified a single property as the basis of our moral status, and that this property is possessed to varying degrees by different individuals. Suppose, for example, that that property, which we can call the “base property,” is the capacity for autonomy. People clearly vary in the extent to which they are capable of autonomous action. Some are more reflective, better able to understand the reasons

they have for acting in certain ways, and more capable of controlling themselves, so that they are better able to act on the basis of the reasons they perceive themselves to have. In these conditions, one way to understand variations in moral violability would be to suppose that the degree to which an individual is violable is proportionate to the degree to which that individual possesses the base property.

I know of no one who holds such a view. Most people's beliefs are considerably more egalitarian—at least within the human species. Yet, as I have doggedly and tiresomely endeavored to show, the consistency of this general egalitarianism is challenged both by animals outside the species and by fetuses within it. One challenge emerges from the possibility of cognitive enhancement for cognitively limited fetuses. In exploring that challenge, I considered only cognitive enhancement up to the normal level for adult human beings. But perhaps consideration of the possibility of both cognitive and overall psychological enhancement beyond that level might stimulate our thinking about what we rather inaccurately refer to as human inviolability.

Suppose it were possible for us to create and coexist with individuals whose psychological capacities were genetically enhanced to such an extent that they would exceed ours *by more* than ours exceed those of the highest nonhuman animals. Call such individuals “supra-persons.” Reflection on these hypothetical individuals might reinforce commonsense beliefs about the moral status of the cognitively limited. If we think that we would have the same moral status as these beings, or that they would be no less violable than we are, this could support the view that the cognitively limited have the same moral status that we have. For it would provide another instance in which we accept that a difference in psychological capacity that is as great as that between the cognitively limited and ourselves does not entail a difference in moral status, or violability. Yet reflection on supra-persons could exert pressure in the other direction. For if we would have the same status as supra-persons and the cognitively limited have the same status that we have, it follows that the moral status of supra-persons would be no higher than that of the cognitively limited, despite the fact that the differences of psychological capacity between the members of the two groups would be more than twice as great as those between ourselves and higher animals.

That would be unsurprising if moral status were entirely unconnected with psychological capacity. But what else could be the basis of our high moral status? What else could it be that makes lower animals more violable than we are? As I noted earlier, if fetuses and embryos are also more violable than we are, the relevant difference between animals and ourselves cannot be merely a matter of species membership. Indeed, if species membership were relevant to moral status, that could provide a basis for the view that supra-persons would have a higher status, or lower level of violability, than we have. For the differences, both of genotype

and phenotype, between them and us might be so great that they would constitute a different species. It would be odd, however, to suppose that to determine their moral status we would need to determine their species membership—that is, that the question of their moral status could be answered only with the assistance of a biologist.

Intuitively, it does not seem entirely implausible to suppose that supra-persons could have a lower degree of violability (or, if one prefers, a higher degree of inviolability) than we have. Recall that one important dimension—almost certainly the most important dimension—of relative violability is the extent to which an individual may justifiably be sacrificed for the sake of others. I have suggested that most people accept that a single innocent person may permissibly be sacrificed for the sake of a sufficiently greater number of other innocent people. There is, presumably, wide variation in what people would regard as sufficient to override the relevant moral constraint. But suppose, for the sake of argument, that we all agree on a rough threshold for the sacrifice of an innocent person: namely, that it would be permissible to sacrifice the life of one innocent person if that were the only means of preventing not significantly fewer than a thousand other innocent people from being wrongfully killed. Next suppose that supra-persons would not only exceed us in psychological capacity by more than we exceed the highest nonhuman animals but would also, and as a consequence, have a substantially higher capacity for well-being, both synchronic and diachronic, than we have. Finally, suppose that they would also have significantly greater average longevity. Given these assumptions, it does not seem implausible to suppose that it could be permissible to kill one innocent person as a necessary means of saving significantly fewer than a thousand supra-persons—perhaps 950, or nine hundred. Nor does it seem implausible to suppose that it would *not* be permissible to sacrifice one innocent supra-person to save a thousand ordinary innocent people. It might take the saving of eleven hundred, or even two thousand innocent people to override a supra-person's right not to be killed, or not to be sacrificed.

One could accept these claims without embracing the view mentioned earlier according to which an individual's violability varies proportionally with the extent to which the base property or properties are realized in that individual's nature. It might instead be that the existence of supra-persons would introduce a new moral threshold, above which all individuals would have a higher status than all those below.

The structure of commonsense morality is best explained by the assumption that there is at present a single threshold that divides all post-fetal human beings from all nonhuman animals as well as from most, and possibly all, human fetuses. According to this view, all post-fetal human beings are violable only to a very low degree, while animals and fetuses have a higher degree of violability. While most people seem to accept that there may be varying degrees of violability below the thresh-

old (for example, it may take more to justify the killing of a conscious fetus than the killing of a nonconscious fetus, and more to justify the killing of a chimpanzee than the killing of a mouse), the general view is that all individuals above the threshold are violable, or inviolable, to the same degree. This view is, in other words, egalitarian in the status it assigns to all those above the threshold.

Some philosophers, myself included, have argued for a more Kantian conception of the threshold, according to which only *persons*—that is, individuals with certain higher psychological capacities, such as self-consciousness, the capacity for caring, or the capacity to act on the basis of reasons—have a higher degree of inviolability. But these philosophers have tended to agree that all persons are violable or inviolable to an equal degree.

The existence of supra-persons might complicate this conception of moral status—a threshold defined by some base property or properties, above which all individuals have a higher degree of inviolability than any individual below it—by introducing a second, higher threshold. In a world with supra-persons, it might remain that all post-fetal human beings, or all persons, would have the same degree of inviolability, which would be greater than that of any animal, or any other individual below the relevant threshold. Yet it might also be that all supra-persons (or at least all *normal* supra-persons, for a severely cognitively impaired supra-person might be psychologically indistinguishable from a normal adult human being) would be inviolable to a higher degree than any unenhanced person. Presumably all supra-persons would be inviolable to an equal degree—that is, there would be equality of moral status beyond the second threshold as well. But we can leave that issue aside. The important point for our purposes is that there is some plausibility, and no incoherence, in the supposition that just as there is a moral threshold between ourselves and animals, so there would be a parallel threshold between supra-persons, who would differ from us psychologically by more than we differ from animals, and ourselves.

Allen Buchanan has recently argued forcefully against this suggestion.¹⁰ “Merely augmenting the characteristics that make a being a person,” he observes, “doesn’t seem to be the sort of thing that could confer higher moral status. If a person’s capacity for practical rationality or for engaging in practices of mutual accountability or for conceiving of herself as an agent with interests persisting over time were increased, the result presumably would be an enhanced person, not a new kind of being with a higher moral status than that of person” (Buchanan forthcoming, pp. 11–12 of the manuscript). He points out that there are already

¹⁰ Buchanan forthcoming. I have benefited in my thinking about these issues from my access to various drafts of Buchanan’s paper. Frances Kamm offered similar grounds for skepticism about the possibility of a higher threshold in discussion at Harvard Law School following the presentation of an earlier version of this paper.

significant and well-appreciated differences in cognitive and general psychological capacity among existing persons, but these do not tempt us to abandon our egalitarianism about moral status above the threshold. “Equality of moral status of the sort we associate with personhood,” he concludes, “can accommodate many inequalities, including inequalities in the very characteristics that confer moral status” (Buchanan forthcoming, p. 12 of the manuscript).

I suspect that Buchanan is right about this. After all, virtually everyone accepts that there is a threshold between animals and ourselves and, although there are disagreements and uncertainty about what the basis of our being above it is, there is general agreement that it is not a property that we share with animals but simply possess to a higher degree. Suppose, for example, that the basis of our higher status vis-à-vis animals is some psychological capacity or set of such capacities. Even though these capacities may have emerged over the course of evolution through the gradual development and refinement of capacities already found in our animal ancestors, they are nonetheless now different in kind, rather than merely in degree, from those of animals.

But even if Buchanan is right that mere enhancement or augmentation of our existing capacities would not be sufficient to yield a new and higher moral status, it seems possible that the genetic enhancement of a variety of psychological capacities that we possess could produce new, *emergent* capacities in posthumans that would plausibly ground a higher degree of inviolability. Indeed, all the psychological capacities that *we* have that are reasonable candidates for the basis of *our* higher inviolability—self-consciousness, the ability to act on the basis of reasons, and so on—seem to be emergent properties that have arisen from the combined enhancement of capacities found in animals.

A major problem, of course, is that it is difficult to imagine an emergent psychological capacity that we do not possess but that would be relevant to moral status if it existed. But here is one suggestion. Many people, and some philosophers, have claimed that one morally significant difference between ourselves and animals—one that is clearly relevant to our higher moral status—is that we possess free will while animals do not. Perhaps most of those who have made this claim have had in mind a robust conception of libertarian free will rather than the weaker notion embraced by compatibilists. Yet this weaker conception is more commonly accepted by philosophers now, since many philosophers have become convinced that we do not actually have libertarian free will. Indeed, many believe that we cannot have libertarian free will because the notion itself is incoherent. But suppose that the notion of libertarian free will is actually coherent. And suppose further that those who have asserted that libertarian free will is what distinguishes us morally from animals are right that it is a sufficiently significant capacity to ground a difference in moral status, but wrong to believe that we actually possess it.

But suppose, finally, that supra-persons *would* have it. They would have a psychological capacity that we lack but that most people have believed that we have and that is what distinguishes us morally from animals.

Here is another suggestion. It is widely held that empathy is relevant to, and perhaps even necessary for, moral agency, and many philosophers have held that the capacity for moral agency is necessary for the higher form of moral status. Suppose, then, that supra-persons would have a capacity that would be better for moral agency than mere empathy. Suppose they could actually *experience* other individuals' mental states while simultaneously reflecting on those experiences in a self-conscious manner from their own point of view. This would require a divided form of consciousness, but that would be only a rather extreme instance of the fragmentation of consciousness of which we are increasingly aware in ourselves.

One could speculate about other possibilities. But these examples are sufficient to show that it is conceivable that supra-persons could have emergent psychological capacities that we lack and that would be recognizably relevant to moral status and relative inviolability. The view that even in a world that contained supra-persons, it would be the case that there would be only a single threshold for a higher moral status, that all those above that threshold would be of equal moral status, that we ourselves and all post-fetal cognitively limited human beings would be above it along with posthumans, but that all animals would be below it—this seems too congenial to be true. It looks suspiciously like a product of self-interest, or conceit, or favoritism toward our own.

I concede, however, that these speculations about supra-persons prove nothing. They are meant only to be suggestive. They do not, in particular, seem to have any obvious implications for the status of the cognitively limited, except perhaps this: *if* one finds it plausible that supra-persons, as I have defined them, would have a higher degree of inviolability, in that it would take more to justify sacrificing one of them than to justify sacrificing one of us, this strongly suggests that differences of moral status are grounded in differences of psychological capacity.

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