

Dualism, Panpsychism, and the Bioethical Status of Brainless Embryos

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Corresponding Author: David Hershenov.

Philosophy Department

135 Park Hall

University at Buffalo,

Buffalo, NY 14260

Dh25@buffalo.edu

Ph (716) 645-0150

Fax (716) 645-6139

Co-author: Adam P. Taylor.

Department of History, Philosophy and Religious Studies

North Dakota State University

Minard Hall 422 N, NDSU

Dept., 2340, PO Box 6050

Fargo, ND 58108

1. Introduction

We draw upon David Chalmers (3) and Galen Strawson's (19) defense of the pervasiveness of experience and wed it to Peter Unger's (21) immaterialist solution to the Problem of the Thinking Many. The idea is that the soul's thoughts depend upon physical composites that though, pace panpsychism, are themselves unable to think, still contribute to a thinking soul whenever they exist. And they will exist wherever a living organism is found. We think the result is more plausible than either dualism or panpsychism taken by themselves, both of which we still hope to show are more compelling than most will initially think.

Despite dualism and panpsychism having some illustrious historical and contemporary defenders,¹ bioethicists have paid little attention to such philosophies of mind. While a soul is commonly thought to bestow considerable value upon its possessor, it would seem that dualists can't inject any such status into the debates about abortion and embryonic stem cell research because the embryo is taken to be mindless since it lacks a functioning cerebrum. However, if our account of dualism with its panpsychic-inspired account of the pervasiveness of thought is plausible, then it will mean that bioethicists have to admit that there could be ensouled and (minimally) thinking embryos from the earliest moments of the embryo's life. The implications of dualism for abortion and embryonic stem cell research can't be ignored as they have in the past with the claim that whatever the merits of dualism, a soul theory is irrelevant to the bioethics of destroying embryos for the first five months after conception for they are mindless and thus not ensouled.

¹ Skrbina (18) includes as the great men of panpsychism: Plato (arguably), Aristotle, Stoics, Bruno, Campanella, Spinoza, Leibniz, Diderot, Schopenhauer, Nietzsche, James, Peirce, Bergson (arguably), Whitehead and Hartshorne. Then there are the panpsychic scientists: Priestly, Eddington, Jeans, Huxley, Haldane, Sherrington, Waddington, Bohm and Bateson.

If panpsychism is even considered by bioethicists, it is thought to be an ethical Pandora's Box for if being an experiencer is a sufficient condition for moral status, then not only will the brainless human embryo have it but so will countless other nonhuman brainless organisms. But this worry is unwarranted. We will show why many minimal minds are not morally significant for they lack the appropriate potential to develop into highly valued minds that is morally relevant. We will discuss why bioethicists should recognize the potential of brainless human organisms to bestow a moral status upon them that is lacking in non-human organisms and will show how to distinguish morally significant potential from morally irrelevant potential.

We will proceed by first stating an argument in favor of dualism. We agree with Unger that the most compelling argument for dualism follows from the considerable troubles that can be advanced against materialism on the basis of the metaphysical Problem of the Thinking Many. Our conception of ourselves, our self-knowledge, our freedom, and our bioethics would appear in great trouble if there were overlapping thinkers, each composed of a good part of the brain that belongs to the others. The absurdity of such an abundance of thinkers enough reason to doubt that materialism is true. In addition to the absurdity of countless thinkers, a consequence is that we will lack what Unger believes is the power to be a genuine chooser. Philosophers sympathetic to libertarian free will are likely to be bothered by the threat to genuine choosing that Unger diagnoses. And even those who are not bothered, perhaps because they are of a compatibilist stripe, will likely count it as a strike against materialism that it brings with it the absurdity of uncompensated suffering at levels they never earlier expected.

We then defend dualism against its two major criticisms: the neurological dependence of thought and the problem of interactionism. Next, we explore the appeal of panpsychism's critique of consciousness as emergent. We borrow a transformed version of that idea that has the result that there are far more experiences than recognized by the typical materialist or dualist. We then

conclude with why this is not morally problematic. Once the morally relevant sense of potential is recognized, an abundance of minimally minded organisms is no more morally problematic than the fact that typical materialists allow that some insects may have minimal minds.

Incidentally, the final part of our paper on potentiality should be of interest as well to both those dye-in-the-wool-panpsychics who are unmoved by our marriage of their view with dualism and those orthodox materialist readers who are uninterested in making use of any aspect of panpsychism or dualism. So unreconstructed panpsychics can still help themselves to our moral conclusions about the moral significance of the potential of some minimal minds to become sophisticated minds. Likewise, even those readers who don't take panpsychism or dualism or their combination seriously, may still find compelling our arguments about the morally relevant type of potential.

Unger's Problem of the Thinking Many

The traditional problem for materialist theories of thinking beings is to account for how matter could give rise to thought. But in whatever way the materialist fills in that "explanatory gap", there will still be a greater threat to materialism and that is due to the possibility there is more than one material thinking being in your chair or under your clothes. The materialist typically assumes we consist of atoms but when we consider these at the microscopic level there seem to be many equally good candidates for being the aggregate of atoms that composes us. People have vague boundaries under the microscope, just as clouds have vague boundaries to the naked eye.

Given the vagueness of which simples are those of our outermost boundary, there would be many equally good candidates for us. If we are composed of one set of particles rather than another set including say one more or one less atom, the other would also be a perfectly fine candidate for being a thinking creature like ourselves. So overlapping us, completely or partially, would be many

entities using our neurological equipment to think.² The same overlap appearing at the organism's boundaries will also appear at the brain's boundary bringing countless equally good candidates to be the brain.

It shouldn't be thought that this is only a problem of vagueness. Even if you knew which of the candidate aggregates you were identical to, there would be too many thinkers. If one candidate aggregate composes a thinking being, yourself, why doesn't another with just a few more or less atoms also compose a thinking being? There would seem to be countless number of thinkers where you are. Peter Unger labeled this *The Problem of the Thinking Many*. He advocated that we become dualists to avoid the Problems of the Thinking Many.³ His solution is that there is just one soul attached to the countless overlapping physical entities

Unger claims that even more disconcerting than the above Problem of the Thinking Many, is what he calls "The Problem of Too Many Choosers."⁴ Hudson calls it "The Problem of the Choosing Brothers" (8) since all of the overlapping beings have the same parents and sex, and thus are brothers. Working within the assumptions of a libertarian account of free choice, Unger and Hudson argue that the problem of so many thinkers provides a problem for our being free. Their idea is roughly in the spirit of libertarianism which is roughly the idea that the laws of nature and the past don't determine one's present and future behavior. To have chosen freely means one could have done otherwise. But if a person is one person embedded in many, it doesn't seem as if any one of the many thinkers can choose differently from any of the others. His choice is determined to be in lockstep with that of the others. Unger argues that if you are truly free, then your choice won't be determined by anyone else's. So if free will means your choice is independent of the choices of

² Unger, P. (2007), Op. cit.

³ Zimmerman (24, 25) makes similar arguments.

⁴ For what it is worth, our intuition is the former is worse.

others, then the inability of an embedded thinker to choose differently from those that overlap it means no freedom. It defies the odds to think each overlapping being was free to do what he wanted and freely chose the same course of action. But if you are one of many overlapping thinkers, you all will always be choosing the same. None of you could ever choose otherwise. How do we know that? Well, it doesn't show up in any of our actions. Your body always, or nearly always, speaks and moves as you intend. So if you and your brothers all possessed libertarian free will, then countless thinkers overlapping you are participating in a cosmic miracle of choosing exactly as you do. The implausibility of this seems to Unger to clearly show the falsehood of any physicalist conception of the person.

The Problem of the Thinking Many would seem to undermine our capacity for genuine choice and may be thought to undermine our moral responsibility. A different problem is that every moral wrong action has far more recipients than previously thought. Even calculating utility might become impossible if each harm and pleasure was experienced as such by infinite thinkers. Action guiding comparisons would always involve futile comparisons of infinite utility.

Leaving problematic comparisons and aggregations aside, it would seem that every harm was experienced by countless thinkers. This would make our world far worse than we previously thought. We are assuming that there would be as many pains, throbs, stings as there were sensing subjects. It isn't as if the many experiences each had the same one throb, so there is no more throbbing in the world if there are no or many overlapping thinkers. So many experiencers mean many throbbing experiences. Hence there is more pain and ours is a far more unattractive world. Even if we are wrong and that they all have the same thoughts, this is unwelcome. We think it is perhaps just as bad if billions of persons are suffering the same torture than billions are suffering distinct tortures. Now it may be that additional subjects experiencing stings and throbs are offset by additional pleasures,

but there will be no such compensation if we replace stings and throbs with suffering torture, maiming or rape.⁵

Ineffectual Critiques of Dualism

Dualism, particularly the substance dualism of Descartes (5,6), is widely believed to be implausible. It is generally thought to have been undermined by advancements in fields such as cognitive science and neuroscience. Those sciences tell us that mental states can be not only understood as physical process, they can also be predicted, and manipulated via pharmacological and surgical intervention. The advancements of these sciences seem to make dualism superfluous.

While we recognize that dualism faces these difficulties, we nevertheless think that the case against dualism has tended to be overstated and its metaphysical attractiveness has not been as widely recognized as it perhaps deserves.⁶ Those who are aware of this are more likely to be working in metaphysics or philosophy of mind and thus not amongst the bioethicists that are our target audience. So before proceeding, we will respond to two standard objections to dualism⁷ and offer a case for the ontological virtues of the theory.

We'll consider the argument from the neurological sciences first. If twentieth century science has convinced us of anything, it would seem to be that the mind depends upon the functioning

⁵ A metaphysics that allows this outcome will certainly be unwelcome. Although we can't go into methodological matters here, we believe that practical concerns are legitimate considerations when deciding which of rival metaphysical systems to adopt. A confirmation holism is warranted.

⁶ For the record, we note that the authors of this paper are of a split mind with regard to dualism. One author endorses the animalist theory of personal identity, while the other endorses a dualist theory. We agree however, that dualism has not been given a "fair shake" in the philosophy of mind.

⁷ For reasons of space, we will not discuss a standard third objection that that dualism violates conservation of energy and momentum laws. We recommend readers turn to Collins (14) for a response to that well known criticism. See also Larmer (11) and Averill and Keating (1).

brain. For instance it is a commonplace that a person's subjective mental state can be altered by chemically or surgically manipulating their brain. Dualism, especially the Cartesian sort, holds that it is the soul, and not the brain, that has mental properties. The empirical results might be thought to be at loggerheads with this. How else do we explain the success of these chemical and surgical alterations except by positing that the mind is something material?

The dualist needn't reject the neurological dependence of thought. Even if the soul is doing the thinking, its doing so might depend on its being in the proper sorts of causal relations to the brain. An analogy due to Plantinga might be helpful (16, 17). He points out that digestion and walking depend upon the brain but that doesn't make them brainstates. Moreover, just as the brain itself relies on other organs (e.g. the eyes, ears, and skin) to provide it with the information it requires for conscious activity, so the soul may be conceived of as relying on the brain to supply it with information. There is nothing in the dualist ontology that prohibits this close dependence. As Dean Zimmerman (24) has noted, "All dualists (among philosophers, at least) agree that the ability to think depends upon a properly functioning brain."

Secondly, there is the problem of understanding how it is that souls and bodies become exclusively causally connected, with a particular body carrying out only the orders of a single soul and not others. We can understand why a pair of qualitatively identical guns hit different targets at the same distance by noting the spatial relations between the gun's direction and the targets. But there is nothing analogous to explain why one immaterial soul links up to a particular body than another. The latter version of the traditional interactionist problem is what Jaegwon Kim (19) in his aptly named article "Lonely Souls" refers to as *the pairing problem*. The charge he levels against dualism is worse than falsehood, he claims the pairing problem renders dualism unintelligible. Materialist theories, according to which the brain produces thought avoid these problems, since mental states either are simply physical events and thus there is no mystery as to how they cause

other physical events, or the mind is reducible to, or supervenes on the brain, and thus there is no difficulty understanding how it becomes paired with a particular brain. (There is either nothing to pair if identical, or if they are not identical then the mental facts are fully determined by the fixing of the physical facts.)⁸

The pairing problem is less pressing than materialists realize. Emergent dualists like Hasker (2001) and Zimmerman (2010) argue that the soul comes into being via the functioning of the brain. When the brain reaches a certain level of complexity, a soul is generated, which then independently interacts with the brain in a sort of feedback loop. Thus there is no more problem explaining why a particular soul is paired with a particular brain than there would be in explaining why a particular magnetic field is paired with a particular group of iron molecules.

Moreover, most dualists are also theists. As such, they can appeal to God as an explanation for pairing. God just wills the soul to come into existence and links it to a particular body. If God says “Let there be light” Alvin Plantinga (16, 17) tells us “then there is light.” Or if God says “Let Adam come into existence” then Adam comes into existence. Asking what makes these things the case, according to Plantinga, is like asking what makes an equilateral triangle an equilateral triangle. The answer is: logical necessity. It is necessarily the case that whatever God wills subsequently happens. Thus, as Plantinga insists, the pairing problem “ought to have no purchase whatsoever” upon the theist. (17)

St. Augustine thought the soul was a spatially extended simple and located in the same region as the body. (2) On an Augustinian view of the soul pairing would be a rather straightforward matter of the soul being in the right place at the right time to interact with a given brain/body. One

⁸ Chalmers (3) pp. 41-42 defines materialism in terms of the physical facts determining all the other facts. The materialist thus believes that all facts logically supervene upon the physical facts. Chalmers is fond of Kripke’s metaphor that if materialism is false, then once God fixes all the physical facts, there is still something else for him to do for there to be mental facts (3) p 45.

might ask of the Augustinian why *that* soul was in that particular place at that particular time rather than another, but then, as Plantinga points out, the Augustinian theist has a ready reply: because God willed it to be so.

Unger is the rare example of a non-theistic dualist. As we saw, his dualism is motivated by the problem of the thinking many, and he posits souls as a solution to this problem. Lacking the tools of theism, Unger's view involves a good deal more speculation (22). He postulates that at some point in the past a "Super Big Bang" occurred which resulted in a physical universe on the one hand and a "spacelike" though non-spatial realm on the other hand. The physical universe is stocked with the fundamental particles and objects of everyday acquaintance, while the spacelike realm is stocked with immaterial souls. These immaterial souls are *eternal* (or at least long lived enough to have been around at the beginning of the universe and to endure to its end) and *propensitized*, Unger speculates, to interact with the fundamental particles composing a brain (i.e., behaving in a "happily active brainy" way) in order to give rise to thinkers like ourselves. Of course, for the first few billion years in the life of the universe there were no such actively brainy complexes of particles, but once there were some on hand, the immaterial souls that were disposed to interact with them did so. Unger speculates that there may have been a pecking order determining which soul got the first brain to interact with and which got the millionth and so forth. And he supposes that it is at least possible that the immaterial souls will go on existing long after any reciprocating brains have ceased to exist. This *Quasi-Platonic View*, as he calls it, is a contemporary variation on a very old notion of the pre-existence of the soul

We hope the foregoing has given some idea of how the dualist might respond to the worries of his standard materialist critics. But there is a problem for dualism that orthodox materialists (by which we mean materialists that deny panpsychism for the emergence of thought) have not recognized plagues their dualist opponents, perhaps because they have not realized that the dualist

can account for the neurological dependence of thought. But the minority of materialists that are panpsychics have appreciated this problem and claim to have a solution that evades orthodox materialists and renders unnecessary the recourse to dualism. This problem is a version of the explanatory gap. We shall first explore the problem overcoming this gap that plagues orthodox materialists. Then we will observe that panpsychism has its own Unger-style Problem of the Thinking Many so dualism is superior to panpsychism. Then we will reflect upon the implications of the analogue explanatory gap problem for the dualist.

The Panpsychic Critique of Physicalism and an Analogous Explanatory Gap for the Dualist

Galen Strawson claims that consciousness can no more arise from non-consciousness than the extended from the non-extended, the spatial from the non-spatial or the abstract from the concrete (19). He contrasts the *brute* emergentist relation of the mental from the physical with that of the liquidity from water molecules. The molecules of water have properties and obey laws so that liquidity can be seen to consist in nothing else but their lawful interactions. It isn't at all mysterious how their movement gives rise to liquidity.

The emergence of consciousness from the non-conscious physical is not like that. And there is little hope that a future science will enable us to discover an entailment from the physical to the experiential because future physics will just be more of the same structural and functional explanations. (3) We only know of the fundamental physical entities by their relations – i.e. how they affect other objects. For example, what it is for something to have mass is it to accelerate when encountering certain forces and the like. But conscious experience is not functional. This is why the hope that a future science will explain experience by causal interactions at the lower amounts to what Seager called “a faith based science.” (19)

The “silly mistake” the physicalists make, says Strawson, (19) quoting the physicist Eddington, is to initially deny the intrinsic nature of the physical is experiential which leads to the

conundrum about how to hook them up. The explanatory gap is bridged if all of the physical, not just our brains or those of other organisms, already possess experiential properties. There is no magical emergence if the intrinsic nature of the physical is experiential.

However, the panpsychic will still suffer a too many thinkers problem for Unger-like reasons. Thus the need for a soul as the subject of thought if we want there to be only one person thinking our thoughts. While dualism and panpsychism are incompatible – the dualist regards all physical things to be mindless, while the panpsychic thinks they all have experiential states - we nevertheless want to help ourselves to a variant of the Chalmers/Strawson anti-emergentist argument. Although the physical won't have mental properties in our conception, there is a parallel problem of why only some physical composites produce thought and not others. Keep in mind that Unger claims human souls and the souls of cats, dogs, etc. are the same, it is just that the former is hooked up to a kind of brain that the others are not. So the structured matter is special, the soul providing *just* the single subject of thought. Our question then is why does the developed organism with certain neurological structures make thought possible but no other organism with less development does? Why, in Chalmers's phrase, should thought just "wink out" with a slight loss in a system's complexity?(3) Mental experience is not like baldness. It is plausible that it is indeterminate whether someone is bald or not because of our semantic indecision, i.e., we never bothered to determine the precise boundaries of baldness. But it doesn't seem to be a semantic issue of vagueness whether entities are conscious or not. They either are or they are not, there is no room for indeterminacy. Well, if there isn't a good answer to why minds would wink out with the loss of one more atom, then it may be that every composite physical thing is thought producing (rather than thoughtful) and so there is nothing special about our brains. We're not appealing here to intrinsic natures of the physical being

experiential, but that some objects enable the soul to think. Souls are dependent upon material bodies, unable to think without them, just as a lightbulb needs a socket.⁹

Many critics of Strawson's original paper have stressed that there is a panpsychic explanatory gap.⁽¹⁹⁾ And this can be extended to a dualism that depends upon living cells to produce the neurological basis of thought. Why does micropsychical experience give rise to macropsychical experiences? Jackson points out that there are different kinds of qualia and no reason to think we can explain one in terms of another. (19) If we doubt that say sounds come from colors, why think the micropsychical types of experience will account for the macropsychical types of experience in a manner akin to liquidity? And Lycan asks what could the microphysical be like if it was without sensory organs? (19) Caruthers and Schechter (19) use Block's example of the Chinese nation, though each Chinese citizen is capable of thought, that still gives us little reason to think that will explain the qualia of their composite. Are there little pains, each contributing to a larger pain?

We don't have a completely satisfactory answer but we can take some of the sting off by appealing to the interests of brainless organisms, whether single celled or multicellular, and thus do more than Strawson who offers only that "untelligible experiential-from-experiential is not nearly as bad as untelligible experiential-from-non-experiential emergence...the only argument that macroexperientiality emerges from microexperientiality is transcendental..."⁽⁹⁾ ¹⁰ Even the micro-

⁹ The simile is from Swinburne (20). For other accounts of the soul's dependency see Plantinga (16, 17), Unger (21), and Hasker (7).

¹⁰ See also various attempts by Chalmers (3) to overcome the sense that "our conscious experience does not seem to be any sort of sum of microphenomenal properties..." p. 306. His preferred account is that microphenomenal properties add up to macrophenomenology in a way that reflects their joint informational structure, rather than their joint spatio-temporal structures. If a collection of these properties jointly realize a complex information state by virtue of the causal relations between them, perhaps we could expect any derived macrophenomenology to have the shape of their information state." p. 307 (3)

size living can be said to have interests in obtaining nutrition and hydration, maintaining homeostasis and metabolism, avoiding injury and disease, developing properly functioning organs etc. When they fail to satisfy these interests, they undergo something akin to the stress of the physicalist's minded creatures. Since the physicalist's allegedly mindless, living entities can be said to flourish when such interests are fulfilled, it doesn't seem that farfetched to say that they too can experience something like desire, hunger, thirst, satiation, stress, etc. So when there is a brain full of cells making its contribution to experience, it isn't surprising that its experiential life would emerge from that of its constituents.¹¹

Appealing to Potential to Avoid a Panpsychic Pandora's Box

So the physicalist's brainless embryo could turn out to be an experiencer, or more precisely, it makes it possible for a soul to be an experiencer. Thus if one asserts the mindless have no moral status, then that charge can be met. But it might be replied that countless animals, human and not, will have at least minimal minds and minimal moral status. So why would young, brainless human beings have greater moral status? To answer that question we must wade into the quicksand of potentiality.

There are a lot of things with potential in some sense to be persons that we, intuitively, do not want to extend moral status. Some may be actually be cases where identity is not preserved – cloning animals removing cell nuclei from skin cells and putting them in denucleated eggs, direct

¹¹ This still leaves the lower level micropsychics to be explained; perhaps a good strategy is to move from the higher to the lower to say what the bottom *must* be like. Another possibility might be to deny that sub-particles have intrinsic natures for they are purely relational and that only composites (such as cells) have intrinsic natures. Their nature would be a brute fact about such a level of reality, and thus wouldn't *emerge* from or be *determined* by the nature of anything below it. As Coleman writes: "Perhaps experience is a distinct and autonomous feature or level of experience, which through natural law comes into being under certain conditions." (19)

nuclear reprogramming of cells and their provision of a supportive placenta, or removing the allegedly totipotent cell from a four celled embryo and placing that removed entity within a new zona pellucida and then in another womb. Gametes, too, aren't thought to survive the fusion of fertilization.¹² These processes likely produce new entities that weren't identical to the entities from which they emerged but we will assume, for the sake of argument, that they are identity preserving. A scenario that is more likely to involve a potential for thought that is identity preserving would be parthenogenesis. And Tooley's infamous case of injecting a kitten with a person producing serum would be identity preserving. As would be cases in which non-human animals were switched to weird environments where they would be externally transformed into persons. How can we prevent such identity preserving potentials from being providing us with moral duties to bring about such persons if potential matters?

Some philosophers appeal to natural or intrinsic potential but this wouldn't divide up cases as their proponents want. Lizza points out that it is very hard to place the epigenetic factors of normal development than the genetic material (DNA) on the intrinsic side of the potentiality divide (12). Moreover, there is no active or intrinsic potential in anencephalic babies or congenitally retarded human fetuses or adults that suffer strokes or injuries that render them comatose. But such debilitated humans surely have a priority over a healthy kitten to receive a *scarve* serum that made personhood possible for them.

Our response to all these problems is *not* that they show that potential doesn't matter, rather the proposals don't capture the morally relevant sense of potential. We can makes sense of why, if medicine is scarce, we provide the retarded human being with the serum that will allow her to develop into a normal person rather than give it to the healthy kitten fetus. Our intuitions are

¹² But see Eugene Mill (14) for a claim that the mother's egg does survive fertilization. So if we were ever one celled zygotes, then we were also earlier unfertilized eggs.

explained by recognizing the morally relevant sense of potential has to do with the notion of healthy development in a creature's design environment. The brainless have interests only in their healthy functioning and development. Likewise, it's not the nature of the gametes to parthenogenetically realize a *particular* capacity that is there in the post-fertilization embryo. They are not unhealthy if they fail to start down such a path. Nor is the healthy function of a clonable skin cell or an embryonic totipotent cell to grow into a human being so they lack such interests. They are not pathological if they fail to do.

The same is more or less true for the minimally minded. The retarded human being is unhealthy and so providing it with medicine that brings about personhood is a treatment, the feline that could be *enhanced* to bring about a person is not ill. Although the kitten would *later* benefit from personhood, it didn't have an interest in so developing when it was a mindless embryo or minimally sentient entity assuming our panpsychic-inspired dualism. Its interest then was just in healthy feline flourishing. McMahan imagines dogs that have the untapped intrinsic potential to develop into persons if we humans intervene rigorously and drill them to degrees that we interact with our own language learning human children (13). They have active potential but it seems we don't have any duty to elicit that potential. McMahan. Our contention is that the permissibility of not tapping that potential is due to it not being unhealthy for the dogs if they don't so develop.

We maintain that even if unreconstructed panpsychism or the earlier panpsychic inspired claims are wrong, the mindless have interests. A plant has a non-metaphorical interest in sunshine, water and nutrient rich soil. And conscious newborns have interests that they are not conscious of – e.g. a high tech procedure that will keep them from dying painlessly. Consciousness isn't required for that interest. But only creatures whose healthy development leads to minds like ours have very valuable futures. They have an interest in their healthy development which will result in their exercising mental capacities that are very valuable. They will then be engaged in a variety of complex

emotional and cognitive activities that are not shared by any other known type of organism. The operations of a healthy adult human mind will itself be constitutive of a considerable amount of flourishing - and very *valuable* flourishing. That is why healthy development of humans is valuable and ought to be protected unlike the healthy development of any other creatures, even those brainless entities deemed minimally sentient by the panpsychic.

It is not just panpsychism-inspired considerations that make us take potential seriously. If one doesn't believe that the potential to have a mind like ours is morally significant, then it seems that late abortion and even infanticide can be justified since the fetus and newborn don't have the intrinsic mental abilities of many animals like dogs and cats that are widely recognized to have very little moral status. But if potential does have moral status, then that potential is there at the very existence of the embryonic organism. We accept that potential bestows considerable moral status on the embryo.

More can be said in defense of potential but we don't have the space to do it here, and one of us has pursued it elsewhere.¹³ What we hope to have done is to show that recognizing that countless organisms that were thought to be mindless are ensouled but possess little moral status. They can't be harmed or harmed significantly. Their experiences are probably less complex than those of the lowest insects that orthodox materialists might acknowledge experiences to. Such minimal experiencers live in the moment without self-consciousness and have interests that are no more valuable than that of grass. So neither panpsychism of the materialist stripe nor a dualism inspired by panpsychism that recognizes the pervasiveness of thought dualist is morally problematic. And even orthodox materialists who are unmoved by our posting experiences in all organisms can help themselves to the notion of morally relevant potential advocated here to distinguish human fetuses and infants from totipotent cells, Tooley's kitten, and the like.

¹³ Citation removed for purposes of blind refereeing.

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