Defending the Argument from Potential

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ABSTRACT: I argue that the Aristotelian concept of potentiality, when applied to analyzing the ontological status of human embryos and fetuses, supports the conclusion that embryos and fetuses are not “potential persons,” but rather “persons with potential.” That is, embryos and fetuses possess an intrinsic active potentiality to develop themselves, within a supportive environment, into more fully actualized self-conscious and rational beings. I then defend this argument against criticisms from Alto Charo and Louis Guenin concerning embryos in light of the realities of in vitro fertilization and the possibility of human cloning, and from Jeff McMahan regarding the status of cognitively deficient fetuses. I conclude by discussing how my conclusion for the ontological status of embryos and fetuses as persons from conception provides a rationale, even if it does not logically entail, recognizing them to have the moral status we accord to born persons, including a fundamental right to life.

The moral status of human embryos and fetuses is one of the most vexed questions in bioethics and various responses often stand or fall on the answer to the question of the ontological status of such entities – whether they count as “persons,” “potential persons,” or merely “human biological material.” The argument from potential, as it is often referred, is typically formulated as follows:

(1) Persons possess a high, perhaps infinite, degree of moral value. 
(2) Persons thereby possess certain basic rights, including a right to life. 
(3) Human embryos and fetuses possess the potential to develop into persons. 
(4) Hence, embryos and fetuses also possess a high, perhaps infinite, degree of moral value and thereby the same basic rights.

A standard counter-argument is that the rights possessed by an actual entity are not transferable to a potential forerunner – e.g., when President Obama was growing up in Hawaii, he did not possess the right, as a potential Commander-in-Chief, to order U.S. troops into Afghanistan.²

Whatever the merits of this and other counter-arguments, there is reason to search for a stronger foundation to assert that embryos and fetuses have a moral status sufficiently equivalent to that of mature human persons as to bear the same basic right to life. The most direct argumentative route is to establish that embryos and fetuses are not potential but actual persons. Of course, embryos and fetuses do not yet engage in any of the activities typically understood to define the essence of personhood. They do, however, arguably possess the intrinsic potentiality to develop themselves – with the assistance of a protective, nutritive environment – into fully actualized beings who can immediately engage in such activities. The crucial premise is that possessing the intrinsic potentiality to develop oneself into a fully actualized person suffices for an organism to be – both ontologically and morally – a person already.³ If this premise holds, an embryo or fetus is not a

“potential person” but a “person with potential” — specifically, the potential to develop itself, while preserving its numerical identity, into an entity that actually engages in the definitive activities of persons, which may be generally understood as those associated with thinking in a self-conscious rational fashion. 

Concept of Potentiality

Aristotle provides a well-developed definition of potentiality — later adopted and further elaborated upon by Thomas Aquinas — that is distinguished into two types: active and passive. Something has an active potentiality if it has within itself everything necessary, given its proper design environment, to actualize itself in the relevant manner. The locus of a substance’s set of active potentialities is its substantial form, which, for a person, is a rational soul. By contrast, something has a passive potentiality if it can be the subject of externally directed change such that it can become what it is not already. Furthermore, active potentiality comes in two varieties. The first is what Robert Pasnau refers to as a “capacity in hand” to perform an operation, which means that no further development or significant change is required for

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7 I derive the concept of a “design environment” from Alvin Plantinga’s concept of something fulfilling its proper function, according to its design plan, in an appropriate environment; see his Warrant and Proper Function (New York NY: Oxford Univ. Press, 1993), ch. 2. My thanks to David Hershenov for pointing me towards this concept.
the potentiality to be actualized. The second is what Norman Kretzmann refers to as a substance’s “natural potentiality” to develop a capacity in hand to perform an operation.

Because a substance possesses its essential set of active potentialities by virtue of its substantial form, which is also what grounds its persistent numerical identity, it follows that something that has the active potentiality for self-conscious rational activity already possesses the essential nature definitive of personhood, and that something lacking such a potentiality, even though it may have the passive potentiality to obtain it, does not yet possess the nature of personhood and thus must undergo a change in both specific and numerical identity if it is to become a person.

Active potentiality refers to something’s capacity to be in a certain way, as opposed to merely the possibility of its becoming something. For example, a sperm or ovum possesses the relevant active potentialities definitive of personhood only if it could come to actualize those potentialities while preserving its numerical identity – i.e., it remains the same substance identical with itself throughout its development from a germ cell to an actually self-conscious rational person. A change, however, from a germ cell to a person does not appear to be an identity-preserving transformation. A sperm loses its substantial identity when it fuses with an ovum, and vice versa, to form a new substance – an embryo. The only sense in which a germ cell may

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plausibly be called a “potential person” is in the weak sense that it provides the **makings** of a person.

All that is required for something to be a person is for it to have an active potentiality to perform self-conscious rational operations. The actual performance of such operations is accidental to a person’s existence.13 A developing embryo or fetus possesses an active potentiality for self-conscious rational thought, although it cannot yet actually think in such a manner.14 By contrast, sperm and ova do not have such an active potentiality,15 but rather merely a passive potentiality to become a person since each must undergo a change brought about by an extrinsic principle: sperm must be changed through union with an ovum and vice versa. This union transforms them into a substance with active potentialities for the definitive operations of personhood. Once this substantial change occurs, a person exists even if she is not actually exercising all of her definitive operations.

Having described the basic elements supporting the view that embryos and fetuses may be considered **persons** by virtue of their possession of an active potentiality for self-conscious rational thought, I will address some recent arguments against the ontological and moral relevance of the concept of potentiality in this context.

**In vitro** vs. **in utero** embryos: Charo and Guenin

Alta Charo raises the question of whether the potentiality of an embryo or fetus **in utero** differs in relevant respects from that of an embryo **in vitro**, which must be implanted in a supportive uterine

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13 See Thomas Aquinas, Summa theologiae Ia, q. 118 a. 1 ad 4; Quaestio disputata de anima, a. 13; Kretzmann (1999), p. 379 n27.


15 See Thomas Aquinas, Sententia libri metaphysicorum, bk. IX, lect. 6, §1837.
environment if its development is to continue beyond the first week of cell division:

A fertilized egg or early embryo in a petri dish most certainly has an intrinsic tendency to continue growing and dividing. Without the provision of an artificial culture medium, however, it will never grow and divide more than about 1 week. If the provision of such a medium is considered a form of external assistance akin to that at issue in passive potentiality, then the fertilized egg is a potential week-old embryo, not a potential baby.\(^\text{16}\)

Louis Guenin also contends that an embryo’s developmental potential is a function not only of its intrinsic nature but also of its overall “situation” and any relevant “discretionary actions” on the part of external agents:

Unless there occurs the discretionary action of intrauterine transfer, it is not nomologically possible for an extracorporeal embryo to develop into an infant. The least upper bound on developmental potential of an unenabled embryo nurtured by cell culture techniques in a device such as a dish falls in the neighborhood of day 10 – well short of sentience or even the formation of limbs and organs. The developmental potential of such an embryo lies a discretionary step behind that of an embryo formed by natural conception.\(^\text{17}\)

Contrary to Charo and Guenin, the discretionary provision of a supportive uterine environment for an embryo to gestate is not “a form of external assistance akin to that at issue in passive potentiality.” Though obviously a form of external assistance, what an IVF technician provides by implanting an embryo in a woman’s body is a supportive

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environment for an embryo to exercise its own developmental potential. Of course, to focus here merely on the “supportive environment” a woman provides to any embryo or fetus she gestates is not to downplay the personal dimension of the maternal-fetal bond that forms throughout gestation and that offers support for the embryo/fetus’s development that goes well beyond its biological needs. Uterine implantation does not alter the intrinsic nature of an embryo itself or bestow upon it more inherent potentialities than it already possesses.¹⁸

The external assistance that a uterus provides is analogous to an astronaut’s spacesuit. Both provide what the person needs to exercise her vital metabolic functions, but the lack of such support does not entail that she lacks the relevant potentialities for those functions. If an astronaut’s spacesuit malfunctions and stops supplying oxygen, her vital metabolic functions will cease shortly thereafter. If, however, a fellow astronaut fixes her suit in a timely fashion and restores the flow of oxygen, her vital metabolic functions will resume. This indicates that the astronaut’s active potentiality for such functions remained despite the temporary loss of the requisite supportive environment. Another relevant example is the incubator most prematurely born infants require to continue their post-natal development. Although such infants cannot survive without the incubator’s assistance, their dependence on it does not entail that their potentiality for full development is merely passive and not self-directed.

Guenin offers two counterpoints to the claim that an embryo’s location, whether in vitro or in utero, is morally arbitrary.¹⁹ First, he asserts that such a claim amounts to “genetic determinism,” which is the scientifically crude and false thesis that an organism’s genes wholly determine whether and how it will develop. I concur that an embryo’s genetic identity is insufficient for it to possess the relevant active potentialities to develop into an actually self-conscious rational person. For example, a hydatidiform mole is a mass of placental tissue with the same genetic identity as a human embryo. What distinguishes a


¹⁹ See Guenin (2008), pp. 54-55.
hydatidiform mole from a developing embryo is that the former can never develop into an organism with a functioning cerebral cortex supportive of self-conscious rational thought, despite its intrinsic genetic structure and even if it is placed in a supportive uterine environment. Furthermore, every somatic cell composing a human organism possesses the complete human genome, yet it is not the case that every somatic cell possesses an active potentiality to develop itself into a distinct person.20 In addition, there may be some anencephalic infants whose anencephaly results from a genetic anomaly present from conception that precludes their possessing an active potentiality to develop a cerebral cortex supportive of self-conscious rational thought.21 Finally, given the possibility of there existing non-human persons, possessing a human genome is not a necessary criterion for personhood. Thus, putting aside the possibility of non-human persons, the putative criterion of genetic identity must at the very least be qualified by the stipulation that an embryo’s genome is not deficient in ways relevant to whether or not it possesses an active potentiality to develop a functioning cerebrum supportive of self-conscious rational thought.22 Furthermore, various biological factors in the cytoplasm of the embryonic cells must be present and active. Hence, the argument that the intrinsic active potentiality of an embryo to develop into an actually self-conscious rational person, regardless of whether it is located in vitro or in utero, does not imply any fallacious adherence to the thesis of genetic determinism.

Guenin concedes that an extracorporeal embryo does not possess “any less intrinsic value than an embryo in the womb,” but contends that there are “occasions on which, in consequence of a permissible decision, an embryo’s developmental potential is bounded.”23 Clearly, an extracorporeal embryo’s intrinsic developmental potential is artificially “bounded” insofar as it is a fact that such embryos cannot develop

beyond a certain point unless implanted. But this does not entail that the embryo’s intrinsic potential is not present, or that it does not remain ontologically unbounded insofar as, if it were implanted, it would naturally develop into maturity unless further impeded by extrinsic conditions.

I further contend that there can be no “permissible decision” through which an embryo’s developmental potential becomes bounded by a discretionary action. Alfonso Gómez-Lobo describes an analogous case: “a little girl is born and her parents decide not to feed her. They also issue a strict prohibition on others feeding her. Their decision would make her a ‘non-enabled’ infant with no ‘developmental potential.’”24 If one deems such a parental decision not only to be morally impermissible, but also not to have the ontological implications that Guenin claims regarding the infant’s intrinsic developmental potentiality, then Guenin’s analogous conclusions regarding embryos should be denied as well.

An in vitro embryo’s potentiality for development into an actually self-conscious rational person does not preclude its existence as a person already. This is because the potentiality at issue is an active potentiality that is part of the embryo’s intrinsic nature.25 But perhaps the argumentative support for this conclusion proves too much. Charo and others contend that since a person can be cloned from a somatic cell, any such cell that currently constitutes my body is potentially another person.26 But this argument fails to apply properly the active/passive

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potentiality distinction. Many changes requiring the directive activity of an external agent must accrue to a somatic cell before it can, in the relevant sense, have the potentiality to become a person, starting with the extensive reorganization of its internal structure, viz., removal of its nucleus, which is then implanted in an enucleated ovum.²⁷

The primary reason a somatic cell fails to have an active potentiality to develop into a fully actualized person is that the identity criterion is violated insofar as the cell must be disaggregated and only a part of it – its nucleus – be implanted in another already extant cell – in ovum. This entails a substantial change in specific and numerical identity for both the somatic cell and the ovum.²⁸ Michael Burke affirms this conclusion by contending that a somatic cell cannot be considered to be of the same natural kind as an embryo insofar as the latter, but not the former, is an animal.²⁹

Additionally, to countenance the possibility that a somatic cell has the same potentiality as an embryo to become a fully actualized human person is to presume that it is already a human person. This presumption is implausible because a somatic cell that is part of a human person cannot itself be such an entity.³⁰ In Aristotelian-Thomistic terms, when a rational soul informs a human body, it informs the body as a whole, every part of it.³¹ Therefore, all parts of a person’s body are proper parts of her and not substances in their own right, unless they become separated from the body. Since a somatic cell is not a substance in itself, but only part of a substance, it cannot be a person; nor can it have its own rational soul informing it with an active potentiality for further self-

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²⁹ See Burke (1996), pp. 504-05, 509.
³¹ See Summa theologiae Ia, q. 76 a. 8.
directed development into a fully actualized person.\textsuperscript{32}

Cognitively Deficient Fetuses: McMahan

Jeff McMahan distinguishes between a normal, healthy fetus with no congenital deficiencies that would impair the development of the cognitive capacities definitive of personhood and fetuses that have structural or functional neural deficits such that they can never, without external intervention, develop into fully actualized persons.\textsuperscript{33} McMahan contends that the question of whether the fetuses with the neural deficits possess a morally relevant potentiality to develop the cognitive capacities definitive of personhood does not depend on their intrinsic properties alone, but also on the external conditions that may or may not allow such a potentiality to be actualized. In other words, it cannot be reasonably claimed that a fetus possesses an intrinsic potentiality for self-conscious rational thought if certain external conditions preclude its actualization.

McMahan compares a child born without eyes a thousand years ago and one born in a world where eye transplants are routinely performed. The former lacks an intrinsic potentiality for sight, since nothing could be done a thousand years ago to allow him ever to see. The latter does possess such a potentiality since he would be able to see once the transplant was performed. Analogously, McMahan argues, so long as a fetus’s neural deficits are not correctable by current medical expertise, one cannot reasonably assert that such a fetus possesses an intrinsic potentiality for self-conscious rational thought.\textsuperscript{34}

Is it not just as reasonable, however, to assert that the child born without eyes a thousand years ago possesses the same intrinsic potentiality as one born in a world of routine eye transplants? McMahan states, regarding the second child: “Certainly if he receives a transplant and is thereby enabled to see, that demonstrates that all along he had the


\textsuperscript{34} See McMahan (2002), p. 311.
potential to see.” But what if the second child did not receive the transplant because his parents elected for him not to have the operation? Maybe it was too expensive or they preferred to raise a blind child, just as congenitally deaf parents may prefer to raise a deaf child. As John Lizza argues – although I do not concur with him on this point – human choices may affect what potentialities are realistically present in a given case.

Perhaps McMahan could respond that there is nothing different about the potentiality of the child whose parents elect for him to receive the transplant and the child whose parents do not, because the medical expertise is readily available for the parents to elect and the children each have well-functioning optic nerves, visual cortex, and cerebrum that will allow them to have conscious visual experiences once their new eyes are attached. The child born a thousand years ago, though, may also have well-functioning optic nerves, visual cortex, and cerebrum such that, if the medical expertise were readily available to him, he would be able to see as well. The only difference between the child born a thousand years ago and the one born in the world of eye transplants is the availability of the extrinsic means to provide him with new eyes. But such extrinsic means would be, for practical purposes, unavailable to the latter child if his parents elected not to proceed with the transplant. McMahan thus seems to be forced to agree with Lizza and admit that the child born in the world of eye transplants would not have the potential for sight unless all the requisite external conditions were satisfied, including the choice of his parents to proceed with the transplant. McMahan may happily agree with Lizza on this point. On the other hand, if McMahan agrees that Lizza’s conditions on potentiality are too strict and that, in this case, parental choice should not be considered as a proper determinant of whether the child possesses an intrinsic potentiality for sight, then he should abandon his reliance upon external conditions altogether and admit that there is no difference in intrinsic potentiality between either of the children considered in this case.

Returning to the case of normal versus cognitively deficient fetuses, for McMahan, it is clear that a normally developed fetus possesses an

36 See Lizza (2007).
intrinsic potentiality to continue development into a fully actualized person. Fetuses with neural deficits possess only an extrinsic potentiality since something must be done to them by an external agent in order for them to develop normal cognitive capacities. He further argues that the availability of such external intervention makes a difference with respect to a fetus’s relevant potentialities in this regard.

Contrary to McMahan, I hold that the availability of external interventions to correct a structural or functional deficiency does not bear on the presence of certain intrinsic potentialities that are indicative of the kind of entity that a fetus is: a fetus possessing an intrinsic potentiality to develop a brain capable of supporting self-conscious rational thought is a member of the ontological kind rational animal or person. This remains the case until the fetus, or the later child or adult into whom the fetus develops, dies by losing the intrinsic potentiality not only for self-conscious rational thought but also for life altogether. A fetus – or any human organism – that possesses and then apparently loses its intrinsic potentiality for self-conscious rational thought in fact retains its potentiality by virtue of persisting as the numerically and specifically same kind of entity, viz., a rational animal with the relevant intrinsic potentialities definitive of such a nature, even if the material conditions of its body do not allow such potentialities to be actualized and regardless of the availability of external interventions that would ameliorate such conditions.

The case may differ, however, for a fetus that never possesses the intrinsic potentiality for self-conscious rational thought by virtue of a congenital deficit that precludes its ever being able to develop the requisite neural structures or functionality. Such a fetus may possesses, at best, an extrinsic potentiality to be subjected to change by an external agent that would alter the fetus both numerically and specifically such that it would change from being a non-rational animal to being a rational animal.

McMahan raises the question of whether there is a moral obligation to provide, if available, treatments that would correct such congenital deficits so that such fetuses may come to possess the intrinsic potentiality to develop into fully actualized persons. With respect to

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fetuses with a congenital deficit, there is arguably no moral obligation to provide them with such treatment. Yet, nothing morally precludes offering such treatment, provided that other goals of comparable or greater moral value are not sacrificed. There would, however, be a positive prima facie duty to ameliorate the condition of fetuses, or any other human organism, who demonstrably possess an intrinsic potentiality for self-conscious rational thought but suffer from some sort of removable internal – but non-congenital – or external impediment. As a positive and prima facie duty, though, the strength of the moral obligation will have to be measured against any relevant negative duties or other prima facie duties that may be of comparable or greater moral value. For example, it would clearly be impermissible to lobotomize an actually self-conscious rational person in order to derive neural tissue to repair the neural deficits of a fetus so that it may actualize its intrinsic potentiality for self-conscious rational thought.

Conclusion: Potentiality and Moral Value

I have focused on metaphysical arguments concerning the ontological status of human embryos and fetuses with respect to their being rational animals or persons, or only potentially such entities. To conclude, I will offer some brief remarks on the moral status of these “persons with potential.” I adopt a broadly construed natural law ethic that recognizes the intrinsic value of various types of beings by reference to their essential capacities and, by extension, the active potentiality to develop such capacities in hand. As Jim Stone concludes,

Nature, good, and identity are intimately related. An animal’s nature determines a developmental path which guarantees identity, a path that produces the animal’s adult stage. In human animals, that stage involves the attainment of conscious goods, which are produced by the nature as it actualizes itself along an identity-preserving path that evolved because it produces those goods. Nature, good, and identity each determine the other, each is an aspect of the other; they are bound in unity. What the fetus is finally, is something that makes itself self-aware; that good is the fetus’s good – this is its nature. Anything benefits from the good which it is its nature to make for itself. I submit that we have a prima facie duty to all creatures not to deprive them of the conscious

goods which it is their nature to realize.\textsuperscript{39}

It is worth noting that Stone’s conclusion does not depend on whether an embryo or fetus is a person. Nevertheless, if an embryo or fetus has the ontological status of a person, it is certainly arguable that it should be regarded as having the moral status of a person as well.

The moral conclusion, however, does not immediately follow from the ontological conclusion. According to Mark Brown, an active potentiality for self-conscious rational thought becomes relevant only when it is present by virtue of a functioning human brain.\textsuperscript{40} This is based on the contention that psychological properties are necessary for someone to possess \textit{interests} that ground the rights they should be recognized to possess.\textsuperscript{41} Michael Tooley also denies that fully actualized persons possess the moral rights they do by virtue of their ontological constitution, but rather by virtue of certain psychological states that allow them to have \textit{desires}, the fulfillment of which rights are designed to protect.\textsuperscript{42} McMahan, on the other hand, allows that a late-term fetus, which is not yet actually self-conscious and rational, but has developed a cerebrum capable of at least some degree of consciousness and further development, may be understood as possessing an interest – albeit a weak “time-relative” interest – in its own further development into a person.\textsuperscript{43} Unfortunately, I cannot delve into a deeper discussion here of the moral relevance of an entity’s possessing an active potentiality to develop itself into an actually self-conscious rational person, except to contend that at minimum such an entity merits consideration as the object of a \textit{prima facie} moral obligation not to kill it or deprive it of the goods that it may reasonably be expected to come to possess absent external interference with its natural, self-directed development. As Don Marquis argues, the same principle that grounds the wrongness of killing

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\item \textsuperscript{39} Stone (1987), p. 821.
\item \textsuperscript{40} See Brown (2007), p. 602.
\item \textsuperscript{41} See DeGrazia (2008), pp. 305-06.
\item \textsuperscript{42} See Michael Tooley, \textit{Abortion and Infanticide} (New York NY: Oxford Univ. Press, 1983), p. 151. For a critical analysis of Tooley’s arguments against the ontological and moral significance of embryonic/fetal potentiality, see Eberl (2014).
\item \textsuperscript{43} See McMahan (2002), p. 307.
\end{itemize}
an adult human being – viz., loss of an objectively valuable future – renders abortion impermissible since an embryo or fetus also possesses an objectively valuable future insofar as it is numerically identical to an adult human person who will actually have such experiences.\textsuperscript{44} There may also be a positive \textit{prima facie} moral obligation to assist such an entity’s development by providing it with a supportive environment and removing any impediments to the actualization of its definitive active potentialities.\textsuperscript{45}


\textsuperscript{45} I wish to thank members of the audience at the 2010 University Faculty for Life Conference at The Catholic University of America for their helpful comments on this paper.