

Christians, the Brain, and Person: Conceptual Confusion, Unintelligibility, and Implications

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Abstract

That psychological properties can be attributed to a brain has become a popular notion, even among biblical Christians. Some claim that a brain designs a computer, determines what is true, recognizes symbols, thinks, interprets, analyzes, prioritizes, and stores information, paints and deciphers images, learns, knows, understands, remembers, and makes decisions. First, I argue that all such claims are incorrect, unintelligible, and confused, together with an explanation of why I think so. I then clarify crucial capacities of a self-conscious knowing subject or person (soul) which has serious implications for responsible Christians. In the final section I highlight five areas of concern.

Keywords: brain, capacity, concepts, mind, neuroscience, person, properties, self, soul

Introduction

Biblical Christians believe that God is the Designer and Creator of heaven and earth, including human beings (Genesis 1–2; Isaiah 40:12–31; John 1:1–3, 10). Some use the complexity and functioning of the human brain as proof of the fact (DeWitt 2009; DeYoung 1990; Looy 1990; Martin 2013; Morris 2001; Thompson and Harrub 2004a, 2004b; UpChurch 2013). However, over the last two decades or so, we increasingly hear a number of astonishing claims about the brain and behavior. Among other things, it has become popular to attribute mental (psychological) properties (capacities, qualities, characteristics) to a brain.

What is disconcerting is that the secular understanding of what the brain is and does has also become popular among biblical Christians.¹ For example, Mark Looy (1990) believes the brain has the ability to learn and think, and Donald DeYoung (1990) seems to believe that a brain can understand itself, even if only partially so: “the brain is unable fully to understand itself.” Ken Ham and Jason Lisle (2006) state that “man’s highly intelligent brain designed the computer” (p.9), and that “it” can also determine what is true (p.22). But to be able to design anything, the brain must be able to reason, draw conclusions, plan, possess knowledge, and retain it in memory; it must be able to recall the knowledge, communicate information to others if it is to be understood, and apply it in the design of the computer. And for the brain to be able to determine what is true, it must know what is false, or be able to discern between, for

example, true gold and fool’s gold, which is a skill learned by a person through continual practice. Now if the brain can do all these things then one might wonder what happened to the person. Is the brain a person? Yet they quote a scientist who “makes it clear” that “information is the result of intelligence” as well as “That there is no known natural law through which matter can give rise to information, neither is any physical process or material phenomenon known that can do this.”

Bert Thompson (a molecular biologist) and Brad Harrub (a neuroscientist) state that the brain has the ability to “recognize” symbols, that it can compile “letters into a comprehensible sentence (using rules you were taught in elementary school), which it then analyzed and stored. In addition, your brain very probably painted a mental image of both the snowy day and your mother” (Thompson and Harrub 2004a, pp.1–2). Tisha Martin (2013), in a recent article entitled “How does the mind work? Get *Answers!*,” writes that it is the brain that remembers, prioritizes information, and deciphers images. Yet, while using the terms “brain” and “you” interchangeably, she completely neglected to provide the reader with an answer to her question, with knowledge of what the mind is, let alone how it functions. John UpChurch (2013) informs his readers that “your brain deals deftly with millions of signals from all five senses every second, making innumerable conscious and unconscious decisions at the same time,” including the fact that your “brain knows how to respond quickly” to signals from the senses.

¹ Ken Ham (2006) succinctly stated the problem as follows: “Most Christians have been indoctrinated through the media and education system to think in a secular way. They tend to take secular thinking to the Bible, instead of using the Bible to build their thinking” (p. 153).

My aim in this paper is to argue that these claims are conceptually incorrect, unintelligible, and confused, as well as stating what the implications are when Christians adopt that sort of thinking and talking. Let me therefore qualify a few things right at the outset. Firstly, my project is far from being a critique; it comprises a conceptual clarification of the ways Christians think and talk about the brain and persons, their capacities and behavior, and must therefore be seen as a guide. It is acknowledged that many issues need far better specification, but due to space constraints, cannot be worked out in greater detail.

Secondly, I believe that the Bible identifies a human person with an immaterial soul or spirit equipped with a mind, including a material body (Joubert 2011; 2012; 2013; 2014a). Instead of repeating my theological position here, my main focus will be conceptual issues relating to the brain and person.

Thirdly, the method I will use in my attempt to remove what I regard as obstacles to a coherent understanding of a person from a biblical perspective is as follows. I will first present six core theses about the brain, followed by an explanation of why I think they are incorrect, incoherent, and confused. I will then proceed to clarify crucial concepts of core capacities in regard to the ontological constitution of the self-conscious knowing subject, self, or person (i.e., the soul). Why is this important?

The task of scientists working in the neurosciences is to establish matters of fact concerning neural structures (relations between neurons and parts of the brain), operations or functions of the brain (metabolism, blood flow, synapses, the detecting of

defects), and to explain the neuronal conditions that make things such as perception, thoughts, beliefs, feelings, desires, knowledge, memories, and volition possible. Thus, whatever theories are formulated, they are either confirmed or disconfirmed by experimental observation and investigation. But, and this is crucial, how the results are interpreted depends on the worldview (presuppositions, assumptions, beliefs) of the scientist. In this regard, it is widely acknowledged that almost all secular neuroscientists adhere to the worldview of physicalism² (also referred to as materialism; cf. Beauregard and O’Leary 2007, p.x) and/or naturalism (i.e., evolutionism; cf. Mayden 2002, pp.175–176; Searle 1992, pp.83–109). What this means is that Christians have to take everything they are being told in the name of neuroscience with the proverbial “pinch of salt.”³ Neuroscientific data is not interpreted from a neutral point of view.⁴

In addition to how the interpretation of data is informed by the presuppositions of the neuroscientist, the scientist must have a conceptual understanding of, for example, the mind, perception, thought, belief, knowing, feeling, desire, and memory, and the logical relations between them. Such an understanding will include a conceptual understanding of the structural relations between, for example, the soul and body, mind and brain, mental (psychological) states and neural (brain) states, and a person’s psychological functions and conduct, which is also the province of psychology, ethics and theology.

Now if a person is not a brain, and a brain is not the thing that perceives, thinks, interprets, feels, desires, decides, and so on, which is what I will argue, then it has serious implications for what Christians are teaching about the person and brain in the light

² “Physicalism” 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. Glen Geher (2006) clarified what 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 (p.185).

³ Experimental studies such as those conducted by McCabe and Castel (2008), Weisberg et al. (2008), and Ramani (2009) identified at least two pitfalls: 1) seeing neuroscientific information may allure people into believing they have received a scientific explanation when they have not. “People may therefore uncritically accept any explanation containing neuroscientific information, even in cases when the neuroscientific information is irrelevant to the logic of the explanation” (Weisberg et al. 2008, p.470). In other words, people believe explanations to be good even when these explanations contain significant flaws or gaps in reasoning; and 2) brain images have a particular persuasive potential conferring credibility to neuroscience data, which is deceptive.

⁴ Am I saying that secularists are unable to provide us with truth statements about the workings of the brain? Absolutely not. My point is, “Science does not happen in a theoretical vacuum. The theoretical baggage that the cognitive scientist [or any scientist] carries into an experiment not only affects how they might interpret data, but it also affects which observations might count as usable data and which might be discarded as noise or as irrelevant” (Lakatos 1970 as quoted in Colling and Roberts 2010, p.43). Neuroscientist Maxwell Bennett and philosopher Peter Hacker (2007) describe the goal of cognitive neuroscientists and explain the relationship of sense and truth thus: “Cognitive neuroscience is an experimental investigation that aims to discover empirical truths concerning the neural foundation of human faculties and the neural processes that accompany their exercise. A precondition of truth is sense. If a form of words makes no sense, then it won’t express a truth. If it does not express a truth, then it can’t explain anything. Philosophical investigation into the conceptual foundations of neuroscience aims to disclose and clarify conceptual truths that are presupposed by, and are conditions of the sense of, cogent descriptions of cognitive neuroscientific discoveries and theories... [C]oncepts are presupposed by neuroscientific research into the neural basis of human cognitive, cogitative, affective, and volitional powers. If the logical relations of implication, exclusion, compatibility, and presupposition that characterize the use of these concepts are not respected, invalid inferences are likely to be drawn, valid inferences are likely to be overlooked, and nonsensical combinations of words are likely to be treated as making sense” (p.128).

of Scripture. My task in the final section will be to highlight five areas which I think should be a concern for every responsible Christian.

Neuroscience and the Brain

Thesis 1: “The brain, as understood by neuroscience, is a piece of matter tingling with electrochemical activity” (Tallis 2009, p.4).

Answer to Thesis 1: I doubt whether any scientist would question the correctness of thesis 1. However, what ought to be questioned is the following goal and belief: “We must try to work out an account of the nature of mind which is compatible with the view that man is nothing but a physico-chemical mechanism” (Armstrong 1980, pp.1–2). Here physicalist and philosopher David Armstrong is asking his scientific colleagues to remain true to their metaphysical worldview, which is precisely what biologist and geneticist Francis Crick did, and expressed, in the following words: “You, your joys and your sorrows, your memories and ambitions, your sense of personal identity and free will, are in fact no more than the behavior of a vast assembly of nerve cells and their associated molecules” (Crick 1994, p.3). It follows that whatever mental phenomena there is, such as a felt pain, it must be reduced to, interpreted as caused by, and explained in terms of electrochemical processes in or of the brain. And since we read that “Increasingly, patients are being told that their pain is in their brain” (Thacker and Moseley 2012, p.410), it would be useful to see what makes it difficult for us to make these assumptions our own.

Commonsensibly speaking, a pain is experienced by a person who is aware or conscious of it, and if a person has toothache he will readily point toward it to locate the source of the pain. But if the pain is in his brain, then we need to know how and where he can point to, since he is unable to access his brain and do that. Furthermore, we need to know how a collection of millions of insentient neurons (McGinn 2003, p.438) can generate a pain and be aware of by a brain that is also not pain-sensitive (Restak 2006, p.35). To suppose that consciousness belongs to a whole (the brain) constituted by unconscious individual neurons

(parts), seems to be a contradiction: either an effect can be produced without a cause, or the whole can have something other than what is in the parts, or that something can come from nothing. The fact of the matter is that no neuroscientist knows the answer to these questions (Chalmers 2007, p.232; Uttal 2011). So it is simply assumed to be the case that a pain (sensation or feeling) exists in a brain, and that unconscious, insentient neurons can cause a conscious mental state of pain to exist.

Let us therefore consider what a neuroscientist sees on a computer screen while your brain is being scanned, say, when you are thinking about a pain that you now feel. What he sees is brain activity in parts of your brain and very little else. However, the scientist has a number of ways to interpret what he sees.⁵ First, he can think that your brain is causing your pain sensation which you now experience. But, as we noted in the previous paragraph, we need to know how a collection of millions or billions of insentient neurons can generate a pain and be aware of it by a pain-insensitive brain. The second interpretation is the dominant interpretation in neuroscience: your painful sensory (mental) state of pain is nothing but the activity of your physical brain or state(s) of your brain. Now suppose he asks you “How do you feel?” Why would he do that? He asks you because he knows very well that you are self-aware and not brain-aware. But if you are an assembly of neurons, as Crick would have us believe, or you are “your synapses” (LeDoux 2002, p.x), and you say “It feels unpleasant, dreadful, throbbing, or dull,” then your report must be a report of your neurons, of how they feel. But how would you know that? On the one hand, it is unintelligible to think of insentient brain matter as being unpleasant, dreadful, throbbing, or dull. On the other hand, neither you nor any other person has access to his brain cells to observe and communicate with them, and then report how they feel. The important point is this: no person needs to know anything about his brain in order to provide another person with a report about himself, how he feels or thinks—about anything! It follows that there is something true of you (a person) that is not true of your brain: you are directly and immediately aware of yourself, your thoughts, feelings, desires, and so on.

⁵ Interpretation of neuroimaging data (information) is a key epistemological challenge for neuroscientists. The most prominent technologies used to generate data of cognitively induced changes in brain activity are electroencephalography (EEG), magnetoencephalography (MEG), positron emission tomography (PET), single photo emission computed tomography (SPECT), and functional Magnetic Resonance Imaging (fMRI). PET and SPECT provide information on metabolic activity and blood flow, and fMRI provide researchers with information on blood oxygenation (for an easy accessible overview of these technologies, see Illes and Racine 2005). People are often surprised to hear that none of the tests performed during experiments measure neural activity directly. Blood flow, for example, is used as an indirect measure of such activity. Misunderstanding also occurs when images of the brain are viewed as photographs. The analogy with photographs wrongly suggests that the images share the evidential characteristics of photographs (see Roskies 2008). “By and large, all utilize comparison or subtraction methods between two controlled conditions, heavy statistical processing, and computer intensive data reconstructions to produce the colorful maps with which we have become familiar” (Illes and Racine 2005, p.2). For evaluations of fMRI research (i.e., how data are gathered and interpreted), see Aue, Lavelle, and Cacioppo (2009), Harley (2004), Uttal (2011), Van Horn and Poldrack (2009), and Vul et al. (2009).

The third way the scientist can interpret what he sees while you are thinking about your pain is to say to you that your brain states correlate with your thoughts and the pain you experience as dreadful. Of course, a person would not feel a pain unless the brain is functioning properly. For example, a person would not feel toothache unless the nociceptor nerve terminals in the tooth pulp were excited, and this increased impulse firing was conveyed by the trigeminal nerve to the pons and then to the brain. But that does not at all imply that there is toothache in your brain or that your brain feels toothache. It is you who are in pain!

It is worth quoting neuroethicist and molecular biologist Regina Kollek. She writes:

Imaging techniques now enable us to monitor physiological activities and changes in the brain more directly. What we observe, however, are not cognitive processes of the mind, but electrical signals or patterns of blood oxygen and flow, which are, or may be, correlated with mind activities... Since processes associated with the self and other phenomena of the mind cannot be measured directly, the terms and concepts used to describe them are empirically undetermined. (Kollek 2004, p. 81)

Therefore, the only thing a neuroscientist could hope to discover is neural activity and/or brain states that correlate with certain mental states or states of consciousness. "But *that* discovery cannot show that it is *the brain* that is conscious" (Bennett and Hacker 2007, p. 136). The most plausible explanation, then, based on what the experts are telling us, is to say that it is the self (person) that is the subject of consciousness.

Thesis 2: "The mind is what the brain does, and the brain is a causal machine... The 'user illusion,' nevertheless, is that a decision is created independently of neuronal causes, by one's very own 'act of will'" (Churchland 2005).

Answer to Thesis 2: Atheist, physicalist, and philosopher Patricia Churchland is not only telling the scientific world that the belief in an agent as an immaterial soul (person/"user"), that is the first cause of his decision or will to perform an act, is false. There is also no possibility that the agent might be the cause of the neuronal activities in his brain. However, consider the following characterization:

- a. An agent is an immaterial substance (soul/person) that has the power (ability) to cause a broom to move.
- b. An agent exerts his power as a first mover (an uncaused cause of action) to cause or refrain from causing the broom to move.
- c. An agent causes the broom to move for the sake of

some final cause (for example, to clean the floor), which is the *reason* the agent caused the moving of the broom.

In short, a broom moves the sand on the floor but is itself moved by my hand that is moved by me. But Churchland may wish to rephrase what she said; she might say that we know from physiology that there are still other events causing my hand to move, for example, the muscles in my arm and the events taking place in my brain. Thus, if a brain moves muscles and causes a hand to move, then there is no point to appeal to an agent ("user") as distinguished from a process or an event, for the whole thing is a matter of causal relations among events or states in or of a brain.

There is a sense in which the objection is valid, for a person does not do anything with or to his brain in the sense that he does with his hand and broom. But to see what is wrong with thesis 2, we need to draw a distinction between *making* something *A happen* and *doing A*. If I reach for a broom to pick it up, then one of the things I do is just that: I decided to reach for the broom and pick it up. But if that is something I do, then it follows that it is something I know that I do. If you ask me why I am doing what I have just done, I will immediately be able to tell you. However, by lifting up the broom, which is what I do, I made a whole lot of things to *happen* which are not in any sense things that I do, but which I am nevertheless the cause of: I would have made air-particles to move; I may have freed an ant heap from the pressure that had been upon it by the broom; I may also have caused a shadow to move from one place to another. Now, if these are merely things that I made to happen, as distinguished from what I do, then I may know nothing about them. But, and this is the crucial point, it is not to say that if I am unaware of making things to happen in my brain (or body) when I think a thought, experience an emotion, or will an act that I am not the cause of the events happening within it (cf. Psalm 32:3, 5; Proverbs 12:25). Thesis 2 is therefore incorrect.

Thesis 3: "When the brain receives new sensory input from the world in the present, it generates a hypothesis based on what it knows from the past to guide recognition and action in the immediate future. This is how people learn" (Barrett and Bar 2009, p. 1325).

Answer to Thesis 3: This is confusing and incorrect. Firstly, in the abstract of their paper, the authors state that "we develop the hypothesis" about "the brain's ability to see," but in the quote given above they state that the brain generates a hypothesis on what it knows. Is there a difference between the "we" who perceive the brain and forming

a hypothesis about it and the brain that sees and forms a hypothesis about what it sees, or are they the same things? Unfortunately, the authors do not raise or answer the question.

Secondly, a hypothesis is an unconfirmed (or unproved) proposition, assumption, or tentative explanation for some facts, and serves as the basis for reasoning, an argument, a supposition, or conjecture to account for the facts. But a hypothesis, to be understood by others, must be knowable. Now if the brain hypothesizes based on what it knows, how will the person come to know his brain's hypothesis, and know what it knows, given that a person is neither able to access his brain nor able to perceive it? More seriously, what has happened to the person while his brain hypothesized about what it perceives? Commonsensically speaking, the person who knows is the same being as the one who learned the things he knows.

Thirdly, to learn is to come to know that something is thus-and-so, which means that a person is able to do a wide range of things: answer questions, inform and correct others, find and locate something, identify and recognize things, explain some phenomenon, and so on. Furthermore, people learn how to do certain things by experience, and by being trained or taught by others. In precisely what sense can it be stated, without being incoherent or illogical, that the brain can impart its knowledge to the person who is doing the learning? Again, the question is neither raised nor answered by the authors.

Fourthly, a person who knows things is spoken of as knowledgeable (as opposed to ignorant), learned (as opposed to untutored), and as an expert (as opposed to an impostor who pretends to know). In precisely what sense can it be said of the brain? For example, can the brain assume the character of another brain (or person) and pretend to be something other than what it (or who the person) really is?

The essence of the problem with thesis 3 is a false assumption: to see (perceive) something is not to hypothesize in any way about what is seen. When I say, "There is a dog on my carpet!" then I make a perceptual judgment based on my knowledge and concept of a dog. Similarly, a neuroscientist may form a hypothesis about what he sees, for example, blood flow patterns in the brain, but to see blood flow patterns is not a hypothesis. Also, a person can conjecture about what it is he is hearing, tasting, or is touching, but to hear, taste, or touch is one thing, and to conjecture is another.

Thesis 4: "We can only understand categories of reality [for example, sound, color, taste, motion, action] and their regularities and interrelationships if our brains are capable of representing these

categories...[W]e perceive and understand only what our brains represent" (Farah and Heberlein 2007, p. 40).

Answer to Thesis 4: If the thesis is correct, then it means that a person will be unable to perceive and understand an object unless his brain represents it first. Of first importance is to know where this confusing notion that a brain represents things originates from. Neurophysiologist Maxwell Bennett and philosopher Peter Hacker provide the answer: "The idea was motivated, at least in part, by the thought that if the animal is to see, the brain must combine the information derived from the retinae to produce a representation of the visual scene. Undoubtedly, confusion was generated by the philosophical presuppositions of representationalism" (Bennett and Hacker 2003, p. 142). Crick expresses the confusion confidently as follows:

What you see is not *really* there; it is what your brain *believes* is there...your brain makes the best interpretation it can....[T]he brain combines the information provided by the many distinct features of the visual scene (aspects of shape, colour, movement, etc) and settles on the most plausible interpretation of all these various clues taken together....[The brain] guess a complete picture from only partial information—a very useful ability. (Crick 1994, pp. 30, 32ff., 57)

A careful reading of every person writing about the brain the way Crick does reveals that they do not consider it in any way as metaphorical speech, which is one reason for the general conceptual confusion among people. Believing, interpreting, responding to environmental clues, or guessing is literally what a brain does. Their aim is therefore not to conceal an obscurity in thought. Thus, to interpret is, literally speaking, to explain the meaning of something or to take something as ambiguous to have one meaning rather than another. So in order to explain (interpret) a visual scene, the brain must represent it first, and then explain it.

To see why all such thinking is confused and unintelligible requires knowledge of what a "representation" is, and when one thing represents another thing. A ring in a tree trunk represents a year; a cartographer uses a map to represent the environment; a painter's picture represents a tree; a photo of grandma represents grandma; and I use language (symbols, words, sentences) to represent my thoughts, feelings, desires, and so forth. Now if the brain represents all these things, why have they never been seen or discovered in brains? Two points suffice to answer the question.

Firstly, when I look at a red rose, I perceive the red rose directly, and have it directly in consciousness in

virtue of being a self-conscious or self-aware thinking, sensing, and experiencing subject. However, if the fourth thesis is correct—that is, that we perceive and understand only what our brains represent—then it follows that I am not actually seeing the red rose before my brain represents it, and that is a misconception. But there is more; I will be unable to correct my belief about what it is that I have seen, since thesis 4 implies that I will be trapped in my brain, behind my forehead, or behind my brain's representations. If that is true, then I will never be able to directly inspect my dog in order to verify what I believe I know about him; I will be continually guessing.

What we know about ourselves is actually the opposite of representationalism. A painter first perceives a tree and then represents it in his painting. If he looks at my face, goes home and then paints it, then it will be because of his knowledge of my face which he retained in memory and was able to recall. There is therefore no picture of me in his brain. A person, who perceives an atlas, photograph, or a painting, perceives a representation. A brain is therefore just as unable to paint a mental image of a snowy day as it is unable to paint your mother. A painter usually does that with a brush and paint on a palette, and there are no such things in a brain.

Thesis 5: Information (such as symbols, letters) is analyzed by and stored in the brain (Thompson and Harrub 2004a, p.2), and the brain prioritizes information, deciphers images, and remembers (Martin 2013).

Answer to Thesis 5: Firstly, any user of symbols must know the correct and incorrect way of using them. Secondly, a symbol is used if the user wants to express some meaning by it; but a brain cannot mean anything. Further, to use a symbol is to intend the symbol to signify such-and-such a thing; but a brain can have no intentions. Thirdly, intentionality (the *of-ness* or *about-ness* of a person's mind) is a distinctive mark of mental states, especially thoughts (Anderson and Welty 2011, pp.15–18). Thus, if a painter is looking at a tree and thinking about it, then he is consciously directing his mind at the tree, which his mental state of thinking is of or about. But that cannot be said of a brain, simply because a brain, like any other physical object, lacks intentionality. Therefore, one brain can never be about another brain; neither is one brain able to transfer thoughts to another brain. We, as persons, do that, through gestures, language and actions. Fourthly, a brain is unable to analyze and prioritize information, or decipher images. To be able to analyze and decipher anything entails that the analyzer and decipherer

must first have learned certain things (for example, symbols), acquired knowledge, and retained the things learned and known in memory. We thus say that a person possesses knowledge, and things such as books, computers, and filing cabinets contain knowledge. In this sense, the brain neither possesses nor contains anything; I am unable to open my brain like a book or access it like a library or filing cabinet to tell you what is in there (nor is the neuroscientist; he sees blood and brain matter—if he has opened your skull).

The problem underlying thesis 5 is the widespread idea among neuroscientists that a brain is able to “encode” (i.e., acquires and consolidates, thus process information), “store” (i.e., creating and maintaining a neuronal record of whatever information that is encoded), and “retrieve” information (i.e., being able to use stored information and to create a representation of whatever is learned or acquired—cf. Gazzaniga, Ivry, and Mangun 1998, p.247). But that is confusing and incoherent. For one thing, pictures (representations) remind us of what someone has seen (for example, a picture of grandma hanging on the wall of my study). Thus, when I remember a picture of grandma it is not a picture in my brain; the picture hangs framed on the wall in my study. For another thing, if neuroscientists imply that when I recall my picture of grandma there must be a neuronal “record” of it stored in my brain, then the picture will be unavailable to me. The reason should be evident by now: I cannot see into my own brain.

The idea of knowledge being stored somewhere in the brain makes sense only if the store is available for a person to access it the way he can access a room in order to clean it. Moreover, if information or images are encoded in the brain, then the one accessing it must have learned the code by which it is to be deciphered (a “code” is not a language but a method of encrypting a linguistic expression). Thus, if the brain is encoding information and the person has not learned or knows the code in which it has been encrypted by his brain, how can he ever know what is stored in his brain, let alone recall it? I submit that thesis 5 is incorrect, unintelligible, and confused.

Thesis 6: “You are your brain” (Greene and Cohen 2004, p.1779).

Answer to Thesis 6: If you are your brain, then it makes sense to say that your brain “feels, thinks and decides” (Churchland 2002 p.1; cf. UpChurch 2013); that a “brain is both religious and worldview-orientated,” that a brain “produces belief”; that the brain “is constantly sifting the messy world” for order, that the brain has desires (McIlhenny 2010, pp.32, 37, 38, 39), and that it is “the amygdala that

monitors the environment” (Hariri and Whalen 2011, p.32). However, if that is coherent, then it must also be coherent to say that a brain acquires skills to ride a bicycle, and that a brain is the thing that gets hungry, eats, drinks, smells a red rose, and makes music. But if the latter is incorrect and unintelligible, then so must be the former.

People who believe that we are our brains and that the brain is the thing that feels, thinks, desires, and decides are telling others that they know what they are talking about. The question is, therefore, do they know what it would be for a brain to think, feel and decide as opposed to knowing what it is for a person to do these things? In contrast, we know what it is like for a person to search for an axe. A person searches for an axe because he knows what “axe” means and what its purpose is; he recognizes it when he perceives it, and feels an enormous pain when he drops it on his toe.

There is another way to make the same point. For the brain to represent an axe, it must first be able to see the axe, but then, is it intelligible to think that it can also go blind? As a matter of fact, the brain can neither hear nor go deaf; it can neither sleep nor wake; it is unable to be thoughtful since it is unable to be thoughtless; and it is incapable of being decisive as it is incapable of being indecisive. So, too, the brain cannot be conscious simply because it cannot be unconscious. Only a person can be said to see or be blind, hear or be deaf, and be decisive or indecisive, and so. In short, it is I who see and hear with or by means of my sense organs, and I am self-conscious. But this does not say that changes in brain function or damage to the brain cannot cause a person to lose consciousness or memories.

John Searle (1992, p.86), a physicalist, evolutionist, and philosopher of mind tells the world that there are two features of the scientific worldview that are so well established that only unreasonable and uneducated people will call them into doubt: the atomic theory of matter and the evolutionary theory of biology. Now if we recall thesis 1, then the fundamental parts of a brain are atoms. However, if I am my brain, and every atom in my brain (or body) is replaced every seven years or so, then I must become someone else every seven years. But then, if I committed a crime seven years ago and I am now standing in front of the judge, then I can claim to be a different person and should therefore not be punished. It does not seem to make sense.

The scientific evidence that people, including very young children, are mind-body (more correctly, soul-body) dualists is overwhelming (cf. Bering 2006).⁶ One reviewer of the literature of developmental

and cognitive researchers who investigate people’s conception of themselves conclude that “we are dualists who have two ways of looking at the world: in terms of bodies and in terms of souls” (Bloom 2004, p.191). People think of biological and psychological causes of phenomena as ontologically distinct. The critic who objects to the scientific findings might say that just because people think or believe that a human being is constituted by a soul and body does not necessarily make it true. Indeed, but neither does the objection rule out the evidence in support of such a belief. At the very least, it provides support in favor of the presuppositions of our commonsense conceptual scheme or psychology, as we shall shortly see. But two points deserve emphasis: children do not have to be taught to be dualists, and children have no conceptual understanding of and access to their own brains, yet they are well aware of what they themselves think and believe about themselves and other objects, including the causal relation between themselves and their bodies.

It is therefore not surprising that what little children think and know about themselves is also consistent with what physicalist philosophers have to say about people’s commonsense intuitions. Frank Jackson (2000, p.30) and Jaegwon Kim believe that mind-body dualism is a very general belief. Kim writes:

We commonly think that we, as persons, have both a mental and a bodily dimension—or, if you prefer, mental aspects and material aspects. Something like this dualism of personhood, I believe, is common lore shared across most cultures and religious traditions, although such beliefs are not always articulated in the form of an explicit set of doctrines as in some established religions. It is often part of this “folk dualism” that we are able to survive bodily deaths, as “pure spirits,” and retain all or most of the spiritual aspects of ourselves after our bodies are gone. (Kim 2003, p.65).

According to physicalist David Papineau, physicalists cannot help but think in dualist terms. In his words,

Indeed I would say that there is a sense in which even professed philosophical physicalists, including myself, cannot fully free themselves from this intuition of distinctness. Of course, we deny dualism in our writings, and take the theoretical arguments against it to be compelling. But when we aren’t concentrating, we slip back into thinking of conscious feeling as something extra to the brain. (Papineau 2008, p.57)

It should be evident that the statements of physicalists about what a person is (i.e., a brain),

⁶ For a more detailed discussion of this topic and the points which follow in the context of the crisis in medicine and psychiatry, see Joubert (2014a, pp. 104–106; 2014b).

and their acknowledgement of the commonsense view of ourselves, are clearly at odds with each other. To argue, for example, as evolutionary psychologist Jesse Bering (2006, p.454) does, namely, that mind-body dualism (he calls it the “folk psychology of souls”) is the product of an “evolved cognitive system” in the brain that is “dedicated” to “forming illusory representations” would not do. For one thing, the brain, as we have seen, is unable to form representations. For another thing, his assumption is attractive only for those who already decided there is no room in their ontology or worldview for immaterial souls and minds, which is to say that his argument is convincing for those who already accept the conclusion of the argument.

By way of summary, it is clear that scientific discoveries are not themselves presenting problems for people’s thinking, understanding, and talking about reality. It is the interpretations of raw data by advocates of physicalism and naturalism which dominate the sciences that are responsible for a host of unnecessary conceptual entanglements about the brain and person. However, even if the scientific evidence about how children think about themselves is rejected by physicalists, and even if they do not permit their commonsense intuitions about themselves to feature in their interpretation of scientific data, we have at least strong reasons to believe that people do not have to think of themselves as brains. But they owe us an explanation: why are they so strongly opposed to dualism? What precisely is driving them? Searle (1992) says it is “the belief in the immortality of the soul” (p.3). It helps us to understand why Churchland (2002) is determined to convince her readers that “there is no soul to spend its postmortem eternity blissful in Heaven or miserable in Hell” (p. 1), contra Matthew 10:28.

An important question remains to be answered. How should we construe the relation of a person (soul) to his body or of his mind to his brain? The relation is in many respects analogous to the relation between a fish and water. The material condition on which the fish depends for the expression of its capacities is the water (for example, to swim and to breath). Put in the reverse, the water makes it possible for the fish to express its natural capacities which inheres in its nature. Likewise, the brain is the necessary material condition that enables a person to think, feel, and decide, just as a hand is the necessary condition that enables a person to hold a cup or write a paper about why it is not a brain that makes human beings human (Joubert 2011). So nothing of what I have said about the brain should be construed as in any way a devaluing of the brain, but I hope to show that the brain is not the chief interest of God, contrary to

what many Christians think and are made to believe. Also, none of the necessary conditions are in any way sufficient conditions, and to see why not, we need clarity on some core capacities of a person which, I contend, can in no way be predicated of a brain.

The Ontology of the Self-Conscious Knowing Subject

My understanding of a human person is captured in the following words: “Do not let your adornment be *merely* outward—arranging the hair, wearing gold, or putting on *fine* apparel—rather *let it be* the hidden person of the heart, with the incorruptible *beauty* of a gentle and quiet spirit, which is very precious in the sight of God” (1 Peter 3:3–4). In other words, I believe that Scripture teaches that “a man’s heart *reveals* the man” (Proverbs 27:19). It is therefore not the brain that reveals the man! For the purposes of this section, I shall take the “hidden person of the heart” to be synonymous with what is generally referred to as oneself. The *Colliers Dictionary* (1977) defines “self” as “one’s own person as distinguished from all others” and in terms of “qualities or characteristics which constitute a person or thing” (p.903).⁷ Therefore, if I am the bearer of my own properties, then the indexical “I” refers to what I, myself, perceive, recognize, think, believe, feel, desire, know, understand, and remember from my first-person perspective.

What can we say about the nature and properties of a self? A self has an inner nature or character which can be referred to as a self’s selfhood or personhood—a natural set of properties (capacities, attributes, tendencies, and dispositions). An “attribute” is a quality, feature, or trait belonging to a person (being strong-willed, wise, fearful, and so on); a “tendency” refers to a person’s natural and particular way of moving or acting (when frowning if puzzled, when crying if in pain); and “disposition” refers to developed characteristics, habits, or virtues which dispose a person to be a person of a certain sort (self-control under pressure, and to keep one’s promises are examples). Before we consider what a capacity is, let us bear four things in mind about properties.

Firstly, properties have an owner, a self; they inhere in a self, and are inseparable from and dependent on parts of the self. Properties do not show up in the world by themselves. Secondly, whenever a self manifests a property (a quality) the self is modified. Thirdly, a self is a whole over and above its parts. In different words, the whole precedes the parts—my thoughts, beliefs, or desires cannot exist prior to me. In contrast, the parts of an artifact like a table exist prior to the whole; the parts, like some human bodily parts, can be separated from the whole and stored

⁷ For an insightful discussion of the nature of the self, see J.P. Moreland (1998).

somewhere in a container, which cannot be said of my thoughts, feelings, or desires. And fourthly, properties characterize their objects (individuals, particulars) in one way or another. One person can be more patient, careful, wise, or knowledgeable than another, which entails that capacities can be developed or neglected.

Capacities

A self has various mental, moral, and spiritual capacities (abilities or powers). A capacity is a potentiality, an ability to have something that is not currently actual. The various capacities are internally related to one another, which entail that a self's beliefs, for example, cannot be severed from a self's thoughts, feelings, or desires, and vice versa. Therefore, what affects one capacity or power will affect the others. Worry may cause certain thoughts, and thoughts about an injustice may lead to the feeling of indignation. Also, realizing that one's beliefs about person X were wrong will lead to a change in one's feelings or attitudes toward X. Important about capacities is their hierarchy of lower and higher orders. Simply put, it means that if immediate or first-order (natural/innate) capacities are not developed, then ultimate capacities cannot be realized. For example, a person has the capacity to do math; but in order to do math, he must first develop his capacity to identify numbers and then develop the capacity to count, and so forth. It must be said that if the right conditions and environment are in place, a self will do what it is naturally capable of doing.

I shall now specify and clarify some of the most important mental and moral capacities of the self.

Mental and moral capacities

I am the bearer of my own properties, and my mental states are immediately and directly present in me by virtue of me being a self-conscious, self-reflective, and self-knowing person. To show this, I shall briefly focus on sensation, emotion, thought, reasoning, and imagination, knowing and belief, understanding, memory, desire, volition, and conscience, in that order. But first, I must ward off confusion and clarify the meaning of "mental state."

The confusion is this: a conscious experience is not an experience that is conscious. It is the person who has the experience that is conscious; he may be conscious that he is jealous or not, and realizing his anger or not. An experience need not be conscious, and it is not if it does not hold a person's attention, occupy his thoughts, or knowingly weighs with him in his discussions or deliberations. The qualitative character of experiences, not the experiences themselves, are found by the person to be pleasant or unpleasant, agreeable (enjoyable) or disagreeable,

wonderful or dreadful, interesting or boring, delightful, revolting, and so on.

A mental state, as also an emotional state, is something a person is in while conscious, and is also a state a person may become conscious of if the person realizes that he is in such a state and if the fact that he is occupies his thoughts. Typical of mental states is that a person can determine when they commenced and terminated, roughly or precisely; they may be interrupted by distraction or when a shift in attention occurs, and later resumed; and they have degrees of intensity (being in severe pain) and duration. With this in mind, let us now turn to our core human capacities.

(1) *Sensation*. A self has five sensory capacities or powers, and a sensation can be defined as the effect of a stimulus on a sense organ together with a state of perceptual awareness or mode of consciousness within the self (for example, awareness of a dog, a sound, or aroma). My visual sensation (perception) of my dog, together with my excitement at seeing him, is thus an experience and a state of myself, and not a state of my eyeballs. Eyes do not see and do not experience excitement; I do, and I see with or by means of my eyes. Eyes, ears, mouths, noses, and hands—the body in general—are instruments a self uses to interact with and experience the environment. Whereas some sensations are conscious experiences of things outside me, like my dog, others can be states that involve an irritation like an itch, "uneasiness" about something (it seems out of place or does not seem to fit) or a pain within me. Understood this way means that direct awareness of an object is based on or grounded in the sensation of it.

(2) *Emotion*. It is important to distinguish between feelings that are sensations which have a bodily location, such as an itch under one's foot or the pain felt when burning one's finger, from feelings which are affections (the emotions, traditionally referred to as passions). To make good my ontology of the self-conscious knowing subject, it will be useful to distinguish between attitudes, agitations, moods, and emotions. Although they are intimately related, it can be shown that they are characterized by distinct features (cf. Bennett and Hacker 2003, pp. 199–223; Pelser 2009).

People are typically said to have *attitudes* when they talk about things they like and dislike, approve and disapprove of, and are associated with character qualities such as benevolence, loyalty, hostility, vindictiveness, and aggressiveness. Characteristic of attitudes is that they can inform a person's life over a prolonged period of time; one person can feel angry for years with someone else (being unforgiving), and someone can hate evil all his life. It suggests that attitudes can be good or bad.

People typically feel *agitated* when they are astonished, shocked, startled, horrified, or disgusted. Agitations are experienced as disturbances of the self because they are generally caused by something a person did not expect or anticipate. They are also the result of what people perceive to be a state of affairs, have learned or realized—increasingly over a period of time or by way of a sudden insight.

In contrast, a person is in a *mood* when feeling cheerful, irritable, contended, depressed, euphoric, or bored. A mood or frame of mind is manifested in certain patterns of behavior and may influence a person's thoughts, pervade a person's self-reflections and, consequently, impact a person's self-knowledge.

Emotions are things a self feels (experiences), such as fear, love, pity, compassion, gratitude, hate, anger, indignation, resentment, jealousy, envy, and grief. Although it is arguably the case that persons are unable to feel emotions at will or command, they are able to cultivate them and refine how they express them (it can become habitual). But people are also able to bring their emotions under control or suppress them. This explains why people are responsible and answerable for their emotions. Further, most emotions not only have specific objects (one fears a growling dog), but are also characterized by a self's appraisal of an object (the growling dog is dangerous), concerns (one's safety), and what a person values (one's life). Emotions are therefore powerful reasons for kinds of action (in the case of fear, one hides or runs away from what is perceived as a danger or threat). This highlights the cognitive aspects of emotions: a person who does not know, believe, or judge that an object is dangerous is not likely to hide himself or run away from it. But adequate self-knowledge and understanding of one's emotions also presupposes the possession of appropriate concepts. A person who possesses no concept or only a partial concept of shame will have difficulty in distinguishing it from guilt, remorse, or regret.

Thus, to believe that emotions are perceptual, evaluative, and intentional states (Pelser 2009) with propositional content implies that emotions are not fleeting subjective entities that pass through consciousness that have no necessary connection with the self or things outside the self. Emotions, like sense perceptions, can be inaccurate, but they can and do serve as rational grounds for certain beliefs (for example, a person's indignation at injustice serves as a rational ground for the belief that justice is an intrinsically good thing). This suggests that witnessing a moral wrong and recognizing it as such is one thing and quite another to be outraged or doing something about it; to simply notice moral wrongness without experiencing moral indignation indicates that there was a failure of understanding

the moral importance of the act, let alone what morality requires.

(3) *Thought, reasoning, and imagination.* What a self thinks about, while thinking, holds the self's attention (a person can be "deep in thought"). A thought is therefore the mental content of the mind of a self and which a self can express in an entire sentence—written or spoken. Certain thoughts express propositions, about which at least three things can be said: a) a thought can be true or false, since it is of and about something (the thought that the pudding was delicious is about the pudding); b) some thoughts imply other thoughts; and c) some thoughts do not entail; they merely provide justification for other thoughts (a person's painful thoughts about being unfaithful to his spouse provide justification for the thought that he is ashamed of himself and remorseful about what he did). (a), (b), and (c) are also factors involved in reasoning, a form of thought, for example, when a self endeavors to find an answer to a question or the solution to a problem. A conclusion may be correct or incorrect, and thoughts can be right or wrong, and good or bad. Brain states are neither true or false, good or bad, they just exist.

Imagination is the capacity to think of, ponder, consider, or reflect on possibilities. Imaginings can be good or bad, and are incredible, fanciful, or fantastic if stretched beyond the plausible. The imagination is not exercised only, or primarily, in reflection, but in speech and action (an invention, telling a parable, and to solve a puzzle or problem are examples). To form a mental image of a scene or object is not to imagine an image of it; it is visually to imagine the object or scene. And a person's imagination can be powerful or weak.

(4) *Knowing and belief.* We ask why someone is in a given state, but how someone knows. How someone knows something will depend on what kind of thing it is he is trying to know (I will not know what reasoning is by tasting a grape). A person can acquire knowledge through perception or can attain it by endeavor, such as reasoning, discovery, or detection. Knowledge may also be imparted by others in the form of authoritative judgment (God, teachers, parents) or testimony (Genesis 1 and 2; the Gospels). If someone knows something is thus-and-so, then it is possible for the person to act on the basis of this information. The information provides the person with reasons to act or not to act, including for thinking and feeling a certain way. A person can also believe something without knowing whether what is believed is true (some would call knowledge a justified true belief; cf. Boghossian 2006), and what is known can be known in detail, well, or thoroughly.

In contrast to knowledge, a belief is a self's conviction, to varying degrees of confidence, of how things really are in the world, the kinds of things

that exist, their coming to be, and how they are to be treated. To believe something is also to adopt an attitude toward it (a fear of God), which means that a person stands in a direct and internal relation to his knowledge and beliefs: he can grasp, attend to, affirm, retain, and ponder them without “accessing” anything else first. If beliefs are causes of behavior and actions, then actions are good indicators of what a self believes (a common cognitive distortion among criminals: they do not believe a victim has been harmed unless there is concrete physical injury—Tangney, Mashek, and Stuewig 2007, p.4). What matters more than a belief, however, is whether a belief—understood as what is believed—is right, correct, or true. So, irrespective of whether a belief is true or false, it is to be expected that the content will shape a person’s actions.

The question now is how does one change one’s beliefs? It is arguably the case that no self is capable of simply substituting one belief for another at will or command. The will to change a belief may be a necessary condition, but it is not sufficient; a self must also be willing to ponder the content of a belief, think about the reasons for holding it, and consider the arguments and evidence against the belief.

(5) *Understanding*. To understand is to grasp, comprehend, and to be clear about, for example, the meaning or significance of something. A person can have a conception of some thing (a dog) without perceiving that thing, and a person can perceive a thing without having a concept of what it is. However, to be able to perceive this thing as a dog, the perceiver has to have a concept of a dog. To possess a proper concept of the dog—being an animal and mammal—means that the perceiver has a distinct understanding of the essential properties unique to a dog, as well as possessing knowledge of the difference between the dog and, say, a cat. Thus, if a person grasps a concept in the mind, the person grasps an object which is not in the mind. There is also a difference between a concept and the way a person possesses it: a person can have a partial or complete concept of something.

Why is understanding an essential capacity of a person? Fundamental to any investigation of reality and the question about the kinds of things that exist, their natures, properties, and the relation between them, are categories. They indicate what something is, for example, a particular substance (an angel, a human person, a dog, a leaf, or a brain), a quality, quantity, relation, place, time (it is always good to ask *where* and *when* something exists), action, event, state, posture, and so on. In short, categories help us to discern, identify, or classify things in the world and not to confuse them with things from which they differ (cf. Isaiah 5:20; Philippians 1:9; Hebrews 5:14).

(6) *Memory*. A memory is what a self remembers, and memory is the capacity to retain information and knowledge previously acquired. To say that a self can remember or recall a memory is another way of saying a self brings to mind the knowledge he retained about facts and experiences. Memory is therefore, in addition to perception and reasoning, a vital source of knowledge and self-knowledge (an information-sensitive capacity that can be cultivated or neglected). The ability to remember must be distinguished from recognition, which is also a part of memory. To recognize some object is to be able to identify the object based on one’s previous learning and retained knowledge. Thus, when I see my wife in a crowd, I am recognizing her and not remembering her. It implies that I have retained my recognitional ability.

(7) *Desire*. A desire is a certain felt inclination to do, have, avoid, or experience certain things, and it is either conscious or such that it can be made conscious through thinking certain thoughts about what one has seen (for example, a representation), touch or talk. A desire is not a motive; a desire furnishes a self with a motive to do something. For example, shame is bound up with the desire to conceal, hide oneself, or to escape from the scrutiny of those who disapprove of oneself (ponder the actions of Adam and Eve after the Fall). Desires can therefore be good or bad. Someone who does not simply act on his desires or emotions is one who is in control of himself (i.e., self-control is an ability; cf. 2 Peter 1:5–6ff.).

(8) *Volition*. An act of willing is a volition or deciding, self-assertion, an active exercise of power, an endeavor to do a certain thing, or bring a certain state of affairs about (I can subordinate objects in my environment to my use, thus direct myself toward a definite end or goal). There are both voluntary and involuntary acts, and what a self voluntarily performs, is his actions (such as raising his arm to vote). I can also do things, and by so doing, make others to happen, even if I am unaware of what it is that I make happen (for example, changes in my brain).

(9) *Conscience*. What is known about the conscience seems to be consistent across different cultures, although there are different things within each culture people may feel guilty about. For the early Greeks, conscience meant “the pain that you feel when you do wrong,” and an American Indian described his concept of the conscience as follows: “In my heart there is an arrowhead with three points to it. If I do wrong, the arrowhead turns, and it cuts me. If I do wrong too much, I wear out the points and it doesn’t hurt me quite so much” (Wiersbe 1983, pp.6–7). Thus, if the pain we feel when we do wrong refers to the function of the conscience, then we can

rightly refer to the conscience as the capacity or power of moral self-awareness and moral judgment. The Apostle Paul explained it as follows:

Indeed, when Gentiles, who do not have the law, do by nature things required by the law, they are a law for themselves, even though they do not have the law. They show that the requirements of the law are written on their hearts, their consciences also bearing witness, and their thoughts sometimes accusing them and at other times even defending them. (Romans 2:14–15)

It is therefore reasonable to expect that feelings involving the conscience may result in self-condemnation if an act is wrong and rightful action may arouse self-approval.

To conclude, I hope to have clarified some of the core mental (psychological) and moral capacities of a self or person (soul). But what are the implications if people continue to think that a person is a brain or that a brain can do things which can only be attributed to a person? I wish to highlight five areas that ought to be a concern of every responsible Christian.

Implications for Christian Responsibility and Care

The first and foremost area of concern is for Christians to guard against the potential eroding of biblical concepts, language, and terminology.⁸ Three examples will illustrate the seriousness of my concern. The first relates to the biblical concept of the “heart.” Reading what the Bible teaches about the human heart quickly leads to a number of conclusions. Here follows two of them: 1) the heart (Greek *kardia*) stands in a metaphorical sense for the center of the person and covers the whole range of activities that go on within oneself, including thinking and reasoning (Mark 2:6), emotions (John 16:6, 22), understanding (cf. Luke 24:45 with Ephesians 1:18), believing (Romans 10:8–11), and free choice or decision (Exodus 35:5; 2 Corinthians 9:7); and 2) Scripture teaches things about the heart that cannot possibly be predicated of a brain. For example, Jesus lists “deceit” as one of the sins that come from the human heart (Mark 7:22), and when He saw Nathanael He referred to him as an Israelite “in whom is no deceit” (John 1:47). In other words, Jesus referred to a state of his soul, and not of his brain. As already been noted, the brain cannot be good or bad, right or wrong, it just exists. However, Jesus’ words are also consistent with both Proverbs

27:19 (“a man’s heart *reveals* the man”) and 1 Peter 3:3–4 (the “hidden person of the heart”). It helps us to understand Scripture’s admonition that people should be responsible and watch over their hearts (Proverbs 4:23), and why God weighs (Proverbs 21:2) and tests the human heart (1 Thessalonians 2:4). Therefore, assertions such as those of Nancey Murphy—evolutionist, theologian, and “Christian” philosopher at Fuller Theological Seminary—namely, that we “have to accept the fact that God has to do with brains—crude though this may sound” (Murphy 2006, p.96) are plainly false.

The second concept is “repentance.” If we are to take the assumptions of neuroscientists seriously, and think and talk as they do, then the word “repent” will gain a whole new meaning never intended by the Author of Scripture. If John the Baptist (Matthew 3:2), Jesus (Matthew 4:17), and the apostles (Acts 2:38) intended for their listeners to “change their minds” (Greek: *metanoia*) when they told them to repent, then, in the language of neuroscience they must now change their brains. But it is impossible for a person to do that. Biblical repentance involves at least three interrelated dimensions: the mind (thoughts and beliefs; cf. Romans 12:1–2; 2 Corinthians 10:4–5; Philippians 4:8–9; Colossians 3:1–2), speech (Romans 12:14; Ephesians 4:25, 29; Colossians 3:8), and actions (Romans 12:17; Ephesians 4:28). These are things persons are told to attend to purely because they are able to, and not their brains.

It must be said, a reading of the works of some Christians who use the language and concepts of neuroscience invariably leads to two impressions: God has failed us by not having recorded knowledge of the brain in Scripture, and Scripture is always, in some way, portrayed as inadequate to change minds, hearts and lives. A case in point is psychiatrist Dr. Curt Thompson (2010), who is also a close follower of Nancey Murphy. He wrote a book which he titled *Anatomy of the soul. Surprising connections between neuroscience and spiritual practices that can transform your life and relationships*. In it he announces “a new way of understanding and experiencing our life with God, using the language of neuroscience.” He asserts, amongst other things, that “new discoveries” in “neuroscience and related fields” (i.e., neurobiology and the evolutionary story of origins) offer “clues” as to how Christians can develop what the Bible refers to as the “fruit of the Spirit” (Galatians 5:22–23; Thompson 2010, pp.xvii,

⁸ In a recent article on how to interpret the Bible, creationist Tim Chaffey (2011) made a crucial observation which deserves mention: he says that “Words have a particular meaning in a particular context. When they are placed together in sentences and paragraphs, then a person must follow common-sense rules in order to derive the appropriate meaning. The sender of the message had a reason for choosing the words he did and putting those words together in a particular order and context. The same is true with the Bible. God had a reason for moving the writers of the Bible to use the words they did in the order they did. Our goal must be to ascertain the AIM [the Author’s Intended Meaning]” (p. 4).

2, 7, 206). But that is simply nonsense. Thompson seems to believe that God waited nearly 2000 years for neuroscientists and evolutionists to reveal to us what all Christians over the past 2000 years have been ignorant of, namely, knowledge of the brain, and, therefore, that their relationship with God was in some way inadequate or incomplete.

Some church leaders also teach that Christians can only grow in knowledge of themselves and others when they have an adequate understanding of a brain, especially the “whole brain” of Jesus (Neethling, Stander, and Rutherford 2000). What the authors of *Think like Jesus* seem to have missed is that anyone who wishes to learn anything about the thoughts, beliefs, feelings, and actions of Jesus can simply consult the Gospels, something which every Christian has done for nearly 2000 years—without contemporary knowledge of the brain! They believed, as some Christians do today, that the Scriptures are sufficient for their training in godliness, and to equip them for every good work (2 Timothy 3:16–17).

The third example of the eroding of biblical language and terminology relates to what neuroscientists and philosophers teach about the meaning of the indexical “I.” Bennett and Hacker (2003, pp. 331–334, 346–351) would like us to believe that the “I” is an aberration of language, or just a word people have learned to use in language. Thus, when I say “I am in pain” then the “I” is an illusion, they say; it is not a referring term. But contrary to them, our Creator said “I AM WHO I AM” (Exodus 3:14), words which Jesus repeated in reference to Himself (John 8:24, 28, 58), and thereby equating Himself with the eternal God. Therefore, we accept that the “I” does refer to a self-conscious knowing immaterial subject or person (“God is Spirit”—John 4:24).

The second area of concern relates to matters of life and death. Since I have dealt with some of the issues elsewhere (Joubert 2013), it suffices to make three interrelated points. The first is, if you are a brain and you die, then you will go out of existence, and that is contrary to Scripture (cf. Joubert 2011; 2012). The second point is, if a human person comes into existence only at the point when a brain begins to develop, then it would not be morally wrong to kill a human fetus. And third, Christians have to be careful how they allow people to conceptualize death. One example will illustrate what I mean.

The writer of a recent article in Smith (2011) wrote about “the power of the human spirit.” The article is about Chase Britton, a three-year-old boy who startled doctors after he had started learning to walk. He startled them because he is completely missing his cerebellum—the part of the brain which controls motor skills and balance—which means that his condition forced doctors to rethink how the brain

functions. The anencephalic boy, the writer continues to say, “is legally blind, also has no pons—the part of the brain stem that regulates basic functions including breathing and sleeping.” Whether Chase’s condition had been prenatally detected the writer did not say. What we do know is that 95% of prenatally detected anencephalic babies are aborted because their condition is considered “incompatible for life” (Gilman 2012, p. 72), and to advocates of “after-birth abortion” (Giubilini and Minerva 2013) it would have been alright to kill Chase at birth. But Chase “loves to play tricks on people. His goal in life is to make people smile.” His neurologist, therefore, admitted that he and his colleagues do not have an answer to explain this: “So it is a mystery,” they said. What is the implication of all this? Do not settle for the view that a person is a brain, or the notion that it is a brain that likes to have fun and/or is able to love and be joyful.

A third area of concern relates to how Christians think about mental disorders and the treatment thereof. Misdiagnosis in a disease-model of medical treatment means any prescribed treatment will be utterly ineffective or detrimental to a patient’s well-being. Likewise, to conceptually confuse a moral problem with a brain problem, and allowing experts to treat a person’s brain with drugs to enhance his morality, will be potentially fatal (cf. Breggin 1991). Some clinicians may disagree; they will, and have argued, that the use of drugs to enhance morality is already a reality within many clinical encounters, although psychiatrists “do not choose to describe [it] in these terms” (Spence 2008, p. 179). There is at least one reason why Christians should not even begin to think of treatment or care in those terms: the outcome of drug treatment is a highly uncertain affair. Two days after his physician prescribed Paxil to Donald Schell for depression, he shot his wife, daughter, granddaughter, and then himself. And David Hawkins, two weeks after using Zoloft, killed his wife. The judge’s words at his trial state my point well enough: “I am satisfied that but for the Zoloft he had taken *he would not have* strangled his wife” (Rose 2003, p. 55; emphasis added). It would therefore be good to keep in mind that there is no “single right way to diagnose any mental disorder—and don’t let any expert tell you that there is.... There are no objective tests in psychiatry, no X-ray, laboratory, or exam finding that says definitely that someone does or does not have a mental disorder” (Frances and Widiger 2012, pp. 115, 116).

From this follows a fourth area of concern. Assuming that a person committed a moral wrong, it would be irresponsible to make him believe that his pain is in any sense abnormal. Conscience, as has already been noted, refers to the pain one feels when doing wrong,

and it is perhaps no coincidence that the word “pain” (Latin: *poena*), meaning punishment or penalty, denotes suffering, “particularly if this had resulted from a blameworthy act” (Tyrer 2006, p.91). Thus, absent any identifiable brain disease, Christians are saddled with a daunting responsibility: to respond to suffering wrongdoers by helping them to attend to the roots of their problems—that is, their wrongful acts, objectionable character, and their broken relationships—not their brains!—and do not let them settle for being “sick in the brain” (cf. Greenberg 2010).

Finally, Christians should be careful not to teach what neuroscientists would like them to believe about the nature of agency. Psychologist and professor of law at the University of Missouri, Stephen Erickson (2010) writes: “Instead of people, cognitive neuroscience posits brains as the exclusive agents of behavior and suggests brains are incapable of blame because of their mechanical and determined nature” (p.28; see also Erickson 2008). What is an agent? An agent has capacities as part of his constitution—sensations, emotions, thoughts, beliefs, desires, conscience, the ability to reason, know, understand, evaluate (judge), and so on; an agent must be self-conscious (not brain-conscious!) 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; and an agent must remain the same through change over time otherwise an agent who committed a crime and is now standing in front of the judge cannot be punished for his sins (cf. 2 Corinthians 5:10). Therefore, an agent must be free in two senses: he must be able to do or choose something freely and must have the ability to do or choose otherwise, or have willed to do otherwise. In sum, agency serves as basis for responsibility, for crediting and blaming ourselves and others.

Concluding Remarks

Neuroscientists (and many Christians) assume that the brain has a wide variety of capacities: the brain interprets and stores information, recognizes symbols, analyzes, thinks, believes, knows, designs computers, determines what is true, paints pictures, deciphers images, analyzes, prioritizes, learns, understands, remembers, and makes decisions. I have attempted to show why I think all such thinking and talking is incorrect, incoherent, and unintelligible, and what some of the implications are if Christians adopt the thinking and way of talking about the brain as most neuroscientists do. The initial reaction of readers may well be indignation and incredulity. Of first importance is for Christians to be careful not to convert the wine of Scripture into

the water of neuroscience. Of second importance for Christians interested in understanding the brain is to understand the moving spirit behind neuroscience. And of third importance is to realize that conceptual clarity contributes to understanding what is known, and to clarity in the formulations concerning what is not known.

A person or self (a soul), as I have argued, is not a brain. Mental (psychological), moral, and spiritual properties define us as the kind of things we are. In simple terms, human beings are created in the image of their Creator (Genesis 1:27–28; James 2:7), to be like Him, meaning imitating and mirroring Him—spiritually, intellectually, and morally—in and through their bodies. Christians therefore accept their Creator as a paradigm Person, and accept God as ontologically, epistemologically, and morally analogous with themselves. A human being is a unity of an immaterial soul or spirit and a material body. A person is self-conscious and not brain-conscious, and needs no knowledge of the brain to function as an imitator of God (cf. Ephesians 5:1). The brain, no doubt, makes it possible for *us* (not the brain!), to sense, perceive, think, reason, believe, feel, learn, know, understand, remember, and decide, and hopefully, to change our minds about how we think and talk about a person and the brain.

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