

# Potential and the early human

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## Abstract

*Some form of potential or "capacity" is often seen as evidence of human moral status. Opinions differ as to whether the potential of the embryo should be regarded as such evidence. In this paper, I discuss some common arguments against regarding the embryo's potential as a sign of human status, together with some less common arguments in favour of regarding the embryo's potential in this way.*

Potential – long or short-term<sup>1</sup> – is often cited as evidence of human moral status. Those who see the human moral subject as co-extensive with the human organism look for some kind of potential to identify the human organism. Those who see the human subject as the organism during some particular stage of its life look for some kind of potential to identify the stage in question. In this paper, I will consider both the claim that potential sufficient to identify the human moral subject is found at the onset of human development, and claims to the effect that morally significant potential is found only at some later stage.

Some deny that potential of any kind – or, at least, long-term potential of any kind – can be a sign of human moral status. It may be asked if it is not the case that anything at all can be described as potentially something different. Food, for example, is potentially an adult human being, as are the sperm and ovum. If the embryo has human moral status in view of its potential to be, for example, an adult, why not the gametes which produce it?

## Potential and likelihood

It is sometimes said that the difference between embryo and gametes – and/or between embryo and fetus – lies in the likelihood that some later state of affairs will arise. It may be said, for example, that it is very much more likely after, than before, conception that a child will be born from the union of two particular gametes. Similarly, it may be claimed that

the embryo and fetus accumulates status over time with the fall in the chances of miscarriage.

There are a number of things which are unsatisfactory about this kind of approach. To begin with, it seems doubtful that a mere increase in the likelihood of some later situation could ground our moral status. A child close to starvation may have very little chance of long-term survival. While this fact may affect, for example, our distribution of medical resources, it does not follow from this that such a child has a lower status than others, only that the child is less likely to benefit, or to benefit very much, from certain forms of treatment. Children in poor countries are no less human than children in rich countries. Nor is there the greater likelihood that the former will die early, a reason for making them die early.

Moreover, it is not always true that prospects of survival improve in the course of human development. An *in vitro* fertilisation (IVF) embryo has a decreasing chance of survival to adulthood, the longer it is left outside the womb. Some writers who refer to this fact go on to claim that the potential of IVF embryos, or embryos in general, is no more significant than that of unfertilised ova. Peter Singer and Karen Dawson, for example, claim that IVF has reduced the difference between what can be said about the embryo and what can be said about the sperm and ovum, considered jointly.<sup>2</sup> For it is not the case that the embryo *in vitro*, unlike the unfertilised ovum, will develop to birth if it is not interfered with. On the contrary, it will need skilled intervention to implant it, and even then, its prospects are not good. Singer and Dawson argue further that the development of new technologies such as the activation of ova without sperm and the microinjection of particular sperm into particular ova will mean that the entity or entities to whom potential may be ascribed will be more easily identified. Where such techniques are used, it will be easier to see that an ovum, or an ovum-plus-sperm, already has a certain potential.

## Active potential

This line of argument does not, however, do justice to the variety of forms of potential. In particular, it

## Key words

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fails to distinguish between *passive* potential and *active* potential, and to identify the latter as a defining feature of living things. *Passive* potential is potential to submit to some outside influence: influence which the individual may or may not survive. A stick has the passive potential to be split in half. A cell has the passive potential to be cloned. *Active* potential, in contrast, refers to continuity between *acting* and *not acting*: between what an individual does, and does not do, while remaining the same individual.<sup>3</sup> A living plant, or other organism, has the active tendency to grow. A sperm has the active tendency to fertilise an ovum, on which it forfeits its identity. A being with active potential does not simply *undergo* change, but itself *initiates* change in the appropriate environment.

On this account, then, an active tendency refers to a single individual. Active *organic* tendencies refer to an individual *organism*, or living whole: a point which is missed by those who ascribe development potential to sperm and ova, considered jointly. Active potential, referring as it does to continuity between not doing and doing, must refer to one individual and that individual's acting in some possible environment, while remaining what it is. For example, a human being has the active potential to contribute to the generation of offspring. A human being does not have the active potential – either alone or jointly with some other human being – to be the offspring he or she may eventually produce.

I will now return to the suggestion made by Singer and Dawson that the unfertilised ovum alone should be seen as continuous with the fertilised or activated ovum, whose potential it shares. Singer and Dawson concede that it might be objected that while the ovum prior to activation might still be fertilised by this or that sperm, the potential of the activated ovum, or zygote, has been specified, at least to some degree, by activation.<sup>4</sup> Singer and Dawson compare the potential of the unfertilised ovum to be any one of a number of persons with the potential of marble about to be carved to be, first any one of a number of statues, and eventually, only one. For is not the potential to be carved into the actual statue among those present from the beginning? And irrespective of whether some potentialities are lost as the marble is carved (or the ovum is activated) is not one individual present throughout?

However, with the benefit of the active/passive distinction, it is not difficult to see that the potential of the block of marble to be carved into a statue is a *passive* potential of *that block of marble*: an entity which persists (though changing in size and shape) throughout the carving process. The unfertilised ovum also has certain passive potentialities, such as the potential to be worked on by a scientist, as well as certain active potentialities, such as those required for fertilisation to occur. What the unfertilised, unactivated ovum does not have is the active potential to develop as an organism. This is shown by the

fact that no development takes place until what begins as the interior of the ovum receives the contents of the sperm.<sup>5</sup> Since it is precisely the *developmental* potential of the zygote which makes it an individual *organism*, the absence of this potential in the unactivated ovum makes it a *different individual*. The active potential by virtue of which the *organism* exists can only be ascribed to that organism as a whole, constituted though this organism is of parts already to hand, some of which will retain some potential of their own. And while the ovum has, as a whole, the passive potential to be turned into part of the zygote, this is not a kind of passive potential which is compatible with its survival.

Singer and Dawson suggest that it is possible to produce an embryo parthenogenetically: without the paternal genetic contribution normally provided by the sperm. In fact, this does not appear to be the case, since parthenogenetic activation of an ovum produces cell-division of a highly abnormal kind.<sup>6</sup> It would appear that the entities produced lack the human developmental tendencies which characterise the early human organism. However, we should note that if it *were* possible to activate an ovum parthenogenetically and produce a *human embryo*, this would not change the fact that the *unactivated* ovum lacks the active potential characteristic of the organism.

In defence of their claim that, if parthenogenesis is possible, an unfertilised ovum and an embryo have similar potential, Singer and Dawson argue that both the ovum and the embryo need an external trigger to develop.<sup>7</sup> An embryo in the womb needs a favourable environment, the supply of nutrients, and so on. *In vitro* embryos need also to be implanted, and are thus unable to develop beyond a certain point without adult intervention. In the same way, the unactivated ovum needs skilled intervention to induce parthenogenetic development.

The analogy between intervention on an ovum and the nurture of an embryo is, however, unconvincing. Not only does the unactivated ovum lack the active, structural potential to initiate development, but the active potential possessed by the embryo resembles the potential of older human beings in its relationship to the supply of nutrients, and to a favourable environment.

### Choice and environment

More needs to be said on the fact that it is adult *choices* – such as the choice to implant and, later, to educate – which are needed for the fulfilment of the potential of the embryo, fetus and infant. Implantation has not, until recently, required a choice on the part of the mother or others. However, it is true that in general the potential of immature humans – as indeed that of older humans – connects in various ways to treatment which they may or may not receive from other humans. The active tendency of infants to feed connects, in the normal course of

events, to a choice on the part of their parents to feed them. In particular, the active potential of immature humans to develop rationality connects to choices on the part of those – whether parents or others – who are already rational. “Feral children” who have grown up among animals do not appear to develop rational capacities by themselves.<sup>8</sup> In the light of this, Edward Covey has argued that rationality, requiring as it does the choice of adults to nurture, is not a physically determined disposition, and that to say that infants and fetuses are future rational beings is to say no more than that they *should* be future rational beings – that we should help them become so.<sup>9</sup> While this may well be the case, Covey says, we are not now referring to a *natural* potential. It is we, and not nature, who supply the *telos* of personhood.

Covey’s argument reveals a common tendency – which, I would argue, ought to be resisted – to see a sharp divide between human choices and other environmental factors required for human development. It is true, of course, that some things we do to children (piercing their ears, say, or filling their teeth) exhibit active potential on the part of adults but only passive potential on the part of children. However, the predisposition of children to think rationally is like their predisposition to feed. The acting-out of such predispositions requires the help of adults, but also active potential on the part of the child. Moreover, to say that it is *good* for children to learn to think rationally – an aspect of their *fulfilment* – is certainly an evaluative judgment, but not yet a moral conclusion. If I am only able to help my own children to learn to feed, or think rationally, I need not deny that other children have a tendency to learn these skills, or that it would be in their interests to do so.<sup>10</sup> The fact that adult choices are required for rational development is compatible with the prior existence of active potential, characteristic of the species, to respond to adult choices. In the same way, the fact that choice is involved in the fathering of a child does not mean there is no such thing as an active potential to father a child: potential to which the concept “human male” – as indeed the concept “sterile human male” – refers.

It should be emphasised that the fact that some activity is precluded for *environmental* reasons does not preclude the existence of active potential. Thus with regard to a question raised by Singer and Dawson, the fact that a 14-day embryo *in vitro* cannot be safely transferred to the body of its mother does not mean that this embryo does not have, like its contemporary inside the womb, active developmental potential. If there is some environment in which, without structural change, the embryo would initiate further development, then the embryo survives as an embryo with the active potential for further development, whatever the practical impossibility of it reaching this favourable environment. Even tendencies essential to the organism can be

indefinitely thwarted by a hostile environment. The fact that frozen embryos, for example, may survive to maturity if thawed and implanted is sufficient indication that these embryos are alive: retaining the tendency to develop further, should their environment permit this.

### Short-term psychological capacities

As yet we have not looked at one form of active potential which is very often said to be essential to the human moral subject. For it is often said that *short-term* potential or “capacity” for some *psychological* activity is what is essential to the human moral subject, to be distinguished from the organism. It may be said either that the human moral subject is the organism, but only when the organism acquires the relevant short-term capacity, or that the subject is something over and above the organism, which joins or replaces the organism when the capacity appears.

Both these suggestions involve us in serious difficulties. There is no evidence that the developing organism is joined or replaced by something else. Rather, the appearance of new short-term capacities is only made possible through the pre-existing tendencies (involving a series of short-term capacities) of the earlier human organism. Even if we want to link the advent of the moral subject to some short-term psychological capacity, it will be hard to deny that the capacity we think to be essential is *acquired* by the *organism*. But then the organism which acquires the capacity goes on existing after it appears. We are thus threatened with the simultaneous presence of *two* entities with the relevant capacity – the organism and the moral subject.<sup>11</sup> It is surely simpler to admit both that the organism acquires the capacity it previously lacked, and that no new entity is created when the organism acquires it.

The second claim is that the moral subject is the organism, but only when the organism has acquired the relevant short-term capacity. In claiming this, we are asserting that our moral status is not intrinsic to ourselves. Rather, we existed once, and some humans now exist, without human moral status. This assertion, in itself disturbing, becomes still more so if the short-term psychological capacity believed to make the difference is one which may exist in degrees. If it is, then we must decide if we are to ascribe higher and higher moral status to those whether children or adults – with greater and greater capacities. An even less attractive alternative consists in the drawing of some arbitrary line at some level of development by which we separate the “human” from the “pre-human” subject.

It can, of course, be claimed that whereas some capacities are a matter of degree, other capacities are not. For example, there is the short-term capacity, not for experiences of some degree of complexity,

but for *any* experience. Will there not be a point, however difficult to determine, at which the developing organism completes a certain structure and can now, in some environment, have an experience?

The difficulty here is in defending the use of a capacity shared by higher animals as a criterion of human moral status in particular. Moreover, defence of this criterion leaves unexplained why harms such as killing should be wrong irrespective of whether or not the method used is thought to cause pain. If our concern is with the interests of the unborn in later, experienced goods, can we not trace such interests back *before* the advent of the short-term capacity for experience? Does not the embryo *now* have an interest in securing such experienced goods, just as it *now* has an interest in avoiding a painful death at such time as it will have acquired the short-term capacity for experience?

### Capacities and interests

The problem with all theories which make human status depend on the *acquisition* of some short-term capacity is that the individual who will acquire the capacity seems already a likely candidate for the relevant status. For example, what if I do not have the structure with which to feel but, on the basis of tendencies I already have, an operation will make me immediately sentient? Do I not have some kind of interest – conceivably even a right – with regard to such an operation? Or what if I, the organism, am just seconds away from the natural acquisition of some capacity? The same animal which acquires the capacity for experience might reasonably be said to have an interest in acquiring this capacity. Can it be true that I have an interest, or right, with regard to some benefit only when some final piece of neurological circuitry is completed, and not before, although I am present throughout?

Or what shall we say when capacities come and go in the human organism? Imagine a situation in which a patient with brain-damage awakes from an operation which has restored her capacity to learn, if her environment is favourable. She is now in the mental condition of a very young baby. Are we to insist that, due to the gap in the presence of short-term learning capacities (though there was no gap in the presence of other short-term capacities) this is not the same *moral subject* who suffered brain-damage? Are we to say that the subject who suffered brain-damage had no interest in the eventual operation – and that the emerging subject has, at least *prima facie*, no *moral* right to the previous individual's house or insurance money? If we do *not* say this, why should we wait for the *first* appearance, when we assess the unborn as human moral subjects, of the short-term capacity to learn?

At this point, it may be objected that we have hitherto focused on active, as distinct from passive potential. But the woman with brain-damage, if not

the normal embryo and fetus, has a *passive*, not an *active* potential to acquire rational capacities. In response to this, it has to be conceded that the woman has a *passive* potential to submit to an operation on her brain. However, it is only due to her current *active* tendencies that the operation is able to provide her with the active tendency to acquire rational capacities. If what she lacked was the active tendency *to organise herself as a living human being* she would not *be* a living human being, and it would be futile to speak of her interests in the mental life appropriate to human beings. Neither long nor short-term rational tendencies can be acquired by a corpse – or, it can be argued, by a non-rational animal, such as a horse or a cow. Horses and cows lack those fundamental tendencies which, in a human, can be supplemented by others in such a way as to produce the active tendency to develop rationality.

Horses and cows have, in fact, their own distinctive forms of self-organisation, such that they can be in perfect health and still lack what is required to fulfill a human being. In contrast, healthy *human* self-organisation involves, among other things, the development and maintenance of short-term rational capacities. The development and maintenance of rational capacities is, moreover, one of our most important interests, such that a human being is seriously deprived if this interest is thwarted. However, a human being in whom it *is* thwarted will continue to exist, for as long as the *defining* active tendencies of the human animal are present.

### Potential as a sign of human life

What, then, is the moral significance of active potential in human beings? The significance is, I want to argue, that such potential is a sign of *human life*: a sign that a living human being is still – or already – in existence. If a human being exists, then he or she has interests in what fulfills a human being,<sup>12</sup> and these interests will produce certain duties in those about him or her.

The claim is not that, for example, rationality is a desirable end-state we should aim to bring about in some human being by any means. If this were the case, there would be no reason to try to cure a brain-damaged child rather than killing the child and conceiving a healthy child in his or her place.<sup>13</sup> Rather, it is the *interests* of an *existing* human being which produce certain duties in other human beings with regard both to aid and, more fundamentally, to the avoidance of deliberate harm.

The interests of a rational kind of being – a being fulfilled by rationality – would appear to have a distinctive moral importance as compared with the interests of non-rational beings. This distinctive moral importance is a subject of enormous complexity; however, it seems undeniable that the interests of a human being are more important, in the demands

they make on us, than the interests of a cow. Certainly, the interests of a human being are *different* in various ways from the interests of a cow. Both cows and humans have an interest in health; however, a healthy cow and a healthy human being will have very different features.

As we saw earlier, the human interest in the development and maintenance of rational capacities is one of our most important interests. We have, however, interests, and associated rights, which do not directly concern the development, maintenance or exercise of rational capacities. It is for this reason that it would be wrong to experiment on a patient in a persistent vegetative state (PVS) – or, I would argue, on an embryo with no prospect of being carried by the mother to term. While the prospects of a given human being are important in the context of the allocation of resources, a human being whose prospects are poor retains a right not to be subjected to attack. Such a human being retains, in other words, a right to be treated by others with respect: that is, to be treated in a way appropriate to a rational kind of being.

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## References and notes

- 1 By “short-term” potential or capacity, I mean an immediately exercisable capacity. In contrast, a “long-term” capacity to do X would be the capacity – involving a series of short-term capacities – to acquire at some future time the short-term capacity to do X.
- 2 Singer P, Dawson K. IVF technology and the argument from potential. *Philosophy and Public Affairs* 1988; 17; 2: 90.
- 3 Wade F. Potentiality in the abortion discussion. *Review of Metaphysics* 1975; 29: 239–55.
- 4 See reference (2): 95. Singer and Dawson consider the potential of the zygote to be no more than partially

- specified, in view of the possibility of twinning. However, the potential to twin would appear to be a *passive* potential, at least in some cases – for example, where twinning is induced in the course of embryo experimentation. It is most unlikely that embryos who do not twin – the vast majority – have an *active* potential to do so. In any event, I would see the case of *symmetric* twinning – splitting in half – as the destruction of one individual (a human being unless, for example, it had, in place of *developmental* potential, the active potential to twin) and the generation of two new individuals (two new human beings). *Asymmetric* twinning, in contrast, would be a form of asexual reproduction by a surviving individual. The problem of twinning is looked at in more detail in Watt, H. The origin of humans. *The Linacre Quarterly* 1995; 62,2: 39–42.
- 5 Tonti-Filippini, T. Further comments on the beginning of life. *The Linacre Quarterly* 1992; 59,3: 76–81.
- 6 Suarez A. Hydatiform moles and teratomas confirm the human identity of the preimplantation embryo. *The Journal of Medicine and Philosophy* 1990; 15: 627–35.
- 7 See reference (2): 94.
- 8 It seems likely that the failure of feral children to develop short-term rational capacities is closely linked to their failure to develop linguistic skills. The lack of linguistic skills will also, of course, prevent observers from recognising such rudimentary capacities as may be present.
- 9 Covey E. Physical possibility and potentiality in ethics. *American Philosophical Quarterly* 1991; 28: 243.
- 10 I briefly discuss our duties to immature humans. Abortion and shelter: beyond Thomson’s violinist. *Ethics and Medicine* 1992; 8: 9–10.
- 11 Stone J. Why potentiality matters. *Canadian Journal of Philosophy* 1987; 17: 824–5.
- 12 For one account of human fulfilment in its various aspects see Grisez G, Boyle J and Finnis J. Practical principles, moral truth and ultimate ends. *American Journal of Jurisprudence* 1987; 32: 108.
- 13 We can imagine a situation in which the death of the first child is literally a means to the conception of the second. For example, one of the parents might refuse to have a second child until the first was dead.