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What Makes Us Human, and Why it is not the Brain: A Creationist Defense of the Soul

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Abstract

Studies of the brain in neuroscience led to two claims about human beings: the brain is what makes them human, and the soul is no longer needed to explain life, consciousness, and human nature. In order to deal with these issues, this study commences with a brief introduction to the thought forms that underlie these claims. It then presents a biblical picture of the soul and created kinds. The aim is to show that the soul is not only the bearer of life and the first cause and director of the body's structural development and functions, but also identical to the person/self. The final section raises a number of obstacles in the way of a physicalist, specifically, a property dualist understanding of a person as a body/brain. It closes with a brief evaluation of what a physicalist view of a person as a body/brain implies for a Christian understanding of life after death. The conclusion is that the Bible has lost none of its relevance for Christians living in today's world dominated by scientism, naturalism, and physicalism.

Keywords: brain, consciousness, creation, dualism, essence, evolution, Genesis, life, mind, monism, naturalism, nature, neuroscientism, physicalism, person, properties, property dualism, soul, spirit, substance

Introduction

As important as the question of what human beings are, is the question of what makes them what they are. By way of introduction, I wish to present four interrelated reasons why Christians should weigh answers to these questions very carefully. Firstly, pressure from proponents of neuroscientism, naturalism, and physicalism led to inappropriate revisions of biblical teaching that is central to a Christian view of the world, the kinds of things that exist, and their natures. A Christian view of the world entails that science is not a Christian's ultimate or sole source of knowledge and the physical world is not the only world there is. Secondly, from a neuroscientific consensus that it is the brain that makes people human followed the claim that the soul is no longer needed to explain life, consciousness, and human nature. Both these claims are contrary to biblical revelation and teaching. The third reason relates to human origins and the biblical doctrine of created kinds. This doctrine explains, contrary to what evolutionists believe, why human beings could not have evolved over millions of years or developed from ape-like creatures. Finally, it has implications for a Christian understanding of life after death. Contrary to a physicalist view of a person as a body/brain, at death a person does not cease to exist. The Bible teaches that the soul (person) enters an intermediate disembodied state upon death, and will eventually be reunited with a resurrection body.

It is against this background that I will attempt to show that it is not the brain that makes people human and that the soul is a metaphysically necessary existent entity to explain the origins of life, consciousness and human nature. Section I commences with a brief introduction to the thought forms that underlie claims about the brain and soul. Section II will focus on the existence of the soul and the non-identity of the soul and body. The aim is to show that the soul is not only the bearer of life and the first cause, and director of the body's structural development and functions, but is also identical to the person/self. The crucially important biblical concept of created kinds will take center stage in the discussion. The final section will raise a number of obstacles in the way of a physicalist, specifically, a property dualist understanding of a person as a body/brain. It will close with a brief evaluation of what a physicalist view of a person as a body/brain implies for a Christian understanding of life after death.

Section I: What Makes Us Human?

To answer the question "What makes us human?" requires that we get clear about two things first. The first is that it would be a mistake to blindly accept what we are being told about human beings—what they are, and what makes them what they are—in the name of science. Why would that be a mistake? Dr Jonathan Sarfati put the answer as follows:

> It is a fallacy to believe that [scientific] facts speak for themselves—they are always *interpreted* according to a framework (Sarfati 1999, pp. 15–16).

In other words, it is far from us to think that science is a problem when the real problem is the philosophical

views that scientists adopt and through which they subsequently filter their interpretation of scientific research results.

In this respect it is widely acknowledged that the dominant worldview underlying the interpretation of scientific data today is naturalism (cf. Craig and Moreland 2000; Mortenson 2004). As such, naturalism comprises essentially three key elements: scientism (the view that scientific knowledge is superior to any other in kind, if not the only kind of knowledge); an evolutionary story of origins (whatever exists are products of mindless laws and processes of nature and chance; life "emerged" from non-life, and human beings descended from ape-like creatures over millions of years), and physicalism (an ontology of the kinds of things that exist and their natures; all existent entities and their coming to be consists solely of matter or else depend on matter for their emergence and continued existence). Important about these elements is their ordering; scientism serves as justification of the naturalist story of origins which, in turn, justify physicalism.

The second thing we need to be clear about is the nature of the question: "What makes us human?" What we are after when we are asking this question is something metaphysical, and not biological. We shall see that a nature (or essence) is a natural kind of thing, it determines what kind of activities are appropriate and natural for an entity that exist, it is the possessor of all its various properties, and a nature accounts for the continuity and the sameness (identity) of the entity through change over time.

So how would a naturalist/physicalist decide what makes people human? Any naturalist decision must cohere with three self-imposed constraints. First, the decision cannot be based on anything non-scientific (for example, commonsense), and should be able to be verified with the senses. Second, it must be explainable in terms of the evolutionary story of origins. And third, it must be based on some biological and physical fact. So if we can show that the soul and mind are immaterial entities, then naturalists have a real problem to explain what human beings are and what makes them what they are. Let us therefore see what the naturalists and physicalists decided.

Naturalism

According to cognitive neuroscientist and professor of psychology Merlin Donald, a scientific definition of human nature must "free itself" of any "pre-scientific notions about human origins" (Donald 2004, p. 35). It is reasonable to infer that Donald meant that scientists must free themselves from any definition of human nature that invokes the soul[1] and/or the book of Genesis, because such a definition will imply and entail the existence of an intelligent Creator/Designer. To hear that reference to the Creator should be avoided when scientists attempt to understand the world is not surprising to a Christian, for naturalism implies atheism (Bergman 2010). But when we hear Donald's call coming from people who consider themselves Christians, then we need to be extremely concerned. Philosopher and theologian Professor Nancey Murphy, who teaches at Fuller Theological Seminary, is representative in this regard:

> [S]cience…seeks naturalistic explanations for all natural processes. Christians and atheists alike must pursue scientific questions in our era without invoking a creator…[A]nyone who attributes the characteristics of living things to creative intelligence has by definition stepped into the arena of either metaphysics or theology (Murphy 2007, pp. 194–195).

It thus appears that a scientific definition and explanation of human nature that is based on an evolutionary story of human origins will be the preferred option of choice. So what is the scientific explanation of what makes people human?

According to the official primer of the Society for Neuroscience (Carey 2006), the "world's largest organization of scientists and physicians dedicated to understanding the brain, spinal cord, and peripheral nervous system," entitled *Brain Facts. A primer on the brain and nervous system*, "the brain is what makes us human" (Carey 2006, p. 4). But, eminent neuroscientist Professor Joseph LeDoux (1997), who adheres to this view, admitted that he and his fellow neuroscientists are unable to explain this fact: "We have no idea how our brains make us who we are" (Horgan 1999, p. 473). Could it not perhaps be the size of the brain? If it is the case, then we need to know why, but evolutionists are unable to tell us! The late Harvard University geology professor Stephen Jay Gould, and leading evolutionist in his day, put it as follows:

> But why did such a large brain evolve in a group of small, primitive, tree-dwelling mammals, more similar to rats and shrews than to mammals conventionally judged as more advanced? And with this provocative query I end, for we simply do not know the answer to one of the most important questions we can ask (Gould 1977, p. 191).

[1] For the purposes of this paper "soul" and "spirit" will be used interchangeably, although there are exceptions in Scripture. Here follows just a few examples: (1) both the soul and spirit stand in need of purification from sin (1 Peter 1:22; 2 Corinthians 7:1); (2) at death, either the soul or the spirit departs from the body (cf. Genesis 35:18 with Luke 12:20, and 1 Kings 17:17, 21 with Psalm 31:5); (3) a person can be troubled either in soul or in spirit, for example, Jesus (Isaiah 53:11; John 12:27, 13:21); (4) a person worships God either with the soul or the spirit, for example, David (Psalm 25:1, 62:1, 103:1) and Mary (Luke 1:46,47), and Paul (1 Corinthians 14:14–15) and Mary (Luke 1:47). The latter is an example of Hebrew parallelism, a poetic device in which the same idea is repeated using different but synonymous words.

Despite this total lack of understanding we are told to continue to study the brain in order to learn what makes us human. This is the view of Christian psychiatrist and evolutionist Dr. Curt Thompson. For him the brain and its so-called reptilian, paleomammalian and paleocortex also serve as evidence for the "similarities between humans and animals…that we are deeply connected to the rest of creation" (Thompson 2010, p. 41). According to this "triune" theory, the reptilian brain is not only the most innermost portion of the brain, but also the oldest and most primitive portion of the brain, and the so-called rational section (the paleocortex or neocortex) is what makes people human. To debate the theory would take us beyond the scope of this paper. What is significant is that evolutionist and professor of physics, James Trefil at George Mason University described the theory as "simple, elegant, clear, and completely wrong" (Trefil 1997, p. 75). Thompson, however, compares neuroscience with a magnifying glass because it helps us to see things about ourselves we are not otherwise able to see.

One thing seems fairly certain; the "magnifying glass" enabled evolutionists—secular and Christian—to see that the human soul does not exist. Atheist and neurophilosopher Professor Patricia Churchland expressed this neuroscientific "insight" as follows:

> Bit by experimental bit, neuroscience is morphing our conception of what we are. The weight of evidence now implies that it is the *brain*, rather than some nonphysical stuff, that feels, thinks, and decides… It means there is no soul to spend its postmortem eternity blissful in Heaven or miserable in Hell (Churchland 2002, p. 1).

The philosophical basis of these assertions is, of course, physicalism. In this view the mind *is* the brain, and "You are your brain" (Greene and Cohen 2004, pp. 1775, 1779). There is, however, a problem for the physicalist: if we can say just one thing true of the person/mind that is not true of the body/brain, or vice versa, then physicalism is false; neither the person nor the mind is a brain. Murphy expressed her neuroscientific "insight" in terms that match those of her atheist counterpart as follows:

> [N]euroscience is now completing the Darwinian revolution, bringing the mind into the purview of biology. My claim, in short, is this: all of the human capacities once attributed to the immaterial mind or soul are now yielding to the insights of neurobiology ….[W]e have to accept the fact that God has to do with brains—crude though this may sound (Murphy 2006b, pp. 88, 96).

So, by implication, the Creator not only failed to reveal that "insight" in Scripture, but waited over 2,000 years for atheists, evolutionists, and physicalist neuroscientists to reveal it to us. Elsewhere Murphy said that a "massive amount of evidence" suggests that we no longer "need to postulate the existence of a soul or mind in order to explain life and consciousness" (Brown, Murphy, and Malony 1998, p. 17);[2] "we are our bodies," and a physicalist account of human nature does not conflict with the biblical view on bodies and souls, because "the Bible has no clear teachings here" (Murphy 2006a, pp. ix, 4). This, we shall see, is not simply overstated; it is plainly false. Murphy's statements only follow when people adopt naturalism and physicalist monism[3] as true reflections of the world and the kinds of entities that exist,[4] when Christians reject the Genesis record of Creation and reinterpret the data in symbolic/allegorical language, and/or reject the Genesis record of origins as misguided "ancient science."[5]

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[2] Evolutionists and neuropsychologists Warren Brown and Malcolm Jeeves (1999) hold, just as Murphy, a view which they describe as "non-reductive physicalism" (that is, physicalist monism—see footnote 3 for more clarity). What moved them to adopt this position were not the Bible, but neuroscience and evolutionary biology.

[3] "Physicalist monism" is the philosophical doctrine that everything that exists is physical; the world consists of only one kind of stuff. It says that if you start with a physical effect, you cannot go back and search for a non-physical cause (Papineau 2001). Talk of immaterial entities such as God, angels, and human souls/spirits and minds will therefore make no sense, unless they can be reduced to matter. In a paper entitled "Evolutionary Psychology is Not Evil! (…and Here's Why Not…)", Glen Geher clarified what this physicalism entails:

> [T]his perspective is monistic to the core; it conceives of human behavior as resulting from the nervous system—including the brain—which was, according to this perspective (and to most modern scientists who studied psychological phenomena), shaped by evolutionary processes such as natural selection (Geher 2006, p. 185).

[4] For the type of problems proponents of naturalism and physicalism have to overcome in order to be plausible, see Terry Mortenson (2004) and Howard Robinson (1982). For a thorough examination and critique of the dominant physicalist and naturalist views on consciousness in the context of the philosophy of mind, see J. P. Moreland (2008).

[5] A case in point is The BioLogos Foundation, which consists of a group of Christians—scientists, scholars, philosophers, theologians, pastors, and educators—who believe "that evolution, properly understood, best describes God's work of creation" (BioLogos 2011). One of the members, Professor Denis Lamoureux, believes that "Adam never existed, and this fact has no impact whatsoever on the foundational beliefs of Christianity" (Lamoureux 2010, p. 1). He further holds the bizarre idea that the Spirit of truth, who inspired the Scriptures, used the false "ancient science" of the Near East reflected in the Bible to convey spiritual truths to us (Lamoureux 2010, p. 5).
Creationists such as Terry Mortenson (2009b) and Ken Ham (2001) have shown that, in order to make their case, Christian evolutionists must reject the six literal 24-hour days of creation for "the idea of billions of years, as taught by the scientific establishment" (Mortenson 2009b, p. 1). The same holds true of non-evolutionist Christians (Ham 2007; Ham and Mortenson 2009; Mortenson 2004; 2009a). A review of the criticisms against views, such as these held by BioLogos members, reveals three facts: (1) there is a real conflict between secular science and biblical Christianity (Bergman 2010); (2) arguments in favor of a non-literal understanding of the Genesis record of Creation amount to a rejection of biblical authority (Ham 2001; Ham and Mortenson 2009), which (3) leads to a questioning of the nature and character of God (Grigg 1996; Mortenson 2009b). It follows that if Christians concede that people should not take Genesis as written, then it would be inconsistent to expect the world to accept any word of Scripture as written.

However, an analysis of the conceptual frameworks of most neuroscientists and philosophers of the mind/brain led eminent neurophysiologist Professor Maxwell Bennett and professor of philosophy Peter Hacker to conclude that conceptual confusion is the main cause of

> incoherences in the *interpretation of the results* of experiments (p. 5)….[It is a huge] *misconception to suppose that the brain is a bearer of psychological attributes* (p. 7; emphasis added)….If psychological terms are applied to the brain in their customary sense, then what is said is not intelligible. We do not know what it means to say that the brain thinks, fears, or is ashamed (Bennett et al. 2007, p. 149).

The answer as to why the brain is not able to think, feel, decide, fear, or be ashamed, is very simple: the brain is not a person. For neuroscientist and physician Professor Raymond Tallis, the cause of conceptual confusion is the pervasive yet mistaken "science-based faith" that neuroscience does fully account for consciousness and behavior, a faith he referred to as "neuroscient*ism*" (Tallis 2010, p. 3; see also Guta 2011). Tallis is quite right and forthright: The

> present epidemic of such neuroprefixed pseudo-disciplines as neuroaesthetics, neuroeconomics, neuro-sociology, neuropolitics, neurotheology, neurophilosophy, and so on" is built on the idea *not* that a "human life requires having a brain in some kind of working order," but "that to live a human life is to *be* a brain in some kind of working order (Tallis 2010, p. 3).

This brief overview seems to confirm the statement that it would be a mistake to blindly accept what we are being told about the soul and brain in the name of neuroscience. Again, the idea is not that neuroscience is the problem, but rather the philosophical positions and assumptions that underlie the interpretation of research results, and the conceptual confusions they lead to (see also Beauregard and O'Leary 2007). What we thus shall see is that, contrary to what people such as Churchland and Murphy believe, attributing capacities of the soul to the brain is not scientific. The remainder of this paper is dedicated to the task of showing that there is also no straightforward biblical evidence or philosophical arguments to support naturalism and mind/brain physicalism.

Section II: The Reality of the Soul

In order to counter the theses that a human person is his body and that there is no such thing as an immaterial soul, I will, instead of analyzing relevant anthropological terms,[6] establish the non-identity of the soul and body from Scripture. That is to say, to demonstrate that Scripture teaches some things true of the soul that is not true of the body. Four aspects will suffice to conclude that there is a modal distinction between the two entities in question.

The first aspect is that the doctrine of the soul and body is about two different realms, the one unseen (immaterial), and the other the seen (material), and the relationship between them. The Bible tells us that God is a spirit (John 4:24), invisible (1 Timothy 1:17; Colossians 1:15), and that "things which are seen were not made of things which are visible" (Hebrews 11:3). The Bible further informs us that "the things which are seen *are* temporary, but the things which are not seen *are* eternal" (2 Corinthians 4:18). Significant about the latter text is that the apostle Paul wrote it directly after he contrasted the "outward man" (who is decaying) with the "inward man" (who is "being renewed day by day"), and the afflictions that befell him and his fellow believers (2 Corinthians 4:16, 7–10). The question now is, are "outward" and "inward" man two ontologically different kinds of entities, or just two "aspects" of the same thing (for example, a physical substance like a coin with two sides)? It seems that we can dispense with the latter option, for if we are to think they are just two aspects then the apostle would have said they either decay together or are being renewed together. And it is clear from the text that is not what he said. It is therefore reasonable to conclude that things can happen to "earthen vessels" (v. 7) or the "body" (v. 10) or "outward man" (v. 16) that cannot happen to the "inward man," despite their deep unity. But what is this "inward man"?

In Zechariah 12:1 we read the following words: "…Thus says the LORD who stretches out the heavens, lays the foundation of the earth, and forms the spirit of man within him." What the prophet referred to here as created by God, the "spirit of man within him," our Lord and Savior qualified this way: "Foolish ones! Did not He who made the outside make the inside also?" (Luke 11:40). In the gospel of John, Jesus said something to Nathanael about himself (his inner person) that was not true of his body: "…Behold an Israelite indeed, in whom is no deceit!" (John 1:47; cf. 1 Peter 3:3–4). But the most clear indication of what (or who) the inward person is, comes from our Lord himself in Matthew 10:28. In that text Jesus told his disciples whom to fear; not only those who can, for example, burn the human body to ashes and can do nothing to the soul, but God who is able to cast both body and soul into hell. Scripture is clear: a human being is more than a material or physical body. The person is the soul and has a body, which leads to the next difference between them.

[6] The reader is referred to works such as those by Cooper (2000), Moreland and Rae (2000), and Saucy (1993, pp. 17–51).

Without the soul (or spirit) the body becomes a corpse. In the words of the apostle James: "…the body without the spirit is dead…" (James 2:26). There are at least four things to be said in relation to this text. Firstly, Scripture reveals that it is either the soul or the spirit that departs at death, never both (cf. Genesis 35:18 with Luke 12:20, and 1 Kings 17:17, 21 with Psalm 31:5 and Matthew 27:50). Secondly, nowhere in Scripture does that order appear in reversed form. It is the body that is dead without the soul, and not the soul without the body. Thirdly, the soul/spirit returns to the Lord Who gave it, and the body returns to the earth from which it was created and formed (Genesis 2:7; Ecclesiastes 12:7). It would therefore be simply wrong to think that the soul/spirit do not continue to live after the death or destruction of the body, which means that the soul is capable of entering an intermediate disembodied state between death and its final reunion with a resurrection body (cf. Luke 23:42–43; 2 Corinthians 5:1–10; Philippians 1:21–24; 2 Peter 1:13–15).

Many people, for many years, have read Exodus 3:6—"…I *am* the God of your father—the God of Abraham, the God of Isaac, and the God of Jacob.…"—in light of texts that refer to the burial of the bodies of those who "breathed" their last on earth, and assumed that the persons referred to were deceased persons (cf. Genesis 15:15, 25:8, 35:29, 49:33). The Sadducees were a category of people who based their beliefs on that assumption, but for two reasons were mistaken: a wrong understanding of Scripture, and an inadequate conception of the nature of the Creator. This is what our Lord told them: "…You are mistaken, not knowing the Scriptures nor the power of God" (Matthew 22:29). Jesus therefore corrected their mistaken assumption; He told them that the Creator "…is not the God of the dead, but of the living" (Matthew 22:32). It is a claim, in other words, that Jesus only could have made if Abraham, Isaac and Jacob were alive, if they had continued to exist after their bodily death on earth

The fourth point is, it must have been during the period between Jesus' resurrection and departure from the Earth that Peter had learned something about the soul and body of Jesus (see Acts 2: 27, 31), and discovered that Jesus was alive between His biological death on the cross and His resurrection from the dead. He informed us that Jesus went to proclaim the gospel of the new life in Him to those whose bodies perished during Noah's Flood (1 Peter 3:18–21, 4:6). Not only were they—Jesus and those that perished—alive, but they had been alive without material bodies. It is therefore consistent for Paul to have said that, "…He also first descended [into the lower parts of the earth]…is also the One who ascended far above all the heavens…" (Ephesians 4:9–10). The point cannot escape our attention. Had Jesus been identical with His body, then His identity would have been dependent on His body as well, and that is not so; His body underwent radical change during the period He was tortured. Put differently, had Jesus been subject to change in Himself (his inner immaterial spiritual soul), due to the change that took place in His material body, then the writer of the letter to the Hebrews could not have stated that "Jesus Christ *is* the same yesterday, today, and forever" (Hebrews 13:8). If it is true of Jesus, then it must be true of us, for He was a complete human being.

A third aspect of the difference between the soul and the body is simply that the soul is an agent, and the body and its parts the instruments the agent uses to accomplish things in the world. In Romans 6:13 it is written: "[A]nd do not present your members *as* instruments of unrighteousness to sin, but present yourselves to God as being alive from the dead, and your members *as* instruments of righteousness to God" (cf. v. 19 and 12:1–2). It is clear enough, the body cannot move itself in the absence of an agent who decides to move it. In the next section we shall see that an agent must be conscious and have mental states, which explains why a dead body without a conscious agent is a corpse and unable to interact with the world.

A final aspect, in close connection with the previous point, is that the agent must one day appear before our Lord to give an account of the deeds he performed through his earthly body (2 Corinthians 5:10). The implication is that the agent must remain the same entity through change over time, in contrast to the body that can be tortured and hacked to pieces (that is, the things men can do the body—Matthew 10:28), and a dead body that becomes a corpse and eventually decomposes (2 Corinthians 4:16; James 2:26).

The above analysis allows us to draw the following conclusion: there exists a modal distinction between the soul and body. It means three things: (1) the body is a mode of the soul. To say "mode" means that the body is dependent on, inseparable from, and genuinely distinct from what it is a mode of (that is, the soul); (2) there is non-identity between the soul and body, and (3) there is inseparability in the following sense: the soul can exist without the body, but not the body without the soul (cf. Moreland 2001, pp. 22, 128).

Now the book of Genesis informs its readers that God created various plants, trees and animals to produce "according to their kind" (Genesis 1:11, 12, 20–25). In Genesis 1:26–27 and 2:7 our Creator did exactly that Himself: He created the first male (Adam) and female (Eve, "…the mother of all living"—Genesis 3:20) in

His image and likeness (see also Genesis 5:1, 9:6).[7] In Genesis 5:3 we read that Adam "…begot *a son* in his own likeness,…" which leads to the following question: What made it possible for him to produce offspring like himself, who was able to image him? Could it be the soul? Not according to Christian evolutionists. So let us see why, and dispense with their objections.

Christian (theistic) evolutionists today hold three interrelated beliefs. First, the creation of Adam was not a separate act of creation from that of the animals. Second there exists continuity in the evolution from inorganic materials to plants to animals to humans. Third, the soul is not something that sets human beings apart from animals. These are points which, for example, Professor Joel Green, who teaches New Testament theology at Fuller Theological Seminary, and neuropsychologist Professor Malcolm Jeeves share in common with Murphy. In the words of Green: "[W]e err when we imagine that it is the 'soul' that distinguishes humanity from non-human creatures" (Green 2005, p. 3). Jeeves' argument is simply that

> the word translated "soul" in Genesis 2:7 is a word that has already appeared in Genesis 1:20, 21, 24, and 30 where in every case it refers to animals… (Jeeves 2005, p. 172).

These views are, however, not views from nowhere. This is how Charles Darwin expressed them in 1871:

> False facts are highly injurious to the progress of science, for they often endure long…The main conclusion here arrived at, and now held by many naturalists who are well competent to form a sound judgment is that man descended from some less highly organized form. The ground upon which this conclusion rests will never be shaken, for the close similarity between man and the lower animals…are facts which cannot be disputed. The great principle of evolution stands up clear and firm…it is incredible that all these facts should speak falsely. He who is not content to look, like a savage, at the phenomena as disconnected, cannot any longer believe that man is the work of a separate act of creation…[T]he conclusion is that man is the co-descendant with other mammals of a common progenitor (Baird and Rosenbaum 2007, p. 70).

When creation is viewed as the product of an intelligent Creator/Designer, then these arguments disappear; there is no obstacle to saying that the Designer of the soul can incorporate it into kinds of organisms that share similarities. An engineer would not be surprised to find similar ignition switches in different kinds of vehicles produced by the same manufacturer. So Christians who admit the existence of an all-powerful and intelligent Creator need not be surprised to find similar features in creatures with a soul. Interestingly enough, none of the non-human creatures have been created in the image of God (Genesis 1:26–27; James 3:9), and Jesus only died for human beings so that they, amongst other things, could be "…renewed in knowledge according to the image of Him who created [them]" (Colossians 3:10).

The same can be said about the body. Creationists do not dispute that there are similar structures among the various created things, but creationists argue that similarity in structure is evidence for the existence of a common Designer/Creator. We can now proceed to take a closer look at the soul, along two steps. I shall first clarify the biblical concept of created kinds, and then clarify important metaphysical distinctions in order to be true to our biblical picture of the soul.

Section III: Created kinds and the Nature of the Soul

Genesis 1 reflects the fact that the Creator created various things which we may refer to as "natural kinds." They were "natural" in the sense that they could reproduce their own kind. From this follows that every member of a particular created kind would have shared in the essential nature of the created kind from which they stem. Further, the Creator must have endowed the created kinds with a set of natural capacities to do certain things, otherwise reproduction and functioning in their respective environments would not have been possible. And if each of the created natural kinds had been endowed with inherent limits and fixed boundaries beyond which kind variation could not go, then it is natural to think that it is impossible for a fruit tree to produce an animal, and impossible for an animal to produce a human being, although natural to think that members of, for example, the dog kind to interbreed and produce varieties of the dog kind.[8]

These facts about created kinds as natural kinds are succinctly captured by the concept of baramin, a concept derived from the Hebrew words *bara* ("create") and *min* ("kind") (Frair 1999, p. 5). That baramin reproduce only their own kind "is clearly seen (or rather not seen) in our world today, as there are no reports of dats (dog+cat) or hows (horse+cow)" (Purdom and Hodge 2008, p. 1). Even if two animals or fruits can produce a hybrid, the members will still be of the same kind (for example, mules—from horse and donkey, and pluots—from a plum and apricot).

[7] "Image" means an object similar to or representative of something else. This can be seen in statues, replicas, paintings of aeroplanes on a wall, and idols (Numbers 33:42; 2 Kings 11:8). "Likeness" can mean one object similar to or as substitute for another object. Image is therefore not identical to but like in substance (cf. Pfeiffer, Vos, and Rae 1975, pp. 832–833).

[8] It is important not to confuse "change" with alteration, which is a type of change. For example, a leaf can change from green to red and still remain the same leaf.

The question now is what it is that ensures sameness of kind if changes over time occur.

A clue to this question is found in the word "species" in James 3:7, which is wrongly translated from the Greek word *phusis*, as it ought to be kind (Vine 1984, p. 621).[9] The word *phusis* in turn derives from *phuō*, meaning "to bring forth or produce." As such it signifies "the nature (that is, the natural powers and constitution) of a person or thing" (Vine 1984, p. 775). Now if every created kind has a nature peculiar to it, then we can say at least four things about it. First, it is the inherent or implanted nature of something that makes it a natural kind. In other words, it answers the question: What is it that makes something the kind of thing that it is? Second, the nature determines what kinds of activities are appropriate and natural for that entity (for example, for a dog to bark and a fish to swim). Stated differently, the capacities of every particular kind of entity are grounded in the nature of that entity. Third, an entity's nature is the possessor and the unifier of all its various properties (for example, capacities, functions, tendencies, dispositions, and parts). And fourth, the nature accounts for the continuity and identity (sameness) of the entity through change over time.

Although we will return to it again, for now it will suffice to note that an essential nature belongs to what is referred to as a substance—an individual natural kind and its members. But since Dr. Georgia Purdom and Bodie Hodge (2008) alerted Christians to the fact that "species" is a man-made term, in contrast to kind introduced by our Creator, it will be worthwhile to see precisely why naturalists object to the existence of natures (essences).

Darwin, his heirs and created kinds

Since the acceptance of Darwinian evolution the biblical picture of created natural kinds has undergone some radical changes. It occurred because the idea of created kinds and unchanging natures as depicted in Genesis and elsewhere in Scripture lost its hold on the thinking of scientists and philosophers. This is because Darwinians realized they face a metaphysical problem, which is this: if natural kinds possess unchanging natures, then evolution (as understood by evolutionists) could not have happened. In the words of evolutionist Professor Ernst Mayr:

> The outstanding characteristic of an essence [essential nature] is its unchanging permanence.... If species had such an essence, gradual evolution would be impossible (Mayr 1987, p. 156).

This was also the realization of naturalist philosopher David Hull:

> The implication of moving species from the metaphysical category that can be appropriately be characterized in terms of "natures" to a category for which such characterizations are inappropriate are extensive and fundamental. If species evolve in anything like the way that Darwin thought they did, then they cannot possibly have the sort of natures that traditional philosophers claimed they did. If species in general lack natures, then so does *Homo sapiens* as a biological species. If *Homo sapiens* lacks a nature, then no reference to biology can be made to support one's claims about "human nature." Perhaps all people are "persons," share the same "personhood," etc. but such claims must be explicated and defended *with no reference to biology* (Hull 1989, pp. 74–75).

There is therefore just one strategy left for the evolutionist to follow, if he wishes to continue to believe in evolution, and that is to deny that natural kinds have essential natures. In other words, by continuing to invent theories and models that would suit the evolutionary story of "evolving species."

Let us next clarify our biblical picture of the soul with crucially important metaphysical distinctions.

Metaphysical Distinctions

Soul and body

The Bible reveals that God is an immaterial spiritual substance (John 4:24) who created the world (Genesis 1:1; John 1:1–3; Hebrews 1:2), and therefore existed prior to Creation (Genesis 1:1). These facts have at least three implications for an adequate understanding of the soul and its relation to the body.[10] Firstly, there is an ontological and epistemological analogy between God and human persons (cf. 1 Corinthians 2:11; see also Joubert 2011). Why is that so? Christians accept the Creator as their paradigm case of what a conscious person and agent is. It follows that whatever a person is, a person bears similar features to the supreme Person. Secondly, if God is an agent, a conscious person (Spirit) that is fully present in the world, then this leads to a further analogy: the soul/mind is to the body/brain as God is to the world (space). And thirdly, there is only one substance—the soul—which is not identified with the soul-body composite. In this view the body is a physical biological structure that not only depends on the soul to make it human, but also for its continued existence. What does all this mean?

First, the soul is a unified, immaterial mental substance that is fully present throughout the body, including the brain. We can therefore rightly think of a human being as an ensouled body. However, to say "fully present throughout the body" does not mean

[9] See also Louw and Nida (1988, p. 588); Zerwick and Grosvenor (1988, p. 697).

[10] I am deeply indebted to J.P. Moreland (1993; 2001) for the insights reflected in what is to follow. In the debate between dualists and monists the following question is central: Who is the person? Or, with which part of the human being should the person be identified?

that the soul can be spatially captured in any specific location as, for example, water in a glass. Likewise, the mind has thoughts and beliefs inside it, but cannot be spatially located anywhere "in" it. If the soul/mind is literally "in" or to be identified with any bodily part, then someone who lost two eyes has lost two parts of his soul. A blind person, by contrast, only lost the means (bodily members) by which seeing is actualized. Similarly, if God is literally "in" the things of nature, or to be identified with, say, a tree, then when a tree "dies" so must be a part of God, and that is not so. In other words, "fully present in" does not entail or imply being identical to each other. In short, the soul is a mental substance that makes the body a human body; it stands under, unifies and empowers the body.

Second, the soul is a unified whole of inseparable parts that is ontologically prior to its parts and the body that is constituted by separable and inseparable parts. To see this, consider the difference between the soul as a substance and a property/aggregate thing such as a table. The parts of a substance inhere in the substance that has them as part of its essential nature (for example, its capacities to think, desire or feel). It means they cannot be severed from a substance and continue to exist. In contrast, a table can be dismantled, and its parts stored in a room somewhere, which means its unity is artificial. Put differently, the table is a composite of parts, and the table obtains its identity only after the parts have been put together by someone outside and separate from the table. The soul, in contrast, is a whole prior to the existence of its inseparable parts.

Third, the soul is the first cause and director of the body's development and its functions, and will connect the parts into a structure that is internally related to the soul's nature. A different way to express the same point is to say that bodily parts (for example, eyes, hands, DNA) and processes involved in bodily development and change are means in service of the soul, and which the soul uses to form the body in order to function as it ought to function by nature. In short, just as a pile of wood cannot turn itself into a bed, so the human body cannot be arranged the way it is in the absence of an actual organizing cause. With this in mind we can now proceed to refine our understanding of the nature of the soul.

The nature of the soul

Two initial points will suffice. First, the "inner nature" we call the soul's essence, is the soul's human personhood—a natural set of properties that is characteristic of the person (for example, capacities, attributes, tendencies, and dispositions). The soul has various mental capacities and states, for example, sensations, thoughts, beliefs, desires, and volition. Second, although the soul has literally thousands of capacities, the various capacities within the soul fall into natural and internally related groupings called faculties. The ability to see colors, for example, is part of the faculty of sight and the ability to think about created natural kinds and natures is a capacity within the thinking faculty (the mind). In other words, each faculty of the soul consists of a natural web of related capacities. Among other things, the soul contains five sensory faculties. The important point about capacities is that they come in hierarchical order. Roughly, this means that certain capacities must be developed first before others can be actualized. Let us briefly clarify the meaning of each of the mental capacities and states.[11]

A *sensation* is a state of awareness, a mode of consciousness; for example, the conscious awareness of a color seen, a sound heard, or a rose smelled. When I, for example, see a black dog running, then it is a state of my mind and not a state of my eyeballs. Eyes do not see; a person (a soul) sees with or by means of his eyes. Mouths, hands, and feet—the body in general—are thus instruments or tools the soul uses to engage and experience the environment. In other words, while some sensations are experiences of things outside us, like a black dog or a red apple in a tree, others are first-person conscious states like "uneasiness" about something or a pain within us. Understood this way means that emotions are a subclass of sensations, and are, as such, forms of consciousness of things—fearfully, lovingly, or resentfully.

A *thought* has mental content (for example, meaning) and can be expressed in spoken and written sentences. When expressed in a sentence, the thought is not the same thing as the sentence that is used to express it. Sentences are sense perceptible and publicly accessible—spoken sentences have sound characteristics and written ones have physical features such as scratchings on a blackboard, shape, size and

[11] Christian evolutionist and philosopher Donald Wacome stated, to have been able "to function as his [God's] agents in the created world, representing him as they exercise dominion over the creation…[makes it] reasonable to suppose that human beings performing these functions presupposes their having certain characteristics" (Wacome 1997, p. 7). While he is prepared to grant that no "convincing scientific theories of how we came to have these characteristics are generally currently available" and that "these characteristics comprise the image of God," it "adds nothing to the argument against the possibility of a naturalistic [evolutionary] explanation…" (Wacome 1997, p. 7). The problem is that Wacome does not offer us an explanation of how blind, mindless processes with no consciousness can produce entities with a mind and consciousness (see footnote 13). Moreover, any first member in a given series of subsequent members can only pass on what itself possesses. Thus, if nature consists entirely of physical processes, then it follows that from the physical only the physical can come. Since Wacome believes that no "plausible interpretation of the imago Dei [image of God] maintains that it is our physical resemblance to God that is involved here, since he [God] is not a material being" (Wacome 1997, p. 7), it follows that something is a person only if there exist a relevant similarity to the supreme Person.

color—but the thought expressed by the sentence is invisible; it is in the mind of the speaker. When a person is thinking a thought, an event of thinking takes place in the mind of the person (or self) and, as such, exemplifies a proposition. To say that a thought exemplifies a proposition means that a thought that is about something can be true or false, in virtue of the fact that it is of or about something: a thought that an apple is bad for one's health is about the apple.

A *belief* is what a person accepts about reality, to varying degrees of strength. And since a belief is about how things are in the world, including the kinds of things that exist, a belief is either true or false. If, for example, a person believes it is raining now, then that belief will serve as the basis for the person's actions (the person closes her bedroom windows). This makes it difficult to think that a belief is a disposition to behave a certain way; it is rather the ground for dispositions. There are also things such as basic beliefs, for example, that the Bible is the Word of God. It is a basic belief purely because it leads to other beliefs, such as that Adam was the first person created by our Creator (1 Corinthians 15:45; cf. Matthew 19:4–6; Romans 5:12, 14).

A *desire* is an inclination to have, avoid, experience or do certain things; they are either conscious or such that they can be made conscious through, for example, thinking, touch, or talk. Natural desires are for things that must exist, otherwise human needs cannot be met (for example, water to quench thirst; God rewards those who seek Him—Hebrews 11:6). An act of will is volition of free choice, an active exercise of power, an endeavour or purposing to do a certain thing or bringing a certain state of affairs about. Put another way, the will is a faculty of the soul that contains a person's abilities to choose and act.

Now if actions are the products of a person's will, then a person is a moral agent.[12] Let us therefore get clear on what an "agent" is. Firstly, an agent is a person with special capacities as part of his constitution—thoughts, beliefs, desires, sensations (feelings), the ability to know, understand, evaluate (judge), and so on. Secondly, an agent must possess consciousness (including self-awareness),[13] otherwise he would be unable to present to himself possible courses of action and evaluate whether a given action is appropriate or not, including evaluating whether his beliefs, desires, feelings, or thoughts—associated with the action—are relevant or not. Thirdly, an agent must remain the same through change, otherwise a person who committed a crime a week ago and is now standing in front of the judge cannot be punished for his crimes (if he is found guilty). And fourthly, an agent must be free in two senses: he must be able to do something freely and must have the ability to do otherwise, or have willed to do otherwise.

If we take the whole, this entire ordered structure—faculties, capacities, functions, mental states, and relations—together, then it is the substance's principle of activity and that which govern the precise, ordered sequence of changes that the substance will go through in the process of growth and development. Its essential nature will therefore set the limits of what types of changes the substance can and should undergo as it exists. The nature thus has a purposeful structure, a principle of unity and an orderly sequence of activities whose unfolding forms body parts in order to realise bodily functions.[14] From this follows

[12] This is a huge problem for the evolutionist. But why should it be? Moral (and intellectual) responsibility entails freedom (free choice; free will) as a necessary condition for responsibility, and reconciling a naturalistic and ethical perspective becomes impossible for the naturalist. In the words of naturalist philosopher John Bishop: "The idea of a responsible agent, with the 'originative' ability to initiate events in the natural world, does not sit easily with the idea of [an agent as] a natural organism" (Bishop 1989, p. 1). For evolutionary psychologist Steven Pinker, free will is simply "another enigma…How can my actions be a choice for which I am responsible if they are completely caused by my genes, my upbringing, and my brain state?" (Pinker 1997, p. 558). "A final conundrum is morality…How did ought emerge from a universe of particles and planets, genes and bodies?," he asked (Pinker 1997, p. 559). His naturalist conclusion is that "perhaps we cannot solve conundrums like free will and sentience" (Pinker 1997, p. 561).

[13] Naturalist philosopher John Searle admits that, "The way that human and animal intelligence works is through consciousness" (Searle 1998, p. 31). But where consciousness originates from remains a mystery for the evolutionist (see Section IV). The good news is that consciousness is no mystery for the biblical Christian, for God is a personal being that communicates, plans, and acts, hence why He is the First Cause (Creator) of everything that exists—seen and unseen (cf. Genesis 1:1; Isaiah 40:12–14, 18, 21–22, 25–26, 28–29; 2 Corinthians 4:16–18; Colossians 1:15–17).

Even an atheist and evolutionary psychologist such as Steven Pinker concurred that consciousness has three specialized meanings: self-knowledge (Pinker 1997, p. 134), direct access to one's own thoughts (Pinker 1997, p. 135), and sentience ("subjective experience, phenomenal awareness, raw feels, first-person present tense, 'what it is like'…" [Pinker 1997, pp. 135–136]); "Among the various people and objects that an intelligent being can have information about is the being itself." He said, "Not only can I feel pain and see red, I can think to myself…" (Pinker 1997, p. 134). The problem for Pinker is that he referred to an entity—an "I"—whose existence he elsewhere denied. Since Darwin explained how life originated from the blind and mindless physical processes of natural selection, science overcame "one wall standing in the landscape of knowledge": the existence of the "ghost in the machine" (Pinker 2002, p. 31). "Science has now shown", he said, that entities such as "the self, the soul, the ghost, the person, the 'me'" (Pinker 2002, p. 42) do not exist. What is strange is that it escaped Pinker's attention that he continues to talk of "self-knowledge" without a conscious self who is the possessor of that knowledge!

[14] Biologist Jonathan Wells noted that whereas fish embryos go on to form gills while in other vertebrates they develop into various other structures, such as the head, inner ear, and parathyroid gland, "embryos of mammals, birds and reptiles never possess gills" (Wells 1998, p. 59). He said that this phenomenon deepens "the mystery of how embryos attain their final form" (Wells 1998, p. 61). Well's conclusion: "their final form precedes their embryonic development" (Wells 1998, p. 61).

the next truth: when the soul comes into existence, its nature determines function and not vice versa.[15] Thus, if the soul is accepted as an individuated nature, then every living organism is identical to its soul. When does the soul come into existence? If a human person is identical to his soul, then a human person comes into existence at the point of conception.

This leads to a third point, closely related to the previous, and that is that the inner nature of the soul does not come in degrees. It is not at all like someone walking into a room with a first step, then a second, until the person finally entered the room. It is an all or nothing affair. The implication for our understanding of the human person is this: there is no such thing as a non-human person. There can be persons that are not human (God, angels), but no humans that are not persons. By analogy, there can be colors that are not red, but no red things that are not colored things. At this point it would be worthwhile to illustrate what has been said so far about the soul and its inner nature by comparing it with a seed, such as a peanut.

Firstly, it is the bearer of its own life and properties. In other words, it has its life in itself.[16] Secondly, it makes other things possible (for example, a root system, a stem, branches, leaves). Put in the reverse, other things depend on the peanut (the substance) for their existence. This leads to a third observation, and that is that it must have some definite inherent capacities or abilities. Some are absolute capacities and others first-order, and second-order capacities that have the first-order capacities, and so forth. The peanut has the ultimate capacity to bear fruit, and so the first-order capacity to draw nutrients from the ground. But if it does not grow a root system (develop a second-order capacity), it will be unable to do so. Fourthly, it remains the same thing during its development and change into a peanut tree; it may lose some leaves and some green leaves may turn brown. Finally, should the right conditions and environment prevail, it will do what it is naturally capable of doing—growing and bearing fruit.

Becoming and perishing

For many evolutionists the notions of becoming and perishing hold a very strong attraction. Both these notions involve gaining and losing existence. When James, for example, comes to exist, there must be at least one property that belongs to him, and that is he must be human—at that very moment of his coming to be. By contrast, something that perishes (ceases-to-be), no longer has this property. The problem is that this principle is often confused with alteration—an apple going sweet and a leaf going from green to red are examples. Alterations are types of change, and before something can change it must exist first, and the thing that changes must exist at the beginning, during the process of change, and at the end of the change. In the case of the apple, the apple exists and continues to exist while it is sweet, during the time it changes to being sweet, and when it is sweet. An alteration is a case in which a thing changes in the properties it has; it is not the case in which something changes with respect to its existence. Alteration presupposes existence; it can therefore not be the same thing as a change in existence itself.

Degreed and nondegreed properties

A property is an attribute, a quality or characteristic, such as blackness, painfulness and wisdom. These are examples of degreed properties. One person can, for example, be wiser than another and can experience pain of various degrees of intensity. In contrast, a natural kind—humanness, treeness, and the slothness of the sloth—are nondegreed. As such they are either exemplified or not and either completely present or not. A zygote, for example, does not become more of its kind or changing into something different from the kind the zygote already belongs to (that is, being human). The zygote matures as a member of its kind, which guides that maturity. Kittens are immature cats, not potential cats, and the same truth applies to fetuses. They are immature persons and not potential persons.

Non-essential and essential properties

Properties are features or characteristics of something. They characterize their objects (individuals, particulars) in one way or another. Some are non-essential in the sense that they are accidental; objects are what they are independent of whatever non-essential properties they possess. If an object is a white painted pipe, then it is non-essentially so; it does not need to be white in order to be a pipe. So if the pipe loses its color, it would lose its accidental property of white, but still remain the same pipe and will continue to exist as one. In contrast, essential properties constitute the essential nature of a thing. If we then describe an object's essential properties, we will be able to say what kind of thing it is. James, for example, is a soul which makes him a human

[15] It will take us beyond the aim of this paper to argue in detail how the soul interacts with DNA. Suffice to say here that, according to the "genocentric view" about DNA, genes are the fundamental units of life; nothing else or more is needed to produce an organism (an ordered aggregate, assembled piecemeal by the activity of the DNA). The "organocentric view", by contrast, holds that DNA is not the only thing passed on in reproduction. The genes that compose DNA are tools or instruments the soul uses to accomplish its purposes as designed by the Creator. For an insightful discussion of DNA from the perspective of developmental biology, see Wells (1998, pp. 51–70).

[16] That is, naturally speaking. It does not mean that our Creator does not sustain the life or existence of everything that exists (Colossians 1:17).

kind of thing. If James loses his humanness which is inseparable from him as a soul, he will cease to exist.

James's ontological nature is also a continuant that remains the same through change, which implies that change presupposes sameness and identity. If James grows from being a baby to being an adult, then James must have been present at the beginning, during, and at the end of the change. While his bodily properties may have changed—he became bald, is wearing glasses now—his self, which underlies his bodily changes, remained the same through it. As we have seen, this is because the soul's nature is a whole that is constituted by inseparable parts, in contrast to a body that is constituted by inseparable and separable parts.

Metaphysical and material necessity

What we have discussed so far reveals that metaphysical necessity is different from and deeper than material necessity. An object is materially necessary when it obtains everywhere the same way and if, and only if, the laws of nature and the same features of matter are present. But the laws and the kind of matter could have been different; matter is also contingent. God could have chosen to create souls without material bodies. By contrast, something is metaphysically necessary when a particular outcome is required and not otherwise. Again, James is a human being and if he exists, then he is necessarily human.

Internal and external relations

A relation (like properties and natures) is a universal; it can be in different places and objects at the same time. It requires one or more entities (for example, properties, particulars) to stand in a certain relation to one another. It is important to draw a distinction between internal and external relations. The various parts of an aggregate thing stand in the form of external relations to each other, just as water in a glass. Neither needs each other; we say they are indifferent to each other. By contrast, an internal relation is in the natures of the entities it connects.

Internal relations are called internal, because they partly constitute the entity to which they are internal. For example, if the relation of the heart to the body is internal to the heart, then at least part of what it means to be a heart is to stand in certain relations to the circulation system and, indeed, to the entire body as a whole. If the heart ceases to be related to the body as a whole, it can no longer be a heart, strictly speaking. In contrast, if parts of a computer stand in external relations to each other, then each part can cease to stand in that relation to one another and still exist.

To summarize, properties do not appear in the world by themselves. Substances are the owners of their properties; properties are "in" them, but not like water in a glass. A substance is a whole and is not an entity that "emerges" from interaction between externally related properties, parts and capacities. The unity of a substance is ontologically prior to its parts, and parts are what they are in virtue of the nature of a substance and their function in the substance as a whole. Put differently, the capacities of a substance are possessed by it solely in virtue of the substance belonging to a natural kind; the capacities James has are his because he belongs to the natural kind "being human." James as a person or self is therefore prior to his parts; parts are gathered and formed by the direction of an immaterial soul and its nature taken as a whole.

Now if a human being is the kind of entity it is, because of the essential properties it has in virtue of its basic nature, then a description of the faculties, capacities and functions will provide more accurate information about a human being than an analysis of a brain. In other words, we can think of the nature of the soul is a "this-such"—a specific kind of thing—a combination of three metaphysical entities: a universal nature, an individuating part, and the relation that connects them. Understood this way means that the individuating part (the self) in the soul is ontologically prior to its body/brain; the soul stands under its body and develops it according to its nature (the blueprint implanted in it by the Creator), and James is therefore identical to being a human soul and has a body/brain.

However, as can be expected, naturalists and physicalists, specifically property dualists, will and have objected to this conclusion.

Section IV: Property Dualism

Recall that, according to physicalism, a human being is merely a physical entity; the only substance is the physical/material body, including the brain and central nervous system, that has only physical properties and events. Physicalism therefore excludes the existence of non-physical mental substances and properties. There is one exception, however, and that is property dualism. Although "property dualism" goes under various names, such as non-reductive physicalism, supervenient physicalism, emergent monism, double-aspect monism, epiphenomenalism, and panpsychism, they all share one thing in common: there is one physical substance—the brain—that possesses both physical and mental properties; mental properties are in no sense physical, yet are properties of the brain.

So what this translates into is as follows: when someone thinks a thought, experiences a sensation

of pain (a feeling) or is having a desire to quench his thirst, then the thought, feeling, and desire are products of a brain that owns them. This means that I am not a mental substance (soul/person/self) that has my thoughts, sensations, and desires, but rather am a brain with experiences. This view has serious implications for our understanding of life after death. Due to space constraints, we will focus attention on just two broad problems that all property dualists are confronted with. The first is what I shall call the genetic (origination) problem of consciousness, and the second is metaphysical (personal) identity. I deal with them in that order, after which I will consider its problematic implications for a Christian understanding of life after death.

The genetic problem of consciousness

According to naturalist Evan Fales,

> Darwinian evolution implies that human beings emerged through the blind operation of natural forces. It is mysterious how such forces could generate something nonphysical; all known causal laws that govern the physical relate physical states of affairs to other physical states of affairs. Since such processes evidently *have* produced consciousness, however construed, consciousness is evidently a natural phenomenon, and dependent on natural phenomena (Fales 2007, p. 120).

The first obstacle for the naturalist and physicalist is to explain the origination of consciousness. The question of how consciousness could "emerge" from unconscious matter is for the physicalist simply a question about how the brain works[17] to produce mental states even though neurons (brain cells) are not conscious. We can therefore not afford to miss Fales' difficulty: consciousness cannot be natural when consciousness is caused by unconscious mindless matter—given Darwinian evolution. And in this he is not alone. Philosopher Jerry Fodor was direct and forthright when he confessed:

> Nobody has the slightest idea how anything material could be conscious. Nobody even knows what it would be like to have the slightest idea how anything material could be conscious. So much for the philosophy of consciousness (Boden 1998, p. 1).

Professor of philosophy and psychology Margaret Boden agreed (Boden 1998, p. 10).

There is a second obstacle in the way of property dualists who try to explain the emergence of consciousness and mental states from matter, and it is found in their models through which they image its emergence. Why is it an obstacle? Invisible, immaterial entities are not imageable. Any use of a visual metaphor to illustrate or imagine how consciousness and mental states could emerge from matter is therefore void of any meaning whatsoever. A favorite example of physicalists to illustrate emergence is liquidity. The scientific explanation is that, given the collection of a number of water molecules, liquidity emerges. But that is not the whole story; a scientific explanation tells us what must happen when a number of water molecules gather together. In other words, it explains why it must be necessarily so and not otherwise.

Now, to apply the emergence of liquidity to the mind's interaction with the brain is a bad analogy. Firstly, liquidity is not caused by the water molecules; it just is a necessary feature of water molecules coming together. And neither does liquidity exercise any causal influence on the molecules as its constituent parts. Secondly, if a neuroscientist can find regular correlations between a person's mental life and brain activity, then that bears a relevant similarity to the Spirit of God and creation in Genesis 1:2, and that means that those correlations must be unnatural for the naturalist, not natural. But since we cannot represent or visualize consciousness, we are not able to imagine the causal interaction between the mind and brain.

The real problem for property dualists is to explain how mindless matter (for example, a brain) can produce an entity (for example, a mind) that is radically different from it in kind. Physicalist and professor of philosophy D.M. Armstrong hit the nail on the head when he stated that

> It is not a particularly difficult notion that, when the nervous system reaches a certain level of complexity, it should develop new properties. Nor would there be anything particularly difficult in the notion that when the nervous system reaches a certain level of complexity it should affect something that was already in existence in a new way. But it is a quite different matter to hold that the nervous system should have the power to create something else, of a quite different nature from itself, and create it out of no materials (Armstrong 1968, p. 30).

What Armstrong told his fellow physicalists and property dualists, is clear enough: two radically different entities (mind and matter) cannot emerge from purely physical parts. We can put it in another

[17] Naturalist philosopher David Chalmers stated it as follows: "…almost everyone allows that experience arises one way or another from brain processes, and it makes sense to identify the sort of process from which it arises" (Chalmers 2007, p. 231). The naturalist logic of "arise" or "emerged" from means, of course, caused by the brain. This logic accordingly leads to the bizarre idea that experiences produce an experiencer. There are two problems which Chalmers identified for his fellow naturalists. The first is that they "have no good explanation of how and why" that could happen (Chalmers 2007, p. 226), and the second is that "cognitive science and neuroscience fail to account for conscious experience…[N]othing that they give to us can yield an explanation" (Chalmers 2007, p. 232).

way. Any first member in a given series of subsequent members can only pass on what itself possesses (cf. Genesis 1:26–27, 2:7, 5:1, 3).

The short of what has been said so far is simply this: when property dualists postulate the emergence of mental properties from brain matter, then they are falsifying naturalistic physicalism. Spirit entities are neither natural nor at home in a naturalist/physicalist/monist ontological view of the world. In the words of physicalist philosopher Lynn Rudder Baker:

> Immaterial souls just do not fit with what we know about the natural world. We human persons evolved by natural selection…[which is] part of the natural order, but immaterial souls are not (Baker 2007, p. 341).

This is why physicalists like Murphy (2006a) must reject the existence of the spirit, soul and mind. From this follows another obstacle: once a person rejects the existence of spiritual entities, then that person cannot appeal to them to explain anything. Therefore, her view that the mental can emerge from the brain, and then exercise causal influence on brain processes and functions, amounts to either (a) an acceptance of the ontological difference between matter and mental spiritual entities (substance dualism), or (b) accepting the refutation of her own non-reductive physicalism. If one is willing to admit that consciousness and mental states are unique compared to all other entities in the world, then that radical uniqueness makes consciousness and mental states unnatural for a property dualist. It therefore follows, just because we cannot see consciousness and immaterial mental entities on a brain scanning machine does not imply or entail that it does not exist.[18]

We can summarize. What we are confronted with by property dualists is something so implausible that it cannot be true. This is why physicalist and philosopher Paul Churchland reasoned that

> The important point about the standard evolutionary story is that the human species and all of its features are the wholly physical outcome of a purely physical process…if this is the correct account of our origins, then there seems neither need, nor room, to fit any nonphysical substances or properties into our theoretical account of ourselves. We are creatures of matter. And we should learn to live with that fact (Churchland 1984, p. 21).

It stands to reason, what originates from the physical by means of the physical can only be physical.

Metaphysical identity

If we can say just one thing true about the mind that is not true of the brain, and vice versa, then the mind is not the physical brain. A good start is to ask: What is matter? What matter is, is difficult to say, but examples of material things are familiar to all of us: tables, computers, and cricket balls. Such things possess properties such as hardness, shape, weight, length, density, being breakable, and locality. Similarly, the brain has physical properties, such as shape, weight, size, and electrical activity. All these qualities are called primary qualities of matter.

The remarkable thing is that none of these properties can be predicated of the mind. No thought, belief, feeling, or desire can be placed on a scale to determine its weight, measured with a measuring tape to determine its length, or handled by hands in order to move them from one location to another. What physicalism seems to imply is that secondary properties—colors, tastes, smells, sounds, and textures—do not exist. Naturalist philosopher of science Daniel Dennett tells us that "people are typically amazed to discover that we don't see colors… It *seems* as if we do, but we don't" (Dennett 2006, p. 31). Color is therefore for physicalists nothing but a wavelength of light. But why then do we see colors all the time? If we see them, then they must exist, and if they do not exist in the world outside us, then they must exist as mental entities inside us—the conscious selves that experience them.

When a person thinks of a red apple he saw and smelled yesterday, that person is in a conscious state of his mind. We call this the intentionality of the mind, because it refers to things the mind is of or about other than itself. When that person thinks about that apple, then neither is the apple nor the color or smell of the apple in that person's brain (a fact every neuroscientist will confirm). Yet there is something in his mind that is red and pleasant, the sensations of red and freshness. The brain and mind are therefore not metaphysically identical; the conscious thought and sensations of the apple are mental entities and not physical ones. This leads to another aspect of consciousness, and that is that mental properties are self-presenting. They present themselves directly to a knowing self because a self has them immediately in consciousness. What is the evidence for this? Simple: no person has any direct or immediate access to his brain whatsoever; yet every person knows what he is thinking about or feeling right now when, for example, you prick him with a pin. A neuroscientist may know all there is to know about my brain, but she cannot

[18] Edward Welch (2002) has shown that treatment of people who suffer from depression with placebos (drugs that have no active, pharmacological ingredients) offers support for the existence of the soul/mind and mind-body dualism. That is to say, the soul can affect the body, and the body can affect the soul. In am indebted to one of the reviewers who brought Welch's article to my attention.

know more about my self than I do. In short, a brain is open for public inspection by a neuroscientist, is not of or about another brain, and does not have self-presenting mental properties. It follows that it does not make sense to refer to a brain as conscious for it to exist or to be so characterized.

One more point. If I am a center of consciousness, an immaterial I that cannot be reduced to a brain, thus a substance that has my mental contents, then I am more fundamental or basic than my mental states and experiences. Put another way: if there is no thinker, then there are no thoughts, pure and simple. However, if I am a brain, a property dualist, and a Christian, then we need to know about how things would be for me when I die.

Life after death

If human persons are no more than brain-things, then when their bodies die, they die because they are their bodies. Likewise, when the brain is destroyed, consciousness and mental properties had by the brain cease to exist. In short, there is no mental self that can survive the death of the body. Now if a person is a brain that becomes extinct at death (or shortly thereafter), what we need to know then is how would the person to be resurrected at Christ's coming be identical to the extinct brain that once "lived"? How can Christ resurrect a person if there is no person to resurrect? The implication is that there is not really a resurrection, which is contrary to Scripture (Matthew 22:23, 30; Luke 14:14; John 5:29, 11:25; 1 Corinthians 15:13ff.).

There seems to be only one alternative, and that is to hold a belief in a total recreation, that the Creator will create the person all over again, which is also contrary to Scripture (as we have seen in Section II). Even if so, what would make the person identical to himself? That person would not be the same soul as the one who once lived on earth.

According to the substance dualist view defended in this paper, the soul is identified with neither the body nor the brain. This entails that the soul would survive the destruction of the body, just as our Lord and Savior taught His followers.

Concluding Remarks

This paper constitutes an attempt to refute or, at least, to undermine claims that it is the brain that makes people human and that the soul—a metaphysical necessary existent entity—is no longer needed to explain the origins of life, consciousness, and human nature. In light of this, I wish to make three concluding remarks. Firstly, Christianity is a view of the world according to which the physical world is not all there is. The Bible depicts the soul as part of an immaterial, unseen world. This fact, as we have seen, presents a real problem for proponents of physicalist monism.

Secondly, Christians need to remind themselves that the debate between themselves and proponents of naturalism and physicalist monism is nothing new. It leads them back to the apostle Paul on Mars' Hill in Acts 17:16–34, and his arguments from the Genesis record of Creation (vv. 24–29; cf. 1 Corinthians 15).

Thirdly, the reality of the soul matters enormously, because it concerns issues of life (cf. John 3:3–7, 6:63) and death (cf. Matthew 10:28, 16:26; James 5:20), two issues at the heart of the transforming power of the gospel about our Lord and Savior Jesus Christ. It follows that the Bible has lost none of its relevance for Christians living in today's world dominated by scientism, naturalism, and physicalism.

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