

## The Moral Status of the Human Embryo: a Critique of Peter Singer's Conception of the Potentiality of the Embryo

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### Abstract

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In this paper, we argue that Peter Singer's view on the potentiality of the human embryo is erroneous. According to Singer, the human embryo is a human person in potentiality and not in actuality. As a potential person, an embryo cannot be accorded the same moral worth as a person. For him, 'there is no rule that says that a potential X has the same value as an X, or has all the rights of an X.' And since there is no such rule or any general inference from 'A is a potential X, to A has the rights of an X, we should not accept that 'a potential person should have the rights of a person' (Singer, 1993, 153). Singer's argument, at first sight, appears plausible, but upon critical scrutiny, one finds serious problems with his interpretation of the concept of potentiality. For instance, the argument that 'Prince Charles is a potential king of England but does not now have the rights of a king', which he employs in the case of the human embryo, does not logically follow. The example of Prince Charles involves passive potentiality while that of the human embryo involves active potentiality. Passive potentiality needs an external agent to actualize it whereas active potentiality does not require any external agent to realise it. The gametes have passive potential because they need to be fused either naturally or artificially in the laboratory for them to gain the status of active potentiality. The embryo has an active potential because it controls its own development from within. These two cases of potential do not therefore mean the same thing. We argue that it is not possible to attribute active potentiality to the human embryo without considering it as a person.

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**Keywords:** Peter Singer, the human embryo, moral status, potentiality, actuality, sperm and egg

### Introduction

The aim of this paper is to critically examine the views of Peter Singer on the moral status of the human embryo, particularly his use of the concept of potentiality and actuality. The paper shows that there are some internal inconsistencies in his arguments, which weakens his position on the potentiality of the human embryo. With the advancement of medical technology, scientists have succeeded in identifying the causes of many disease conditions and have designed drugs and vaccines to combat them. Some diseases like small pox, which were once deadly, have been eliminated as a result of rigorous scientific research into their causes (T. Shannon, 1979, 111). New developments in medical science hold the promise of finding cures for some of the most intractable and incurable diseases of our time such as Parkinson's, Alzheimer's, cancer, diabetes, sickle cell anaemia, heart disease, cystic fibrosis, and many others. It is hoped that in the near future these now lethal diseases will be degraded, subdued and conquered by medical science judging from the exponential pace of biotechnological advancements.

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One of the ways through which science may employ to eliminate these fatal diseases is through human embryonic experimentation. The centrality of embryo research in finding cures for some of the above mentioned lethal diseases and for assisted reproduction has made the question of the moral status of the human embryo one of the most contentious contemporary moral and political issues. This is so for the following reasons: First, the use of human embryos for research offers prospects for the deliberate alteration and enhancement of the genetic structure of human beings, thereby making human nature malleable (Barbour, 1990, 214-215). This modern mechanistic scientific outlook which considers humans as machines which could be altered, repaired or even discarded when they become defective, raises moral concerns which should not be undermined because of the potential benefits that this scientific project to humankind. Secondly, a moral debate surrounds human embryonic stem cell research because it is associated with the creation and destruction of human embryos for reproductive and regenerative medicine (Singer, 1993, 136). In this paper, we critically examine Singer's view on the potential of the human embryo.

Peter Singer's views concerning issues of life and death have sparked some of the most animated debates in contemporary moral philosophy. In challenging traditional taboos about life and death, Singer has helped to broaden our moral horizons concerning such questions. His views are radical and have challenged traditional morality. In his preface to *Practical Ethics* (1993), Singer acknowledges this when he writes:

In the commotion that followed the cancellation of a conference in Germany at which I had been invited to speak, the German sponsoring organization, to dissociate itself from my views, passed a series of motions, one of which read: 'the uniqueness of human life forbids any comparison – or more specifically, equation of human existence with other living beings, with their forms of life or interest.' Comparing and in some cases equating, the lives of humans and animals is exactly what this book is about (Singer, 1993, ix).

In other major works like: *Rethinking Life and Death: The Collapse of our Traditional Ethics* (1994) and *Animal Liberation: The Definitive Classic of Animal Movement* (1975/2009), Singer states his radical stance on the moral status of the human embryo. We argue that although Singer's arguments on the moral status of the human embryo may be logically appealing, there are some logical inconsistencies which undermine his argument. What is Singer's understanding of the moral status of the human embryo and how plausible are his arguments on the potentiality of the human embryo?

## **Definition of Key Terms**

### **Moral Status**

According to Tom Beauchamp and James Childress, to have moral status is to be morally worthy, to deserve the respect and protection accorded by moral norms and this can only be accorded to entities that can be morally wronged by actions (Beauchamp and Childress, 2009, 66). An agent shows moral respect for something or someone when s/he "sincerely considers and actually treats an entity as worthy of some degree of difference, reverence or regard" (Meyer and Nelson, 2001). In effect, this kind of respect is based on recognition of the entity's moral status. A being "towards which moral agents have direct obligations, or whose needs, interests or well-being requires protection ... will also command respect" (Meyer and Nelson, 2001). To have moral worth therefore is to merit the protection accorded by moral norms, rules, obligations and rights. Only an entity which has moral standing can be morally wronged. In this essay the traditional account of moral status is employed which holds that "all humans have full moral status and only humans have that status. Distinctively, human properties demarcate that which has moral value and delineate which beings constitute the moral community," (Beauchamp and Childress, 67). This account underscores the idea that a human being possesses this value from the very moment it becomes human, that is, from the moment of conception, till when it ceases to be, that is, at death. However, we also acknowledge that other species may have moral status, but not the same moral status as humans.

### **Human Embryo**

The simplest definition of the human embryo is that it is the product of the fusion of the male and the female gametes, what biologists have traditionally called fertilization. An embryo is the entity that arises as a result of human fertilization. From this definition, therefore, a human embryo is a human being/person at an early stage of life (Rolf, 2012, 747). From this perspective, the human embryo is a premature person imbued with potentials to be actualized as it develops.

## Potentiality

The word potentiality is derived from the word potential. Potentiality is a power in a thing to produce change or perfection. The thing in question must have the inherent possibility to receive the perfection, because the possible is something intimately connected with potentiality. For instance, a human embryo is not a mature person though it has the inherent capacity to become a person. Potentiality is not the capacity for the impossible. A stone, for example, does not see and is not capable of seeing. A log of wood is not a statue but has the capacity to become a statue. Water and air do not have this capacity. Aristotle distinguished between two types of potentiality: passive and active potentiality. The potentiality in the marble, for example, is — “passive because the marble has the potency to receive a new form. If nothing or person acts on the marble to give it a new form, it will remain just what it was, unchanged” (Becker cited by Wade, 1985, 21-34). Hence, passive potency necessarily needs an external agent to realize its potential. Without this external agent, its potentiality will never be actualized. This is the kind of potential possessed by the sperm and the egg. If they are not fused, through fertilization, by an external agent(s), they will remain as they are. Active potentiality, on the other hand, does not need any external agent to realize its potential. The power to transform and develop into a new form, shape, or size is inherent in the thing. It has an intrinsic capacity for its self-development/self-actualization (Aristotle, 6, 1048a25).

## Singer's Position on the Moral Status of the Human Embryo

Singer's view on the moral status of the human embryo is influenced by his perception of the nature of the embryo. According to him, a human embryo is a cluster of cells and not an individual human being (Singer, 1994, 94). He goes further to argue that the fertilized egg, after conception, is a single cell and lacks any anatomical feature of the being that it will later become (Singer, 1993, 137). It is for this reason that Singer thinks that it is untenable to claim that this single cell marks the beginning of an individual human life. For him, it is inappropriate and scientifically indefensible to consider the cell formed immediately after conception as an embryo. This is because the cells that will eventually become the embryo are at this stage “indistinguishable from the cells that will become the placenta and amniotic sac” (Singer, 1993, 137). This view on the undifferentiated nature of the embryonic cells at this stage is plausible. This is because immediately after fertilization there is evidence that none of the cells are, at this point, destined to become a specific kind of body cell (Hershenov, 2006, 141). In fact, cells derived from the human embryo which are about five days are capable of producing all the cell types that are found in the human body (Austriaco, 2008, 6). Reasoning from this, the human embryo appears to be an obscure entity and not easily definable from a scientific point of view. But the fact that we cannot distinguish which cell will become the embryo or the placenta, or amniotic sac, is not a sufficient moral ground to deny the *conceptus* the status of a human being. We may not know for sure which cell will become the embryo or the placenta, but we are certain that human life has begun which, given a conducive environment, will develop into a mature, or even more than one, human being.

It is on this basis that Singer and other liberal thinkers like Mary Anne Warren and John Harris, are of the opinion that the human embryo is an “ambiguous entity” (Harris, 2007, 162). Though it is of the human genome, it does not qualify as a human person. From this perspective, Singer argues that a human embryo, though a human being, is not a person. He subscribes to John Locke's definition of a person as “a thinking intelligent being that has reason and reflection and can consider itself as itself, the same thinking thing, in different times and places” (Locke, 1947, 39). Based on this definition of Locke, it is difficult to maintain that a human embryo is a person. Commenting on this definition, F. Vidal says that for Locke, personal identity consists in a continuity of consciousness, “whatever substance there is...however framed, without consciousness there is no person” (Vidal, 2011, 24). From this angle, consciousness becomes an essential quality in the definition of a person. Developing this idea further, Singer writes:

The use of ‘person’ is itself, unfortunately, liable to mislead, since person is often used as if it meant the same as ‘human being’. Yet the terms are not equivalent; there could be a person who is not a member of our species. There could also be members of our species who are not persons. The word ‘person’ has its origin in the Latin term for a mask worn by an actor in a classical drama. By putting on masks the actors signified that they were acting a role. Subsequently ‘person’ came to mean one who plays a role in life, one who is an agent. According to the *Oxford Dictionary*, one of the current meanings of the term is ‘a self-conscious or rational being.’ (Singer, 1993, 87).

Reasoning from this, he maintains that a human being and a person do not mean the same thing. Somebody could be a human being without necessarily being a person. Also, Singer maintains that it is incorrect to restrict the term 'person' only to human beings, since there are nonhuman persons. He defends this position when he claims that "in recent discussions in bioethics..., 'person' is now often used to mean a being with certain characteristics, such as rationality and self-awareness" (Singer, 1994, 180). By this, therefore, a person is not by definition only a human being. He states:

The word was introduced into philosophy by the Stoic philosopher Epictetus, who used it to mean the role one is called to play in life. It was then taken up by early Christian thinkers grappling with the problem of understanding the doctrine of the trinity - what was the relationship between God the Father, God the Son and God the Holy Ghost? In 325 the Council of Nicaea settled the issue by saying that the trinity is one substance and three persons. But what was a person? Since neither God the Father nor the Holy Ghost was human beings, it was evident that a person did not have to be a human being (Singer, 1994, 180).

According to Singer, there are nonhuman beings in our planet who are also persons, such as the great apes (Singer, 1994, 182). It is also important to mention that Singer considers 'a human being,' as equivalent to a "member of the species *Homo sapiens*" (Singer, 1993, 85). From this, Singer concludes that an embryo conceived from human sperm and egg is a human being, but not yet a person. He says "the embryo, the later fetus, the profoundly intellectually disabled child, even the new born infant – all are indisputably members of the species *Homo sapiens*, but none are self-aware, have a sense of the future, or the capacity to relate to others" (Singer, 1993, 86). The human embryo is therefore not a human person and for this reason, it cannot be ascribed the same moral worth or rights as a person. It is for this reason that Singer is in support of embryo experimentation (Singer, 1993, 168).

The view of Singer that the human embryo is a 'pre-person' and lacks moral status is further defended in the argument about Prince Charles as a potential king and the distinction between the embryo, on the one hand, and the sperm and egg, on the other. These two arguments, as we shall show below, are supported by a certain misunderstanding of the concept of potentiality and actuality. This misinterpretation of the two concepts puts into question Singer's view on the moral status of the human embryo.

### **Singer and the Argument from Potential: Difficulties with the Argument**

According to Singer, the relationship between an embryo and a person is that of potentiality and actuality. This means that an embryo is a person in potency and not in actuality. And as a potential person, the human embryo should not be accorded equal moral worth and rights due to persons in actuality. Using the example of Prince Charles, Singer argues: "Prince Charles is a potential King of England, but he does not now have the rights of a King." And drawing from this, he concludes: "In the absence of any general inference from 'A is a potential X' to 'A has the rights of an X,' we should not accept that a potential person should have the rights of a person" (Singer, 1993, 153). This means that a human embryo as a potential person should not be treated as a person until it is one. Based on this example, Singer's judgment is to this extent convincing. A potential king and a king do not have the same rights. It is easy to see, using another example, that there is a distinction between a being in potency and a being in actuality: a seminarian, as a potential priest, does not have the rights of a priest and even from the ecclesiastical point of view; a seminarian cannot be accorded the same rights as a priest.

The difficulties with Singer's example are twofold: first, there are problems with the example itself, and second, with his interpretation of potentiality and actuality.

Firstly, the argument "Prince Charles is a potential king of England" and "the human embryo is a potential person" are two distinct arguments that do not merit the same conclusion. It is true that the two arguments involve potentiality and actuality, but not the same kind of potentiality. A careful examination of the example of Prince Charles, as a potential King, and extrapolating from this the idea that the human embryo is a potential person, raises serious difficulties. To begin with, potency is not a privation; it is a real capacity for perfection. For instance, a statue does not see and is not capable of seeing. A new born animal does not see, but has the innate power or capacity to see. Potentiality, as we have shown above, could be active or passive. Active potency is the capacity in a thing to produce some perfection; in this case, one cannot confer a perfection which one does not already possess, (*Nemodat quod non habet*), whereas passive potency is a capacity to receive perfection. In this light, Mark T. Brown observes:

Potential is active if the intrinsic properties of an individual are primary causal factors in the realization of its potential; potential is passive if the primary causal determinant of change comes from the outside, in causal factors that are properly extrinsic to the individual. Put another way, active potential drives change from within; passive potential is the consequence of outside forces (Brown, 2007, 599).

From this distinction, it is evident that the first argument advanced by Singer, about Prince Charles, makes use of passive potentiality, and is based on accidental categories, which are kingship and the loss of kingship by the present regnant. The case of the human embryo is founded on the substance or the essential nature of that entity. The potentiality involved here is active potentiality. Prince Charles is not the king of England, which means that it is not in the essential nature of Prince Charles to become King whereas it is in the essential nature of the human embryo to actualize its personhood. It is important to note that Prince Charles could refuse to assume kingship, but the human embryo cannot refuse to become a person. This does not mean that every human embryo actualizes its personhood, but rather that this perfection (personhood), is already present in it. In line with the view of the embryo possessing active potentiality as opposed to passive potentiality, J. Burgess rightly observes that “the embryo is not something that is being passively built by the process of development, with some unspecified, external —builder controlling the assembly of embryonic components. Rather, the embryo is manufacturing itself. The organized pattern of development doesn’t produce the embryo; it is produced by the embryo as a consequence of the zygote’s internal, self-organizing power” (Burgess, 2008).

The development of the human embryo from potentiality to actuality is therefore, an unfolding of a potential that is inherent in it. It is an inevitable biological process of the natural capacity present from the beginning. This is not the case with Prince Charles. In this argument, Singer therefore leaves the substance for the accident and shifts the discussion from the case of active potentiality to passive potentiality which, in our view, misses the point. Thus, the example of ‘Prince Charles as a potential King,’ in the discussion about the human embryo as a potential person fails because the application of potentiality in the two cases is not the same. Hence, Singer shifts potentiality and actuality from the substance or essential nature of a thing, which fits with the discussion on the human embryo, to some non-essential historical sequence, like that of Prince Charles, which does not fit with the argument at hand.

Secondly, the fallacy in the example as indicated above leads to another difficulty, which is the consideration of potentiality and actuality as detachable from each other in the case of the human embryo. Singer is correct in considering potentiality as detachable from actuality in the example of Prince Charles, but not in the case of the embryo. This is because potentiality could be disconnected from actuality in the case where the causal factors to bring about the change of status are extrinsic to the entity (passive potentiality), like the case of Prince Charles. But in the case of the human embryo where the essential properties needed to bring about the change from potentiality to actuality are intrinsic in this being, from the moment it comes into being, potentiality and actuality may not be considered as detachable. This is because actuality, in this case, is the perfection of a quality that is already in an entity. Christopher Shields argues that “what is in potentiality and what is in actuality are in a way one” (Shields, 2007, 266). By this, Shields means that potency and actuality are not present in an entity, as distinct, detachable entities. They are, in reality, united.

In this case, if we argue that ‘the human embryo is a potential person,’ this will imply that the causal factor for personhood is already present in this being, though premature. And if this is the case, then when we say that ‘a human embryo is a potential person,’ it is equivalent to saying that it is ‘a premature person.’ This cannot be the situation if potentiality and actuality are considered as detachable categories, because when one affirms with Singer that ‘Prince Charles is a potential king,’ one does not mean that ‘Prince Charles is a premature king.’ Aristotle had maintained that the nature of a thing is what that thing is, when fully developed, (Aristotle, n. 2024). From this therefore, we can see a certain inherent relatedness or unity between potentiality and actuality that cannot be put asunder without misconstruing the reality, particularly when talking about the potentiality inherent in an organism’s essential nature, like that of an embryo (active potentiality).

### The Potentiality of the Egg and Sperm and the Potentiality of the Embryo: Making Distinctions

Another area of inconsistency in Singer's use of potentiality is when he attempts to make a distinction between the potentiality inherent in an embryo, on the one hand, and the potentiality in the egg and sperm, on the other, to equally develop into a person. He argues that the potential of a human embryo to develop into a person is not a "reason for treating it as sacrosanct human life" (Singer, 1994, 4). According to Singer, the potentiality of an embryo is equally inherent in an egg and sperm, "when still separate, but considered as a pair" (Singer, 1993, 159). This claim complicates the argument further. He argues:

We think that it is all right for laboratory technicians to dispose of surplus sperm and eggs, but not to discard embryos that have just been fertilized. Yet that egg and sperm could also develop into a child, given roughly the same amount of luck that an embryo would need to develop. Getting the egg and sperm to form an embryo is the easiest part of the *in vitro* fertilization process. If it is claimed that destroying an embryo does it harm because of the loss of its potential, why should we not say the same about the egg and sperm? The potential for new life is there in both cases (Singer, 1994, 98-99).

Elsewhere, Singer contends:

The upshot of all this is that IVF has reduced the difference between what can be said about the embryo, and what can be said about the egg and sperm, when still separate, but considered as a pair. Before IVF, any normal human embryo known to us had a greater chance of becoming a child than any egg plus sperm prior to fertilization taking place. But with IVF, there is a much more modest difference in the probability of a child resulting from a 2-cell embryo in a glass dish, and the probability of a child resulting from an egg and some sperm in a glass dish. To be specific, if we assume that the laboratory's fertilization rate is 80% and its rate of pregnancy per embryo transferred is 10%, then the probability of a child resulting from an egg that has been placed in a fluid to which sperm has been added is 8%. So if the embryo is a potential person, why are not the egg-and-sperm, considered jointly, also a potential person? Yet no member of the pro-life movement wants to rescue eggs and sperm in order to save the lives of the people that they have the potential to become (Singer, 1993, 159).

To Singer, if we claim that destroying an embryo is immoral because of the potential that is inherent in it, then the same conclusion could also be arrived at when it comes to the destruction of sperm and eggs because "the potential for new life is there in both cases" (Singer, 1994, 99). He further articulates this in the following example:

Consider the following, not too improbable scenario. In the IVF laboratory, a woman's egg has been obtained. It sits in one dish on the bench. The sperm from her partner sits in an adjacent dish, ready to be mixed into the solution containing the egg. Then some bad news arrives: the woman is bleeding from the uterus, and will not be in a suitable condition to receive an embryo for at least a month. There is therefore no point in going ahead with the procedure. A laboratory assistant is told to dispose of the egg and sperm. She does so by tipping them down the sink...but a few hours later, when the assistant returns to prepare the laboratory for the next procedure, she notices that the sink is blocked. The egg and its fluid are still there, in the bottom of the sink. She is about to clear the blockage, when she realizes that the sperm has been tipped into the sink too. Quite possibly, the egg has been fertilized! Now what is she to do? Those who draw the sharp distinction between the egg-and-sperm and the embryo must hold that, while the assistant was quite entitled to pour the egg and sperm down the sink, it would be wrong to pour the blockage now (Singer, 1993, 160).

In this example, Singer highlights the potential of an egg and sperm and maintains that the difference between the egg-and-sperm and the embryo is one of degree, in relation to the probability of development into a person (Singer, 1993, 160). But even if the un-transferred *in vitro* embryo in the laboratory has no chance of becoming a person, it has a (higher) potential that is not possessed by the unfertilised sperm and egg. The fact that some *in vitro* embryos would not survive after the eight-cell stage, at least based on our current state of knowledge and technology, does not give it an equal status or potential to the sperm and egg. These are two different entities. It is logically impossible for the sperm and egg to become a potential person if fertilisation has not taken place. The analysis above shows that an embryo does not lose its inherent potential by the simple fact that its fate has been determined, that is, by the fact that it cannot survive even if transferred to a womb.

Furthermore, Singer's view on the potential for a new life inherent in the egg and sperm as highlighted above is problematic. The difficulty arises in his contention that the "egg and sperm, when still separate but considered as a pair" (Singer, 1993, 159), have the same potential as an embryo to become a person.

The above scenario begs a number of questions. For instance, what does he mean by egg and sperm still separate but considered as a pair? If by separate, Singer means an egg or sperm taken apart, then an egg and sperm prior to fertilization do not have the potentiality to become a person. An egg or sperm has no intrinsic potential to become a human being. A sperm cell cannot, no matter how favourable the environment is to its survival, develop into a human being/person. Just like a statue does not have sight and is not capable of seeing, a sperm is not a person and is not capable of becoming a person. From this basis, it is therefore inappropriate to consider a sperm cell as a potential person. It is from this perspective that Robert P. George argues that the egg and the sperm whose fusion brings into life the embryo are not distinct organisms.

Each is functionally (and genetically) identifiable as part of the male or female (potential) parent. Moreover, each gamete has only half the genetic material needed to guide the development of an immature human being toward full maturity. They are destined either to combine with an oocyte or spermatozoon and generate a new and distinct organism, or simply to die. When fertilization occurs, they do not survive; rather, their genetic material enters into the composition of a new organism (George, 2008, 23-35).

On the other hand, if by a pair, Singer means an egg and a sperm in two separate glasses in the laboratory about to be fertilized like in the above scenario, then, we still think that the potentiality for new life does not reside in this pair either, unless fertilization has taken place, be it by accident or by design. And when fertilization has taken place we no longer have an egg and sperm cell, but a new and distinct entity all together. Singer seems to be confused on this issue. This is because in his earlier work, *Practical Ethics*, published in 1993, he states another view which is inconsistent the view stated earlier:

The development of the embryo inside the female body can therefore be seen as a mere unfolding of a potential that is inherent in it.... The development of the separate egg and sperm is more difficult to regard in this way, because no further development will take place unless the couple have sexual intercourse or artificial insemination (Singer, 1993, 158).

From this, he is of the opinion that the egg and sperm, taken separately, lack the potential for further development into a human being. This also implies that even if the egg and the sperm were to be considered as a pair, there is still no potentiality for new life, unless there is fusion, either as a result of coitus or artificial insemination. Also when there is fusion, they can no longer be considered as a pair. In *Rethinking Life and Death*, published just a year later (1994), he argues: "if it is claimed that destroying an embryo does it harm because of the loss of its potential, why should we not say the same about the egg and sperm? The potential for new life is there in both cases" (Singer, 1994, 99). Taking the above claim into consideration, it can be observed that Singer is inconsistent in his argument about the potentiality of the human embryo and the potentiality of the egg and sperm. The egg and the sperm as a pair in the laboratory awaiting fertilization do not have the potentiality to become a human being. Without the fusion of the two, no further development can take place. The fusion of the human egg and sperm cell results in a developing human embryo with the inherent potential of developing into a mature person. In this case, this perfection (personhood), is not conferred from without, it is already knitted in the nature of this being. Hence, the fusion of the genetic material "of the spermatozoon and of the oocyte generates ... a new, distinct, and enduring organism. Whether produced by fertilization, Somatic Cell Nuclear Transfer (SCNT), or some other cloning technique, the human embryo possesses all of the genetic material and other qualities needed to inform and organize its growth" (George, 2008, 23-35), something that is not possessed by the egg or the sperm. The location of the embryo (whether in the womb or in a petri dish) and its possibility of survival should not be used as a measure to determine its potentiality.

From the above analysis, it can be added that the human embryo is not only a potential, but an actual human being with the only difference that it is small in size, attached to a womb, and dependent on another person for its survival. If we argue that it is only a potential, but not yet an actual human being, we may have to address the question: can we talk of something as potential if it does not actually exist? For example, will the embryo grow into something else and not a human being? Human life begins at conception and from this moment, all the elements that make a full human being are present and age, size, place of residence, and rational capacity, should not be used as a condition for according them equal moral respect.

From the moment of conception, the embryo controls its own development. We, rational and self-determined beings, have the responsibility to recognise the humanity of the embryo, ascribe equal dignity, respect, and protection to all dependent human beings and not arbitrarily define them in and out of humanity/personhood as we see fit or depending on what interest or benefit we may have for its use. In the same vein, George argues that if we maintain that human embryos “do not deserve full respect, one must suppose that not every human being deserves full respect. And to do that, one must hold that those human beings who warrant full respect deserve it not by virtue of the kind of entity they are, but, rather, because of some acquired characteristic that some human beings (or human beings at some stages) have and others do not, and which some human beings have in greater degree than others do” (George, 2008, 23-35).

There is no doubt from the above analysis that Singer’s use of the concept of potentiality is replete with logical inconsistencies and contradictions. *The President’s Council on Bioethics* has pointed out the confusion that characterizes the use of the concept of potential, especially as applied to the human embryo. The members of the council state that human embryos are more than —mere cells. According to the Council,

Misunderstanding the meaning of potentialities and, specifically, the difference between a —being-on-the-way (such as a developing human embryo) and a pile of raw materials’, which has no definite potential and which might become anything at all. The suggestion that extracorporeal embryos are not yet individual human organisms-on-the-way, but rather special human cells that acquire only through implantation the potential to become individual human organisms-on-the-way, rests on a misunderstanding of the meaning and significance of potentiality. An embryo is, by definition and by its nature, potentially a fully developed human person; its potential for maturation is a characteristic it actually has, and from the start. The fact that embryos have been created outside their natural environment – which is to say, outside the woman’s body – and are therefore limited in their ability to realize their natural capacities, does not affect either the potential or the moral status of the beings themselves. A bird forced to live in a cage its entire life may never learn to fly. But this does not mean that it is less of a bird, or that it lacks the immanent potentiality to fly on feathered wings. It means only that a caged bird-like an in vitro human embryo – has been deprived of its proper environment. There may, of course, be good human reasons to create embryos outside their natural environments – most obviously, to aid infertile couples. But doing so does not obliterate the moral status of the embryos themselves (*President’s Council on Bioethics, 2002*).

The potentiality of the human embryo cannot be equated to the potentiality of the egg and sperm whether the embryo is conceived naturally or artificially and destined for destruction. The confusion arises from a misinterpretation of the term ‘potentiality.’ When we use the term potential without taking into consideration the distinction between passive and active potentiality, this misunderstanding is likely to occur.

## Conclusion

The aim of this paper was to critically appraise Singer’s argument on the moral status of the human embryo as seen from his use of the concept of potentiality. From our analysis, it is not clear that his position on the moral status of the human embryo is as a result of a misinterpretation of the metaphysical notion of potentiality and actuality. There are two senses of the term, passive and active potentiality, which Singer does not take into consideration in his analysis. The sperm and the egg merely possess passive potential. It is logically impossible for the sperm and egg to become a potential person if fertilisation has not taken place. Even in the case of the in vitro embryo, the human embryo does not lose its inherent potential to become a mature person by the mere fact that its fate has been determined by the fact that it cannot survive even if transferred into a womb. The embryo controls its own development from within; it needs no external builder or organizer for it to realise its potential. The sperm and egg have “only half the genetic material needed to guide the development of an immature human being toward full maturity” (George, 2008, 23-35) and without an external agent, fertilization will not occur for them to realize their potential.

From this analysis, one can therefore say that if the concept of potentiality and actuality are considered as categories that are undetachable from one another, and if these categories are considered intrinsic to the embryo’s nature from the very moment that it comes into being, then the following conclusion may be drawn: That the human embryo is a premature person and should be accorded the same moral status and protection enjoyed by mature persons. Moral status should be attributed to all persons irrespective of their condition, age, size or developmental stage.

There should be no categorization of personhood, as Singer does, as far as the ascription of moral worth is concerned. Any attempt to do this may result in discrimination against premature persons and those who have lost the capacity for rationality. The consequence of this will be the exploitation of such vulnerable persons (like embryos and comatose persons) who do not have the power to protect themselves.

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