## A CRITIQUE OF AND ALTERNATIVE TO NANCEY MURPHY'S CHRISTIAN PHYSICALISM

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**Abstract.** For some time now, Nancey Murphy has been a major voice on behalf of a certain form of Christian physicalism. This is a part of her project of reconciling science with Christian faith. In what follows, I shall state and criticize the three central components of her Christian physicalism, followed by a presentation of a dualist alternative along with a clarification of its advantages over Murphy-style physicalism.

# I. THREE CENTRAL COMPONENTS OF MURPHY'S CHRISTIAN PHYSICALISM

*Murphy's neutralization of biblical teaching*: Given that almost everyone for two thousand years has interpreted the Bible as implying some sort of dualism, Murphy must find a way to diffuse this fact and argue that the Bible either teaches physicalism or has no particular view of the ontology of human persons. She opts for the latter and proffers the following sort of argument (Murphy 2006: 1-37; cf. Murphy 1998). First, the fact that Christians have interpreted scripture dualistically is due to various cultural factors in church history, especially the influence of Greek philosophy on biblical interpretation.

Second, she claims that for two reasons, we should conclude that the New Testament authors were not intending to teach anything about humans' metaphysical composition. For one thing, a survey of twentieth century theology, especially liberal theology, shows a gradual displacement of a dualist account of the person, along with the correlated notion of the immortality of the soul, and when this theology is compared to the dualist theological anthropology of conservative Protestant and Catholic teaching during this time period, we see that no clear consensus has been achieved. For another thing, dualist (e.g. Cooper 2000; 2007; 2009a; 2009b) and physicalist (e.g. Green 1998; 2008) exegetes of the New Testament have to rest their cases on detailed word studies of terms such as 'Paradise' in Second Temple Judaism and, queries Murphy, 'do Christians really need to work through a long list of non-Canonical books in order to determine what the Bible teaches on this issue?' (Murphy 2006: 21) The fact that no consensus can be reached about New Testament teaching, and the fact that its teaching is so unclear that fastidious study must be undertaken of Intertestamental literature to try to resolve the anthropological dispute are best explained by the claim that the New Testament authors simply weren't intending to teach any particular view of the matter. Thus, Christians are free to develop physicalist anthropologies if other facts warrant such an approach.

In reply, regarding Greek influence on early biblical exegesis, property and substance dualism are the commonsense views held by the overwhelming number of humankind now and throughout history. As Charles Taliaferro points out, this is widely acknowledged by physicalists, including Michael Levin, Daniel Dennett, David Lewis, Thomas Nagel, J. J. C. Smart, Richard Rorty, Donald Davidson, and Colin McGinn. (Taliaferro 2001: 60) Throughout history, most people have been substance and property dualists, even in cultures with little or no Greek influence. Thus, regarding the mind/body problem, Jaegwon Kim's concession seems right: 'We commonly think that we, as persons, have a mental and bodily dimension [...]. Something like this dualism of personhood, I believe, is common lore shared across most cultures and religious traditions.' (Kim 2001: 30) And regarding issues in personal identity, Frank Jackson acknowledges: 'I take it that our folk conception of personal identity is Cartesian in character - in particular, we regard the question of whether I will be tortured tomorrow as separable from the question of whether someone with any amount of continuity psychological, bodily, neurophysiological, and so on and so forth - with me today will be tortured.' (Jackson 1998: 45)

People don't have to be taught to be dualists like they must if they are to be physicalists. Indeed, little children are naturally dualists. Summing up the recent research in developmental psychology, Henry Wellman states that 'young children are dualists: knowledgeable of mental states and entities as ontologically different from physical objects and real [non-imaginary] events.' (Wellman 1990: 50)

In light of these facts, Murphy misconstrues the early situation among the Church Fathers. Regarding Trinitarian and incarnational themes in scripture, the Fathers turned to Greek philosophy to provide tools to flesh out what they already saw in scripture independently of and prior to their employment of Greek philosophy. The same is true with respect to dualism. Based on common sense and the clear meaning of scripture, the Fathers pressed Greek philosophy into service to flesh out what they already knew to be the case independently of and prior to appealing to the Greeks.

Further, Murphy's claim that there is no clear consensus about theological anthropology is seriously misleading. For nineteen and a half centuries, everyone interpreted the Christian faith to entail dualism. The only ambiguity has largely been in comparison to theological liberalism in the last half-century or so as Murphy herself admits. Conservative scholars have largely continued to support dualist exegesis. This is not meant to be a pejorative point about theological liberalism. Rather, the point here is that theological liberals have a lower view of biblical authority compared to conservatives, and, accordingly, are more likely to engage in revisionist eisogesis of scripture in support of physicalism.

Second, where there is ambiguity that does not result from revisionist eisogesis, it is due to confusions about dualism on the part of biblical and theological scholars. As a paradigm case of such confusion, consider the writings of N. T. Wright. He is on record as claiming that human persons are (or have) souls that are spiritual realities that ground personal identity in a disembodied intermediate state between death and final resurrection. According to Wright, this was clearly the Pharisees' view in Intertestamental Judaism, and Jesus (Matthew 22:23-33; cf. Matthew 10:28) and Paul (Acts 23 6-10; cf. II Corinthians 12:1-4) side with the Pharisees on this issue over against the Sadducees. (Wright 2003: 131-34, 190-206, 366-67, 424-26; cf. Cooper 2000; 2007; 2009a; 2009b). However, in a paper delivered in March 2011 at the Eastern Regional Meeting of the Society of Christian Philosophers, Wright explicitly disavowed dualism. (Wright 2011) Yet, in the same paper, he affirms a dualist reading of II Corinthians 5:1-10, Acts 23:6-9 and II Corinthians 12:2-4 in keeping with his thesis that the Jews of Jesus' day, and the New Testament, affirm life after life after death: death, followed by a disembodied intermediate state followed by the general resurrection.

Wright's confusion becomes evident when we distinguish dualism simpliciter (the soul/mind/self is an immaterial particular that is different from the physical body) from radical Platonic dualism (the body is of little value and may, in fact, be evil, the soul is capable of immortal existence on its own steam without needing to be sustained by God, and disembodied existence is the ideal state in heaven with no need for a resurrected body). Wright is not careful to distinguish these, but it is the latter, not the former, that he rejects. I suggest a similar confusion plagues much of the rejection of dualism on the part of biblical and theological scholars. It is worth noting that Murphy herself seems guilty of this confusion. She says that in theological and biblical studies, there has been 'a gradual displacement of a dualistic account of the person, with its correlative emphasis on the afterlife conceived in terms of the immortality of the soul.' (Murphy 2006: 10) Even if this is true, it follows only that radical Platonic dualism has been replaced, not that dualism simpliciter is - or should be - replaced.

Finally, what about Murphy's complaint about the fact that since we have to consult non-Canonical books to settle biblical teaching, this supports the idea that biblical authors were not affirming anything about human metaphysical constitution? Now this is not an exegetical paper, so I won't comment on Murphy's treatment of specific scriptural texts. But her philosophical hermeneutic is an important part of this dialectic, and her claims exhibit a failure to grasp two key features of an appropriate hermeneutical methodology.

First, one should interpret the biblical text in terms of what the author's original, intended audience would have understood by that text. The Pharisees significantly shaped Jewish thought in New Testament times, so their ideas often define the original audience's framework regarding New Testament authors when addressing Jewish culture. Now the non-Canonical Intertestamental literature helps us get at Pharisaic thinking on central anthropological issues relevant to interpreting New Testament teaching and set the default view of New Testament teaching. There is nothing unusual about this.

Second, in trying to formulate what scripture teaches about some issue P, one should start with clear texts whose intent is to teach about P or which fairly obviously imply something important about P. Then one should go to less clear or less explicitly relevant texts and interpret them in light of the clear, more explicit ones. Why does this matter? For this reason: Christian dualists take Matthew 22: 23-34, Acts 23: 6-9, II Corinthians 12:2-4 to be the clearest, most explicit New Testament texts supporting dualism, and to my knowledge, nowhere does Murphy even mention these texts, much less interact with them. Her exegetical rebuttal of dualism rests on a treatment of less explicit, less clear texts and, thus, her results follow from a faulty hermeneutical methodology.

The alethic and epistemic status of substance dualism: According to Murphy, 'science has provided a massive amount of evidence suggesting that we need not postulate the existence of an entity such as a soul or mind in order to explain life and consciousness.' (Murphy 1998: 18) This evidence consists of the fact that 'biology, neuroscience, and cognitive science have provided accounts of the dependence on physical processes of specific faculties once attributed to the soul.' (Murphy 1998: 17; cf. 13, 27) Elsewhere she claims: 'My argument in brief is this: all of the human capacities once attributed to the mind or soul are now being fruitfully studied as brain processes - or, more accurately, I should say, processes involving the brain, the rest of the nervous system and other bodily systems, all interacting with the socio-cultural world. (Murphy 2006: 56) Murphy acknowledges that dualism cannot be proven false - a dualist can always appeal to correlations or functional relations between soul and brain/body - but advances in science make it a view with little justification (Murphy 2006: 112).

I have three things to say in reply to Murphy. First, she fails to see what her concession to dualist correlations implies. To grasp the entailment, let us recall that two theories are empirically equivalent just in case they are consistent with all and only the same empirical observations. Now Murphy's concession implies what dualists eagerly affirm, namely, that dualism and physicalism are empirically equivalent theories and, thus, no amount of empirical data counts in the least for physicalism vs. dualism. It is not that the evidence strongly supports physicalism and is barely consistent with dualism. Rather, the empirical evidence is simply irrelevant as is science generally. If Murphy thinks otherwise, I invite her to cite one scientific finding that counts in favour of physicalism and for which a dualist could not easily offer an account. Indeed, in the next section, I will sketch a specific version of dualism that actually predicts precisely the sort of detailed neurological findings we are currently discovering. Murphy's description of the dialectical situation is simply wrong.

The fundamental issues involved in the physicalist/dualist debate are philosophical and theological, not scientific. And (epistemic) theoretical

simplicity cannot be cited in favour of physicalism. Why? Because (epistemic) theoretical simplicity is a dialectical tie-breaker, and the dualist will argue that the philosophical/theological considerations are not, in fact, stalemated. In the next section, I will offer a list of advantages that follow from my version of dualism over against Murphy's physicalism.

Second, the non-scientific nature of the physicalist/dualist dispute follows from Murphy's concession about correlations. But it also follows from a distinction made by Alvin Plantinga between Augustinian and Duhemian science. (Plantinga 1996: 177-221) Plantinga contrasts Duhemian and Augustinian science derived, respectively, from the ideas of Pierre Duhem and St. Augustine. According to Duhem, religious and, more importantly, metaphysical doctrines have often entered into physical theory. Many scientists have sought explanations of the phenomena, the appearances, in terms of underlying material causes. A proffered characterization of those causes often employs divisive metaphysical commitments as when Aristotelians, Cartesians and atomists gave disparate accounts of the phenomenon of magnetism.

If the aim of physical theory is to explain phenomena in terms of the ultimate nature of their causes, says Duhem, then physical science becomes subordinate to metaphysics and is no longer an autonomous science. Thus, estimates of the worth of a physical theory will depend upon the metaphysics one adopts. When practitioners of an area of physical science embrace different metaphysical schemes, progress is impeded because there is a compromise in the cooperation needed for progress. Successful science, if it is to be common to all, should not employ religious or metaphysical commitments only acceptable to some, including theism or physicalist naturalism. For Duhem, it is not the absence of metaphysics as such that serves the prudential interests of science, but of metaphysical views that divide us.

Augustinian science stands in contrast to Duhemian science. An Augustinian approach to science eschews methodological naturalism, and employs religious or metaphysical commitments specific to a group of practitioners not widely shared throughout the scientific community. Augustinian science sanctions the use of scientific data to justify a religious or metaphysical proposition specific to a group of practitioners.

According to Plantinga, Duhemian science will not 'employ assumptions like those, for example, that seem to underlie much cognitive science. For example, it could not properly assume that mind-body dualism is false, or that human beings are material objects; these are metaphysical assumptions that divide us.' (Plantinga 1996: 209-10) More generally, the fact that there is a distinction between Duhemian and Augustinian science and that the former can be practiced at all seems to justify the non-scientific nature of the dualist/physicalist debate by showing that the progress of and data derived in accordance with Duhemian science (which Murphy regularly cites) are usually not of fundamental importance for resolving the deeper metaphysical issues that divide practitioners into different Augustinian camps.

Here's my third reply to Murphy: Here own list of descriptors for neuroscientific discoveries are underdetermined with respect to dualism and physicalism and, thus, they undercut her assertion that those discoveries provide a massive amount of evidence for physicalism. According to Murphy (all italics are mine): All the human capacities once attributed to the soul are now being *fruitfully* studied as processes involving the brain (2006: 56) and are products of complex brain structure (2006: 57). The pursuit of food is *mediated by* pleasure centres of the brain (2006: 59). Recognitional tasks depend on activation of large assemblies of neurons (2006: 62). Recognizing others' intentions has a neural basis (2006: 63). The amygdala plays a *crucial role* in developing a certain form of memory (2006: 64). Core steps in the speaking process are subserved by certain left-hemisphere regions that are involved in those processes (2006: 65). Finally, regarding religious experience, she says that '... if one is a physicalist, as I am, it is not surprising that brain regions are involved in religious experience ...' (2006: 68)

A dualist can only scratch his/her head at these statements. Are dualists supposed to think that during religious experiences, the brain shuts down or disappears altogether? And the italicized descriptions above are precisely the ones dualists eagerly employ. What, exactly, is supposed to be the problem here? It cannot be that we now know that the neurological correlations involve specific regions of the brain. As C. Stephen Evans notes regarding the findings of localization studies:

What, exactly, is it about these findings that are supposed to create problems for dualism? [...] Is it a problem that the causal effects should be the product of specific regions of the brain? Why should the fact that the source of the effects are localized regions of the brain, rather than the brain as a whole, be a problem for the dualist? It is hard for me to see why dualism should be thought to entail that the causal dependence of

the mind on the brain should only stem from holistic states of the brain rather than more localized happenings. (Evans 2005: 333-34)

*The disciplinary nature of physicalism and dualism:* Finally, Murphy asserts that 'the best way to view the contest between dualism and physicalism is to treat each position not merely as a philosophical thesis but as the "hard core" of a scientific research program.' (Murphy 2006: 115) In point of fact, philosophical considerations carry little weight for Murphy and are, in any case, inconclusive. It is the scientific research that 'provides as much evidence as could be desired for the physicalist thesis' (Murphy 2006: 116). Further, 'If we recognize that the soul was originally introduced into Western thought not from Hebraic scripture but as an *explanation* in biological terms, then we can certainly say that for scientific purposes the hypothesis has been shown to be unnecessary.' (Murphy 2006: 69)

I offer three responses. First, many substance dualists do not believe in a substantial ego primarily because it is a theoretical postulate with superior explanatory power. Rather, they take the ego to be something of which people are directly aware. Thus, belief in a substantial, simple soul is properly basic and grounded in self-awareness. The point is not that dualists are right about this. Given this dualist approach, the point is that advances in our knowledge of mental/physical dependencies are simply beside the point. And the further debate about which approach is the fundamental one for defending substance dualism is not something for which advances in scientific knowledge are relevant.

Second, in those cases where substance dualism *is* postulated as the best explanation for a range of purported facts, typically, those facts are distinctively philosophical and not the scientific ones Murphy mentions. Arguments from the unity of consciousness, the possibility of disembodied survival or body switches, the best view of an agent to support libertarian agent causation, the metaphysical implications from the use of the indexical 'I' are typical of arguments offered by substance dualists, and the facts Murphy mentions are not particularly relevant for assessing these arguments.

Finally, the discovery of 'the dependence on physical processes of *specific* faculties once attributed to the soul' does not provide sufficient grounds for attributing those faculties to the brain rather than to the soul. There is an important distinction between describing the nature, proper categorization and possessor of a capacity vs. explaining what conditions

are necessary for its actualization. To see this it is important to get clear on the use of 'faculty' as the term has been historically used in discussions of substances in general and the soul in particular. Roughly, a faculty of some particular substance is a natural grouping of resembling capacities or potentialities possessed by that thing. For example, the various capacities to hear sounds would constitute a person's auditory faculty. Moreover, a capacity gets its identity and proper metaphysical categorization from the type of property it actualizes its manifestational property. The nature of a capacity-to-exemplify-F is properly characterized by F itself. Thus, the capacity to reflect light is properly considered a physical, optical capacity. For property dualists, the capacities for various mental states are mental and not physical capacities. Thus, the faculties that are constituted by those capacities are mental and not physical faculties.

Now, arguably, a particular is the kind of thing it is in virtue of the actual and potential properties/faculties essential and intrinsic to it. Thus, a description of the faculties of a thing provide accurate information about the kind of particular that has those faculties. Moreover, a description of a particular's capacities/faculties is a more accurate source of information about its nature than is an analysis of the causal/functional conditions relevant for the particular to act in various ways. The latter can either be clues to the intrinsic nature of that particular or else information about some other entity that the particular relates to in exhibiting a particular causal action. Remember, there is a difference between attempts to describe, categorize and identify a capacity's nature and possessor as opposed to proffering an explanation of the functional/causal conditions that must be present for that capacity to be actualized.

For example, if Smith needs to use a magnet to pick up certain unreachable iron filings, information about the precise nature of the magnet and its role in Smith's action does not tell us much about the nature of Smith (except that he is dependent in his functional abilities on other things, e.g., the magnet). We surely would not conclude that the actual and potential properties of a magnet are clues to Smith's inner nature. Similarly, functional dependence on/causal relations to the brain are of much less value in telling us what kind of thing a human person is than is a careful description of the kind-defining mental capacities, i.e., faculties, human persons as such possess.

### II. AN ALTERNATIVE TO MURPHY'S CHRISTIAN PHYSICALISM

All contemporary versions of body/soul (mind) dualism are consistent with deep causal/functional interaction between the two entities and are, thus, empirically equivalent with Murphy's physicalism regarding neuroscientific findings. However, in this section I will offer two versions of Aristotelian-style dualism that actually entail the sort of neuroscientific data that Murphy claims to support physicalism. The first is strictly a metaphysical thesis I shall call Metaphysical Aristotelianism (MA), though, as I have said, it entails certain things about the body/brain. The second I will call Organicism, and it is more of a metaphysical/scientific thesis than MA that, among other things, implies certain scientific theses that are currently in disfavour.

My delineation of these two distinct Aristotelian-style views has been noted by what is most likely the most authoritative treatment of the Aristotelian metaphysics of substance in the late Middle Ages – Robert Pasnau's *Metaphysical Themes*: 1274-1671 (Pasnau 2011). Says Pasnau:

[S]cholastic authors do offer metaphysical entities as principles of explanation on a concretely physical level, as efficient causes in competition with a corpuscular-mechanistic account of the natural world. The hylomorphic theory admits of an alternative formulation, however, as an explanatory schema at a different level of analysis, not competing with a corpuscular-mechanistic theory, but accounting for abstract, structural features of the world – in particular, the unity and endurance of substances [...] One diagnosis of the decline of scholastic thought [...] is that the scholastics lost their grip on hylomorphism as a metaphysical theory, conceiving of it instead as a concrete, physical hypothesis. (Pasnau 2011: 100-101; cf. 558-65)

(1) *Metaphysical Late-Medieval Aristotelianism (MA)*. According to MA, living organisms are not mereological aggregates/systems composed of separable parts, bundles of properties, or concrete organisms construed as some sort of whole. Rather, the consensus during this period was that the living organism is a thin particular, viz., an essence exemplified by an individuator (usually prime matter), that stands under (sub-stands) the accidental features of the organism, including its body. (Paunau 2011: 99-134) The thin particular is identical to the organism's soul, it is mereologically simple (not composed of separable parts) and metaphysically complex (containing a complex essence, exemplification,

and an individuator), and it is holenmerically present throughout the organism's body.

There were three central metaphysical roles played by the thin particular: (1) It grounded the special sort of synchronic unity of living things, especially in comparison to mereological aggregates/systems. (2) It grounded a living thing's ability to be a continuant, sustaining strict, absolute identity through certain changes (including part replacement in the organism's body). (3) It provided the ontological ground for placing the organism in its natural kind and unifying that kind.

A second feature of MA is that its advocates clearly distinguished attempts to provide an ontological classification of the nature of various capacities and their possessors from proffering an explanation of the bodily conditions required for the exercise of those capacities, and they were clearly interested in the former, not the latter. As Dennis Des Chene points out:

The Aristotelians, while acknowledging, even insisting, on the necessity of a material basis for the instantiation and exercise of vital powers, did not seek to reduce them to complexes of powers found also in inanimate things [...] For them, the project was not to find a chemical basis for life, but to describe and classify vital powers, and then, in keeping with the scheme of Aristotelian natural philosophy, to define the genera and species of living things in terms of those powers. (Des Chene 2000: 7)

The third feature of MA, hinted at in the quote just given, is the central importance of the body for the functioning of the thin particular's (soul's) powers in the normal course of things and the actualization of its various capacities. Speaking of the human soul, Des Chene observes that 'The human soul is not merely joined with the body in fact. It is the *kind* of soul which, though capable of separate existence [...], nevertheless by its nature presupposes union with a body, and moreover with a particular kind of body, a body with organs, in order to exercise all its powers – even reason.' (Des Chene 2000: 71) Elsewhere, Des Chene notes: 'Even the intellect requires, so long as the soul is joined with a body, a certain disposition of the brain.' (Des Chene 2000: 96)

Thus, the search for specific neurological causal/functional conditions associated with the actualization of the soul's capacities is not only consistent with, but is entailed by MA. This form of dualism predicts the existence of contemporary neurological findings every bit as much as Murphy's physicalism. It follows, then, that the two views are empirically equivalent with those findings and they cannot be appropriated to support physicalism vis a vis MA. Proponents of MA would be sanguine about Murphy's own list of descriptors for neuroscientific discoveries that I cited above.

Moreover, while physicalism may be the hard core of a neuroscientific research program, in the specific sense in which this is true (there will be neurophysiological conditions in deep causal/functional dependency with the various capacities for life and consciousness), physicalism is also part of the hard core of an MA research program. It is important to keep in mind that, except for this entailment about the importance of the body, MA is primarily a metaphysical thesis, and its epistemic credentials in comparison to Murphy's physicalism must be decided by theological and philosophical considerations, not scientific ones. The fact that most contemporary scientists are physicalists and not dualists or advocates of MA, is a mere contingent sociological fact about contemporary scientific culture and education; it is not a factor relevant to assessing the merits of dualism, especially MA, vs. physicalism, especially Murphy's version of it.

(2) Scientific Late-Medieval Aristotelianism (Organicism): There was a second view among the late-Medieval Aristotelians that must be kept distinct from MA. This view, which I shall call by the contemporary name 'Organicism' has certain things in common with vitalism, though whether or not it should be thusly classified is a matter of controversy. In any case, this viewpoint is not accepted by the vast majority of contemporary scientists and philosophers. Pasnau notes that on this view, the soul 'plays a straightforwardly causal role, explaining both the behaviour and the physical structure of an animal's body.' (Pasnau 2011: 558; cf. 549, 560-565). In this sense, the soul becomes an internal efficient cause of the development and structure of the body.

Here, the soul is a substance with an essence or inner nature which contains, as a primitive unity, a complicated, structural arrangement of capacities/dispositions for developing a body. Taken collectively this entire ordered structure is unextended, holenmerically present throughout the body, and constitutes the soul's principle of activity that governs the precise, ordered sequence of changes that the substance will (normally) go through in the process of growth and development. The various physical/chemical parts and processes (including DNA) are tools – instrumental causes – employed by higher-order biological activities in order to sustain the various functions grounded in the soul.

Thus, the soul is the first efficient cause of the body's development as well as the final cause of its functions and structure which is internally related to the soul's essence. The functional demands of the soul's essence determine the character of the tools, but they, in turn, constrain and direct the various chemical processes that take place in the body as a whole. In this way, organicism implies that the organism as a whole (the soul) is ontologically prior to its bodily parts.

Moreover, those parts are inseparable parts that stand in internal relations to other parts and to the soul's essence; they are literally functional entitles constituted by their role in the organism as a whole. The body is developed and grows in a teleological way as a series of lawlike developmental events, rooted in the internal essence of the soul. The first-efficient cause of the characteristics of an organism's body is its soul; the various body parts, including DNA and genes, are important instrumental causes the soul uses to produce the traits that arise.

(3) An assessment of MA vis a vis Murphy's Physicalism: In this article, my commitment is to MA, not to Organicism, so let us set the latter aside and focus on the advantages that MA has over Murphy's anthropology. To begin with, let us consider the synchronic unity of consciousness. It is widely acknowledged that the unity of consciousness is easy to solve as a dualist: All of one's mental properties are simultaneously instantiated by the same, simple subject. But things are not so easy for the physicalist because the brain (animal, object constituted by an animal, and so forth) is a complex aggregate of separable parts. Now as William Hasker has pointed out, 'The functioning of any complex object such a machine, a television set, a computer, or a brain, consists of the coordinated functioning of its parts, which working together produce an effect of some kind.' (Hasker 2010: 181)

And this is just what we find regarding consciousness and the brain. A simple act such as observing a coloured object involves different subsystems of the brain associated with the size, shape, location and colour of the object. Now even if a physicalist does not identify in some way a state of, e.g., phenomenal consciousness with a token brain state, but, rather, appeals to some sort of emergent supervenience to flesh out his/her view, there is still a problem here for the physicalist. Jaegwon Kim notes: 'Most of us have a strong, if not overwhelming, inclination to think that types of conscious experience, such as pain and itch, supervene on the *local* states and processes of the brain no matter how they are hooked up with the rest of the body or the external world.' (Kim 2006: 164) Thus, given supervenience, the various aspects of seeing a coloured object would be supervenient upon, and in this sense, owned by non-identical physical states/processes. There is literally nothing that is aware of the state as a whole, nothing to serve as a unifier for the state and, a fortiori, for synchronic consciousness in general. Neural synchronization won't solve the problem because it still involves the coordination of numerous, nonidentical entities. There is no single part of the brain that is activated as a causal correlate, much less possessor, for one's entire state of consciousness.

Lurking in the neighbourhood is the so-called binding problem. Given the considerations just mentioned, however, the binding problem seems to be unsolvable in principle for the physicalist, because there is no adequate, complex physical entity to serve as the unifier of consciousness and as that which is having the entire awareness as a whole.

What if the physicalist appeals to an atomic simple to solve the binding problem? Now besides the fact that this would no longer be an empirical solution (atomic simples are theoretical, philosophical posits, not empirically observable entities), an atomic simple will not solve the binding problem any better than a complex whole composed of separable parts. An atomic simple is spatially extended, but it seems to me that any entity adequate to unify synchronic consciousness must be spatially unextended. Why? If it is spatially extended, then irrespective of whether or not it is composed of separable parts, there will be various non-identical regions within that extension with which different aspects of, say, one's visual field, overlap. The self will be like a movie screen construed as uncomposed. There is no region of the screen that overlaps with the entire movie at a particular time. One cannot merely say that it is the screen itself that exemplifies the movie, because this is not an unanalyzable fact. The screen can be reduced to a sum of the iteration of an arbitrary region (e.g., a foot tall and wide), and the movie picture can be similarly reduced such that each such region of the picture overlaps with one and only one such region of the screen. There is no further, relevant screen 'over and above' this reduced one. Similarly, regarding the self, there will be no single entity that has all the different visual experiences or the entire holistic experience if the self is extended. MA (and most versions of substance dualism) fares well regarding the synchronic unity of consciousness, but various forms of physicalism do not, or so I have argued.

What about the diachronic unity of the human person? Are we continuants that remain literally the same through accidental change, especially through change in body parts? We have pretty deep intuitions that we are literal continuants. In my view, this is a properly basic belief grounded in self-awareness. For example, the simple act of attending to oneself humming through a tune is such that the literal continuity of the self is made evident, and it is the self that unifies each aspect of humming the tune into the experience of one, single subject. Now nearly everyone these days wants to avoid mereological essentialism, roughly, the view that the separable parts of a whole are essential to that whole such that it could not have had different parts and still existed. Again, MA (and most versions of substance dualism) provide a fairly straightforward way of grounding human persons as continuants while avoiding mereological problems regarding an organism's body, in this case, the human body: We are simple, immaterial wholes and not mereological aggregates, our persistence conditions are different from those of our bodies, and the fact - if it is a fact - that mereological essentialism applies to our bodies does not affect us.

Why is mereological essentialism a problem for virtually all versions of physicalism besides those who identify us with an atomic simple (and this is not Murphy's view)? Because, at the end of the day, these versions of physicalism identify us as mereological aggregates, and mereological essentialism cannot be avoided for such wholes.

Here is a definition of a mereological aggregate: It is a particular whole that is constituted by (at least) separable parts and external relation-instances between and among those separable parts (there is a debate as to whether or not one should add an additional constituent, viz., a surface or boundary to the analysis). Murphy seems to agree that living things are mereological aggregates. She acknowledges that all one needs 'is the proper functioning of a suitably complex entity and it would be alive. Life is an emergent property that is dependent on complex organization, not on an additional entity or non-material stuff [...] Thus, a sphere of proteins and other large molecules is living if [...] it has a membrane separating it from its environment.' (Murphy 2006: 57)

Why think that mereological essentialism characterizes mereological aggregates? Because a proper metaphysical analysis of such wholes does not provide an entity adequate to ground their literal identity through part alteration. To see this, suppose we have some mereological aggregate W, say a car, in the actual world w at some time t, and let 'the ps' refer

distributively to all and only the atomic simples (assuming such) that make up W. Now, given that the ps just are a specific list of simples taken distributively without regard to structure, it would seem obvious that if we have a different list of simples, the qs, it is not identical to the ps even if the two lists share all but one part in common. This same insight would be true if we took 'the ps' and 'the qs' collectively as referring to some sort of mereological sum. In either case, there is no entity 'over and above' the parts that could serve as a ground of sameness through part alteration.

Now, W has different persistence conditions than, and, thus, is not identical to the ps. W could be destroyed and the ps (taken in either sense) could exist. Let S stand for all and only the various relations that stand between and among the ps. S is W's structure. Is W identical to S and the ps? I don't think so. W has its own structure, say in comparison to some other whole W\* that is exactly similar in structure to W. W and W\* have their own structures. Given that S is a universal, it is not sufficient for individuating W's specific structure. For that we need SI, W's structure-instance, W's token of S, and SI will consist of all and only the specific relation-instances that are instantiated between and among the ps. Let 'the rs' stand for all and only the relevant relation-instances that compose SI. I think it is now obvious that SI is a mereological aggregate composed of the rs. If the rs undergo a change of relationinstances, it is no longer the same list of relation-instances. Given that SI just is a mereological aggregate or, perhaps, a specific ordering of the rs, if the rs undergo a change of relation-instances, SI will cease to exist and a different structure (perhaps exactly similar to SI) will obtain since there is no entity to serve as a ground for SI's sameness through part replacement. If W is the ps plus SI, it seems to follow that W is subject to mereological-essentialist constraints. Adding a surface/boundary to W won't help avoid these constraints.

Murphy attempts to develop an account of personal identity that avoids the implications of the reasoning just presented and that allows for that identity to be sustained even though there is a temporal gap of non-existence between death and final resurrection. (Murphy 2006: 132-44). In my view, Murphy's account of personal identity is not sufficiently robust to undercut the problem that mereological essentialism surfaces for her views.

Three features of Murphy's account are essential to her position. First, appropriating David Wiggin's view that the identity of some x at  $t_1$  with some y at  $t_2$  is sortal dependent such that criteria of identity need to be

tailored to fit the relevant sortal concept, Murphy claims that it is not the body qua material object that is of interest to the topic of personal identity. It is the body qua person.

Second, when we focus on the concept of a person, we discover that the following lie at the core of personal identity: continuity of memory, continuity-of-consciousness (e.g., recognition of oneself as oneself over time), continuity of moral character, and continuity of our relationships with others, especially those in the body of Christ, and most especially, our relationship with God (God's remembering, recognizing and relating to me). Regarding interpersonal relationships, Murphy claims that those in the body of Christ and our relationship with God are internal relations (Murphy 2006: 139-40)

Third, while these various higher order states and capacities are 'dependent on', 'produced by', 'enabled by', the body which provides 'the substrate for' and 'bears' them, it is a contingent, empirical fact that the spatio-temporal continuity of the body is required for these relationships to obtain. Spatio-temporal continuity is only a contingent part of our commonly accepted concept of a person. There is no reason in principle why a different body could not support the same characteristics. Moreover, material objects can retain their identity through change in material components. Either way, personal identity could be sustained through gappy existence between death and final resurrection.

Does Murphy's account succeed in providing a view of personal identity that is absolute and objective, despite the mereological essentialist problems under the covering concept 'material object?' I don't think so. To see this, note first, that not all covering concepts are created equal. In some cases, one covering concept has such pervasive implications for the object's persistence conditions that alternative sortals cannot be taken to provide strict, philosophical identity though change. Rather, these alternative sortals merely specify a way of *taking* the object to be the same through change in a loose, popular sense and for certain pragmatic purposes.

Consider a lump of clay and an associated statue, and grant that the former constitutes the latter. Given that the lump is a mereological aggregate, it is subject to mereological-essentialist constraints as argued above. Can the statue retain absolute Leibnizian identity through part replacement? It is very hard to see how. After all, it is a mereological aggregate, too, and there is no entity in the statue that can serve as a ground of such identity. If someone disagrees with this judgment, he/ she is invited to provide an account of exactly what that entity is and how it is able to function as a sufficient ground for Leibnizian identity. It is more likely that our concept of a statue leads us to take the statue as the same through part replacement in the loose, popular sense for certain purposes.

I believe the very same problem arises in regard to the person on Murphy's view, because the person just is a material object with various higher order capacities. Still, when the material object undergoes alteration of parts, the person loses identity because the person just is a mereological aggregate with various higher powers. Murphy asserts that material objects can retain their identity through change in constituents, but her claim is just that – an assertion. She provides no evidence whatsoever for justifying the assertion, and until she does, mereological essentialism would seem to be the default position to take regarding mereological aggregates. She also claims that spatio-temporal continuity of the body 'is only a contingent part of commonly accepted concepts of the person' (Murphy 2006: 141). But it seems to me that this is true because our commonly accepted notion of a person is a dualist one, a truth regularly admitted by physicalists.

Second, the various higher order capacities constitutive of personhood are not adequate to support Leibnizian identity through certain changes. For one thing, it is pretty easy to come up with thought experiments to show that her list of such capacities is neither individually necessary nor jointly sufficient for sustaining personal identity. The literature on personal identity is peppered with such arguments, so I won't rehearse them here. But I believe they are successful. For another thing, these various capacities are in constant flux: one gains memories and loses them, one's sense of oneself as oneself is a degreed property, one's moral character waxes and wanes, and one's personal relationships with others change over time. It is hard to see how these capacities have the sort of endurance needed to ground Leibnizian identity.

A special word should be mentioned about the claim that certain personal relations are internal relations, especially those in the body of Christ and with God Himself. It is hard to believe this. If this were true, then when one entered the body of Christ upon conversion, this would be a case of the unbelieving person ceasing to exist and the new convert coming-to-be. As new relationships in the body of Christ are formed and old ones lost, one would literally become a new entity.

What about one's relationship to God? That changes, too. As one grows spiritually, learns to draw near to God, and so forth, one's relationship to God and His relationship to us changes. These relationships are not static or singular - the relationships are constituted by a vast array of sub-relationships (e.g., one comes to add the notion of God as shepherd sometime after conversion, and to reject the notion of God as harsh critic). What about the creator/creature relationship? Is that sufficiently stable to constitute absolute personal identity through one's life? I don't think there is any such relation and I would give this reductive analysis of it: For all temporal particulars x, God stands in the creator/creature relationship with x at some time t if and only if God makes or sustains x at t. It simplifies our ontology if we take it as a brute fact that God makes or sustains temporal particulars without needing to stand in a creator/ creature relation to ground this. If I am correct here, there just is no creator/creature relation. Even if there is, it is just one relation among many other interpersonal relations we stand in to God, and it would seem that our identity would be constituted by all these relations, and not just one of them. If so, then a change in just one such internal relation would cause the creature to go out of existence.

If we are, indeed, enduring continuants, then MA (or some other form of substance-style dualism) explains that fact while Murphy's physicalism denies it. This, I take it, is a metaphysical point in favour of MA vis a vis Murphy's views.

Besides the synchronic and diachronic unity of living organisms, especially human persons, there are two other advantages to MA compared to Murphy's physicalism. Space considerations forbid me from developing them in detail, but I believe they are worth getting on the table to foster further dialog. The first one is the issue of free will. Murphy offers a very sophisticated account of human freedom (Murphy 2006: 71-110; cf. Brown and Murphy). The details of her account are not relevant, but one thing is clear. While Murphy's views may allow her to avoid biological determinism, they do not permit an avoidance of physical determinism. At the end of the day, her position turns human agents into smart bombs, equipped with self-directed feedback and selfmonitoring systems that enable a sort of reasons-responsive guidance control. But her account is a compatibilist one and one's actions are determined by one's overall physical structure and environmental inputs. Now it is widely, though not universally agreed, that the most plausible account of free will, given a physicalist anthropology, is some version of compatibilism, and that the most plausible account of the agent sufficient to support libertarianism is a dualist account of some sort. Given that this is so, for those who accept compatibilism, MA will not be judged advantageous on this score. But for those who embrace libertarianism, MA will be more plausible than Murphy's physicalism.

Finally, there is the issue of Near Death Experiences (NDEs). I mention NDEs for two reasons. First, they are seldom addressed in philosophical discussions between dualists and physicalists, and as far as I know, Murphy does not interact with them. This is a serious omission. Second, there is a growing literature that strongly supports the veridicality of NDE accounts (see Long 2010; Kelly and Kelly 2007: 367-421). I can't delve into that literature here. But one thing needs to be mentioned in light of our comparison of MA to physicalism, including Murphy's. When critics reject NDEs, they do so by employing two strategies: they seek to undermine the evidence for them and they offer alternative accounts of that evidence.

What is almost never offered is an a priori rejection of NDEs on the grounds that throughout a range of minimal physical duplicates to the actual world, NDEs are metaphysically impossible because physicalism is true. Such a response would be intellectually irresponsible for two reasons: (1) It would egregiously beg the question against advocates of NDEs. (2) The veridicality of NDEs really does turn on a proper assessment of the evidence for and alternatives to claims made by NDE advocates, and has little or nothing to do with the laws of physics, the happenings that occur to the brain, and so forth. The fact that it is evidence that is the court of appeal in debating NDEs strongly suggests that genuine out-of-body experiences are metaphysically possible throughout the relevant range of minimal physical duplicate worlds. But if this is true, then Murphy's physicalism is false, given that some body or other is a necessary condition for the existence of the person. And MA entails the metaphysical possibility of disembodied existence, however unnatural that might be.

In this article, I have identified and responded to three core components of Murphy's physicalism. And I have offered a dualist alternative – MA – that has the same neuroscientific implications as Murphy's view but which is superior in four ways, or so I have argued. Much more can and should be said about these issues, but I hope enough has been provided to foster further dialog about these important matters.

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