

THE EMERGENT SOUL:

*Non-Reductive Physicalism & the Capacities View of Personhood*

*by*

Renee M. Jorgensen

BIOLA UNIVERSITY

PHIL 450

13 MAY 2009

## THE EMERGENT SOUL:

### *Non-Reductive Physicalism & the Capacities View of Personhood*

---

Attempts to define the mind have historically served one of two purposes: to analyze the essential features of personhood, aiming through such analysis to provide a warrant for ethical constraints on actions, or to argue that such a project is illusory, as there are no special features that make a being a *person* as opposed to an object. Some accounts of the mind, such as Dualism, lend themselves almost exclusively to the former project, while others, including many varieties of Physicalism and Functionalism, are more ambiguous and can at least theoretically be used to support either goal.

On the standard account of Substance Dualism, persons are entities composed of a union of a physical body and a rational soul, and consequently any entity lacking a rational soul is just an object, whether animal, mineral, or something else entirely.<sup>1</sup> Talk of a 'soul' is nearly always taken to be a reference to some form of dualism, but it is not clear that dualism is the only account able to talk meaningfully about the nature and existence of the soul. It is true that reductive or eliminative physicalist articulations of it are particularly difficult, since these theories claim that a person is "*nothing but* a pack of neurones[sic]... *no more than* the behavior of a vast assembly of nerve cells and their associated molecules."<sup>2</sup> Consequently, the mind and consciousness are taken either to be empty linguistic concepts, or at most reductively identical to brain states.<sup>3</sup> Though this is the most loudly defended and perhaps most prevalent physicalist thesis, it is not the only

one. Non-reductive physicalism is a sort of intermediate between these two theories, and can be roughly characterized by the claim that something more than just physical properties, namely the mind or consciousness, emerges and supervenes on the physical makeup of an individual, such that no analysis of the pure physical makeup will reveal the emergent properties directly. Though it denies the existence of an independent mental substance, non-reductive physicalism may have the resources to offer an adequate notion of 'soul' to function as the criterion for personhood.

For the purposes of this paper, the term 'person' should be taken to denote an entity that

- (i) has subjectivity,
- (ii) has a proper claim to ethical treatment, and
- (iii) can be held responsible for ethically transgressive actions.

I do not set this out as criteria for determining which entities are persons, but rather take it to be indicative of our meaning when we affirm of an entity that it is a person.

Developing the criteria by which to determine which entities are *properly* termed persons is much more difficult. Because the judgment of personhood determines one's ethical obligations to the entity in question, the criteria for what counts as a 'person' must not be arbitrary. There should be some defensible connection between the features picked out by the criteria and a duty to treat the subject as an ethically constraining person. This has traditionally been accomplished by appealing to metaphysical substance dualism, which posits possession of a 'soul' as the relevant feature of personhood. I argue that this work

can be similarly accomplished without positing dualism. This paper will examine a leading non-reductive physicalist account of the soul, evaluating it in terms of its ability to accommodate intuitions concerning what entities should count as persons.

#### NON-REDUCTIVE FOUNDATIONS: ANOMALOUS MONISM

Before proceeding further, it is necessary to specify precisely which articulation of non-reductive physicalism will be considered here. Donald Davidson's account, hereafter referred to as *Anomalous Monism*, provides a useful and clear statement of the relation of mental and physical within a human being, and will function as the starting point for inquiry. In brief, the view proposes that while there is only one substance, certain events are capable of being described both physically and mentally. It can therefore be said that the mental 'supervenes' on the physical, but no strict laws govern the supervenience relation, and hence the mental is irreducible to the physical.

As Davidson articulated the theory in his landmark paper *Mental Events*, anomalous monism is derived from three seemingly contradictory premises:

1. Mental events cause physical events.
2. Causation is ruled by strict nomological laws.
3. There can be no strict psycho-physical laws.<sup>4</sup>

Though on first glance the conjunction of (1) & (2) is inconsistent with (3), the tension is resolved if one accepts that a “mental event” is just an event described mentally, while a “physical event” is just an event physically described. To clarify, a “mental description” is one that contains essentially at least one mental verb, i.e. those which denote propositional attitudes, such as “believing, intending, desiring, hoping, knowing,”<sup>5</sup> etc., *that p*. A “physical description” is one that specifies an event by using only physical vocabulary essentially.<sup>6</sup> These descriptions are far from mutually exclusive: a single event may fall under multiple descriptions, for instance, *E1* may be described either as

*E1<sub>p</sub>*: Flipping a switch, resulting in illuminating the room.

Or as

*E1<sub>m</sub>*: Turning the lights on.

Or even as

*E1<sub>m`</sub>*: Alerting the burglar that someone was home.

It is important to notice that though the event may always be picked out under the description *E1<sub>p</sub>*, making it clearly an extensional description,<sup>7</sup> both mental descriptions (*m* and *m`*) are intentional, and thus propositional attitudes applicable to the event as described under *m* (S wanted to turn the lights on) may not be applicable to the event as described by *m`* (S did *not* want to alert the burglar). Even with these differences, *E1<sub>p</sub>*, *E1<sub>m</sub>*, and *E1<sub>m`</sub>* all describe the same event, which would imply that a single event is both physical and mental, as it can be picked out by either mental or physical descriptions.

If (3) is true, and no strict laws of the type required by (2) can apply directly to psycho-physical interaction, then either (1) must be false and there can be no psycho-physical *causal* relations, or (1) can remain true, but the requisite causal laws are applicable only under a physical description of the event, which, described ‘mentally’, can be said to ‘cause’ the resulting physical event. Since laws are necessarily linguistic, they apply to events only as they are picked out under some description.<sup>8</sup> This has the result that while E1 may, under a *p*-description, be causally related to E2 (and thus be covered by the sort of law Davidson requires), a statement of the relation between E1 and E2 under an *m*-description will not be covered by such a strict law.

Physical changes can be explained by laws connecting them with other changes and conditions physically described; therefore, any non-basic law whose only essential terms are physical is homonomic, and can theoretically be rephrased with increasing specificity until it reaches a basic, or strict, law. Mental changes, on the other hand, “must be responsible to the background of reasons, beliefs, and intentions of the individual,”<sup>9</sup> which are all mental descriptions. If, and only if, there was a reliable bridge law, by which one could translate all of the terms into a physical vocabulary, then one could derive a strict covering law.

It would be problematic if, as a result of accepting (3), we appeared to reject any meaningful sense of (1). This could happen if anomalous monism reduces the *m*-properties of events to mere incidental features, while the *p*-properties do all the causal work, since it seems then that we could say, as some critics have, that events cause each

other *as physically described*, but no causation occurs between the events *as mentally described*.<sup>10</sup> Davidson argues that his account escapes this charge of epiphenomenalism, asserting that the description of an event has no actual relevance to the causal efficacy of that event, because events are extensional entities not altered by our various ways of describing them.

Descriptions are not entities on their own, but rather they are just ways of picking out an event in various language. Thus to say that there are no strict laws that would enable translation from psychological vocabulary to physical vocabulary, thereby permitting the reduction of the mental to the physical, in no way deprives ‘mental events’ of causal efficacy. Davidson emphasizes that this is because “it is *events* that have the power to change things, not our various ways of describing them.”<sup>11</sup> This is still consistent with the notion that causal relations are covered by a law: the nomological character of causality requires only that *some description* of the relation of the events be so covered, while the causal relation holds for events themselves, independent of their descriptions.

#### DEFINING THE TASK: NOTIONS OF THE ‘SOUL’

This form of monism allows us to reconcile the apparent inconsistency in assenting to (1), (2), & (3), preserving the causal efficacy of mental events without having to posit the existence of a separate, mental substance. Davidson’s framework thus offers

an excellent non-reductive physicalist explanation of the emergence of the mind, which furnishes a good foundation for an alternative to dualism. The theory as presented does not articulate an account of 'soul' or outline specific criteria for personhood, but it is not difficult to augment it with a compatible theory that defines the 'soul' in terms of the emergence of mind. Such a theory will need to account for the various uses of the notion of the soul, and articulate the specific conditions and properties responsible for the emergence of the whatever-it-is that fulfills the function of a soul or qualifies a being as a person.

With respect to persons, an appeal to the immaterial soul is typically made for one of three purposes: (1) establish the ethical weight of the entity, (2) provide grounds for personal identity, or (3) function as a basis for immortality claims. All of these can at least potentially be answered by careful analysis of the concept and capacities of the mind, but the first is the most pivotal, and the most difficult for non-reductive physicalism to accomplish. To effectively set off persons as ethically constraining, an account must craft the qualifying criteria such that the statement 'S is a person' is a non-trivial statement. Additionally, because human persons broadly are considered to be ethical agents, while non-human animals do not receive this status, the features picked out must create a meaningful distinction between the two groups. Dualism has an advantage here: because it posits the 'soul' as an independent substance, the presence of which can never be empirically confirmed or denied, it can claim *ex hypothesi* that the soul is absent in non-human animals. This move is not available to a non-reductive physicalist account, which

must instead articulate the specific conditions and properties responsible for the emergence of some equivalent concept. Whatever these features are, they must additionally be plausibly absent from entities that are considered non-persons.

The challenge for non-reductive physicalism, then, is to account for this difference with respect to the emergent personality, or mind. Such an explanation will require an analysis of the normative capacities and mental functions of human persons in contrast to those of the nearest non-human animal, paired with an argument for why the observed differences are significant in terms of classification as persons. Two closely related theories are particularly promising, each centered on the notion of the mental capacity for personal relatedness.

#### NON-REDUCTIVE ACCOUNTS OF THE 'SOUL'

The first of these is presented by Mark Graves in *Mind, Brain, and The Elusive Soul: Human Systems of Cognitive Science and Religion*. Graves argues that an individual's identity is determined by her relations to other beings. The nature of such attachments, and whether they are present or absent, are a constellation of factors that make possible the emergence of the individual soul by supplying form and definition to her identity. This web of relationships also influences the development of the person, and thus the soul is constantly being defined in terms of personal relatedness. If this is the case, and "the systems of constraining relationships and constitutive absences form the soul,"<sup>12</sup> then

on Graves' view, if an entity has the capacity for *personal* relationship, it must be considered a person with some form of soul.

The second theory, presented by Warren Brown in *Cognitive Contributions to the Soul*, operates on the same basic principle but goes into greater detail concerning the specific capacities responsible for the emergence of personal relatedness, and by extension the soul. Brown contends that the concept of the soul has two distinct meanings and uses: (1) immortality of the emergent personality, and (2) foundation of identity and subjective experience. On his view the former is just the ability of a personality to endure death, that is, its ability to be re-created by God. The second understanding of the nature of the soul involves three essential relations:

- (1) Subjective self-relatedness or self-representation,
- (2) Inter-individual relatedness, and
- (3) Relatedness to God.<sup>13</sup>

which emerge in communities following the development of certain foundational capacities. Brown isolates six (call these p-making capacities) that he views as essential for the emergence of personal relatedness, and therefore of an experience of soul: language, a theory of mind, episodic memory, conscious top-down agency, future orientation, and emotional modulation. This does not assume that *only* human persons can possess any of these capacities; on the contrary, a number of them are expressed in non-human animals, particularly among primates. Rather, no non-persons express *all* of the p-making capacities.

The first among these, systematic language, includes development of a potentially infinite vocabulary, fixed syntax, and complex grammatical structure.<sup>14</sup> The pivotal role of language in enabling community and various manifestations of personal relatedness is obvious: enhanced communication allows individuals to share beyond their immediate plans for needs-fulfillment.<sup>15</sup> While beginnings of this sort of language are observable in some advanced primate cultures, there have been no successful attempts to expand naturally occurring primate sign-sets into a full-fledged language.<sup>16</sup> It therefore remains the case that “the possession of a significantly enhanced language capacity endows humans with dimensions of relatedness not within the realm of possibility for non-human primates.”<sup>17</sup>

Second, the advanced degree of personal relatedness possible between humans depends on the individual’s meta-cognitive abilities. Meta-cognition, or “thinking about thinking,”<sup>18</sup> is most relevant to personal relatedness in its role in the development of a theory of mind. This is simply the ability of a subject to conceptualize the other as an intentional system, to imagine what another person may be thinking, feeling, or understanding, which allows her to ascribe motives and intentionality to the other. A theory of mind therefore enables understanding of tacit meanings, and provides the foundation for empathy, drama, and complex personal communication.

These two capacities are of most relevance to the current inquiry, and therefore merit more detailed explication than the remaining four. Brown’s additional conditions for the emergence of the soul include episodic memory, since it enables the agent to learn

from previous experiences; conscious top-down agency, which is necessary for any meaningful sense of personal responsibility for actions; future-orientation, which permits the agent to act in order to achieve long-term goals or avoid long-term evils; and emotional modulation, which is simply the ability to control one's reactions to events.<sup>19</sup>

Both this view and the account offered by Graves define the soul in terms of an individual's capacity for personal relatedness. Because Brown's articulation provides more detail concerning the mechanics of the emergence of such a capacity, it will be the primary focus of the present evaluation. As a theory of how the notion of a soul can be consistent with physicalism, this relatedness account works well; but articulating the soul in terms of capacities is treacherous business. One might well worry that since capacities are expressed to varying degrees among people, any property based on capacities is similarly variable. So, if the soul, and through it the criteria for personhood, is composed of expressed capacities, it seems possible that personhood itself could be a degreed status. It seems intuitively true that persons vary in their degrees of personal relatedness, and even more radically in their development of the lower-order capacities cited by Brown as necessary for the emergence of the soul.

#### COUNTING PERSONS: THE AUTISM OBJECTION

This concern becomes a full-fledged objection when one considers the status of individuals who are actually impaired in their expression of some of the p-making

capacities. One need not engage in extreme thought experiments in order to find some such difficult cases; most instances of Asperger's syndrome or Autism are sufficient to create trouble for the 'personal relatedness' account as articulated by Brown. These conditions constitute biological blocks to normative relatedness; if personhood is taken to be dependent on an entity's ability to enter into normative relationships, then it seems to follow that Autistic individuals are non-persons, or at best diminished persons.

While the severity varies substantially, individuals diagnosed with Autism or Asperger's syndrome characteristically display significant inhibition in or "failure to develop normal social relationships."<sup>20</sup> Key analysts attribute this to biological abnormalities in brain development, resulting in inability to or difficulty in developing a theory of mind.<sup>21</sup> The apparent failure to formulate a conception of the thought content of another human being is one of the primary determinants in an Autism diagnosis. Though the finding is not undisputed, the majority of researchers appear to agree that "autistic children are impaired in their intuitive understanding of mental states, such as beliefs." Researchers Elisabeth Hill and Uta Frith write that "this theory, sometimes referred to as 'mind-blindness' or 'mentalizing failure', has been tested extensively (*see chapters in Baron-Cohen et al. 1993, 2000*), and has proved fairly robust."<sup>22</sup>

This meta-cognitive deficiency has been documented as having a substantial impact on the subject's ability to understand or respond to others' emotions, which, in turn, impairs her ability relate to other persons in a normative way.<sup>23</sup> It seems, then, that such a person suffers from a diminished lower-order capacity, that is, reduced ability to

form a theory of mind especially concerning other persons.<sup>24</sup> If this is so, then surely we must consider the attendant conclusion, that such a disorder negatively impacts the emergent higher-order capacity of personal relatedness. It is at least the case that the behaviors characteristic of even high-functioning autism (withdrawal from other persons, or indiscriminate approach to them) constitute a “core social communication impairment”, resulting in a diminished likelihood for normative inter-personal relationship.<sup>25</sup>

Autism presents a special problem for a capacities-based view of the soul because it is not a degenerative condition. The challenge it presents is dissimilar from those posed by Alzheimer’s, dementia, and traumatic brain injury cases in that individuals with Autism never achieve normative development. Since the brain of an autistic individual has non-normative structure *from birth*, the entity *never* functions normatively. As a result, an entire avenue of response is inaccessible; these are not persons who, having previously displayed the requisite capacities clearly, have suffered some circumstance that either removes or blocks expression of said capacities. Rather, since they have never been displayed, and in most cases never will be, it is unclear whether the entity actually possesses the capacities at all.

Since autistic individuals have diminished ability in and experience of at least one of the p-making capacities, it appears that the relatedness account cannot escape drawing the absurd conclusion that an autistic individual is consequently less a person, less ‘souled’, or in some respect less ethically constraining than a normative individual. Brown

anticipates this objection, and offers three possible lines of response. First, he reasserts a distinction between the *experience* of a soul and the ethical weight given to persons typically identified as having souls. To count ethically, he argues, a person need only have the ability to be re-created by God at some future point. Relegating all concerns of degreed status to the soul *as experienced*, Brown contends that:

- (1) Personal relatedness is also constituted by being related *to* by other persons; hence an insensible infant still has some degree of personal relatedness.
- (2) Personal experience of relatedness to God is always God's decision, and is probably multiply realizable.<sup>26</sup>

He appears to take these responses as sufficient to put to rest the charge that his account results in degreed souls, but it is not at all clear that they in fact do so.

Brown's first argument, that God can reconstitute whomever he pleases without reliance on the entity's physical makeup or actualized capacities, does little to preserve the status of such persons as ethically constraining individuals. Once we have begun to posit God as reconstituting various entities, we must extend the possibility of reconstitution to any being unless we can articulate a decent argument as to why this should be the exclusive privilege of human beings. Brown offers none, nor does there seem to be any particular quality of humans that warrants divine reconstitution; hence, we must assume that if it occurs it must be contingent only on divine will. If this is the case, there seems to be no reason why such divine will could not be directed equally to non-human entities,

and therefore the capacity to be divinely reconstituted cannot be taken as the feature that makes an individual especially ethically constraining. This work must be done by some property uniquely had by entities that at least intuitively count as persons, and this is lacking in Brown's theory.

His second and third responses suffer from a common flaw: if an entity receives special status by being related *to* by another being, human or divine, then it seems that this status is available to anything to which that being chooses to relate. One could counter that the notion of '*personal* relatedness' necessarily restricts the possibility of being in such a relation to *personal* entities, but this response only begs the question. To determine whether an entity that fails the initial capacities test of personhood can be saved by being personally related *to*, we must on this view first confirm its status as a *personal* being, and so the response does not save the capacities argument from the objection.

#### SUPPLEMENTING THE ACCOUNT: SECOND ORDER CAPACITIES

Though his three responses are inadequate, this does not condemn the theory as a whole. It is possible to supplement Brown's account and perhaps thereby to redeem the explanatory value of his proposal. The problem arises from the fact that the capacities language in the account is systematically unclear, as it makes no distinction between first and second order capacities. "Capacities," as J.P. Moreland explains, "come in

hierarchies. There are first-order capacities, second-order capacities to have these first-order capacities and so on, until ultimate capacities are reached.”<sup>27</sup> A capacity should be understood as being first-order if the subject is directly able to exercise it; as second-order if the subject is theoretically able to develop the corresponding first-order capacity.

There is some difficulty in formulating a precise definition of second-order capacities, and it is not necessary to my argument to present one. However, it is useful to loosely set the parameters for what counts as such a capacity. Broadly speaking, S has a second-order capacity to do y if she could do it in the right conditions, regardless of whether or not those conditions in fact obtain. But what restrictions govern the nature of these conditions? Since in discussing second-order capacities we aim to discover the identity of S by talking about all actual possibilities for it, it seems the conditions must be more restrictive than merely that it be *logically possible* for S to do y. There is no apparent logical contradiction in saying that a human (S) could develop in such a way as to be able to manipulate objects by just thinking about them, but we certainly would not therefore conclude that humans generally have a second-order capacity to do so.

On the other hand, it seems too restrictive to say that second order capacities are limited to those expressed as first-order by the majority of normatively developing entities in a class. Moreland offers language acquisition as an example of the distinction between first and second-order capacities:

“If you can speak English but not Russian, then you have the first-order capacity for English as well as the second-order capacity to have this first-order capacity (which you have already developed). You also have the second-order capacity to

have the capacity to speak Russian, but you lack the first-order capacity to do so. Higher-order capacities are realized by the development of lower-order capacities under them.”<sup>28</sup>

Given certain highly specialized conditions, it is likely that you could speak Russian; but it is certainly not the case that the majority of humans developing under *normative* conditions can speak Russian. While this analysis does not provide a direct definition, we safely say that the restrictions on relevant conditions for S’s possession of y as a second-order capacity should be more permissive than requiring that y be actualized by the majority of normative entities, and more restrictive than the mere logical possibility of S’s having y.

We need not define the field more stringently, since the capacities articulated by Brown as mutually constitutive of personal relatedness fall easily within these boundaries. It is clearly logically possible for any human S to develop the requisite capacities. In fact, if a human develops *normatively*, each of these capacities is actualized and expressed as a first-order capacity. Thus even on the strictest interpretation, the p-making capacities qualify as second-order capacities.

Unfortunately, second-order capacities are not available to direct scrutiny, since they are possessed as potential, rather than necessarily actual first-order capacities. This is not a unique difficulty; any serious attempt to determine which entities are ethically constraining persons and which are not faces a variety of epistemic hurdles. Short of defining a person as a set of observable behaviors, any such categorization involves a judgment about things that are not directly confirmable, and is therefore subject to

inferential errors. This need not pose a significant difficulty; acknowledging that judgments of second-order capacities are necessarily inferential, it seems we can move forward by relying on an argument something like the following: entities are classified according to their capacities, both first and second-order. Biological development is to some extent responsible for these capacities, and so is a factor in classification. Consequently, all of the entities in a particular class (i) bear substantial biological resemblance to each other, (ii) express many of the same first-order capacities, and (iii) share most if not all second-order capacities.<sup>29</sup>

At least a partial list of these capacities can be derived compositely from observation of the expressed capacities of multiple members of the group developing under normative conditions. Justification for this inference is unidirectional. It is certain that if the majority of a class expresses a particular first-order capacity they also possess it as second-order, and it is therefore highly likely that all members of that class possess that second-order capacity though a minority fail to express it. However, one is not quite as justified in inferring that the absence of expression as a first-order capacity by the majority of a class indicates the absence of the corresponding second-order capacity.

One can therefore make the judgment that an entity can be appropriately judged as 'having a soul' and being ethically constraining if it possesses all of the aforementioned capacities as second-order capacities. This allows us to pick out classically recognized persons as ethically constraining, and does not necessitate an appeal to special creation,

‘proper function’, or a conception of the soul as an independent metaphysical substance underlying the physical processes that realize mental abilities.

In light of this analysis, Brown’s capacities argument can be understood as a statement of the observable first-order capacities displayed by the normative members of a group, all members of which should be considered to be persons or ‘having souls’, without necessitating a special creative act or positing a metaphysical substance. The modified argument proceeds roughly as follows: the six p-making capacities identified are all displayed by the majority of normally developed adult human beings. If a subject (S) displays a first order capacity (C), it entails that S also possesses a second-order capacity for (C). So the majority of normally developed adult humans possess the p-making capacities as second-order capacities. Since second-order capacities are established by reference to a class rather than to an individual, one can infer that non-normatively developed members of the class ‘human’ possess the same second-order capacities as normative members. Therefore, the judgment that a particular individual has a soul or is ethically constraining must be made by referencing the class to which he belongs, rather than by analyzing the first-order capacities of the individual.

Consequently, it follows from the fact that an individual is a human being that he is a ‘souled’ being, and must be accorded all the rights to which such beings are entitled. This move permits Brown to avoid the risk of making souls and ethically important properties possessed by individuals in varying degrees, contingent on their success as social beings. As a result, it functions as an answer not only to the objection explored in

this paper, but also to a whole family of objections centering on the notion of ‘degreed personhood.’

Such a move is only permissible, though, if it can be successfully established that non-normative humans bear sufficient similarity in significant, relevant ways to the normative members of the class ‘human’ to be considered properly a member of that class. This can be done by showing that (i) it is conceivable that were the abnormal conditions removed or altered, the entity would likely develop into a normative human, and (ii) that such development would not constitute a change in the entity’s essential identity. In the case of an autistic person, it does not appear difficult to meet these conditions. A series of studies have been conducted on the physiological causes of autism,<sup>30</sup> and while scholars have yet to agree on the details,<sup>31</sup> there is general consensus that the condition results from “a dysfunction in the specific neural substrate for mentalizing.”<sup>32</sup> It is easily conceivable, then, that if the attendant physical conditions for the development of the brain were altered, an ‘autistic’ brain would in fact develop normally. This can be shown by two thought experiments:

(A)

Suppose a subject (S) suffered from a rare mental condition wherein, due to the activity of Chemical X on his brain, he was unable to form episodic memories. However, doctors are able to perform a surgery that block the activity of X, thereby allowing (S) to function normatively. Surely by so doing they have neither altered his identity, nor

changed his basic classification as human. Rather, they have simply removed a barrier (X) to his ability to actualize a second-order capacity that was always there.

(B)

Suppose an individual (T) is born with a condition wherein the brain produces an excess of Chemical X, with the result that over time, the brain will develop in a way that leaves (T) incapable of forming episodic memory as an adult. If (T) is given regular dosage to control the influence of (X), thereby allowing her brain to develop in normative conditions, it seems such a procedure, despite its extension through time, is similar to (A) in that it neither alters (T)'s identity nor her basic classification.

Since (A) establishes the ability to surgically alter a brain while meeting conditions (i-ii), and (B) confirms that extending the scenario through time does not change our intuitions, it is not a stretch to argue that autism is in this way analogous to Chemical X, and should not be taken as determinate of either an entity's identity or classification. Rather, the entity retains all the second-order capacities belonging to her class, while realizing only the first-order capacities possible given her biological conditions. Since judgment of moral personhood or 'souled' status is one of second-order rather than strictly first-order capacities, if an entity *would* develop normally given normal conditions, it is formally indistinguishable from entities that, given normal conditions, do develop normally. This response allows us to conclude that an entity with autism or

Asperger's syndrome is no less ethically constraining—no less a person—than a normative individual.

One may worry that this argument is too permissive. After all, one might think, what prevents this argument from being used to prove the personhood of advanced primates? It seems that the thought experiments posit changes similar in scale to a primate receiving advanced capacities (such as a theory of mind and systematic language) via brain enlargement. This is not in fact the case: for the argument to function, the being in question must possess all requisite second-order capacities, a judgment made by appealing to the traits actualized among the majority of entities within its class. In the case of even the most advanced primate, development of these capacities would either necessitate reclassification, or constitute an identity shift, or both. So long as there remains a clear gulf between classes with respect to at least one of the p-making capacities, such that a non-normative member of class A (humans) is still clearly not a candidate for membership in class B (primates), the argument developed in this paper cannot be used to claim personhood beyond members of the human class.

#### CONSEQUENCES FOR CHRISTIAN BELIEF

It appears then that non-reductive physicalism has sufficient resources to give a satisfactory account of the soul, articulating it in terms of the emergent mind.

Supplemented by this distinction between first and second-order capacities, Brown's

presentation of the soul as personal relatedness successfully distinguishes humans as ethically constraining entities without excluding obvious cases of persons.

These results are of considerable interest to Christians who find themselves unconvinced by dualism, as it offers an alternative understanding of human personhood that is nonetheless coherent and functional. I will not attempt to argue here the consistency of non-reductive physicalism with biblical text; there are many other papers by excellent scholars dedicated exclusively to this subject. The core beliefs of the Christian faith appear to be unaffected, or at least mostly so, by one's philosophic commitments to either dualism or physicalism.

Certainly some forms of physicalism are incompatible with Christianity, but the same can be said of some variations of Dualism. What I have here tried to prove is just that the non-reductive physicalist account of the soul functions as a coherent alternative to substance dualism. Embracing this alternative does hold some interesting implications for a Christian's orientation to the world and herself, and it is worth briefly enumerating them here.

The first and most obvious is that it provides an alternative explanation of human identity, one that skirts the interactionism objection and does not require the individual to posit the existence of an immaterial substance. More significantly, a physicalist account of the soul motivates a richer relation of the self with the body. This is not to say that all dualist accounts necessarily alienate the self from the body; on the contrary, the

Thomistic account offered by Moreland encourages a close identification between the two.<sup>33</sup> Yet even his articulation posits the soul as an entity with a large degree of independence from the body that does in principle maintain a distinction between self and body. Though it does not force separation, it does not prevent it, either. Dualism is necessarily more susceptible to such alienation, which in its extreme form is manifested as asceticism or even as self-harm. Non-reductive physicalism demands that the subject identify herself in and with her body, and will not permit her to consider it ‘other.’ On this view, since the soul emerges from the physical structure, and therefore to some degree *is* the physical structure, actions and events in the body directly affect the soul.

This elevated view of the body could also translate into a higher view of the efficacy of the incarnation and of the sacraments. If the soul is emergent from the physical, rather than being a separate substance, then the Athanasian emphasis on the restorative effects of Christ’s incarnation become more compelling; when he “assumed a human body,” he literally took on all of human nature.<sup>34</sup>

## CONCLUSIONS

I have only hinted at a handful of the most interesting thoughts and queries raised by accepting the non-reductive account of the soul examined in this paper; I leave the task of pursuing the questions further to a future project. The task at hand is merely to assess the personal relatedness theory as a non-reductive physicalist account of the soul,

testing to ensure that it does not exclude any obvious instances of persons. Though initially it appeared that autism and Asperger's syndrome posed significant difficulties for the theory, if it is supplemented with a more nuanced view of capacities, the relatedness account appears to function well, and offers a real alternative to dualist notions of soul.

---

<sup>1</sup> Moreland & Rae, 180.

Moreland writes, "You are essentially your soul- same soul, same person; different soul, different person... personal identity is grounded in the soul." (*Body & Soul: Human Nature & the Crisis in Ethics*, J.P. Moreland, S. B. Rae).

<sup>2</sup> Francis Crick, quoted in M. Jeeves, "Brain, Mind and Behavior", in *Whatever Happened to the Soul*, 87.

<sup>3</sup> Daniel Dennett famously espouses this position in a number of his books and articles, including *Quining Qualia* (1988) and *Consciousness Explained* (1991).

<sup>4</sup> D. Davidson, "Mental Events", in *Contemporary Materialism: A Reader*, 108.

<sup>5</sup> *Ibid.*, 109.

<sup>6</sup> *Ibid.*, 110.

<sup>7</sup> Davidson, "Thinking Causes", 7.

<sup>8</sup> *Ibid.*, 112.

<sup>9</sup> Davidson, "Mental Events", 114.

<sup>10</sup> T. Honderich, "The Argument for Anomalous Monism", in *Analysis*, (Vol 42, No 1). 62, and J. Kim, "Can Supervenience Save Anomalous Monism?" in *Mental Causation*, 23.

<sup>11</sup> Davidson, "Thinking Causes", 12.

<sup>12</sup> Graves, *Mind, Brain, and the Elusive Soul: Human Systems of Cognitive Science and Religion*, 206

<sup>13</sup> Warren Brown, "Cognitive Contributions to the Soul," in *Whatever Happened to the Soul?* (ed. Nancy Murphy), 102.

<sup>14</sup> *Ibid.*, 105.

<sup>15</sup> Malcolm Jeeves, "Brain, Mind, and Behavior" in *Whatever Happened to the Soul?* (ed. Nancy Murphy), 84.

<sup>16</sup> Warren Brown, "Cognitive Contributions to the Soul," 104.

<sup>17</sup> *Ibid.*, 108.

<sup>18</sup> *Ibid.*

<sup>19</sup> *Ibid.*, 103-104.

- 
- <sup>20</sup> Simon Baron-Cohen, Alan Leslie and Uta Frith, "Does the autistic child have a "theory of mind"?" in *Cognition*, 21(1985),MRC Cognitive Development Unit, London, 38.
- <sup>21</sup> Hill & Frith report that "Autistic children are impaired in their intuitive understanding of mental states, such as beliefs, and a lack of the attribution of mental states to themselves and to others that is automatic in normally developing children." ("Understanding Autism: insights from mind and brain", in *Autism: mind and Brain*, Oxford: 2004. Elisabeth L Hill and Uta Frith, 6.)
- <sup>22</sup> Hill and Frith, 6.
- <sup>23</sup> Though it is arguable that persons with Autism or Asperger's syndrome do not actually lose the ability to relate deeply to others persons, and even perhaps with greater intensity in some relationships, there is nearly consensus that the neural makeup of such conditions constitute a barrier to development of normative emotional relationship with other humans.
- <sup>24</sup> This is the conclusion endorsed by S. Baron-Cohen, A. Leslie and U. Frith, (1985).
- <sup>25</sup> Hill and Frith, 7.
- <sup>26</sup> Brown,124.
- <sup>27</sup> J.P. Moreland and S. Rae, *Body & Soul*, 203.
- <sup>28</sup> Moreland & Rae, 203.
- <sup>29</sup> The strictness of this rule is, of course, determined by the more precise definition of second-order capacities. The specific capacities being dealt with in this paper are sufficiently clear to allow ambiguity on this point without harming the force of the argument.
- <sup>30</sup> "Studies have had differing results: "Five highly interconnected regions have been implicated in the neural pattern characteristic of autism: the OFC, the cerebellum, the hippocampal formation the amygdala and the STG (Heath and Harper 1974; Heath *et al.* 1978; Sasaki *et al.* 1979; Barbas and De Olmos 1990; Middleton and Strick 1994; Barbas and Blatt 1995; Schmahmann and Pandya 1997). However, the combination of areas detected as abnormal have shown wide individual variation." (*Insights into the neurobiology of autism*, C.H. Salmond, M. de Haan, K. J. Friston, D.G. Gadian, and F. Vargha-Khadem, p 255.)
- <sup>31</sup> Hill and Frith summarize: "Theories vary from abnormal functioning of mirror neurons (Williams *et al* 2001; p.8), to unusually low connectivity between the occipital and temporal regions of the brain, ("there was less connectivity between occipital (V3) and temporal regions (superior temporal sulcus) in the autistic brains than in the normal brains." (Understanding Autism, 7).
- <sup>32</sup> Ibid.
- <sup>33</sup> Moreland & Rae, 203.
- <sup>34</sup> Athanasius of Alexandria presents the full argument in *On the Incarnation*. He writes: "Therefore He assumed a human body, in order that in it death might once for all be destroyed, and that men might be renewed according to the Image." (Athanasius, *On the Incarnation*, III.13, p. 41)

## WORKS CITED

---

- Athanasius of Alexandria, *On the Incarnation: the Treatise De Incarnatione Verbi Dei*, trans. Penelope Lawson. (St. Vladimir's Seminary Press, 1996).
- Baron-Cohen, Simon, Leslie, Alan, and Frith, Uta, "Does the autistic child have a "theory of mind"?" in *Cognition*, 21(1985), MRC Cognitive Development Unit, London, pp. 37-46.
- Brown, Warren. "Cognitive Contributions to the Soul" in *Whatever Happened to the Soul? Scientific and Theological Portraits of Human Nature*, Warren Brown, Nancy Murphy, H. Newman Malony, ed., (Minneapolis: Fortress Press, 1998), pp. 99-126.
- Davidson, Donald. "Mental Events", in *Contemporary Materialism: A Reader*, (Oxford, 2004), pp. 107-122.
- \_\_\_\_\_. "Thinking Causes" in *Mental Causation*, Heil & Mele, eds., (Oxford, 1993) pp. 3-18.
- Graves, Mark. *Mind, Brain, and the Elusive Soul: Human Systems of Cognitive Science and Religion* (Burlington VT: Ashgate Publishing Co., 2008).
- Hill, Elisabeth, and Frith, Uta. "Understanding Autism: Insights from Mind and Brain", in *Autism, Mind and Brain*, E. Hill, U. Frith, ed., (Oxford: 2004).
- Honderich, Ted. "The Argument for Anomalous Monism", in *Analysis*, Vol. 42, No. 1. (Jan, 1982), pp. 59-64.
- Jeeves, Malcolm. "Brain, Mind and Behavior", in *Whatever Happened to the Soul? Scientific and Theological Portraits of Human Nature*, Warren Brown, Nancy Murphy, H. Newman Malony, ed., (Minneapolis: Fortress Press, 1998), pp. 73-98.
- Kim, Jaegwon. "Can Supervenience and 'Non-Strict Laws' Save Anomalous Monism?" in *Mental Causation*, Heil & Mele, eds., (Oxford, 1993) pp. 19-26.

Moreland, J.P. and Rae, Scott. *Body & Soul: Human Nature & the Crisis in Ethics* (Downers Grove IL: Intervarsity Press, 2000).

Murphy, Nancy. "Nonreductive Physicalism: Philosophical Issues", in *Whatever Happened to the Soul? Scientific and Theological Portraits of Human Nature*, Warren Brown, Nancy Murphy, H. Newman Malony, ed., (Minneapolis: Fortress Press, 1998), pp. 127-148.

C.H. Salmond, M. de Haan, K. J. Friston, D.G. Gadian, and F. Vargha-Khadem, *Insights into the neurobiology of autism*, in *Autism, Mind and Brain*, E. Hill, U. Frith, ed., (Oxford: 2004), p 255.