

## 9

# Radical Cognitive Limitation

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### 9.1. The Radically Cognitively Limited

Suppose that there are human beings whose overall psychological capacities and potential are comparable to or lower than those characteristic of the higher orders of nonhuman animals, such as chimpanzees. And suppose that the limited cognitive capacities of at least some of these human beings are congenital and resulted because the genes that coded for the growth of their brains were different, or operated differently, from those that code for the development of the brain in other human beings. I refer to these human beings as the ‘radically cognitively limited’—though for brevity I will often use the abbreviated term the ‘cognitively limited’.<sup>1</sup> None of the claims I will make about the radically cognitively limited necessarily apply to human beings who have, or have had, higher psychological capacities, or who have the potential to develop higher psychological capacities.

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The radically cognitively limited are considered disabled, and thus in the same moral category as human beings who are physically disabled. They are generally regarded as less fortunate than most other human beings, and to have suffered a grave misfortune in being congenitally endowed with lower psychological capacities. Yet, because they are human beings, they are thought to have the same basic rights as others. They share our moral status, including our claim to inviolability. They are also assumed to come

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<sup>1</sup> I have coined the ugly term, ‘radically cognitively limited’, in an effort to avoid various pitfalls in this sensitive area. I have, for example, avoided such terms as ‘impaired’ and ‘deficient’ in order not to imply any comparison with biological norms characteristic of the human species.

within the scope of relevant distributive principles—principles of justice and equality. My main aim in this paper is to question and challenge these various assumptions.

Some people believe that there is nothing here to discuss because there simply are no human beings who fit the description I have given—or perhaps because we cannot be sure enough that there are such human beings for any discussion of their status to have practical significance. Eva Kittay, for example, questions whether there really are any ‘individuals about whom one can say with any certainty that they are both human and have the cognitive capacities of an animal’. Her arguments mainly question the *intelligibility* of such comparisons: ‘Are there humans with the cognition of a non-human animal? Again, I do not know what that means.’<sup>2</sup> I will try to explain what it means and will also offer reasons to think that the answer is ‘yes’.

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The brains of fetuses and infants develop gradually, passing through incrementally differentiated levels of psychological capacity from nil to the level of a child who is more intelligent and sensitive than any nonhuman primate. There are no significant discontinuities, no sudden leaps of capacity from one level to a significantly higher level, bypassing intermediate levels. Of course, psychological capacity is multidimensional and there may be no human being who has psychological capacities that are *identical* to those of any animal. But if a conscious human fetus begins with psychological capacities that are uniformly lower than those of an adult chimpanzee and yet within a few years has capacities that are uniformly higher than those of the chimpanzee, it is reasonable to suppose that for some period during its development the human being had psychological capacities broadly comparable to those of the chimpanzee. Even if this is false, it seems undeniable that the psychological capacities of a newly conscious human fetus are *all* lower, or less developed, than those of a higher nonhuman animal. Anyone who would deny this must indicate what psychological capacity it is that a newly conscious fetus has that a chimpanzee lacks. And if one could do this, one would then have to explain why that capacity is relevant to moral status. For not all psychological capacities are morally significant, or relevant to moral status.

What is meant by the claim that a conscious 7-month-old fetus has psychological capacities that are lower, or less developed, than those

<sup>2</sup> E. F. Kittay, ‘At the Margins of Moral Personhood’, *Ethics*, 116 (2005), 130.

of a normal, adult chimpanzee is that the fetus has no capacity for self-consciousness while the chimpanzee has some, that the fetus has no capacity for understanding words or signs, while the chimpanzee has some, that the fetus has no capacity for sociality while the chimpanzee has some, that the fetus has no capacity for reasoning about means and ends while the chimpanzee has some, and so on. Again, if there is some psychological capacity that the fetus has but the chimpanzee does not, or that the fetus has to a higher degree than the chimpanzee, it is incumbent on the person who would ground a claim about moral status on this fact to explain why that capacity has moral significance.

Such a human fetus usually though not always has the *potential* to develop levels of psychological capacity higher than those of the chimpanzee, but it is possible that the development of its brain could be irreversibly arrested at 7 months, so that its potential for further psychological development would be lost. That could occur in various ways—for example, through a genetic defect or through injury. The human brain can thus take as its developmentally final form something intermediate between the brain of an anencephalic infant that has no psychological capacity at all and the brain of an adult chimpanzee. A human being to whom this had happened would be radically cognitively limited. She would be aptly described as ‘permanently infantile’ to indicate that although her body might mature to adulthood, her mind would be permanently arrested at roughly the level of an infant, and below the level of some animals.

## 9.2. Are Cognitively Limited Human Beings Disabled?

Many writers on ethical issues concerning disability assume that physical and cognitive disability are different dimensions of the same problem. They assume that the disabled form a single unitary group whose moral status is the same and whose claims to justice and equality are all the same. Yet it may be the physically disabled and the cognitively limited form morally distinct categories. Those with disabilities that are wholly physical in character pose one set of problems about justice, while at least some of those with grave cognitive limitations raise a different set of issues.

One issue that is raised by cognitive limitation but not by physical disability is moral status. When I ask a class of students, as I have done a number of times, why those of us in the room have a higher moral status than the squirrels outside the window, so that it would be more seriously wrong to kill one of us than to kill one of them, the students invariably respond by citing various higher psychological capacities that we have but that squirrels do not: self-consciousness, the ability to plan for the future, the ability to distinguish between right and wrong, free will (by which they generally mean the capacity to deliberate and act on reasons rather than on impulse or instinct), the ability to use language, rationality, and so on. To my surprise, I cannot recall a single instance in which a student has said ‘because we are members of the human species’, ‘because we have immortal souls’, or ‘because we are made in the image of God’. Perhaps many of them would have offered one of these explanations after reflection, but what they find immediately intuitively compelling is that our mental lives are incomparably higher and richer than that of a squirrel. I believe they are right. Our higher moral status derives from, or supervenes upon, our higher psychological capacities. That we have certain higher psychological capacities makes us beings of a higher sort, with higher worth.

If this is right, persons with disabilities that are only physical must have the same moral status as you and I. But if the cognitively limited have that status as well, it cannot be for the same reason. If they share our moral status, high psychological capacities may be sufficient for high moral status, but they cannot be necessary.

With a bit of prodding, my students can also perceive another important difference between ourselves and animals, one that may also be relevant to moral status. They notice that the psychological capacities that they have cited as relevant to moral status are also necessary for many of the higher goods of human life, such as intimate personal relations based on deep mutual understanding, achievement of difficult and valuable goals, knowledge, aesthetic appreciation, and so on.<sup>3</sup> Our lives would be immeasurably impoverished if they lacked all such goods. That we

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<sup>3</sup> Kittay notes (*ibid.* 127–8) that some human beings with severe psychological limitations show unmistakable signs of musical appreciation. If it is true that no animals have this capacity, then those human beings who have it may not count as radically cognitively limited in the sense in which I have defined that phrase. The question remains, of course, whether this psychological capacity is relevant

recognize this is one of the principal reasons why we all dread the prospect of dementia. But these goods are all entirely inaccessible to animals, who lack the psychological capacities necessary for having them. The dimensions of the good that are accessible to animals are much narrower. Many animals enjoy playing, eating, mating, hunting, relaxing, and so on, but no matter how much enjoyment their lives contain, their level of well-being remains well below that of even a barely contented human being, provided that human being's life contains some of the dimensions of well-being from which animals are excluded by their psychological limitations.

Human beings who are merely physically disabled have the same capacity for well-being that other people have, though their disabilities may impede their ability to achieve the levels of well-being, functioning, or flourishing of which they are otherwise capable. By contrast, the cognitively limited do not have the same capacity for well-being. The levels of well-being that are accessible to them are limited by their psychological capacities in the same way that the levels of well-being that are possible for a comparably endowed animal are.

We classify people with certain physical impairments as disabled if their physical condition constitutes an impediment to their being able to achieve their potential for well-being. But we do not say that animals are disabled because they have psychological capacities that limit their capacity for well-being. This raises the question of why the cognitively limited should be considered disabled. Their inability to achieve the higher levels of well-being accessible to other human beings is not contingent, as it is in the case of the physically disabled. Rather, their limited capacity for well-being is a *feature* of their individual nature, not an impediment to the realization of their nature or potential. So it may seem that the claim that they are disabled suggests or even implies that animals are as well; yet animals are not disabled.

One possibility is that the cognitively limited are disabled while animals are not because their psychological limitations are a misfortune for them in a way that those of animals are not. Because of their limited cognitive capacities, the cognitively limited are dependent on others for their survival and well-being. Animals, by contrast, are adapted for survival with their low

to moral status, or whether it alone could give a human being with capacities that are otherwise comparable to those of an animal a higher status than that of the animal.

levels of cognitive capacity. So low cognitive capacities are instrumentally disadvantageous for the cognitively limited in a way that they are not for animals. Perhaps this is what explains and justifies the view that the cognitively limited are disabled while animals with comparable psychological capacities are not.

Yet puzzles remain. Young children are also helpless and dependent in part because of their low cognitive capacities, but we do not on that account regard them as disabled, even temporarily. If the reason why the cognitively limited are disabled while animals are not is that their low cognitive capacities make them dependent, it seems that small children count as disabled as well.

Perhaps the difference between the cognitively limited and children is that dependency is a misfortune for the one but not the other. We see it as natural and appropriate that children should have lower psychological capacities, and thus be helpless and dependent. Many people think it is one of the enviable aspects of childhood that children are relieved of the responsibility of providing for themselves. Dependency is part of what it is to be a small child, just as having limited psychological capacities is part of what it is to be an animal (though being dependent is not). But to have limited psychological capacities and to be helpless and dependent are not part of what it is to be an adult human being and are thus misfortunes for adults. It is thus because psychological limitations are a misfortune for the cognitively limited but not for children and animals that the former are disabled while the latter are not.

This diagnosis would, however, be challenged by those who claim that to be disabled is not a misfortune. Many people, including many disabled people, have made this claim.<sup>4</sup> They argue that, unlike disease, which is bad and for which we should seek a cure, disability is bad only because social conditions make it so, and that we should not seek to “cure” it but only to provide reasonable social accommodation for the disabled. I have suggested, however, that it may be part of the *concept* of a disability that it is a misfortune. That was supposed to explain why cognitive limitation is a disability in an adult human being but not in an animal. But those who deny that disabilities are misfortunes must reject the suggestion that the reason why the cognitively limited are disabled while comparably endowed

<sup>4</sup> H. M. Johnson, ‘Unspeakable Conversations’, *New York Times Magazine*, 16 February 2003, 79.

animals are not is that their limitations are a misfortune while those of animals are not.

Suppose that it is in fact part of the concept of a disability that it is a misfortune. It is compatible with that that what we refer to as disabilities are not in fact misfortunes. Speakers may in general use the term ‘disability’ to pick out a range of conditions that they consider to be misfortunes. Provided that the term is used in a uniform way to refer to a relatively fixed set of conditions, it is possible that what people mean by ‘disability’ is a set of conditions that are misfortunes, even though the conditions to which they apply the term are not in fact misfortunes. So those who deny that disabilities are misfortunes could still accept that the reason why we call the cognitively limited disabled is that we believe, mistakenly, that their limitation is a misfortune. They can even accept that cognitive disability is contingently and instrumentally a misfortune in social conditions such as ours. All they are really committed to denying is that disabilities are intrinsic misfortunes. They might, therefore, consistently argue that the radically cognitively limited are disabled because our society has failed to make reasonable accommodation for them, while neither animals nor children are disabled. Animals are not disabled because they are well adapted to their environment, and children are not disabled because we have always, in general, accommodated them through social norms that assign their care to their parents.

But is it really true that the psychological limitations of the cognitively limited are bad only instrumentally? To test for this, we should imagine external or environmental conditions that would be maximally conducive to the flourishing of the cognitively limited—that is, conditions in which they might continuously sustain the highest level of well-being possible for them on the assumption that their nature and abilities would remain unchanged. Our imagination should not be constrained by what is currently technologically possible. We should imagine the most favourable conceivable environment for them. Then we should compare them in that environment with persons with normal human psychological capacities in the environment in which they could achieve and sustain the highest level of well-being of which they are capable given their nature. This thought-experiment is, of course, only a heuristic device for comparing the highest levels of well-being attainable by each.

Those who claim that disability is only a mismatch between a person's abilities and her environment seem committed to the conclusion that in this thought-experiment, the well-being of the cognitively limited would be as high as that of those with normal psychological capacities. But if what I argued earlier is true—that many of the most important dimensions of well-being are inaccessible to those lacking the higher psychological capacities—then it is impossible that the well-being of the cognitively limited could be as high as that of those with normal capacities. To deny this conclusion one would have to deny that the dimensions of the good that I identified earlier really are irreducible components of the good. Thus, a hedonist of a rather narrow sort might contend that the ideal environment for any sentient being is one that would provide continuous pleasure of the most intense sort. If the cognitively limited have the same capacity for physical pleasure that other people do, their highest possible level of well-being might be the same as ours and any misfortune they suffer in the actual world is potentially remediable by altering the environment. But if that is right because hedonism is true, then because the psychological capacities of the cognitively limited are by definition comparable to those of certain animals, there must be some animals whose well-being could be as high as ours as well.

This is not the place to rehearse the arguments against hedonism, but I believe that they are decisive and that there are dimensions of well-being that are unrecognized by hedonism, or recognized only as instrumental rather than intrinsic. Because some of these dimensions of well-being are necessarily absent from the lives of the cognitively limited, the highest level of well-being attainable by these human beings without augmentation of their psychological capacities is substantially lower than that potentially attainable by persons with normal psychological capacities. If this is a misfortune, it is intrinsic rather than instrumental, though in actual life their misfortunes are instrumental as well. Although their well-being can of course be greatly enhanced by changes in their environment, it is doubtful whether their lives can ever be as good *for them* as a life with a modest level of well-being for a person with normal psychological capacities. Most of us would not trade some fixed number of years of ordinary life with normal psychological capacities for *any* number of years of the most contented life without those capacities and the goods for which they are necessary. As Aristotle says, 'no one would choose to live with the intellect of a child

throughout his life, however much he were to be pleased at the things that children are pleased at.<sup>5</sup> We do of course tend to look back on our childhood with nostalgia, but no one welcomes a return to an analogous state in their ‘second childhood’.

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That the cognitively limited have lives that, precisely because of their congenital psychological limitations, are substantially less good overall than those of persons with ordinary psychological capacities is regarded by most people as a grave misfortune. We can accept that for the lack of an ability to count as a disability it must be instrumentally disadvantageous, and on that ground accept that the cognitively limited are disabled while animals are not. Yet it also seems to most people that it is a misfortune for the cognitively limited that their limited psychological capacities restrict the range of well-being that is accessible to them. Note that, if this is true, those who claim that disabilities are misfortunes only insofar as social conditions make them so seem driven to accept that radical cognitive limitation is a disease rather than a disability. The challenge, for these theorists of disability and for others, is to explain why having a restricted range of well-being is a misfortune for the cognitively limited but not for animals with comparable psychological capacities. For no one, or virtually no one, thinks that it is a misfortune for an animal not to have the expansive range of well-being that most human beings have. Most people who have thought about this challenge think it can be easily met because they assume that how well or badly off an individual is is not a function solely of that individual’s level of well-being but is instead a function of its level of well-being in relation to some standard for assessing well-being. They further assume that the relevant standard is the range of well-being made possible by the psychological capacities that are normal for the members of an individual’s biological species. If an individual is faring well in relation to what is possible for the members of its species, then it is well off, even if its level of well-being is far below that which may be characteristic of the members of another species. A chimpanzee, for example, is well off if it has a good life *for a chimpanzee*, even if a life of the sort it has would be a bad life for a human being. Similarly, a radically cognitively limited human being may be badly off *as a human being* even if a life of the sort she has would be a good one for almost any animal.

<sup>5</sup> Aristotle, *Ethica Nicomachea*, trans. W. D. Ross, rev. J. O. Urmson, in *The Works of Aristotle*, ix, ed. W. D. Ross (Oxford: Oxford University Press, 1975), 1174a1–3.

### 9.3. Misfortune as a Matter of Species Membership

I have criticized this view, which I call the Species Norm Account of how well or badly off an individual is, elsewhere.<sup>6</sup> But there is more to be said about it than is to be found in my earlier criticisms. The assumption on which this view is based is that an individual's intrinsic nature is given by its species. On this assumption, it is in the nature of human beings to have high psychological capacities and therefore the capacity to enjoy high levels of well-being. Any human being who lacks high psychological capacities is failing to realize her own nature, and any human being who falls significantly short of the high levels of well-being attainable by normal members of the species is unfortunate, even if the explanation for the shortfall is that the individual's cognitive capacities exclude the possibility of attaining those levels of well-being.

The problem with this assumption, however, is that it is only statistically in the nature of human beings to have high cognitive capacities. Because there are human beings who lack these capacities, and indeed lack even the potential for having them, the possession of these capacities cannot be essential to membership in the species. It is not part of the individual nature of cognitively limited human beings to have these capacities; indeed, it is their individual nature *not* to have them. So what is the reason for supposing that the capacities are somehow part of their nature as human beings? I suspect the idea here is really that it is in the nature of human beings that they are *supposed* to have various high psychological capacities. Because the cognitively limited are human beings, they are supposed to have these capacities. But they do not, and their failure in this regard is thus a failure to realize their own nature in its fullest form. And this is a misfortune. But this view is explicitly normative rather than biological. If it were biological, it would treat an individual's exemption from the possession of some near-universal *bad* human characteristic as equally a failure to realize her nature. But no proponent of the view would say that. So the Species Norm Account's understanding of the norm for the species is already normative and as such merely begs the question about whether

<sup>6</sup> J. McMahan, 'Cognitive Disability, Misfortune, and Justice', *Philosophy and Public Affairs*, 25 (1996), 3–34, and J. McMahan, *The Ethics of Killing: Problems at the Margins of Life* (New York: Oxford University Press, 2002), 145–59.

it is a misfortune to lack certain capacities that are characteristic of the species.

But suppose that I am wrong about this and that whether a human being is well or badly off is determined by where her level of well-being falls along the range of conditions possible for members of the human species generally. What follows about the cognitively limited? It is clear that on this view their psychological limitations are a misfortune, but how bad a misfortune? This cannot be determined just by comparing the cognitively limited with ourselves, for we—human beings with normal psychological capacities who are alive now—do not constitute the whole of the human species. Rather, the human species has existed for a very long time and the nature of its members has changed substantially as it has evolved. Just as there is variation in psychological capacity among the existing normal members of the human species, so there has been far greater variation over time. And just as there is no reason to suppose that my psychological capacities are more representative of our biological kind than yours are, so there is no reason to suppose that ours are more representative of the species than those of our remote ancestors. We have no greater claim than they do to instantiate the nature of our species. Yet the psychological capacities of our remotest ancestors may have been more like those of present-day nonhuman primates than like our own.

What the relevant comparison class is, though, will affect our evaluation of how well or badly off the cognitively limited are. If we compare contemporary cognitively limited human beings with the earliest members of our species, they will emerge as less disabled, and especially less unfortunate, than they would be if we were to compare them with ourselves instead. But since there is no reason to take human beings from *any* historical period as representative of the species over time, perhaps the solution is to take the average or median level of psychological capacity over time as the norm, or perhaps to take the entire range of psychological capacity over the history of the species as the norm. These two suggestions of course give different results, though both imply that our remote ancestors were badly off, though most of their near kin among other primate species were not. And both suggestions imply that our ancestors were worse off than their nonhuman kin even if their absolute level of well-being was higher.

Both these suggestions, moreover, seem arbitrarily limited because they fail to take account of the way in which our species will evolve in the

future. The nature of our species is, in other words, still in the making. If we base the norm for our species on the way it has been *up till now*, the norm will be ever-shifting over time. The shifting will, admittedly, be very slow, though it could accelerate when germ-line genetic enhancement of our cognitive capacities becomes a practical possibility. As the norm shifts over time, so does how well or badly off all human beings have been. Assuming that the slow enhancement of our psychological capacities over the course of human evolution has expanded the norm for the species, the lives of our remote ancestors have become worse and worse relative to the evolving species norm. As their descendants' psychological capacities have become increasingly highly developed, and as the range of their descendants' levels of well-being has correspondingly increased, our ancestors' lives have become worse, even though the facts about their well-being remain fixed and unalterable. Suppose it were true—and it may be: I do not know the facts here—that for most of the history of the human species, its members have had psychological capacities closer to those of present-day chimpanzees than to those of present-day persons. In that case *we* might constitute a greater deviation from the norm for the human species than the cognitively limited, though of course their lack of instincts for survival is a deviation from the norm for any animal species whose members have the capacity for consciousness.

One might respond to this objection by noting that more human beings have lived since psychological capacities comparable to ours became characteristic of the species than lived during all the preceding time. Assuming that that is true and that the norm for the species is set more by numbers than by the amount of time during which any particular level of capacity prevailed, it seems that the norm for the species should be more reflective of our psychological nature than the natures of our remote ancestors. Perhaps that is true but it merely serves to accentuate the implausibility of the idea that how well or badly off we are now depends on how our lives and capacities compare with those of our remotest ancestors, and vice versa. For it is hard to see how our being more numerous than our remote ancestors could be relevant to how well or badly off we are.

There are not only variations in psychological capacity among normal human beings now, and even much greater variations among normal human beings over the history of the species, but there are also great

variations in psychological capacity within most human lives over time. We all begin to exist with the most rudimentary possible psychological capacities. Most of us then gradually develop extremely high psychological capacities, and some of us later suffer losses of psychological capacity of varying degrees of severity. The idea that how well or badly off cognitively limited human beings are depends on how they compare with the norm for the human species presupposes that the relevant comparison is between an adult with radical cognitive limitations and a cognitively normal adult. For if one were to compare a newborn infant with radical cognitive limitations with an ordinary newborn infant, there would be little or no difference in psychological capacity. Indeed, if one were to compare an adult human being with radical cognitive limitations with an ordinary infant, there might still be little difference. So the claim that the cognitively limited are unfortunate assumes that the norm for the human species is set by a representative *adult*. Yet if that is right, then it seems that all infants and young children must be badly off, as they have limited psychological capacities that in turn limit their access to various dimensions of the good. But most of us, with Aristotle as a possible exception, do not regard them as badly off.

The obvious response to this problem is to relativize the norm not just to species but also to age. On this view, we should evaluate how well or badly off an individual human being is by reference to the norm for human beings of her age. But there are serious problems with this suggestion. It implies, for example, that an individual whose psychological growth is arrested at one year after birth may be well off before age 1, but becomes increasingly unfortunate with the passage of time, even if her mental life remains entirely unchanged. Perhaps to many people this will not seem peculiar, but the suggested double relativization has another implication no one is likely to accept.

It is normal, both in human beings and in other animal species, for individuals to experience a decline in various physical and psychological capacities and functions in extreme old age. The facts are depressingly familiar. So if we claim that how well off an individual is must be assessed relative to the norm for individuals of that individual's species *and age*, we will be unable coherently to claim that age-related deterioration is a misfortune, or that we generally become worse off in extreme old age than we were earlier in life.

Although the Species Norm Account initially seems intuitively plausible, that plausibility appears upon examination to be illusory. But without the Species Norm Account, we have no reason to suppose that congenital cognitive limitation is an intrinsic misfortune for human beings but not for comparably endowed animals.

#### 9.4. Equality and Priority

But suppose that the cognitively limited *are* unfortunate, and that their limitations are bad not only instrumentally but intrinsically as well, as I argued in Section 9.2. What are the moral implications?

Most people believe that the cognitively limited are our moral equals, in the sense that they have the same moral status as all other human beings. Thus, the intentional killing of a cognitively limited human being without one of the standard justifications, such as self-defence, would be murder, though the killing of a chimpanzee with comparable or even higher psychological capacities would not be. But if the cognitively limited are our moral equals, our treatment of them should be governed by the same basic principles of justice and equality that govern our treatment of each other—in other words, the same principles that govern relations among cognitively normal human beings.

Consider, for example, principles of equality. There are various possible currencies of equality—that is, respects in which it is arguable that we ought, ideally, to be equal. Among those for which philosophers have argued are resources, well-being, primary goods, opportunity for well-being, capabilities, and so on. Suppose the proper currency is well-being and that it is lifetime well-being and not just momentary well-being that ought to be equalized. On this view, it would be better if each individual were to get the same amount of good from life, unless perhaps certain inequalities are *deserved*, or result from free choices.

Unless some crude form of hedonism is the correct account of well-being, it is impossible to get the cognitively limited up to the levels of well-being typically enjoyed by most persons with normal psychological capacities in most areas of the world today. But if they come within the scope of the principle of equality of well-being, we have a significant moral reason to try to get them as close as possible—for example, by devoting

a disproportionate share of our resources to improving their lives. Or we could achieve greater equality between the cognitively limited and the cognitively normal by ‘levelling down’—that is, by deliberately reducing the well-being of the cognitively normal even when this would do nothing to raise the level of the cognitively limited. Most people think that there is *no* moral reason to reduce the well-being of some as a means of reducing unfair inequalities. I disagree. I follow Larry Temkin in thinking that there is a moral reason for levelling down, but that that reason is in most actual cases outweighed by the reason not to harm those whose well-being would be reduced.<sup>7</sup> I think that is true of the inequality between the cognitively limited and the cognitively normal as well, but that still leaves the option of reducing that inequality through transfers of resources that would raise the level of well-being of the cognitively limited, though by significantly less than they would reduce that of the cognitively normal.

Inequality might also be diminished, or even eradicated, through genetic cognitive enhancement. Most people expect that when genetic cognitive enhancement initially becomes possible, it will work by genetic alteration of the zygote or embryo. But suppose that a genetic therapy is developed that makes it possible to enhance the psychological capacities of adults with radical cognitive limitations. Suppose that it becomes possible by this means to enable the cognitively limited to develop normal cognitive capacities. On some theories of personal identity that treat a certain degree of psychological continuity as necessary to our identity over time, this kind of psychological transformation would be too extensive for the original cognitively limited individual to survive. On these theories, what is thought of as the enhancement of a single cognitively limited individual would really involve causing the original individual to cease to exist and another individual to begin to exist in association with the body of the original. But let us assume that these theories of personal identity are mistaken and that cognitive enhancement of the cognitively limited would be compatible with their continuing to exist. My own view is that, although the radically cognitively limited would survive genetic cognitive enhancement, the psychological discontinuity that it would involve within their lives would be so great that we would have little reason to enhance them *for their own sakes, as individuals with radical cognitive limitations*, even

<sup>7</sup> L. Temkin, ‘Egalitarianism Defended,’ *Ethics*, 113 (2003), 764–82.

**FN:2** though the enhancement would greatly improve their lives as wholes.<sup>8</sup> But this is irrelevant here because our concern is with equality, which is an impersonal value, rather than with beneficence.

The relevant question here is this. If the principle of equality of well-being implies that we would have a reason to enhance the cognitive capacities of radically cognitively limited human beings, why would it not also imply that we have a reason to enhance the cognitive capacities of animals? There are of course various contingent reasons not to enhance the cognitive capacities of animals. And we of course have reasons to enhance the cognitively limited that arise from the ways in which we are specially related to them but not to animals. But none of these considerations has anything to do with equality. The relevant question is why, if there are reasons of *equality* to enhance the cognitive capacities of cognitively limited human beings in order to raise them closer to our level of well-being, there are no reasons of equality to enhance the capacities of animals to raise them closer to our level as well. We naturally assume that principles of equality apply only within our own species, but on reflection that seems entirely arbitrary.

The same question arises with respect to the application of the principle of priority. When people realize that the principle of equality of well-being implies that there can be a moral reason for ‘levelling down’, they often reject that principle and seek to defend what they took to be egalitarian intuitions by appealing instead to the principle of priority, which holds, roughly, that raising an individual’s well-being matters more the lower his level of well-being is. On this view, we should give priority to raising the well-being of those who are worst off. Although the cognitively limited are not in general among the very worst off among human beings, their exclusion from many important dimensions of well-being may place them not very far above those who are worst off. So if they come within the scope of the principle of priority, they should not have first priority, but raising their well-being should have priority over preserving the well-being of most cognitively normal people.

Again, however, if we thought that the cognitively limited have priority because their well-being is low, we would have to explain why animals do not have a similar priority, for their levels of well-being are also low in

<sup>8</sup> McMahan, *The Ethics of Killing*, 69–82, and 316–29.

absolute terms. We would have to explain, in other words, why animals fall outside the scope of the principle of priority while the cognitively limited lie within it. For no one, not even the most ardent proponents of the rights of animals, believes that animals have the kind of moral priority that they would have if they were within the scope of that principle.

It is perhaps revealing that no one really seems to think that the radically cognitively limited come within the scope of the principle of priority either. I do not know of anyone who appeals explicitly to the principle of priority, or indeed to the principle of equality of well-being, to argue that cognitively normal people ought to accept significant sacrifices in their level of well-being in order to raise the well-being of the cognitively limited. Nor do I know of anyone who argues even that resources ought to be devoted disproportionately to increasing the well-being of the cognitively limited, when the same resources could produce more good if devoted to the cognitively normal. That neither egalitarians nor prioritarrians are pressing for disproportionate transfers of resources to the radically cognitively limited suggests that the intuition that these human beings have the same moral status as the cognitively normal may not go as deep as some people suppose.

Principles of equality and priority can focus either on lifetime well-being or on well-being at a given time (momentary well-being). There are good reasons why animals lie outside the scope of such principles when they focus on lifetime well-being. In addition to the biologically determined restrictions on both their capacity for momentary well-being and their longevity, there is also a lack of psychological unity and continuity within their lives over time. As Derek Parfit has argued, when the psychological unity within a life over time is less deep, the life *as a whole*—as a unit—matters less than it would if there were greater unity.<sup>9</sup> Equality of lifetime well-being is a significant value only among individuals whose lives matter to the same degree *as wholes*. It simply does not matter whether there is equality of lifetime well-being between individuals whose lives matter greatly as wholes and individuals whose lives matter much less as wholes.

If, however, this shows that animals are not properly within the scope of principles of equality and priority that apply to persons and that focus on

<sup>9</sup> D. Parfit, *Reasons and Persons* (Oxford: Clarendon Press, 1984), 329–47, esp. 339.

lifetime well-being, it also shows that the cognitively limited are outside the scope of those principles as well. But it does not follow that there are no principles of equality or priority that have both the cognitively normal and the cognitively limited within their scope. I have suggested that how well or badly off an individual is should be distinguished from what that individual's level of well-being is. As I noted earlier, how well or badly off an individual is seems to be a function of that individual's well-being relative to some standard. Most people assume, as I indicated earlier, that the relevant standard is given by the norms of an individual's species. If that is the correct standard, the situation of the cognitively limited is tragic and, at present, hopeless; their only hope for becoming well off is genetic cognitive enhancement. But suppose that the relevant standard is instead what is possible for them given their own innate individual nature—that is, given their own individual capacities and potential. By that standard they are well off if their well-being is relatively high on the scale that measures the range of well-being accessible to them given their individual psychological capacities and potential. They may thus be well off even if their level of well-being is low in comparison with that of most cognitively normal human beings.

How well or badly off an individual is is a matter of what I call 'fortune'. Fortune depends on well-being but is distinct from it in the way just indicated. My suggestion is that a plausible principle of equality that could encompass both the cognitively normal and the cognitively limited is *equality of fortune*. This principle directs us to aim, not for equality of well-being, either momentary or lifetime well-being, between the cognitively normal and the cognitively limited, but for equality of fortune. It directs us to seek to ensure that the cognitively limited are *as well off* as the cognitively normal. What this means in general terms is that they should do as well by reference to the standard set by their own nature as we are doing by reference to the standard set by our nature. More specifically, there is the appropriate kind of equality between the cognitively limited and cognitively normal human beings if the cognitively limited occupy the same relative position on the scale that measures the range of well-being possible for them that we occupy on our scale.

For the reason given earlier, the principle of equality of fortune is significantly more plausible in its application to the cognitively limited if it focuses on momentary fortune rather than on lifetime fortune. It is enough

if moment by moment they are doing as well, relative to what is possible for them, as we are doing relative to what is possible for us. In practice this means that, at any given time, we should seek rough equality of well-being among the cognitively limited themselves, rough equality of well-being among the cognitively normal, and rough equality of fortune between the cognitively limited and the cognitively normal.

The principle of equality of fortune goes naturally with the view that it is not a misfortune for the cognitively limited to be innately endowed with lower psychological capacities. It suggests, rather, that their misfortune, when they are indeed unfortunate, is to fall well below the higher levels of well-being that in ideal conditions they would be capable of reaching.

This seems to be a plausible principle of equality for application across groups of individuals with different capacities for well-being. But it raises further problems. One is of course that if this principle applies to both cognitively normal and cognitively limited human beings, it seems that it should extend to animals as well. We should have the same reason of equality to ensure that animals are doing as well in relation to what is possible for them as the cognitively limited and the cognitively normal are doing in relation to what is possible for them. Most people, however, will be strongly disposed to reject the suggestion that there is any respect in which we ought morally to ensure that animals are equal with us. But perhaps the suggestion will seem less counterintuitive when we note that what seems to be required by the principle of equality of fortune is relatively undemanding. In the case of animals, it seems mainly to require that we simply leave them alone.

A second problem is that if the only principle of equality that applies both to the cognitively normal and to the cognitively limited also applies to animals, this casts doubt on the assumption that the cognitively limited have the same moral status as the cognitively normal. Most people believe that the central feature of the moral status of cognitively normal human beings is inviolability. According to common-sense morality, the cognitively limited share our inviolability, but animals do not.

We are not, however, literally inviolable. There are degrees of violability and we are, among existing beings, the least violable. If, however, there were beings—such as genetically enhanced ‘posthumans’—whose psychological capacities were higher than ours by more than ours are higher than those of animals, we might not be the least violable. We might be violable

to a greater degree than the posthumans would be. We might, for example, be violable for their sake in much the same way that each of us is now violable for the sake of a great number of other innocent cognitively normal human beings. Perhaps the cognitively limited are more violable than we are, in much the way that we would be more violable than posthumans.

**FN:10** But this is, quite literally in this case, a topic for another paper.<sup>10</sup>

<sup>10</sup> J. McMahan, 'Cognitive Disability and Cognitive Enhancement', *Metaphilosophy* (forthcoming).