

PSEUDO-CARTESIAN DUALISM: MIND, BODY, CONSCIOUSNESS AND KIM'S
PAIRING PROBLEM

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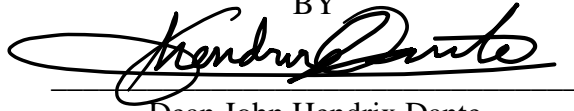
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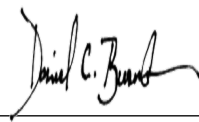


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ABSTRACT

At the core of the mind-body problem for substance dualism is causation between the immaterial mind and the material body. The philosopher Jaegwon Kim argues that this intersubstance causation fails in substance dualism because the doctrine does not have viable “pairing relations” to underlie the causal relations between the immaterial and the material. In this thesis, I respond to Kim’s “pairing problem” by proposing and then defending Pseudo-Cartesian dualism, a new version of substance dualism that redefines the mind, body, and consciousness to offer an alternative solution for intersubstance causation. The first chapter describes how consciousness should be understood under this new version. The second chapter first examines two other versions of substance dualism, comparing their explanation for the mind-body problem, then finally, explain what Pseudo-Cartesian dualism is and how it is different in its approach to the mind-body problem. The third chapter analyzes Kim’s pairing problem and Pseudo-Cartesian dualism’s solution for it. The last chapter addresses what I consider to be the most problematic consequence of Pseudo-Cartesian dualism’s approach to the mind-body problem.

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INTRODUCTION

The Mind-Body Problem

Consciousness is at the heart of the mind-body problem that has been beating for thousands of years. We know what it is to have consciousness, and we certainly have some ideas of what consciousness is. However, even the brightest minds in human history have yet to really answer *why* we have consciousness. Many people, philosophers especially, find the question so difficult, so unanswerable, that we must, metaphorically—though for some literally—flee from answering. Indeed, many of us would not find the question to be philosophically interesting. To answer *why* is to make an attempt for the purpose, the meaning of life itself. Such an endeavor is best left for everyone to undertake themselves. A much easier, though still notoriously difficult, question is *how* we have consciousness. How can consciousness arise from the seemingly random activity of what appears to be arbitrarily arranged brain cells, i.e., *this* organization of neurons vs *that* arrangement? This question is one of the mind-body problem's many variations.

The problem is deeply causal in nature. In essence, it is an issue about the causal relationship between the mind and the body. René Descartes, the 17th century philosopher widely recognized as the father of modern philosophy, proposed that we, as self-aware beings, are ultimately immaterial. We are thinking things, minds, characterized by mental properties such as feelings, perception, and volition. To Descartes, the mind is immaterial in its non-extendedness, having no shape, size, or otherwise physical descriptions that material substances, by their nature, do have. By the same token, the body is of material substance with properties such as motion and mass but not mental properties of any sort. Separate, there appears to be no real problem for Descartes. He has merely proposed a dualistic ontological theory in which the universe is made from two distinct substances. Anyone who accepts his theory, though, must explain how we, as immaterial things that feel and think, cause our physical bodies to interact with the physical universe, and in turn, how our physical bodies cause our minds to perceive the universe, or how

we can perceive it at all. The challenge for Descartes was producing a conceptually coherent solution of how a completely immaterial substance, lacking physical properties, can causally interact, influence, or affect, material substances.

The difficulty of the mind-body problem has since caused the majority of philosophers to leave behind Descartes' theory of mind. Nevertheless, his theory carried great polemical value and became the foundation of modern philosophy of mind. His dualistic view about the mind and body as two distinct substances became a general theory called "substance dualism." Descartes' view, which is now called Cartesian Dualism, is only one of several categorized under substance dualism. All of these theories address the mind-body problem in different ways, each having its advantages and disadvantages.

The purpose of this thesis is to provide a unique version of substance dualism, Pseudo-Cartesian dualism (PCD), that offers an alternative answer to the mind-body problem. For this reason, I shall first examine two other forms of substance dualism, Descartes' Cartesian dualism and E.J Lowe's recent Non-Cartesian substance dualism (NCSD), to establish the foundation for what makes PCD unique. Then I will examine Jaegwon Kim's pairing problem, his interpretation of what exactly about the mind-body problem makes substance dualism intractable. Finally, I will describe my answer to Kim's problem with the hopes of qualifying PCD to be a valid and acceptable version of substance dualism. Before all of this, however, I will dedicate the first chapter to defining consciousness so that we can have a clearer understanding of the nuances of the to-be-discussed theories of mind and their answers to the mind-body problem.

Chapter 1 – Consciousness

What is Consciousness?

Consciousness is often broadly defined as subjective experience, but that is a crude attempt at best and an obsolete one at worst. In medicine, consciousness is centered around the status of being awake and having awareness. And it's particularly that second qualification that is taken to be the universal prerequisite of being conscious, i.e., to have awareness is to have consciousness. Yet, we can understand that awareness and consciousness are not the same thing, just as we may acknowledge that being a square means being a rectangle, but not that they are the same. One might also say, "To be alive is to be conscious, and having consciousness means you're alive." But even at its strictest definition, we can only suppose that being alive means to have the capacity for consciousness still, i.e., something was conscious, and for whatever reason it wasn't anymore, but it might still *regain* consciousness. If, by this point, you still do not have a clear understanding of what consciousness is, then good. My aim was to dispel the irresistible yet limited notion that consciousness means subjectivity. This notion isn't entirely wrong as subjectivity does tell a part of the consciousness story; subjectiveness just isn't all of it—as we shall see from Ned Block's conception of it.

How do, then, might philosophers define consciousness? An oft used conception of consciousness was elaborated by Thomas Nagel as "what is it like to be X?"² The basic idea is to imagine ourselves to be X, to be cave-dwelling bats, for example. Let us suppose that our imaginative powers are so strong that it's as if we have become bats. We might imagine that we live in a cave with thousands of other bats in a mountain forest. We can fly and use echolocation for hunting insects and tiny frogs. We can "see" very well in the dark using our ears, but we can't see color. We can imagine everything there is about being a bat, but if asked, can we answer the question, "what is it like to be a bat?" According to Nagel, the answer should be no. Because regardless of how close to perfection my imagination may be—near perfection being the limit for,

presumably, having perfect imagination might morph me into a bat and cause me to lose my *self* and general identity as a person—I will still imagine being a bat *as* myself, and unless I literally become a bat, I will never have the complete story.¹ Consciousness is supposed to be that experience that describes *everything* about being a bat. Similarly, John Searle defined it as follows:

By consciousness I simply mean those subjective states of awareness or sentience that begin when one wakes...and continues...until one falls into a dreamless sleep, into a coma, or dies or is otherwise, as they say, unconscious.²

Both Searle's and Nagel's descriptions are meant to encompass X's consciousness as something that fully describes the phenomenality of their experience, i.e., what it is *like* to be X. That said, I agree with Ned Block in his assertion that these definitions are flawed because they have too wide of a scope.³ Not only are they too all-encompassing, but they are too limited. They are too wide for including everything but are too narrow for describing everything via phenomenality—the subjectivity or *thisness* of an experience. Rather than have all conscious experience be phenomenal in character, Block organizes them into at least four concepts: Phenomenal-consciousness (P-consciousness), Access-consciousness (A-consciousness), Self-consciousness, and Monitor-consciousness. I will focus only on describing P- and A-consciousness. I must note that in organizing consciousness into four concepts, it by no means imply that consciousness has been divided into four separable modes, such that there is a phenomenal mode or an access mode. As in Cartesian dualism and Non-Cartesian Substance dualism (NCSD), consciousness remains an indivisible unitary thing. Only by describing it in this way, we can better appreciate the

¹ Nagel, Thomas. "What Is It Like to Be a Bat?" *The Philosophical Review*, vol. 83, no. 4, 1974, pp. 435–450., DOI:10.2307/2183914.

² In John Searle's "Who is computing with the brain?" quoted in Block, Ned. "Some Concepts of Consciousness." *Philosophy of Mind: Classical and Contemporary Readings*, by David Chalmers, Oxford University Press, 2002, pp. 206–216.

³ Ibid, Ned Block (2002)

different facets of consciousness.

To start, I will address the consciousness that we would typically associate with subjectivity, phenomenal-consciousness. Block points to P-consciousness by describing it through rough synonyms. He claims that P-conscious properties are experiential properties, and P-conscious states are experiential states in virtue of having experiential properties. These properties are defined by the “what it is like-ness” they provide the states to which they are attributed. These include the *thisness* of sensations, feelings, and perceptions, and even the phenomenality of thoughts, wants, and emotions.³ Accordingly, this P-consciousness speaks to the consciousness that Searle and Nagel aimed to define. P-conscious content of any kind are characterized by the phenomenality of their experience. Supposedly, there is a quality of “what it is like” in having thoughts that is not unlike the phenomenal character of the perceptual information we experience. In any event, P-consciousness is characterized by this quality and only this quality. Essentially, P-conscious properties are distinct from cognitive, intentional, or functional properties, which do not, at all, have phenomenality character. The content of an experience, which is its representational content, is supposed to be distinct from the phenomenal content, which is the basis of the phenomenality of the experience. The idea is that what it is like to think about getting a coffee, or to have the intent to get coffee, is distinct from the thought or the intent themselves. Likewise, hearing the ocean’s waves hit the sand is presumed to normally have at least two contents, one with phenomenal character and one without, which one might think as pure information devoid of a subjective feel. In essence, the phenomenal content has an experiential purpose, i.e., the purpose of giving phenomenality or *thisness* to an experience, whereas the distinct thought or intent, or the pure information, has a representational purpose, i.e., to present conscious content separate from its phenomenality.³

At this point, we might assert that there is no such thing as pure information, for everything we perceive is phenomenal in nature. We could be right in thinking so, and I may not have the current wherewithal to resolve the issue, but the difference between having an

experiential purpose and a representational purpose is one of the differences between P-consciousness and A-consciousness. To exemplify this, it might be useful to think about Nagel's bat.

Recall that even as close to perfection our imagination was, we would still be unable to say exactly what it was *like* to be a bat. This is supposed to demonstrate that we cannot ever view bat experiences from the consciousness of a bat. And this impossibility is primarily due to P-consciousness. Our imagined experience of being a bat can only be as close to something *like* the A-consciousness of a bat. With our near-perfect imagination, we presumably have access to the representational content of *all* the bat's sensory experiences. I do not include all a bat's perceived experiences because this might include all its perceived thoughts, intent, emotions, etc. if it could have them and thus contain A-conscious content we can't imagine. In any case, the limit of our imagination is the representational content of the bat's sensory experiences. We cannot imagine its experiences' phenomenal character because only a bat would know how its experiences *appear* or *feel*. Our imagined experience, then, can be summarized to have bat A-conscious content experienced through *our* consciousness.

As illustrated by the bat analogy, we can conceive of A-consciousness as *accessible* consciousness. It is unrelated to the phenomenal character of an experience and tends to function like a computer's operating software, devoid of subjectivity. According to Block, "[a] representation is [an] A-conscious [content] if it is broadcast for free use in reasoning and for direct 'rational' control of action."³ This is the representational function of A-consciousness that makes it distinct from P-consciousness. P-conscious content arguably also has a representational function as at least, *prima facie*, P-consciousness also broadcasts information, albeit of the phenomenal kind. But there is a distinction. We might think of P-conscious content as merely a type of representation broadcasted for "viewing" as phenomenal content appears unavailable for manipulation in the relevant sense. That is, we cannot affect the phenomenal character of our experience without changing the content of the experience itself, by looking at some picture A

instead of B, for example. On the other hand, the representation of an experiential event is only an A-conscious content if it is not the phenomenal type and is available for manipulation. In addition to imagined content, it might be easier to frame it around thoughts and information rather than perceived experiences, e.g., to think about the fact that the word “listen” is an anagram of the word “silent.” In thinking of and manipulating, letters in this way, we might better distinguish A-consciousness from its counterpart.

So described, consciousness, as a whole, could be understood to have various qualities. Besides phenomenality and accessibility, Block also describes self and monitor-consciousness. Self-consciousness being the concept of self and the capacity to apply this concept, and monitor-consciousness might be thought of as “inner-perception.” For our purposes, it is sufficient that we have a basic conceptual understanding of A-consciousness and P-consciousness. Besides, it seems incoherent to think about self and monitor-consciousness without them inadvertently becoming the content of our A- and P-consciousness, i.e., self and monitor-consciousness appear entirely intangible, as we might think of them as characterizing the *inner self* that we must *assume* is there, but we can’t *know* to actually be operating behind the scenes, we cannot bring it *to* our awareness. Substance dualists like Descartes would consider consciousness and this *self* to be identical as the unity of the soul. In NCS, E.J. Lowe would take the *person* to only be the *self*, believing A and P-consciousness to simply be mental states, i.e., being conscious is a matter of being subject to conscious mental state(s). On the other hand, Pseudo-Cartesian dualism (PCD) will view something like this *self* to be the mind and as something separate from consciousness. As I will discuss, Pseudo-Cartesian dualism will maintain that consciousness, though separate from the mind, is not mere mental states. It also takes the mind to be essentially immaterial, avoiding Lowe’s decision to ascribe it physical descriptions in virtue of possessing a body. How consciousness is conceived in these theories is only one point of difference. In the next chapter, I will examine how these three mind-body theories differ in their attempt to resolve the mind-body problem, starting with the two most prominent views in substance dualism: Cartesian dualism and

Non-Cartesian dualism. In Cartesian dualism, the mind or soul is a strictly immaterial substance that exclusively has all the mental properties of a human being or person. In this theory, a person might be thought to consist of two independent substances: a body—a material substance characterized by its physical properties but lack of mental properties—and a soul—an immaterial substance lacking all physical properties but exhibiting mental properties. On the other hand, E.J. Lowe's NCSD does not have a distinct immaterial mental substance, at least not in the metaphysical sense as in Descartes'. Instead, Lowe endorses the idea of a person to be a psychological substance that may exhibit physical properties through their bodies. That is, at its core, NCSD is a substance dualism that rejects the complete immateriality or non-physicality of the self (or the soul in Cartesian dualism). In the final section, I will discuss my own view of substance dualism, Pseudo-Cartesian dualism that combines certain aspects of Cartesian and Non-Cartesian dualism but nonetheless outlines a different ontology for the mind.

Chapter 2 – Three Approaches to Substance Dualism

Cartesian Dualism

Descartes' argument for dualism was influenced by his religious background. As a Christian, he constrained himself to an account that allowed for the peculiarity of human souls and the sovereignty of the Almighty. According to the traditional view, human souls are immaterial things that can survive their respective bodily death. Moreover, the view also attributes certain physical properties to the soul, such as sometimes having a corporeal appearance or being able to influence objects. Whatever other characteristics the soul may have, Descartes emphasized that the mind, having strictly mental properties, is solely immaterial.⁴

As a mental entity, the mind cannot be described as a member of the body. It also cannot be pointed to a physical location in the body so as to occupy the same space as the brain, for example. Unlike material substances, the mind is an indivisible thing insofar that it is non-extended, having no geometrical description. Descartes argued that while the body is divisible into members, systems, or reducible into cells and atoms, it would not make sense for the mind to be divided in such a manner.⁵ He writes, "...insofar as I am only a thing that thinks, I cannot distinguish any parts in me...Although the whole mind seems to be united to the whole body, nevertheless, were a bodily part be amputated, I know that nothing would be taken away from the mind..."⁶ The mind, for Descartes, is synonymous with the self. Conceived in this way, the mind, being the self, is not reducible to constituent parts. It has the property for functions such as volition and perception, but taking them away, Descartes would have claimed, does not mean that it has lost a part, inasmuch as a paralyzed body has not lost any of its parts. However, our

⁴ Blum, Paul Richard. "Substance Dualism in Descartes." *Introduction to Philosophy of Mind*, Rebus Community Press, 10 Sept. 2019

⁵ Skirry, Justin. "René Descartes: The Mind-Body Distinction." *Internet Encyclopedia of Philosophy*, ISSN 2161-0002, iep.utm.edu/descmind/.

⁶ Descartes, Rene. "Sixth Meditation" *Discourse on Method and Meditations on First Philosophy*, Donald A. Cress trans. Hackett Publishing Co., Indianapolis 1980

conception of the self is unified with our body. My identity, for example, is tied to my having two arms and myopia, or nearsightedness. Losing an arm or my eyesight would not entail that I lose a part of my mind, and instead, I might come to have a changed identity. Nevertheless, it is my body that has lost something, and not my mind.

This argument is recognized as the indivisibility argument of Cartesian dualism. It aims to establish the apparent distinction between the mind and the body via our intuitive understanding of physical matter and conception of self. This distinction is supposed to be encapsulated by Gottfried Leibniz's law of identity: "two things are the same if they have all of the same properties at the same time."⁷ The properties of having arms and eyesight are physically related to my body, not my mind. Yet, it seems incoherent that I can have a changed identity by my body losing certain things and still maintain that I have not lost a part of myself as a thinking mental thing. To this, Descartes would have emphasized the idea of the mind as a metaphysically separate entity and clarified that the mind, as the essence of self, remains unchanged even when our identity as it relates to our body changes. I might come to have a different view about myself by losing certain bodily functions, but my essence of self, my uniqueness as an individual, ought to remain unaffected. In this view, it is conceivable, then, that I can continue to exist without a body. Descartes justified this possibility through what is known today as the conceivability argument.

Descartes claimed that he could imagine his continued existence even without a physical body, but he could not imagine himself without a mind. Some might imagine this to be something like standing in front of a mirror and proceeding to "erase" the body in front of them. But this is misguided thinking, for one has incidentally ascribed the physical function of vision on what is supposed to be an immaterial substance. It might be better to imagine oneself thinking and feeling in, or as, infinite darkness. In this way, one has avoided localizing the mind in space or giving it

⁷ Calef, Scott. "Dualism and Mind." *Internet Encyclopedia of Philosophy*, ISSN 2161-0002, iep.utm.edu/dualism/#H10.

extended properties. Even still, this is an incomplete image of the self without a body, the physical medium through which we perceive the universe, because darkness, itself merely defined as the absence of light, is a physical notion we came to have through our physical understanding of the universe. How, then, should we imagine ourselves without any physical characteristics of any sort? Descartes would have said that we have no reason to believe we cannot have a physical understanding of the universe without a body. That is, he would have had to claim that for the immaterial mind to be conceivable, it is *sufficient* that it is non-extended, having no physical properties that we might typically associate with physical objects but not go as far as to say it has no conceptual place in the universe, for substance dualism is also an ontological theory that includes immaterial substances as part of the universe. Thus, justified by Leibniz's law, Descartes might say, "Since what I cannot doubt cannot be identical to what I can doubt, mind and body are not identical, and dualism is established."⁶ It must be noted that Descartes precedes Leibniz and would have had no way of knowing about the law of identity. Neither can he, nor I, claim that Leibniz's law is established as an ontological principle about notions of identity. Nevertheless, Leibniz's indiscernibility of identicals is still widely accepted today and can provide a measure of validity to Descartes' claims.

Thus far, I have given a description of Cartesian dualism and a brief summary of its two main arguments for distinguishing the mind from the body. There are still issues which proponents of Descartes must address, one of which is to provide an explanation of how the mind exhibits its properties, i.e., they must describe how the mind might operate, in the same manner how we have a mechanical understanding of how water freezes below a certain temperature. That said, defending Cartesian dualism to this extent is beyond the purpose of this chapter. For the rest of this section, I will describe what interactionism, the view that the mind and body causally influence each other, means for Descartes' dualism.

Cartesian dualism is as much a theory of mind as it is an ontological theory.⁸ The latter claims that there are two substances in the universe: immaterial and material. The theory of mind asserts that our immaterial minds have a bidirectional causal relationship with our material body. The notion behind this theory applies only to the versions of substance dualism that accept interactionism, and for this paper, Cartesian dualism is one of them. The forms of substance dualism that rejects this view include parallelism and epiphenomenalism. Parallelists view the mind and body to have temporal conjunction but no causal relationship, much like how synchronized clocks might operate. Epiphenomenalists propose a unidirectional causal relationship in which the body can influence the mind, but not the reverse. Both address the mind-body problem in different ways but equally fall prey to their own problems and need no further discussion given the scope of this chapter.⁷

Interactionism encapsulates our intuitive notion of everyday life. As we interact with our surroundings, the physical world shapes our experience through our senses, and in turn, we shape the world through our actions.⁹ A critical aspect of it, however, belies its intuitive advantage, namely the fact that materiality and immateriality are conceptually immiscible. Princess Elizabeth of Bohemia and Pierre Gassendi, contemporaries of Descartes, expressed a roughly similar concern by pointing out to Descartes that for a mind to cause a limb to move while remaining distinctly immaterial is causally impossible.⁵ They argue that for two things to influence each other, they must have an interface with which to interact. Given their ontological character, however, this interface is nonexistent for the immaterial mind and the material body.

Descartes' response is nothing short of an evasion. He claimed that the concern was misguided in assuming that the mind and the body cannot affect each other due to their difference

⁸ Himma, Kenneth Einar. "What Is a Problem for All Is a Problem for None: Substance Dualism, Physicalism, and the Mind-Body Problem." *American Philosophical Quarterly*, vol. 42, no. 2, 2005, pp. 81–92. JSTOR, www.jstor.org/stable/20010187

⁹ Robinson, Howard, "Dualism", *The Stanford Encyclopedia of Philosophy* (Fall 2020 Edition), Edward N. Zalta (ed.), plato.stanford.edu/archives/fall2020/entries/dualism

in nature. His belief is based on the notion of his scholastic-Aristotelian predecessors that the immaterial mind, as a substantial form, must be able to affect the human body in order to qualify as a complete person.¹⁰ Moreover, since the ancient scholastics and his contemporaries did not explain how the immaterial mind can affect the body, Descartes did not find it his responsibility to give such an account.⁵ He did attempt to provide a mechanism for how the mind might influence the body through something he called “animal spirits.” He described them to be more corporeal than the mind but less than the body.⁶ This explanation might have worked to bridge the conceptual gap between the mind and body. However, it remains unintelligible how the mind might even influence something “in-between” material and immaterial, and to this end, how “spirits” ultimately affects physical objects.

Notwithstanding their assumptions about causation, Princess Elizabeth and Gassendi illuminated the critical flaw in Descartes’ theory of mind. In the end, Descartes could not solve the mind-body problem. His Cartesian dualism does not answer the *how*, but merely the *what* of the theory of mind. In any event, this failure only serves to demonstrate the difficulty of the mind-body problem. From the outset, Descartes was tasked with unraveling a conceptual impossibility. To date, no one has been able to formulate a coherent argument for substance dualism that addressed this problem without a similarly evasive move, e.g., NCSD, or a surrender of a critical aspect of the theory, e.g., parallelism. Even if we were to ignore the conceptual obstacle, the mind-body problem remains for all proponents of substance dualism such as E.J Lowe.

¹⁰ This Aristotelian notion of the substantial form is a conceptual qualification that speaks to the essence of something, i.e., what it means to be a human being. In short, the human being takes form only when life enters a human body and comes to possess the properties associated with being a living person. Descartes’ immaterial mind is not the same as the Aristotelian soul. Whereas Descartes supported the continued existence of the mind independent of the body, the Aristotelian soul disappears with the death of the body. For Aristotle, the substantial form of the human being ceases to exist upon death and cannot be separated from the human body. The notion of form is often mistaken to simply mean the shape of a substance, as one will see in the following section of Non-Cartesian dualism, but for now, defining the form as the essence of a thing suffices. See Ainsworth, Thomas, "Form vs. Matter", *The Stanford Encyclopedia of Philosophy* (2020), Edward N. Zalta (ed.), plato.stanford.edu/archives/sum2020/entries/form-matter.

Non-Cartesian Substance Dualism

Non-Cartesian substance dualism (NCSD) is a recent dualist theory of the mind that E.J. Lowe popularized, but its origin predates even Descartes and borrows the Aristotelian concept of substantial form. Thomas Aquinas, a famous 13th-century philosopher of the Catholic Church, adapted the Aristotelian conception of the soul to his traditional view of the eternal soul. By his view, the human being is not a soul only, as Descartes believed, but rather a composite of soul and body. To better understand Lowe's NCSD, I will briefly describe Aquinas' view, which Eleonore Stump claims to combine features "of both dualism and materialism."¹¹

In Aquinas' view, all objects have their essence, by which they are identified in virtue of their substantial form. Aristotle used his example of a bronze sculpture, in which the sculpture's essence is its shape and thus its form. Stump used a contemporary example of a protein, the shape of which is its form, in virtue of which it has certain properties and functions that enable it to perform specific tasks. I will use the example of a unique, expensive watch, handcrafted by a renowned watchmaker who passed away after completing their masterpiece. Upon completion, the watch is said to have its substantial form, including all its intricate movements, the sounds it makes to operate, and its birth from the hands of its creator. After several decades, after several exchanges of ownership and replacements of its band, the watch's essence remains. Despite all its incidental changes, if its maker were to carefully examine the watch, they would still declare that it is the watch they built. After a few more decades, the watch ceased functioning. Another master has replaced a few parts, and in essence, renewed it. Aquinas would judge the watch to have lost its substantial form, becoming a different watch. His view of the human being is closely related.

Aquinas believed the human soul persists even after its person's death. This existence after death, however, is not complete, as in Descartes' soul. By his view, the soul is a thing

¹¹ Stump, Eleonore. "Non-Cartesian Substance Dualism and Materialism Without Reductionism." *Faith and Philosophy*, vol. 12, no. 4, 1995, pp. 505–531., doi:10.5840/faithphil199512430.

configured by the Creator and comes to exist only simultaneously as its human body. After death, the human body becomes a corpse and has an entirely different substantial form. Likewise, the soul becomes a substantial form that is generally inanimate, unless it acts by divine intervention, but one that retains its individuality and its metaphysical relation with its body, both becoming a living person again upon resurrection.¹¹ In this view, the substantial form of the soul is what makes a body a human being. That said, Aquinas' does not mean the soul to be a constituent of the person, just as I would not consider the substantial form of a phone, for example, to be a part of the phone. Neither would Aquinas claim that the soul is a complete substance on its own, even as an immaterial form, having lost the properties it had as a human being. In any case, the body is its own substance without the soul, albeit of a different substantial form. So, by their difference in character, namely as an incomplete and complete substance, the soul itself cannot have sufficient causal influence on the body, neither does the body have causal influence on the soul, barring divine interference.¹¹ Nonetheless, the body is able to exert causal effects on the world in virtue of the soul when alive. In such a manner, Aquinas' addressed a part of the mind-body problem, namely the causal relationship between the material body and the immaterial soul. And because the soul *is* the substantial form of the human being, Aquinas' did not face the conceptual impossibility that Descartes did.

As described, the Aquinas conception of the soul and the body rejects the Cartesian ontology of material and immaterial substances. Mental properties are not exclusive to the immaterial soul; neither are certain physical properties exclusive to the body, at least while it is living, e.g., motion. For this reason, the soul can be said to be located wherever the whole living body is located, and the person, as a material composite, thinks and possesses mental properties in virtue of their soul.¹¹ Surprisingly, Aquinas was willing to concede that the brain does possess some lower-level cognitive capability, in virtue of the soul, yes, but he did concede that some mental faculty might be located in the brain, rather than strictly to the form of the human being.¹¹

From this, it appears as if Aquinas supported substance dualism, but not the Cartesian

kind. His definition of souls may not be pointing to complete substances, by his standard and that of the average substance dualist, but he did believe the Almighty and angels to be complete forms and so can be considered a substance dualist himself. To examine his view any further for inconsistencies and shortfalls would be beyond our purpose, which was to simply describe it to understand better the conceptual background of E.J. Lowe's Non-Cartesian substance dualism, so we shall continue.

As we shall see, the non-Cartesian dualism that Aquinas supported is the epistemic or theoretical predecessor of E.J. Lowe's NCS. Lowe points out clearly,

This sort of substance dualist [an advocate of NCS] may maintain that I possess certain physical properties in virtue of possessing a body that possesses those properties: that, for instance, I have a certain shape and size for this reason, and that for this reason I have a certain velocity when my body moves.¹²

The direct similarities between Aquinas and Lowe end, however, with the indirect ascription of certain physical properties to an immaterial self—and, as we will see, the self as an indivisible thing. Unlike Aquinas, Lowe does not use the notion of the soul, nor borrow the Aristotelean substantial form, but instead resorts to giving his Non-Cartesian dualism more substance.

Lowe distinguishes NCS from Descartes by redefining self as a *person* that is distinct, yet not necessarily independent, from the body. He points his motivation for doing so to the instability of identity of immaterial souls. He is wary of the possibility that the soul currently possessing his body may not be the same soul that possessed it in the past.¹² This was an issue for Descartes as he took self to entirely be the soul without providing an intelligible account of how the soul and the body could be unified to become a person. This left Cartesian dualism ridiculed for possibly conceiving the mind to simply be a “ghost in a machine.”⁸ Lowe escapes this

¹² Lowe, E. J. "Substance Dualism: A Non-Cartesian Approach." *The Waning of Materialism*: Oxford University Press, September 01, 2010. Oxford Scholarship Online. doi:10.1093/acprof:oso/9780199556182.003.0022

problem, not only because he can describe a *person* physically in virtue of its body, tying the two physically, but also by establishing a theory of mind that purports to unravel some the causal knot of the mind-body problem.

More must be said about Lowe's ontological story of the psychological self before we examine his theory of mind.¹³ He, like Aquinas and Descartes, claims that the self does not have constituent parts. He supposes the self to be a simple substance, of a fundamental type that cannot be quantified nor broken down to other elements, i.e., my *self* is a unity in and of itself.¹⁴ To clarify, Lowe points the self to be the subject of its mental states, e.g., *I* am the subject of all of *my* mental states, such that whatever mental properties obtain in virtue of my mental states, it is *I* to whom they belong. It would not make sense for my physical body, per se, to be the subject of my mental states. Neither could my brain, as a whole, be the subject. While it may be that I need my brain to have my mental states, it isn't clear that my brain in its entirety is sufficient or can guarantee my persisting as a subject to them. Lowe defends his point by the claim that even if I were to lose a part, a significant portion or not, of my brain or body and come to have less mental states than before, I would still be subject to all the mental states I do have.¹² I find no reason to hesitate in agreeing with Lowe on this point. Barring instances of multiple or fragmented consciousness, in which we might have multiple *selves* or ongoing mental states without a *person* as a subject, it seems appropriate to surmise that *we* are the subject of our mental states whenever they present. Even if we consider dissociative identity disorder cases, it remains conceivable that there is an identifiable *person* that is subject to their mental states. Going forward, then, we can take the *self* to be the only singular subject of its mental states.

Ontologically, Lowe also categorizes self to be a psychological substance and not a living

¹³ In talking about Lowe's conception of the non-physical being and its causal story, self and person will be used interchangeably.

¹⁴ Lowe, E.J. "Non-Cartesian Substance Dualism." *After Physicalism*, by Benedikt Paul Gocke, University of Notre Dame Press, 2012, pp. 48–71, muse.jhu.edu/book/14757.

organism as in a biological substance. As a psychological substance, Lowe states that it is subjectable to psychology and what psychological laws may exist outside the purview of natural sciences. In this way, he grounds his dualist view to a legitimate psychological framework and decrease the speculative work he needs to complete in order to describe the mental properties of the person and how it may have come to have them. And concerning the ontology of the body, he classifies it to be a living organism, a biological material substance, and not as a mere arrangement of flesh and blood as a Cartesian dualist may hold. These two different substances, he suggests, have an intersubstantial relationship in the same manner a living organism may be united with their physical composite. Beyond borrowing the explicative prowess of Aristotle's and Aquinas' substantial form, Lowe does not consider the issue of unity any further to avoid, he states, "minimizing the scientific and metaphysical difficulties involved."¹² He can circumvent the problem because, unlike Descartes, who faced a conceptual contradiction in virtue of his exclusive attribution of properties, Lowe allowed for the possibility of psychological substances possessing physical properties and thus be unified with the body in some manner. He notes, at least, that these psychological substances do not necessarily possess such properties that they lose substance after losing these traits, but rather possess them conditionally through the body. We can conclude, then, that notwithstanding the non-exclusivity of properties, particularly physical ones, the person is distinct, though possibly inseparable, from the body. Having described Lowe's justification for being a substance dualist, I will use the rest of this section to examine his theory of mind's causal implications.

In explaining the causality implied by NCSD, Lowe defends the doctrine of *interactive parallelism*. The principle of this dualist view is that there is an equal correlation between mental and physical causes to any physical event that has a mental cause, e.g., the voluntary movement of my arm. There is, though, a problem that the causal closure argument points out for any such physical event, which is that any physical effect must occur only in virtue of physical causes. Lowe aimed to defeat this argument in its sufficiently strong version to merit plausibility to the

causal story of NCSD. He introduces the argument as follows:

General Principle – No chain of causal event having a purely physical effect can have antecedent causes of which some are mental in character.

Premise (1) – Some purely physical effects have mental causes.

Premise (2) – Any cause of a purely physical effect must belong to a chain of even-causation that leads backwards from that effect, i.e., physical effects with mental causes are not to be causally overdetermined.¹⁵

Conclusion (3) – All of the mental causes of purely physical effects are themselves physical in character.

The strategy is to refute (2), and consequently, deny the general principle for begging the question.¹⁵ Lowe emphasizes that the causal story to deny (2) is constrained to issues relating to the causal chain of event concerning voluntary actions, and will explain how mental and neurophysiological causes might interrelate with each other according to the interactive parallelist view. The example used will be the deliberate raising of my arm.

Lowe starts by claiming that it is noncontentious to say that for the strictly neurophysiological causal story, the physical, that is, bodily, causes of my arm's movement can be traced back to an unspecified region of my nervous system, perhaps in some area of my motor cortex. But even if by some advanced technology, we were able to trace the neurophysiological events to a particular group or network of neurons, it appears wrong to conclude that the movement of my arm was initiated by the unified activation of these neurons, as if simultaneously pre-programmed to "turn the switch" for "raise arm." It cannot be, therefore, determined what specific neural cause or event is responsible. Thus, as Lowe claims, the neurophysiological story has "no distinct beginning," if not at least due to our current understanding of neuroscience in

¹⁵ Lowe, E.J. "Causal Closure Principles and Emergentism." *Philosophy*, vol. 75, no. 4, Oct. 2000, pp. 571–585. JSTOR, doi:10.1017/s003181910000067x.

which there is no specific “switch” that points towards a specific movement.¹⁶

In contrast, Lowe states, my mental act of decision to move my arm would appear to me, perhaps introspectively, to be a singular and specific occurrence that initiated my raising my arm. And if we had difficulty tracing the physical causes of my arm’s movement to a specific network of neurons, it appears even harder to identify my mental choice, more specifically its intentionality, to a specific neural causal event in a similar manner. Nevertheless, we cannot discount the fact that there are sufficient neurophysiological causes that contribute to my arm’s movement, as disunified and indeterminate these causes may be in comparison to the unity of the singular act of choice.

Lowe believes that these two causal perspectives do not conflict with one another under NCSD. My distinctively mental decision to move my arm is credited to my *self* and accordingly, the neural events are attributable to my *body*. The mental story causally explains why my movement occurred when it did, as it took place shortly after my decision, and the physiological story explains why my arm moved in the way that it did, as in smoothly. This difference in logic, according to Lowe, demonstrates mental causes to be intentional causation predicated on facts and bodily causes to be predicated on events.¹² My decision to move resulted in the *fact* that a bodily movement of a certain voluntary kind occurred, whereas the neurophysiological causes resulted in the bodily *event* of my arm moving in a particular manner, as unintentionally shaky, smooth, staggered, etc. Ultimately though, we still have a mental event that, if we accept all that has been said thus far, is partly responsible for an effect in the physical domain. If we refer back to the causal closure argument, one might wonder, “How does this explanation avoid conclusion (3) by refuting premise (2)?” To this point, Lowe claims that for NCSD, mental events of

¹⁶ One might doubt this claim given the scientific evidence from cortical mapping performed during awake craniotomy in which instances of involuntary movement occur due to the stimulation of some region of the brain. To this point, Lowe might concede if we were to accept that any sort of voluntary movement is not accompanied by mental events, which, of course, we may not want to given our intuitive notion of volition as a mental state or property, rather than a physiological happenstance. See 14

intentional causation does not serve to bridge any “gaps” in the physical causal story, i.e., if I had explained it properly, NCSD should not face the conceptual impossibility Cartesian dualism did.¹² Rather, it offers a different causal perspective, which, together with the neurophysiological one, explains my arm’s voluntary movement.

It might help further to clarify the contrast between the two causal stories by considering their simplified counterfactuals. Let us suppose that my exact decision, *D*, to raise my arm is *identical* with a specific neural event, *N*, both of which are the sufficient cause for the bodily event of my arm rising, *R*. Let us also agree that *N* is of a complex nature that, in sum, consists of an unspecified large amount of individual neural events that if these differed slightly, we would have a different complex event, *N**, which differs minimally from *N*. Now, we can all concede that if either *D* or *N* had not occurred, then *R* would not have occurred. But Lowe’s concern is if *N** were to occur instead, would *R* still occur? It doesn’t appear wrong to say that *R* still would. From what we know of neuroscience, the brain is an excessively redundant organ that allows multiple tracts for any one bodily event.

However, the same can’t be said for the mental story of *D*. Unlike *N*, my decision to raise my arm is a single unitary event that reflects the simpleness, i.e., the singularity, of my *person*. If a slightly different *D**, which we can say to be sufficiently distinguishable from *D* just as *N** was to *N*, if *D** were to occur instead, it appears wrong to claim that *R* would still occur. Lowe argues further that even if there is a spectrum of *D* type mental events that are *fine-grained* enough that we can pinpoint a *D**, or a *D***, whose non-occurrence would preclude *R*, not unlike that of *N**, it would be so inaccessible to our consciousness that it is inconsequential in proving the counterfactual against the mental story.¹² Thus, by demonstrating that the physical act of raising my arm is not causally overdetermined, via counterfactuals, and instead having two distinct, equally correlated causes, as explained by the two causal perspectives, Lowe refutes (2) and denies the general premise to conclude that mental causes of physical effects are not physical in character.

As we have seen, E.J. Lowe's NCSO fills some of the gaps of Cartesian dualism. It tells a compelling ontological story that gives an account of how a *person* might be unified with their body such that *that* person is identifiable with *that* body. Although, since the explanation does not go into further details, we have no definitive account if the person is an immaterial substance of the sort that can exist after death or one that disappears. He maintained that the person is possibly inseparable from their body, yet by his account, "it will not do to say the permanent cessation of brain function would constitute the demise of the capacity for perception and agency."¹² If I understood Lowe correctly, I might suppose that he supports the possibility of the psychological person persisting, by having still the capacity for perception and agency, after separation from the body, which likewise as a living organism, persists. He might consider, for example, permanently comatose patients to be such cases in which their *persons* exist separately from their body. And if they can exist separately, then it's conceivable that the person can exist *after* bodily death. This is similar to Aquinas' argument of forms, wherein one might apply the persistability of souls to psychological substances. However, he does not view the person as a union of two substances, as Aquinas does. Rather, he claims that the *person* just is a psychological substance, like Descartes. But it is also important to remember that Lowe does not conceive the psychological self as essentially immaterial such that it is only describable via mental properties as Descartes would the soul.

So, while we may have compelling reason to accept Lowe's ontological story, it remains unclear how exactly we should *imagine* our persons as immaterial, but not essentially. Notwithstanding the circularity of his argument earlier that he is unified with his body because *he* possesses certain physical properties *in virtue* of having a body that possesses those properties, Lowe still tells a better story than Descartes. Granted, he does extricate himself from circularity by stating that this fact about unity must be derivative of some more fundamental relationship even if he isn't entirely forthright on what that fundamental relationship should entail other than it might be the relationship gained by the self acting *through* the body.¹² So, Lowe's ontological

theory for NCSD fails to meet all the expectations we might have had for it as the plausible solution to Descartes' problems. But what about his theory of mind, particularly the causal relationship he proposed between the person and the body?

I find Lowe's causal explanation for his theory of mind to be more robust than his ontological story. While much of the work does stem from the foundation built from his ontological theory, his defense against causal overdetermination for voluntary events appears convincing, at least to me. His use of counterfactuals as part of his strategy was particularly cogent. That said, we are missing a story for our conscious experience—unless we assume that Lowe simply considers consciousness to be mental states—and how the body, or the brain, might, in turn, influence our mental state to, perhaps, indirectly influence our *persons*. Lowe must describe, no matter how crudely, the causal ramifications interactive parallelism may have on the relation from the body to the person. And unless he intends to adopt a more Aristotelean perspective, in which the person might simply be causally exerted upon by the body on principle, I see no other explanation to be derived from his theory as it has been described. Thus, discounting the possibility that I have failed in the examination of NCSD, I shall continue on to Pseudo-Cartesian dualism.

Pseudo-Cartesian Dualism

Like Descartes' and Aquinas' theories of mind, Pseudo-Cartesian dualism (PCD) is a view motivated by scriptural belief. Thus, it allows for the possibility of the mind's continued existence after death, but it distinguishes the mind from the usual conception of the mental entity, namely the Cartesian soul. In discussing Pseudo-Cartesian dualism, I will outline the ontological description of the mind and its theory of persons and highlight some of the problems it might encounter, one of which will be the focus of the succeeding chapters.

The description of the mind supported by PCD applies only to human minds. As such, the human mind is deemed to be an immaterial substance of its own kind with its distinct underlying

principle that explains its genuine unity. By underlying principle and genuine unity, I refer to the unity criterion of substances that Tim Crane claims fail to preclude the mind, soul, or person to be recognized as substances.¹⁷ Crane denies the oft used independence criterion that states a substance is only a thing if and only if it exists independently of all other things of that kind, i.e., other substances.¹⁸ By this criterion, the mind and the brain of a living person, or even the Cartesian soul, fail to qualify as a substance for they are dependent, in some way or another, on things other than their constituents. Moreover, according to Crane, this criterion fails to explain the *genuine* unity inherent to things like a person, or a *living* organism, and thus fail to contribute to discussions in philosophy of mind. Therefore, the mind, for PCD, is a substance only in virtue of its underlying principle and like Cartesian souls, is characterized by a genuine unity that makes it indivisible and have no constituents, having no *stuff* to make it up as one might imagine ghosts or ectoplasmic things. For better or worse, the mind has an underlying principle centered with at least two aspects that distinguishes it from the Cartesian soul and Lowe's person.

Descartes believed the immaterial soul to be the *self*, the mental entity with exclusive mental properties possessing no physical characteristics at all. Lowe defined the person, as the subject of all a human being's mental states, to be *weakly* immaterial, describable via some physical terms. My view of PCD asserts that the mind's underlying principle is that it can only exist dependently and merely has the *capacity* for mental properties. By dependence, I mean direct dependence in which the mind can only subsist when it stands in relation to something else. In other words, the mind *exists* because of its primary dependence relationship. This primary dependence relation is towards the Creator. This relation could be possessed by *all* things in the universe. That is, all things exist because of this primary dependence relation such that any thing

¹⁷ Crane, Tim, and Anthony O'Hear. *Minds and Persons*. Cambridge University Press, 2003, pp. 229–250. PhilArchive, philarchive.org/archive/CRAMS.

¹⁸ Swinburne, Richard. "From Mental/Physical Identity to Substance Dualism." *Persons: Human and Divine*, by Peter Van Inwagen and Dean Zimmerman, Clarendon Press, 2007, pp. 147–179. New Dualism, www.newdualism.org/papers/R.Swinburne/Swinburne-BPG2012-ch5.pdf.

without it ceases to exist. However, the dependence relation stipulated between the mind and the Almighty is special compared to other creations in that it becomes more *proximal* after the relation between the mind and the body is lost, that is physical death. Conceived in this way, in PCD, the mind is only thought to exist after death because of direct divine sustenance. It is similar to Aquinas', and not Descartes', conception of the soul after death in which the mind is temporarily suspended from activity until it regains its relation with its body, or through its primary dependence relationship. This phenomenon reflects the notion that, generally, the mind only has the capacity for mental properties, which it fulfills when it stands in relation to its body. And this relation to the body is what I shall call the mind's secondary dependence relation. Unlike the primary dependence relation, this secondary relation does not have an ontological role such as to cause a thing to exist—though it may be related to some property fundamental to a thing's ontology—but rather a functional or property-endowing role.¹⁹

To illustrate the difference, consider a few large clumps of particles, which together constitute the material needed to make a bicycle. From the clumps of particles to the finished bicycle, the primary dependence relation is maintained. During the bicycle-making process, the materials may stand to be in some secondary dependence relation that allowed the clump of particles to be in causal relations to obtain additional properties and functions. The isolated finished bicycle, however, as it sits on the factory floor, could be thought to have no relevant secondary dependence relation despite having the capacity, for instance, to move in a bicycle-like manner. It is only able to fulfill its capacity when the bicycle has a secondary dependence relation together with its rider. However, it is only when both relata are in a causal relation—that is when

¹⁹ In talking about primary dependence relationship, I allude to the monotheistic notion that *everything* exists because of the Creator. For the mind to continue its existence requires its primary dependence relation. Whether any further properties of the mind can be said to result from this relation is irrelevant because it can also be said that *all* properties of everything also results from this relation. It by no means imply that PCD is aiming to explain the causal aspect of the mind-body problem by appealing to theological doctrine, which I claim Descartes aimed to do by implying primitive causal relations.

the rider is pedaling or actively using the bike to cause locomotion—does the bike actually fulfill its capacity. In a similar manner can we think of the mind to stand in relation to the body or brain.

The mind instantiates mental properties when it stands in a causal relation to the body. However, this causal relation is not the secondary dependence relation that the mind has towards the body, though it obtains because of the secondary dependence relation. Rather, the secondary dependence relation is fundamental to the ontological character of the mind and is only hinted at for now by the notion of “spatial relation.”²⁰ For now, I will describe how the mind may have mental properties by examining the overall theory of persons.

Rather than a theory of mind, PCD endorses something I call theory of persons. Its primary principle is the division of the person, or the living human being, into three interdependent things: mind, body, and consciousness. Intent, origin and manipulation of thought, and the precursor to what Ned Block calls self and monitor-consciousness are some exclusive mental properties the mind stands to gain when it is in a causal relationship with the body and consciousness. Human consciousness is defined by awareness, phenomenal and access-consciousness, and is considered an emergent property in PCD in virtue of the relation between the mind and the body, i.e., consciousness is sufficient evident for a claim such as “That person has a mind.” In this view, it is possible for a person to not have the emergent consciousness despite having the relation between the mind and body, e.g., unconscious persons. However, it is sufficient that the mind and consciousness are in the position *to stand* in causal relations to the body for a person, or a living human being, to exist. In other words, a body need not stand in causal relations to the mind and consciousness to *be* a person, it must merely be able to. Described in this way, my aim was for theory of persons to have as wide a scope as possible so that it does not fail to include all human beings that is, at the very least, biologically alive or, at most, may yet still become alive.

²⁰ It is arguable that perhaps all secondary dependence relation are something like this notion of “spatial relation.” See Jaegwon Kim’s Pairing Problem below.

There is a need to address what is meant by consciousness being an emergent property before we discuss the general outline of the causal structure of the theory of persons. Referring back to the definition of consciousness, it appears as if advocates of PCD would support the claim that it is an indivisible unitary thing that fulfills the unity criterion to be recognized as a substance. However, categorizing it as a substance is problematic. For one, as we shall see, in PCD consciousness obtains in virtue of the relation between the mind and the body, that is, it obtains whenever the necessary conditions are met on top of the relation between the mind and the body, e.g., the brain is in such X state that I am awake. Consequently, as something that emerges in lieu of the relation between the mind and the brain, consciousness is something like an *intermediary* between the physical brain and the immaterial mind. What nature would a substance that is not physical nor entirely immaterial like the mind have that allow it to be influenced by or influence other substances? If consciousness were such a substance, consciousness would be akin to Descartes' animal spirits and would be just as incoherent. If it is undesirable for it to be a substance based on these objections, then consciousness must fail to meet the unity criterion in some way. How, then, does it fail to be a substance and succeed in being a property? The answer lies in how consciousness obtains from the relation between the physical brain and immaterial mind.

It might be helpful to be clear on what consciousness isn't in PCD. Consciousness is not equivalent to mental states, as Lowe might believe, on the grounds that such a position suggests the body has a responsibility *on its own* to "generate" consciousness. PCD does not deny the body's capacity for mental states, only that consciousness is not one, e.g., the presence of hormones epinephrine and norepinephrine may cause the brain to bring into awareness the mental state fear or excitement, ultimately causing a conscious experience. What PCD claims is that this conscious experience emerges from the established relation between the mind and the brain. Recall that by borrowing Block's conception of consciousness, PCD maintains the unity of consciousness despite its description into four different facets. Nevertheless, there is nothing

incoherent by claiming that these facets of consciousness do not have the same origin. In other words, PCD can claim that mental states are, at least partly, responsible for access and phenomenal consciousness while not being strictly mental states themselves, and self and monitoring consciousness originate from the mind in a not too dissimilar manner. Described in this way, consciousness isn't, say, a substance that subsists continually despite seemingly fulfilling the unity criterion of being indivisible. Instead, it is an emergent property that obtains in virtue of the relation between the brain and the mind and not a unified substance with its underlying principle. For indivisible and *whole* it may seem, consciousness does not appear to exist based on an underlying principle, but instead emerges from the mind and brain, i.e., it is *necessary*, though not sufficient, that the mind and brain be in relation to one another for consciousness to emerge. In essence, these two substances that stand in relation to one another constitute a person with the capacity for consciousness, which is realized because they stand in some further relation due to them being in such-and-such state. When consciousness obtains is dependent upon this further relation obtaining. As for how a person may have this capacity for consciousness in the first place, I can only say that it's because of some properties intrinsic to the mind and brain.²¹ Because, so defined in PCD, consciousness is exhibited or experienced through properties inherent yet exclusive to each substance, e.g., the information about the physical world through the brain and the overall phenomenality of being subject to that information.

This explanation, however, still subjects PCD to the same mind-body problem that other dualists' and physicalists' views might face: How can an immaterial substance be influenced by, something that is, even if only partly, material in character? Even if PCD advocates claim that consciousness is emergent in virtue of a relation, this view provides the body or brain a greater role in a person having consciousness than either Cartesian dualism or NCSD at the cost

²¹ I admit that by referring to the mind and brain's intrinsic properties, I have effectively evaded the question. I can only claim that the difficulty of this question is examined in detail by David Chalmers in his book *The Conscious Mind* (1996).

maintaining the dualist position that consciousness is nonreducible (it may be unified, but as explained above, it cannot be claimed to be irreducible). So, what can defenders of PCD say regarding the problem? One explanation, though possibly trivial, is that the brain influences consciousness, perhaps via mental states, in virtue of the causal relation that obtains between them whenever consciousness obtains from the relation between the mind and brain. This does not appear to beg the question, as I will illustrate through **Figure 1**.

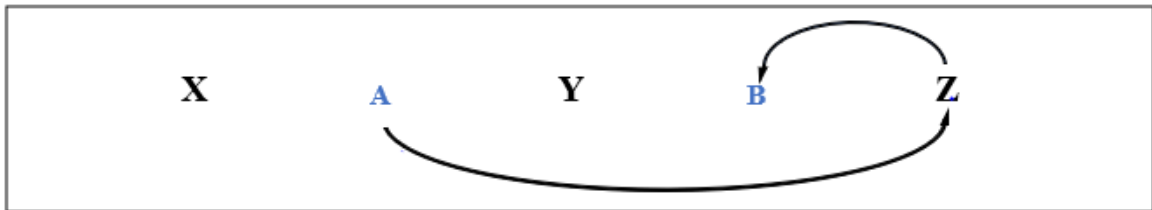


Figure 1

For substances X, Y, and property Z there is an obtainable relation A between X and Y and an obtainable relation B between Y and Z.

Property Z obtains only in virtue of relation A, and not anything else, but not that it always obtains.

Relation B obtains if and only if property Z obtains.

The question being, if relation *B* obtains whenever relation *A* obtains, does it beg the question? It doesn't appear so, for property Z obtains in virtue of relation *A* and not substance Y, such that the circular claim "Relation *B* obtains between Y and Z because Z has a relation with Y in virtue of Z obtaining because of Y," must be false according to the model above. That is, relation *B* is not stipulated on some relation between Y and Z so as to beg the question. In PCD, X is the mind, Y is the brain, and Z is consciousness. Relation A is the relation between mind and brain, both the secondary dependence relation and their causal relation—which is described below. Relation B is only the causal relation between the brain and consciousness. Through the model, I hoped to defend against the claim that the causal relation between the brain and consciousness is dependent of some further causal relation, thus, it begs the question. In other words, the brain's causal influence upon consciousness is not directly because of the mind's causal influence upon the brain. Though, it is trivially true that there is a causal relation because there is a consciousness, which emerged because of the two substances' relation. In any case, consciousness, as an emergent property, stands in relation to both the mind and body.

The underlying principle of theory of persons is the interdependence relationships between the mind, body, and consciousness. Aside from the aforementioned secondary dependence relation between the mind and the body, each stands to obtain a unidirectional causal relation in the following manner: (4) the mind affects the body, (5) the body affects consciousness, and (6) consciousness affects the mind. This causal structure outlines a *closed* system, or more appropriately, a *complete* cycle that, barring unaccountable circumstances, point to some degree at an explanation for the unity of a person. There is nothing extraordinary in these causal relationships, at least nothing more extraordinary than those supported by Cartesian and Non-Cartesian dualism. As an instance of (5) has been outlined above in which the brain might influence the consciousness via mental or brain states, what will follow are examples that hint at how (4) and (6) might be understood in our daily lives.

An instance of (4) is the phenomenon of thought. As previously stated, one of the mental properties the mind may obtain in virtue of its dependence relation with the body is origin and manipulation of thought. The instantiation of this property might explain how thoughts, as Lowe expressed, appears to have no distinct neural beginnings, or, as it might relate to our ordinary lives, how thoughts appear to have no conscious beginnings, e.g., “why did I think of *that*?” or “where did that thought *come from*?” Thus, in this example, let us suppose we have the technological and neuroscientific capabilities to trace back the occurrence of conscious thought M to the apparent random activation of neural network N in the brain. We can say that M causally *follows* from the activation of N via causal relation (5). The causal story from here could be explained very similarly to Lowe’s story of voluntary movement, only, instead of a physical movement of my arm, I will have thought M through (4) and (5). As mentioned, (5) would allow me to experience thought M, and it doesn’t seem controversial to claim that the brain can affect consciousness in such manner (to explain how, though, would force one to face the “hard-problem” of consciousness as it is relevant to physicalists who view consciousness to be a consequent of certain brain states). What is contentious, and perhaps as equally difficult as the

hard-problem of consciousness, is how N might obtain from the mind event M*, i.e., how can M* translate to N to ultimately become the M in my experience? This is a mind-body problem that PCD faces, which I consider to be at least as ill-equipped as other dualist theories of mind in describing the relevant mechanism of how mental event M* might become neural event N. So far, the only answer advocates of PCD might have is an appeal to the principle of theory of person (4) in which the mind stands in relation to the body so as to have the relevant causal influence with which it can manifest its mental properties. On this front, PCD achieves accomplishes very little beyond to Cartesian dualism. How does it differ with respect to (6) then?

Recall that, as they have been described, Descartes and Lowe endorsed a version of interactionism in which the self and the body causally influence each other without providing an explanation of how the body, for Descartes, or consciousness, for Lowe, might affect their respective immaterial *self*. We can only assume that Lowe might adopt a version of Aristotelian forms to claim, on principle, that the body, by way of consciousness as mental states, influences *self* because the person is unified with their body. As for Descartes, we lack a sufficient account of his view on how the body might influence the soul. In any case, advocates of PCD may provide the following account of how (6) might obtain.

The concept underlying self and monitor-consciousness, as they were briefly described in the previous chapter, is similar in character to one of the mental properties the mind might obtain when it stands to its dependence relation with the body. L.R Baker might call this the “first-person perspective” property that enables *us* to have privileged access to our conscious experience. She describes this privilege as the point of view in which we might conceive, or think, of ourselves as ourselves and might apply the identity relation expressed by first-person pronouns.²² This is not a notion too dissimilar to what Lowe meant by claiming the person *is* the

²² Baker, Lynne Rudder. “Christians Should Reject Mind-Body Dualism.” *Contemporary Debates in the Philosophy of Religion*, by Michael L. Peterson and Raymond J Vanarragon, Blackwell, 2007, pp. 327–338, people.umass.edu/lrb/files/bak04shoM.pdf.

subject of their mental states. In PCD, consciousness *molds* the mind in virtue of this mental property and thus (6). Indeed, as the *thing* that possess the only privileged access to our consciousness, the mind is subjectable to changes, or adaptations, it might make based on how it “perceives” consciousness. (I note that perceive here is meant to be taken in its ordinary sense, so as to be the subject of an experience.) Though possibly hinted at by “monitor” in monitor-consciousness, the mind must not be misconceived to be an independent agent, or some distant “ghost,” that controls the person behind-the-scenes. The mind is still a “part” of the person, just as their body and consciousness might be, in a manner not too unlike how Aquinas expressed concerning the soul as part of the body just as “whiteness is entirely in each part of a completely white thing.”¹⁰

Having explained (6) in this manner, PCD avoids the problem that might be associated with how a material substance, the body, might influence an essentially immaterial substance, the mind, even if indirectly through some causal relation with consciousness. It is the mind that changes, adapts, or matures itself. And to this end, the mind, in turn, (4) affects the body, accomplishing the suggested complete cycle of the causal structure endorsed by PCD’s theory of persons.

Thus, we have a rough ontological story and outline for the theory of persons of Pseudo-Cartesian dualism. Now, I shall introduce the secondary dependence relation the mind has towards the body that underlies the theory of persons’ complete causal cycle and serves as the foundation for how PCD responds to what Jaegwon Kim calls “the pairing problem.” According to Kim, some sort of “pairing relation” must underlie the required causal relation between the soul, or in our case the mind, and the body, specifically the brain. There must be a connection between the two prior to some causal relation. What, then, could be this “pairing relation?” Kim ultimately says that dualism, or at the very least Cartesian dualism, does not have a credible one.

The secondary dependence relation of the mind directly responds to Kim’s pairing problem. As mentioned in the previous section, in order to avoid the circularity concerning the

ascription of physical properties to the self, Lowe claims a more fundamental relationship must predicate the unity of self and body, though it is unclear what he expects this fundamental relationship to be. This same concern remains for PCD, i.e., can the mind, being immaterial, possess physical characteristics? Recall that the principle underlying the ontological character of the mind is that it exists dependently, having its capacity for mental properties only realized when it stands to relation to something else and that it be indivisible, lacking any, if at least physical, constituents. *Prima facie*, we have no reason to suppose that this principle entirely precludes the mind from having any physical property at all. That is, if we are receptive to the notion that certain physical properties are not dependent upon being made of physical matter, then we can accept the possibility that minds may be localized in space. To illustrate, consider a particular region in deep space where, by our current standards, there is no matter whatsoever occupying that same region. Just as we might imagine an immaterial thing to be localized in that region, or that that region is localizable, we might similarly consider the immaterial mind to be localized about the brain region.

Nevertheless, by the asserting co-location with the brain, I'm not claiming that the mind is extended to some degree, so as to have a shape in a region of space—more on that later. Moreover, we still have an unexplained relationship between the mind and the brain, i.e., how can the mind be co-located with the brain and not “operating” say, from another person's brain? If there isn't a criterion, perhaps a principal one, that ties the mind to its brain, it is entirely possible for all minds to be “co-located” in some thing's nose, for example, but all, nonetheless, stand to be in a causal relationship with their respective brain. Kim expressed this concern through the pairing problem, which I will analyze in the following chapter. For now, I note that the mind in PCD does not maintain its immateriality in the Cartesian sense nor in the Aristotelian sense, like Aquinas and Lowe. Instead, the mind's ontological character as immaterial is of secondary importance to the principle that underlie it, as opposed to the primary role the property has in the causal story for Cartesian and NCSD.

Chapter 3 – The Mind’s Pairing Relation

Jaegwon Kim’s Pairing Problem

Pseudo-Cartesian dualism inherited a problem from Descartes: the mind, by its immaterial nature, cannot interact in any form with the material body. Opponents of substance dualism handed their grievances of conceptual impossibility and could not sooner wash their hands of Descartes.

Jaegwon Kim, however, is not satisfied with this tradition of epistemic pretenses as defenders of substance dualism could simply reply “why is it incoherent to think that there can be causal relations between ‘diverse substances’?”.²³ Kim’s answer is the pairing problem.

To illustrate the core of the issue, Kim gave an example of a pair of psychophysically synchronized people, let’s call them Smith and Wesson. They are synchronized in a way such that whenever Smith causes his limbs to move, e.g., raise his left arm, simultaneously, Wesson’s left arm rises as well and vice-versa. Did Smith’s mind, by willing his own hand to rise, also cause Wesson’s hand to move? Is the constant conjunction between Smith’s mind’s willing to raise a hand and Wesson’s hand going up the same kind of conjunction between Smith’s mind and hand? Putting our own views of causation aside, Kim claims that the Cartesian answer would be “No.” The reason being that it is Smith willing *his* hand that his hand rises, and Wesson’s hand rises not by Smith’s will, but by a philosopher’s ordained psychophysical synchronization. And what makes this so is the Cartesian “union” between Smith’s mind and body—a union that endows Smith’s mind and body to causally interact with each other. This “union” is Kim’s cause for concern for it appears to some that there is nothing inherently incoherent about such union between two diverse substances. Perhaps to these same individuals, the union is a basic law of the universe, even divinely ordained.²³

²³ Kim, Jaegwon. “Lonely Souls: Causality and Substance Dualism.” *Philosophy of Mind: Contemporary Readings*, 2005, pp. 65–77. New Dualism, Archive, doi:10.4324/9780203987698-12.

Kim's pairing problem is aimed towards identifying what union, or pairing relation, is between two relata such that they have causal interactions. The problem broadens the conjunction question into something like the following general application: There are substances A, B, and C, and properties H and G; under normal circumstances, it would be possible that A acquiring property H at time t (event A) causes B to possess property G at a subsequent time f (event B), but not that A also causes C to have G at f (event C). Kim presents this general application and asks, "What pairing relation holds between A and B, but not A and C, such that A having property H results in the appropriate effect?"²³ That is, the following counterfactual would be true in all cases: If A did not have property H at time t , then B would not have G at f . Yet, the following would not be true in all cases: If A did not have H at time t , then C would not have G at f . How might we answer the problem for material and immaterial substances?

For physical objects, a simple solution would be a physical connection between A and B that A and C lacks. This would explain why in all cases in which the proper events takes place, B having property G is consequent of event A, whereas event C following event A is merely coincidence. In any case, it's easy to see why immaterial substances devoid of spatial properties might fail to have the necessary pairing relation that would "tie" one mental substance to one body, or even another mental substance. This difficulty stems from our intuitive understanding that causation requires a connection, and that connection must be physical in character. We are inclined to believe that all substances, energies and force that can causally connect with one another can do so because they exist in a physical universe, moreover, because they are located in relation to one another so as to have the necessary causal influence, e.g., the bullet expelled from gun X hitting target Z is a result of a specific spatial relation based on gun X and target Z having so-and-so orientation and location in space. In sum, our explanations for causal events presuppose a space-time framework.²³ A presupposition which Kim acknowledges and offers as a reason why it is so difficult to conceive a different pairing relation for mental substances that could serve the

same purpose. The lack of alternatives not only fail substance dualism, but Kim claims that it's hard to imagine how Cartesian dualism could even be intelligible.

Having briefly described Kim's polemic pairing problem, the remainder of this chapter will focus on a few attempts to dispel dualists worries. I will examine the two defense against Kim that I believe most dualists would find agreeable. Jimmy Ray Vaught argues that a spatial pairing relation is not necessary for a valid causal relation and I shall argue that conceding to Kim's spatial relation is the better alternative.

Quantum Entanglement and Counterfactual Relation

Kim's pairing problem rests on the premise that spatial relations are necessary for objects to causally interact. In this section, I will sketch Jimmy Ray Vaught's strategy to prove this premise false and give substance dualism some hope of appearing intelligible. I shall present his evidence that there is at least one case in our physical universe in which the spatial relations appear irrelevant in the observed causal relation. And to this end, if spatial relations do not underlie every causal interaction, then it is not inconceivable that immaterial minds have a non-spatial pairing relation to ground their causal interactions. However, Vaught does not provide an alternative pairing relation. Rather, he argues that a counterfactual theory of causation should, in a non-question begging way, allow mind-body interaction. Though I will not reject his primary conclusion concerning non-spatial pairing relations, I will argue that the counterfactual theory of causation he supports *still* begs the question.

Quantum entanglement, in essence, is this notion of non-independence in certain phenomena in quantum systems.²⁴ Vaught cites a 1951 experiment by John Bell, who aimed to test the EPR paradox (a thought experiment proposed by Einstein, Podolsky, and Rosen) to reject Kim's condition of spatial relations. Though Einstein and co. did not coin the term

²⁴ Wilczek, Frank. "Entanglement Made Simple." *Quanta Magazine*, Simons Foundation, 28 Apr. 2016, www.quantamagazine.org/entanglement-made-simple-20160428/.

“entanglement” to describe the phenomenon their paper predicted, Bell’s experiment demonstrated one of the ways quantum entanglement is observed. Vaught summarized the experiment as follows:

Pairs of photons, are shot from an emitter in what is called the spin singlet state and are forced in opposite directions, left and right. When these photons reach a certain distance (this distance can be varied), they encounter a kind of measuring apparatus that is programmed to gauge the spin component of each photon; [i.e.,] the apparatus measures if the photons are in a clockwise or a counterclockwise spin state. The surprising result is that even if these measurements are made simultaneously, and even if these measurements are taken so far apart that no light signal can travel between them while the measurements are being made, the photons’ spins still are perfectly inversely correlated. If one is measured to be in a counterclockwise spin state, the other will be measured to be in the clockwise state—even though the moment before they were measured neither of them had any determinate spin whatsoever, rather they both had some (independent) probability according to which their spin is determined.²⁵

If Vaught have described the experiment results properly, we have a physical phenomenon in which the specific spatial relation of two relata seem to have no relevance in their observed causal interaction, causal because the spin state of one photon appears to be dependent upon the spin state of the other. That is, if we understand that the consistently inverse results are not caused by the spatial relation conferred by the specific locations of the photons upon measurement, then we might agree that it was something Einstein called, “spooky action at a distance.”²⁶ Whatever this “spooky action” or pairing relation between the two particles may be, Vaught states that “the

²⁵ Vaught claims this action at a distance to be some form of causal interaction. Though he might well be wrong in doing so, the question of what relation is between the two photons that produces such results remains. See Vaught, Jimmy Ray, *Kim's Pairing Problem and the Viability of Substance Dualism*. Thesis, Georgia State University, 2008. scholarworks.gsu.edu/philosophy_theses/43

²⁶ Ibid, Jimmy Ray Vaught (2008)

body of empirical evidence and quantum theory as a whole” ensures it is not spatial relation for that would preclude causation-at-a-distance demonstrated by the experiment. He also suggests that if we are inclined to believe the empirical evidence provided by science to explain certain physical phenomena in quantum mechanics, then we merely need to *look* at the “constant conjunctions more present and numerous between volition and action” as sufficient empirical evidence.²⁶ After all, quantum entanglement, one phenomenon of many that offers “no more justification for it being the way of the world than that’s what the empirical evidence tells us,” is justified by scientific axioms that are themselves mere presumptions supported by empirical evidence.

The glaring error in his comparison, though, is that the axioms are descriptions, if not explanations, of the principles upon which the natural world exists and the empirical evidence that support them is a double-edged sword. That is, scientific axioms can change, and have changed throughout history, because further empirical evidence have changed our interpretation of the evidence. For example, we support scientific axiom Z using our interpretation of empirical evidence 1 as 1*. However, additional evidence 2 caused us to understand that Z is false, and instead, realize axiom Y fits the data better. In changing our scientific axiom from Z to Y, empirical evidence 1 has not changed, only 1* has. Indeed, in science, there is expectation that the difference in what 1 actually says about the world and what our interpretation 1* says are minimal. Nevertheless, it is often the case that we can readily give up 1* or any other interpretations of 1 but not the empirical evidence itself, e.g., a body of mass 10 will always exert more force on its surroundings than a body of mass 5 regardless of the axioms we’ve developed about gravity (that is, of course, holding our standards of measuring and gathering evidence fixed). In other words, we consider empirical evidence as objective observations of nature and unbiased experimental results (as objective as we can view it while minimalizing the effects of our biases and presumptions can have on their interpretation). However, the evidence *for* constant conjunction remain evidence only by assuming dualism. That is, the evidence cited by Vaught

and similar dualists as constant conjunction are directly analogous to 1^* , i.e., the evidence are the interpretations based on a dualist perspective.

Whereas it's hard to imagine if we could even gather more evidence of constant conjunction upon dualism's dissolution, repeating experiments aimed at proving a discarded axiom would still produce the same disproving results. Although, it is often the case that we unknowingly assume our interpreted evidence E^* is exactly the same as the empirical evidence E , as I suppose Vaught did with the apparent constant conjunction between the volition of the immaterial self and an action of the body (a conjunction that a physicalist might instead claim as evidence of some neurological principle), citing empirical evidence as proof only works if doing so leaves open the possibility for alternative interpretations. We cannot force evidence to be exclusive, at most, we can force our theory to accommodate them.

Notwithstanding the conceptual leap from quantum mechanics to mind-body interaction, Vaught still bypasses Kim's obstacle for substance dualism and thereafter attempts to explain causation between immaterial and material substances. Spatial relation aside, immaterial and material causation still requires unpacking, and Vaught's tool is a counterfactual understanding of causation, e.g., for immaterial event N to cause material event M , it must be that if event N had not happened, then event M would not have either.²⁶ He borrows David Lewis's counterfactual theory of causation, which emphasizes the preservation of causal history. That is, as Lewis states:

[N and M] must be distinct events—and distinct not only in the sense of nonidentity but also in the sense of nonoverlap and nonimplication. It won't do to say that my speaking this sentence causes my speaking this sentence...when we imagine the barometer not falling, we have a choice: we can hold fixed the previous history, or we can hold fixed the lawful connections between that history and what the barometer does. For purposes of

analyzing causation, our policy in all such cases must be to prefer the first choice to the second...the counterfactuals must hold the previous events rigid, or fixed.²⁷

In this counterfactual theory of causation, Vaught explains that the counterfactual relationship between mind M_1 and body B_1 is precisely the union that “ties” the two substances together in their respective immaterial event N and material event M. That is, should we have a scenario in which a second mind M_2 's mental event N* might have caused a bodily event M for B_1 instead, per Lewis, we would hold that by virtue of their counterfactual relationship, mind M_1 's mental event N is the cause for event M. Furthermore, Vaught claims that because of the counterfactual relationship between the M_1 and B_1 , a scenario in which N does not happen but M does would be impossible.²⁶ It is not clear to me, though, how making such a conclusion based on fixed causal history alone does not beg the question.

Under normal circumstances, as Kim argued, the causal history between two substances should be traceable to an origin that could show *what* about their pairing establishes the succeeding counterfactual relationship. Vaught does not offer a pairing alternative and seem to imply a primitive causal relation. By ascribing to Lewis's notion of counterfactuals, Vaught sidesteps overdetermination by making exclusive the causal commerce between a mind and a body, but at the cost of begging the question. For by claiming that N caused M because of prior causal history between M_1 and B_1 , without non-causal grounding for their counterfactual relationship, Vaught is essentially saying. “N causes M because previous N-type events caused M-type events.” This appearance of circularity should be problematic for Vaught. On the other hand, since Lewis's counterfactual theory of causation excludes nonimplication, and it is not the specific case of N causes M because N causes M, rather that prior history of N-like events and M-like events underlie N causing M, that at the very least Vaught seems to have escaped renegeing on his own premises.

²⁷ Lewis, David. “Causation as Influence.” *Philosophy of Science: An Anthology*. Ed. Marc Lange. Malden: Blackwell Publishing, 2007

Vaught's defense of substance dualism at the very least maintains its structural integrity while presenting an interesting answer to Kim's pairing problem. Quantum entanglement, should it be accepted, rejects Kim's spatial relation condition, and while it does not dissolve the pairing problem, it allows dualist to reconsider non-spatial pairing relations. While I accept that Vaught's solution of counterfactual relation bolsters the idea of exclusive causal interaction between the mind and body, it still does not explain *what* about the union between the mind and body confers them this exclusive causal relation. I suppose that he implies a primitive sort of causal relation, which Kim—and I—consider as begging the question. Thus, finding counterfactual relations insufficient let us examine the alternative: possibility of minds in space.

The Locality of the Mind

Kim claims that Descartes position to locate the pineal gland as the place through which the soul influences the body demonstrates the necessity to provide physical properties onto the material mind.²³ Nonetheless, Cartesian dualism maintains the complete immateriality of the soul whereas Non-Cartesian dualism does not and resorts to Aristotelean forms of physical descriptions. Pseudo-Cartesian dualism treads the middle ground and readily commits to bringing minds into space.

According to Kim, this description of the mind fits better the notion of souls in popular lore and religions than what the typical dualist would call mind or soul.²³ Philosophers of PCD would have to unbegrudgingly agree for bringing minds into space while preserving non-materiality is tantamount to John Dalton's proclamation of the atomic theory. The only difference being that atoms were ultimately proven via empirical research while immaterial minds existing in space have not. To better illustrate the significance of the claim I wish to make, perhaps a better analogy is appropriate. Minds in space for PCD is akin to the scientific belief in dark matter and dark energy. These dark entities are unobservable for we don't have yet the science and technology to create devices capable of measuring them should they exist. Nevertheless, decades

worth of mathematics and physics say they must be there, however undetectable, and only by replacing or amending the most well-accepted theories of relativity, gravity, quantum mechanics, etc. could we dismiss their existence. Seeing as science believes that dark matter and dark energy are what hold the universe together, the unrelenting search for their proof continues.²⁸ On the other hand, I would claim that no one is searching for immaterial minds in space. Perhaps the task is too challenging, impossible, or simply a PCD philosopher's search for gold at the end of rainbows. In any case, the goal of this chapter is not to prove immaterial minds exists in space, but to illustrate what I mean by the possibility of it and provide a picture of what it might look like for Pseudo-Cartesian dualism. In the succeeding chapter, I will discuss some of the problems bringing minds into space could cause PCD.

As we have seen, Kim's pairing problem pressures dualists to grant the immaterial mind the property of being localizable. How might this be achieved? How can an immaterial mind, which has no physical constituents whatsoever, be localized? This thesis and I are ill-equipped in answering these questions. Instead, I will assume the hard work has been done and minds can exist in space. But before I describe what this means for PCD, I will analyze Andrew M. Bailey's argument against what he calls Kim's Dictum (KD): "[7] Necessarily, for all x and all y, if x causes y, then there is a relation or relations, Rs, such that their holding makes it the case that x causes y. [8] Necessarily, a spatial relation is among the Rs."²⁹ By defending the spatial relation condition [8], I hope to show PCD's position of minds in space is at least no worse than rejecting the condition as Vaught had done. (In doing so, I assume that quantum entanglement is

²⁸ "Dark Energy, Dark Matter." NASA, NASA, science.nasa.gov/astrophysics/focus-areas/what-is-dark-energy.

"Dark Matter and Dark Energy's Role in the Universe." Science, National Geographic Society, 10 Jan. 2017, www.nationalgeographic.com/science/space/dark-matter/#close.

Greshko, Michael. "Dark Matter Is a Huge Mystery. This Device Is Trying to Detect It." Science, National Geographic Society, 5 Oct. 2018, www.nationalgeographic.com/science/2018/10/news-admx-dark-matter-detector-physics/

²⁹ Bailey, A.M., Rasmussen, J. & Van Horn, L. No pairing problem. *Philos Studies* 154, 349–360 (2011). doi.org/10.1007/s11098-010-9555-7

explainable through spatial relation after all). I will then clarify how this position solves the pairing problem before concluding the chapter with a brief discussion on the difference between physical and immaterial objects' locality.

Bailey claims that the pairing problem summarized by [7] of KD is a consequence of Generality Conditions the fulfillment of which allow for causation. He states that while there are general conditions that do not result in a pairing problem, those that do must undergird conditions like [8] spatial relations, which follow from the pairing problem. Thus, by proving such a condition inconsistent, he will have refuted the pairing problem and absolved dualism of spatial relations. My aim is to support [8] by defending this condition.

He proposed the following general condition as one that results in a pairing problem, and thus support spatial relations: “(GC) – Necessarily, if A and B share all of their non-haecceitous properties, then A is no more qualified to count as the cause of C than B is.”²⁹ The GC states the causal influence must stem from a (type of) property not unique, non-haecceitous, to A that an intrinsically similar substance B may possess as well. Haecceitous properties are properties unique and essential to a substance, such that a substance A having these properties make it identical to substance A only e.g., rifle A being constituted by *this* set of atoms vs rifle B made of another set or two rifles being identical in design and operation but having two different manufacturers. The idea is that properties derived from objects' spatial relations are among the non-haecceitous, and for identical objects, only non-haecceitous properties can confer causal effects.²⁹

To illustrate why we might want to reject GC, Bailey outlines an example. In an empty space, there are three identical spheres evenly spaced adjacent to each other such that the two objects on the ends are equidistant from the middle sphere i.e., the two spheres share their non-haecceitous properties. If the center sphere cracks in the middle, splitting the sphere into top-bottom halves, which of the other spheres caused it? Given that GC limits causal agents to non-haecceitous properties among identical objects, neither of the two objects could have caused the

crack for, Bailey states, “What relation might serve to pair a cause with its effect?”²⁹ Since the non-haecceitous properties which might serve this role are shared, we have no answer. If, instead GC was false, then either one of the end spheres could have caused the crack despite having no non-haecceitous properties to distinguish them. The spheres can become causal agents through their haecceitous properties i.e., the middle sphere cracked because *this* sphere caused it. Notwithstanding the notion that causal relation based on such principle appears ad hoc (that only *one* of the spheres could be the cause *is* ad hoc in this example) and reminiscent of primitive causal properties, I argue that there’s no need for such a maneuver. We can maintain GC and reasonably claim that neither of the two spheres caused the crack. Though perhaps by some arbitrary design neither spheres being the cause is less likely than one of the spheres, it still qualifies as a possible explanation among others e.g., that both objects caused the crack or the crack spontaneously occurred because of some property of the middle object. In any case, it is not unintelligible like the claim nothing caused the crack.

Even if I have defended GC’s intelligibility properly and am free to accept it as a principle, Bailey states it is not clear how I could. He argues that defenders of the pairing problem, and consequently GC, cannot maintain the assumptions about free will that immaterialists might hold, i.e., if those assumption are true, then GC is false.²⁹ He presents these assumptions through the following example:

[C]onsider a world in which two persons, Tim and Tom, are exactly similar in all respects (excluding, of course, their haecceitous properties). Suppose that Tim and Tom each have the same two options available to them—to cause A or to refrain from causing A. If Tom happens to cause A while Tim refrains, then we have a situation in which GC fails.²⁹

In the given scenario, Tim and Tom are indistinguishable and share all non-haecceitous properties, yet Tom was the causal agent. Clearly, we have to state that their volition is haecceitous. Yet, this violates GC which implies only non-haecceitous properties have causal

powers. However, Bailey overlooked a crucial detail: the nature of event A that Tom caused. If event A were physical in nature, then excluding the scenarios in which Tom causes A from a distance (for example, exhibit causation-at-a-distance through telepathy), upon carrying out his will, he no longer shares all non-haecceitous properties with Tom. In his acting to influence the environment so as to cause A, he instantiates non-haecceitous properties, which may or may not be in relation to event A, that Tim, by virtue of him refraining, does not instantiate, thus GC holds. Moreover, even if event A were immaterial, GC only fails because we would have no means by which to determine if Tim and Tom still share *all* non-haecceitous properties in relation to event A. Indeed in the immaterial cases, the spatial relation condition becomes irrelevant but not inconsistent. Thus, GC fail only on account of applicability (for immaterial events) but not that it contradicts the assumptions about free will as Bailey claims.

With the hope that I have defended the general condition properly, I am now in the position to assume the possibility of minds in space. Although I adopted this position from Bailey's proposal against Kim, I find insufficient the summary of his account:

Here's a story we think substance dualists can tell. Souls occupy regions of space. They are extended, but neither physical nor material. And a particular soul is tied to a particular body ("its" body) by virtue of occupying the same region of space as that body. Since souls are spatially situated, they enter into spatial (that is, pairing) relations, and are hence candidate causal relata. This story meets one of Kim's desiderata: it does not employ the concept of causal interaction to explain the possibility of causal interaction.²⁹

Granted, Bailey only set out to rebut Kim's claim against souls in space and did not intend to provide a full account of what minds in space would mean for dualism. Nevertheless, let us assume Bailey means the brain rather than the whole body. Kim, in turn, might ask the difficult question: "In what manner does the mind stand in spatial relation to the brain or body?" Far from being able to provide a complete and full account, a philosopher of PCD might reply "Co-location."

Before I explain what is meant by co-location, it might be useful to first describe how Kim's pairing requirement applies for the rest of PCD's ontological story. If we recall, consciousness emerges due to the relation (dependence and causal) that obtains between the mind and the brain, but the causal relations that obtain between the three are unidirectional: the mind affects the body, which affects consciousness, which affects the mind. The causal relation between body and consciousness obtains due to some spatial relation. The brain's capacity to affect consciousness is owed in part (besides its consciousness generating effect due to the mind-brain relation) to certain physical processes. This notion is not dissimilar to psychophysical supervenience, which in William Hasker's simple terms is the supervenience of the mental domain on the physical domain, that Kim claims is fundamentally materialist.³⁰ But what of consciousness's relation with the mind?

(By supervenience, I mean something like Michael Roche's paraphrase of Kim's interpretation of supervenience: [Supervenience] Necessarily if any system *s* instantiates a mental property, *M*, at *t*, there exists a physical property, *P*, such that *s* instantiates *P* at *t*, and necessarily anything instantiating *P* at any time instantiates *M* at that time. Additionally, the mental is in some sense ontologically dependent on (or determined by) the physical. By physical property *P*, I mean here just physical processes like neural activity, and by mental property *M*, I do not refer to consciousness itself but distinct conscious events)³¹

The mind's exclusive mental properties such as its precursor to self-consciousness form what could be considered the "bridge" of the consciousness-to-mind causal relation. In terms of

³⁰ In Jaegwon Kim's "Concepts of Supervenience" quoted in William Hasker's *The Emergent Self* (Cornell University Press, 1999) pp. 59. Kim states that theories that accept psychophysical supervenience is fundamentally materialist. PCD, in this sense, does not accept psychophysical supervenience as a principle. I simply borrow its underlying supervening concept to show how consciousness relates to the brain. See also Kim, Jaegwon. "Psychophysical Supervenience as a Mind-Body Theory." *Cognition and Brain Theory* 5, 1982, pp. 129–147.

³¹ Roche, Michael. "Causal Overdetermination and Kim's Exclusion Argument." *Philosophia*, vol. 42, no. 3, 2014, pp. 809–826., doi:10.1007/s11406-014-9525-y.

Baker's first-person perspective property, the "subject and subject viewer" capacity between consciousness and mind is the mental relation that ground their causal relation (excluding the mind's influence upon consciousness through the brain). For this causal relation, the pairing relation is not a spatial one, but a mental one. Therefore, the emergence of consciousness might also be perceived as the emergence of a "meeting place" between the brain and the mind, each with its distinct pairing relation with consciousness. For this meeting place to serve as a special type of pairing relation for the brain and mind would undoubtedly beg the question since it emerges in virtue of the relation between the two in the first place. Nevertheless, the notion serves to reinforce the "connection" between a particular mind and body, underlining the idea of a unified person.

As we saw, unlike Cartesian dualism or other forms of substance dualism, which subscribe the entire mental domain into the singular idea of the soul, PCD's mental domain cannot entirely be supervened on the physical, only consciousness. Although the secondary dependence relation of the mind upon the brain is physical in character—by virtue of the mind's locality as we shall see—the mind remains strictly immaterial. According to PCD's theory of persons, the mind is a substance in of itself that subsists, or exists, through its primary dependence relation. As an immaterial substance though, the mind does have the physical property of locality, upon which its secondary dependence relation supervenes. Quinn calls this single-domain supervenience, borrowing from Kim's conceptualization of supervenience that follows: **A**-properties supervene on **B**-properties =_{df.} Necessarily, for an object x and **A**-property a , if x had a , then there is a **B**-property b such that (i) x has b , and (ii) necessarily, if anything has b , it also has a .³² Philip L. Quinn refers to Kim's single-domain supervenience, however, to

³² Quinn, Philip L. "Tiny Selves: Chisholm on the Simplicity of the Soul." *The Philosophy of Roderick M. Chisholm*, by Lewis E Hahn, 1st ed., The Library of Living Philosophers, 1997, pp. 54–67. For Kim's complete account of supervenience see Kim, Jaegwon. "Concepts of Supervenience." *Philosophy and Phenomenological Research*, vol. 45, no. 2, 1984, pp. 153–176. JSTOR, doi:10.2307/2107423

explain how Roderick M. Chisholm's simple soul might have its mental properties supervene on its physical properties, which according to Quinn, Chisholm take to only be locality.³² Unlike PCD, in which the mind's locality is responsible for it having a pairing relation with the brain, its secondary dependence relation through which its causal relation supervenes, upon which its exclusive mental properties may obtain, Quinn interprets Chisholm's simple soul's mental property to directly supervene on its physical property.

Lewis Hahn's challenges Quinn on this claim. Hahn asks how a mental property, such as the property of concluding it is about to rain, should supervene on a physical property like the soul's locality. Indeed, like Descartes' soul, Chisholm's soul encompasses the mental domain such that a non-sensual thought to predict rain is among one of the innumerable mental properties that can instantiate at any given time. Whereas having thoughts in PCD, though possibly a result of the mind's property as origin of thoughts, is among one of the functions or properties of the unified person—mind, body, and consciousness. Thus, if single-domain supervenience theory were applied in PCD's person, properties usually interpreted as mental properties, e.g., thoughts, phenomenal qualia, etc., can supervene on more primary mental properties, or concerning their instantiation due to the causal relation that supervenes upon secondary dependence relation, a spatial relation from the co-location of the mind and brain. Furthermore, we should not think it impossible for mental properties to supervene on further mental properties for much of our conception of the physical universe is aided by this notion of supervenience, e.g., magnetic fields, charges, gravity, etc. In any case, having briefly discussed how the mental properties of a person may supervene on some other properties it obtains through the mind, body, and/or consciousness, I shall now turn to how the mind's locality could be possible.

PCD philosophers recognize the brain as the medium through which the mind influences the body and consciousness. The role of mediating is not meant to imply that the brain is space for the mind to operate within, as one might imagine an operating software in a computer. Instead, the mind relates through the brain similar to how a programmer relates through the

hardware, and if we can conceive of the programmer, hardware, and software as a unit, then at any location or point in space the unit is identified, we can conclude where the programmer is also. Since I've already established the unity of the mind, brain, and consciousness through the theory of persons in the previous chapter, the details of which is further elucidated in the previous paragraphs, can we conclude that the mind must be located wherever the person is? The answer is no. What this shows is how the mind might be assumed to have locality, such that, in PCD, the mind is co-located with the brain, but the theory of persons does not establish how we could conceive the mind to have this property in the first place.³³ For this I turn to a physical parallel, the boson particle, photon.

Photons are considered to be subatomic particles that have no charge and resting mass, i.e., they do not have any mass when at rest, nor can they ever be at rest—existing only as moving particles at the constant speed of light. Neither are they theorized to take up any space as they are often described as minute energy packets, a distinct unit or quanta that is indivisible.³⁴ That is, photons, as discrete moving particles of energy, cannot have their exact location isolated, they can only be localized in a region of space. Particularly, as Iwa and Zofia Bialynicka-Birula stated, “The localization of photons studied in this paper relies on the electric or magnetic manifestations of the photon’s existence — on the *footprints* that a photon leaves. We say that the photons are electrically or magnetically localized in a region R if their electric or magnetic properties are

³³ It is important to note that the mind being co-located with the brain does not make it extended. That is, unlike the Aristotelean notion of forms, if we were to remove sections of the brain without altering any mental or bodily activity, thus removing “brain space,” we would not have somehow also removed portion of the mind and thus altering it, or worse yet removed the mind’s place in the brain. Regardless whether such an example is possible, or if the mind is simply extended or dynamically extended, such that it “adapts” to the shape of the medium through which it operates, the mind’s indivisibility as an immaterial substance precludes its alteration by physical means. In the first place, PCD only claims the mind’s locality but not its extendedness like Bailey proposed.

³⁴ Einstein, Albert. “Heuristic Point of View Toward the Emission and Transformation of Light.” *The Collected Papers of Albert Einstein*, translated by Anna Beck, vol. 2, Princeton University Press, 1987, pp. 132–148. *Einstein Papers*, einsteinpapers.press.princeton.edu/vol2-trans/100.

confined to the localization region.”³⁵ Thus, if this theory is correct, photons are localized through the observation of their properties in a confined region. However, it need not be correct, for in principle, as a photon is a massless, nonextended, moving particle, its location cannot be specified except through its observed effects. I argue that if our understanding of the physical universe requires such notions of particles, then the idea of an immaterial mind possessing the physical property of locality cannot be immediately discounted, at least not on the grounds that it doesn’t have a precise location.

There is, however, a caveat. A philosopher can ask, “Doesn’t the parallel make the mind physical, like a photon? What exactly is it, anyway, for something immaterial to have a spatial location?” Moreover, it’s worth asking how the mind’s co-location with the brain alone allow both to stand in a spatial relation. To answer these questions, let us refer back to PCD’s ontology of the mind. While it is conceivable that the mind, as a substance, could just be a special type of particle, perhaps a photon-like substance with obtainable mental properties, the principle underlying the mind in PCD does not require it to be so. Does this property come at a cost? *Prima facie*, besides appearing *ad hoc*, acquiring this particular property does not seem to violate any of the internally accepted principles like the GC, for example. Because despite the mind and body being co-located, they don’t still share any other non-haecceitous properties, i.e., the brain stands in relation to other material objects while the mind does not. It stands only in relation to the brain, as described in the ontological story, and not by some transitive rule stand in relation to other material objects. On the other hand, it might well be that by possessing any one physical property, even if only locality, the mind no longer qualifies to be categorized among Cartesian souls as a strictly non-physical mental substance. Unless if by conceding the philosopher of PCD has contradicted their ontological story of the mind, which doesn’t appear to be the case, then there is

³⁵ Bialynicki-Birula, Iwo, and Zofia Bialynicka-Birula. “Why Photons Cannot Be Sharply Localized.” *Physical Review A* 79.3 (2009), Mar. 2009. Cornell University, doi:10.1103/PhysRevA.79.032112.

no intrinsic reason why the mind must be like the Cartesian soul. In any case, the immateriality of the mind is upheld even if co-located with the brain.

There is, though, as Kim states, a principle called “impenetrability of matter” in which material substances cannot occupy the same space, and substances that do are one and the same—substances unlike photons. However, we have no reason to believe why mental substances in space must abide by this principle. Clearly, unlike the brain it is co-located with, the mind remains immaterial so it would appear as if there were no “obstacles” for other minds to be co-located. Their haecceitous properties are not based upon their locality property after all. However, the theory of persons is such that a unity of a mind, body, and consciousness is a person in the regular sense. That is, for a living person, their mind is exclusively their mind, likewise their brain, unless by some extraordinary process their mind is replaced by another. Yet I find even such cases hardly problematic. For if a person’s mind were replaced by another, the unified person that existed before cannot be identified the same as this newly unified person, except by appearance, if not at least due to the difference in minds, then also in the difference of consciousness. In swapping minds, the relation between the original mind and brain, upon which the original consciousness obtained, is also replaced. Thus, the fear of us becoming passive observers of our dispossessed bodies is at least mitigated by the consequence of us ceasing to have consciousness.

The Pseudo-Cartesian dualist answer to Kim’s pairing problem is the locality of mind, more specifically, co-location with the brain. In establishing this pairing relation, the PC dualist must be prepared to defend against the incomplete non-physicality of the mind for it can be argued that by having a physical property, the mind is no longer a different type of substance but rather a special physical substance. However, I note that it is only as a person, when the mind stands in relation with the brain, can the mind be argued to be a special physical substance. Otherwise, it remains a completely distinct substance, a mental substance with a primary dependence relation to the Creator. In any case, the locality of the mind does not make PCD

unintelligible, instead PCD becomes complete through it. The pairing relation functions to unify the immaterial mind with the material body, forming the foundation for further relations described by PCD's theory of persons. And if I have shown this pairing relation to be logically compatible with the principles of PCD, then I can confidently turn to a different type of problem for PCD, specifically, for the theory of persons: overdetermined mind-body interactions.

Chapter 4 – No Overdetermination Defended

The Neural Correlate of Consciousness Challenge

“Psychophysical” refers to the mental and physical relation running concurrent to the common sensical notion of a living conscious person. In as much as we consider a living human being to be a person, we assume them to be like ourselves, possessing a mental world that interacts with the physical world. This interaction is, in essence, psychophysical. In the philosophy of mind, this psychophysical idea has been mostly studied for either its ontological status, “*Does it exist?*” or its inherent causal implication, “*how does the mental and physical affect each other?*” Hopefully, the past few chapters have provided some semblance of PCD’s answers to these questions. This final chapter will be dedicated for addressing what I consider to be those answers’ main challenge: overdetermination of the mind-body interaction. In essence, the worry behind this suspected problem for PCD is that the mind and body both cause conscious and bodily events. And if indeed there are two causes, does PCD remain intelligible as a substance dualism theory? To solve this challenge, I will contrast the brain and the mind’s causal role in a person’s psychophysical experience. This section will discuss how and why it is *this* overdetermination problem PCD faces. The subsequent section will defend against this problem and thus conclude the chapter and this project.

Before discussing how the overdetermination problem arises, I will expound briefly on the possibility of multiple minds. As briefly noted in the previous chapter, even if it were possible that two or more minds were all co-located in one brain, theory of persons prevents the overdetermination of personhood. That is, given the unity of a person’s mind, brain, and consciousness, a single body with multiple minds might be thought of as different people rather than a person whose thoughts and actions are overdetermined. Yet, as unbelievable as this may be, it would not be problematic because of the continuity of our identity. For the purpose of this overdetermination of personhood, a combination of Leibniz’s law of identity and the intuitive

notion of the continuous self—e.g., I know myself to be the same person, or have the same self, today as the person that unceasingly possessed this body in the past—suffices as a concept of identity. Thus, if what I’ve discussed here is acceptable, then there is no overdetermination of personhood for PCD. What, then, is the overdetermined mind-body problem for PCD? To answer this question, I will describe what must be the underlying presumption about the causal role of the brain in the overdetermination problem. This assumption is at the core of the relatively recent Neural Correlate of Consciousness (NCC), which attempts to explain consciousness through neuroscience. I shall briefly describe the assumption NCC makes and show how it cannot fit in PCD’s causal structure. By highlighting the outcome and demonstrating the overdetermination problem to stem from NCC’s conception of the isomorphic brain, I hope to clarify how the brain’s causal role should be understood in PCD’s theory of persons.

Consciousness is normally thought to have its corresponding neural process in the brain, e.g., the physical experience of a toe hitting a coffee table causes a neural event in the brain that corresponds to a conscious experience of pain. However, NCC theories elevate this notion of correspondence to have ontological significance rather than just a relational function. Most NCC theories claim, concerning the relation between the neural and phenomenal aspects of consciousness, that there “is thus something much richer and more complex than mere correlation; it is a type of isomorphism, a multidimensional mapping between entities, structures and dynamics in the twin domains of mind and brain.”³⁶ That is, given the sameness implication of isomorphism, the neural mechanisms in the brain do not just correlate with conscious properties. Rather, they are one and the same, e.g., water and H₂O. As Ilya Farber states, “As scientific materialists, NCC theorists hold that mind is brain — not a ‘product’ or ‘emergent

³⁶ Farber, Ilya. “How a Neural Correlate Can Function as an Explanation of Consciousness: Evidence from the History of Science Regarding the Likely Explanatory Value.” *Journal of Consciousness Studies*, vol. 12, no. 4-5, Apr. 2005, pp. 77–95.

property’ of the brain, but the same thing described in different terms.”³⁷ Clearly, NCC theories are ‘stronger’ than some materialist theories, which allow at least the supervenience of the mental upon the physical—a notion I borrowed to describe the relation between the brain and consciousness in the previous chapter. In any case, suppose the brain in NCC is the brain in PCD with respects to consciousness, i.e., preserving the mind as a substance still wholly separate from the brain. How is the theory of persons affected?

Undoubtedly, the mind’s causal role has changed. Its properties such as intent still exhibit themselves phenomenologically in consciousness. However, given NCC, consciousness is brain, and thus the mind affects consciousness directly through its causal relation with the brain. One consequence that comes to immediate attention is the mind failing to influence the brain without also affecting consciousness, unless, of course, only special parts or mechanisms of the brain is consciousness, and so, the mind may still have causal interactions with the brain without “touching” consciousness. Although, a point could still be raised that, in PCD or this scenario, we already do not know what *else* the mind does to the brain, if anything at all, outside of consciousness. In any case, the consequence is inconsequential. There appears to be no obstacles in doing away with the causal separation between the mind and consciousness. In the first place, theorized causal events without evidence, e.g., conscious evidence, are hard to verify—except a priori—and so, causal separation is deemed unessential. If considered only through consciousness or the mind, there is no difference. In other words, whether there be ten or fifty causal separations between the mind and consciousness, if all that is considered is the mind’s ultimate effect on consciousness, then there might simply be no fact in the matter about the causal interaction except that it is there.³⁸

³⁷ Note the difference in how ‘mind’ is used by Farber. Recall that most theorist in the philosophy of mind, like Farber, take the mind to be all of the mental domain. As it has been shown, this is not so for PCD.

³⁸ This treatment of causality is a gross oversimplification and is meant to only clarify NCC brain’s affect on PCD’s theory of person. I do not aim to make any truth claims concerning causality.

Implicit within the isomorphic brain, though, is the direct bidirectional causal interaction between the mind and brain. As I just explained, there is no consequences on the mind's direct causal relation with consciousness. Moreover, from the previous chapter we know the mind to brain causal relation is possible. Does a brain to mind causal relation then follow from these? Perhaps by virtue of the two substances sharing a physical property. How can we describe this relation? That is, given the direct causal relation between the mind and consciousness, does any and all neural activity in the consciousness-related brain portion that induces a change in consciousness also induces a change upon the mind? Why or why not? In other words, this psychophysical causation has removed the role of consciousness as a "meeting place" for the material and immaterial and along with it, an intuitive way with which we can easily understand a "self" that grows or changes independent of ungoverned neural activity. Must the mind become brain also? It is increasingly evident that NCC theories do not have room for an immaterial mind in the first place. Thus, the change in the causal role of the brain threatens even the ontological status of the mind as immaterial and the overall intelligibility of PCD.

Even if we suppose a better philosopher can defend the isomorphic brain in PCD, the overdetermination problem must be addressed. And with the conjunction of this brain and mind, the question becomes conspicuous: how are we to know that what goes in our consciousness, and our deliberate behavior, is either due to our brain or mind? It appears that we have to acknowledge the overdetermination problem, unless, we assume a materialist position to eliminate the mind as a substance or change the story so that only the mind, and not any neural happenings, can affect the consciousness-related brain region. Neither are desirable options for the Pseudo-Cartesian dualist. The former for obvious reasons, and the latter because the PC dualist still allows the brain to have causal influence on consciousness, e.g., sensations, hormones, etc. Kim stated the most obvious difference between the two most simply:

When we are faced with two purported causes, or causal explanations, of a single event, the following alternative accounts of the situation are initially available: (a) each is a

sufficient cause and the effect is causally overdetermined, (b) they are each necessary and jointly help make up a sufficient cause (that is, each is only a “partial cause”) ...³⁹

To illustrate how this type of psychophysical causation is not genuine overdetermination (a), consider the typical example of the firing squad scenario in which two or more executors aimed at and killed a sentenced felon. It is found that each of the shooters are sufficiently responsible for the death through a widely accepted overdetermination test: *E* is overdetermined by *c*₁, *c*₂, ... *c*_{*N*} only if: (O1) if *c*₁ had happened without *c*₂, *E* would still have happened and (O2) if *c*₂ had happened without *c*₁, *E* would still have happened and (ON)...⁴⁰ It is evident, however, that the NCC-modified PCD fails to answer this simple counterfactual test for genuine overdetermination. At most, it admits that in deliberate psychophysical exchange, there is simply no fact of the matter whether the cause is the mind, the brain, or both.

I am claiming that this problem is not genuine overdetermination, and in doing so, reaffirm PCD to be a distinct kind of dualism that provides the brain with a unique causal role that precludes mind-body overdetermination. For it is only if the problem of NCC-modified PCD is proven genuine that the original PCD, by virtue of its different causal roles for the brain and mind, would have an unstable and invalidating overdetermination problem. Instead, I’ve shown that the assumption or commitment NCC-modified PCD needed to make to generate overdetermination has made it altogether unintelligible, all the while failing to produce a genuine overdetermination problem. In contrast to the unique causal role of the brain in PCD’s theory of persons, the role of the isomorphic brain just has too much causal weight. The brain, as it has been described in the previous chapters, cannot independently cause the fullness of our conscious experience. Neither can the mind, as long as it is of a living person, account for all of

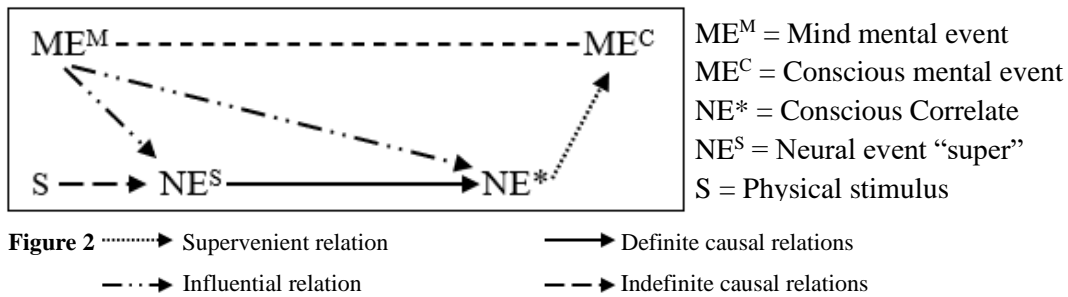
³⁹ Kim, Jaegwon. “Chapter 3 - Mental Causation: The Backlash and Free Lunches.” *Mind in a Physical World*, by Jaegwon Kim, MIT Press, 2000, pp. 57–87.

⁴⁰ Bennett, Karen. “Why the Exclusion Problem Seems Intractable, and How, Just Maybe, to Tract It.” *Nous*, vol. 37, no. 3, Sept. 2003, pp. 471–497. *JSTOR*, doi:10.1111/1468-0068.00447.

consciousness. Given how (a) made an NCC-modified PCD invalid, it might be pointed out, nonetheless, that in PCD, having consciousness emerge because of the brain and mind provides (a) sufficient reason to indicate overdetermination. The claim here being that even if the isomorphic brain could barely, if at all, qualify the mind-body interaction to be overdetermined, the brain (and the mind) in PCD is well-equipped as a partial supervenient base(s). In other words, in the simplest of terms, there are two causes for one effect. However, this is not problematic for PCD. The causal roles that PCD endorses for the mind and brain better suit (b) than (a). The next section will be dedicated to proving and defending this claim.

Pseudo-Cartesian Dualism and Single-Chain Causation

Pseudo-Cartesian Dualism is unique in that it separates a person's mental domain into a mind and a consciousness. The latter being more special in that it subsists because of the relation between the mind and brain, such that it might be said they both have causal influence upon consciousness. I do not deny this claim but only that an overdetermination problem follows from it. To illustrate how consciousness might cause the problem, consider **Figure 2**.⁴¹



⁴¹ These relations are the complete categorization of the relations described in the previous chapters. Their descriptions are as follows for cause C1 or C1* and its effect E1 and C2 and its modified effect E1*: (1) Definite causal relations are such that if C1 had not occurred, E1 could have not instantiated; (2) Supervenient relations are such as those previously described by Roche (Kim) above; (3) Indefinite causal relations are such that if C1 had not occurred but instead a similar cause C1*, E1 would still instantiate; and (4) Influential relations are such that given C1, e.g., NE^S in **Figure 2**, the second cause C2 would modify E1 to become E1* so as to include the “contribution” (or in this case the mind’s mental properties) of C2 into the properties of E1. An example of (4) might be the *intentional* focusing of attention into a single object in one’s field of vision or the manipulation of one’s thoughts. Finally, the dashed line represents the unique relation between ME^C and ME^M, in which consciousness can affect the mind, but only because of the mind’s privileged view of ME^C (Refer to Chapter 3 section “Pseudo-Cartesian Dualism”).

Immediately, we see that ME^C itself, mental events of the consciousness, cannot be overdetermined. In PCD, consciousness can only be thought to supervene upon the brain, its neural correlate NE^* , all the while emerging by virtue of the relation between the mind and brain. However, if consciousness is an emergent property—that obtains because of the relation between the mind and brain—that supervenes upon some neural correlate, how can it partake in causal relations, particularly, how can it influence the mind? As shown **Figure 2**, consciousness only stands to gain causal relation through its supervenient base, the neural correlates. That is, consciousness itself, perhaps in virtue of being emergent property, cannot be affected except through its supervenient base. Thus, as described in the theory of persons, body to consciousness relation is unproblematic. What seems problematic is that it stands to have influence upon the mind despite merely being an emergent property that can only be causally influenced through its supervenient base. In other words, it appears as if this emergent property became an independent distinct *thing* that can affect other things without the direct involvement of its supervenient base. As consciousness is not an emergent substance in PCD, I deny this claim that implies an emergent property's capacity to influence substances or other properties requires direct involvement of its supervenient base. After all, even if consciousness itself does not *cause* the mind to change or do anything, and instead the mind adapts itself according to its own properties such as the “first-person perspective,” consciousness, by virtue of having any affectual function upon the mind, could be understood to have causal influence upon the mind (in the broadest sense of the word such that it can be said that by my watching a TV, the TV has causal influence on me). So, to demonstrate how it is unproblematic for consciousness to be described as such in PCD, consider the physical phenomenon of magnetic fields.

Generally, magnetic fields are emergent properties that obtain because of an electric current, i.e., magnetic fields supervene upon electric currents. Furthermore, though invisible, magnetic fields are distinguishable from their base, the currents. Being an emergent property, however, does not preclude magnetic fields from having causal influence upon objects. While the

magnitude and some such other *properties* of the field is dependent upon the current, its causal interactions cannot also be said to obtain because of the current. In other words, whenever a magnetic field causes an object to accelerate, the current is not—even by virtue of being the supervenient base—causing the object to accelerate, only the field interacts with its object. At a glance it seems as if the magnetic field independently causes the object to accelerate, after all the current is uninvolved in anything the object does. Yet we know the field is an emergent property that supervenes on a current, i.e., it is not independent. Nevertheless, it is not prevented from having causal interactions merely because it is a property. Likewise, consciousness has causal interactions despite being an emergent property. However, there appears to be a caveat.

Consciousness emerges *because* of the relation between the brain *and* the mind. Even if we grant consciousness some special status because of its mysterious nature, how can it be that an emergent property could have causal influence on the thing (or one of the things) that allows its emergence?

Instead of one wire generating a magnetic field in isolation, consider two wires. With two parallel wires, the magnetic field that emerges between the two wires can cause the wires to attract or separate, depending on the direction of their respective currents. Non-parallel, the force from the magnetic field can cause the wires to move variably. Still, however, it might be said that the magnetic field never influences the *current* responsible for its emergence. Indeed, it might be difficult, if not impossible, to find physical examples in which that is the case. However, we need not go to such lengths. In the first place, the supervenient base of consciousness is neural correlates in the brain. It emerges due to the relation between the mind and body because without this relation the brain may not be in the state required by the neural correlate in the first place. Or, without this relation the mind does not stand to “view” consciousness—supposing it still emerges even without the mind—and in such cases, are *we* still a person? Put simply, without the relation between the mind and brain, a person cannot live to have consciousness. In any case, these do not mean that the relation *causes* consciousness to emerge, rather that it is necessary for the mind

and brain to have such relation so a person could have consciousness.⁴² As described in the previous chapter and demonstrated in **Figure 2**, the neural correlate is the supervenient base for consciousness. As such, there are no two sufficient causes for consciousness' emergence nor is it overdetermined.

Therefore, from the figure, we see that the only two candidates for overdetermination are NE^S, all possible neural events relating to psychophysical causation, and NE*. I consider overdetermination improbable or unproblematic for both NE* and NE^S. To support this claim, I shall borrow two principles Kim used against nonreductive physicalism:

[Realization] To cause a supervenient property to be instantiated, you must cause its base property (or one of its base properties) to be instantiated.

[Exclusion] No single event can have more than one sufficient cause occurring at any given time—unless it is a genuine case of causal overdetermination.⁴³

Recall that the mind's mental properties are exclusive such that no neural stimulus S, or otherwise physical stimulus, can result in the same exact NE as that which is caused by any ME^M. In other words, by principle PCD does not violate [Exclusion] nor allow overdetermination. However, suppose, for argument's sake, that there are exceptions, such as NE^S and NE* of the type that are prior to any instinctual or reactionary behavior. That is, NEs, which ultimately cause the ME^C and/or bodily "reaction" events, that could be caused by both external or environmental factors, S, and the mind that is responding to said factors. Another possible exception—though unlikelier than the previous type given our current understanding of neuroscience—is that some

⁴² To further illustrate, consider the relation, or connection, between a magnetic-field-generating wire and its energy source. The energy source itself does not *cause* the magnetic field, neither the connection. Rather, it is still only the wire upon which the magnetic field supervenes.

⁴³ [Realization] and [Exclusion] are found respectively in Kim's "Does the problem of mental causation generalize?" (1997) and *Physicalism or Something Near Enough* (2005) both quoted in Michael Roche's "Causal Overdetermination and Kim's Exclusion Argument." (see 30). There is a third principle, [Closure] "If a physical event has a cause that occurs at *t*, it has a physical cause that occurs at *t*." However, PCD is a dualism theory, and thus leaves open the possibility [Closure] is false such that a physical event may only have a nonphysical cause at time *t*.

NE spontaneously or randomly occur while at the same time ME^M is causing it. We might imagine NE to be the seemingly spontaneous activity of a set of neurons that are also being affected ME^M , i.e., ME^M would've caused NE even without its spontaneous instantiation and NE would've spontaneously instantiated even without ME^M causing it. However, as a general rule, both of these types are cases of genuine and coincidental overdetermination and are thus unproblematic for PCD. Moreover, as stated earlier, ME^M is *never* a direct cause for any ME^C . While it is true that consciousness is an emergent property because of the mind and brain, the mind, or its ME^M , does not itself cause any of consciousness's ME^C to instantiate. As outlined in PCD, the only supervening base of ME^C , if any, are NE^* in the brain.⁴⁴ Therefore, despite [Realization], ME^M never directly causes NE^* , unless $NE^S = NE^*$. To better illustrate how PCD escapes Kim's challenge, consider the models in **Figure 3** below for PCD's mind-body causation:

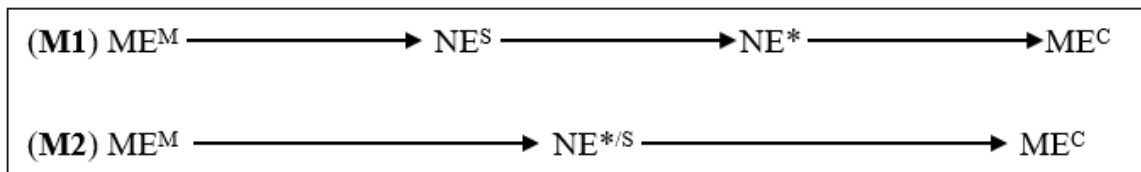


Figure 3 Each model might be labeled as a “unit” of consciousness that can, theoretically, repeat indefinitely for as long as a person is conscious. Both models can also be connected to form a pattern of indefinite “length” to represent the complexity of our conscious experience.

These models of the mind and brain's causal roles in PCD are examples of single-chain causation, and it is because of this causal structure that PCD has no overdetermination problem. Thus, having shielded PCD from the problem, I now turn to the cost of this shield: (For trivial reasons, such that (M2) represents the causal story in which $NE^S = NE^*$ and thus there are no two supposed causes for the singular event—which would've been NE^* —(b) does not account for (M2).) How can (M1), as single-chain causation, be accounted for by (b)?

⁴⁴ It might be useful to distinguish consciousness itself as an emergent property vs. its contained ME^C s. Referring to the previous chapter's discussion of single-domain supervenience, it is useful to conceive of ME^C s as mental events or properties of consciousness. These events could be considered the representational content of consciousness, while not being consciousness themselves. See Chapter 1 “What is Consciousness?”

As mentioned in the previous section, the causal roles of the mind and brain better suit (b). However, given (M1), we see that the mind and brain do not “contribute” jointly and independently to give a sufficient cause for ME^C . That is, if (b) is meant to describe the causal chain for NE^* , it would be represented as something like **Figure 4** below:

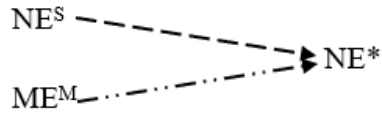


Figure 4 The two dashed arrows of MEM and NES “add” together to instantiate a specific NE^* while MEM and NES become independent of each other, i.e., there are no arrows connecting them.

Counterfactually, if either ME^M or NE^S had not occurred, *this* NE^* could not have instantiated.

Yet, as (M1) shows, ME^M and NE^S do not cause *this* NE^* in such a manner. It might be countered, however, that counterfactually, both causal stories are still the same. That is, in (M1), if ME^M or NE^S had not occurred, this NE^* could not have instantiated. Would this not be a misinterpretation of (b) and (M1)? Because ME^M influences NE^S in the same manner described in **Figure 2**, can we say that each only makes up a “partial cause” of this NE^* ? It is evident that by only influencing NE^S in (M1), ME^M has a less causal significance for it did not cause NE^S to instantiate like NE^S might’ve caused NE^* , yet nevertheless, in modifying NE^S , ME^M has sufficiently caused this particular NE^* . In other words, ME^M caused NE^S to become NE^{S*} , that is the former NE^S but slightly modified so that $NE^S \neq NE^{S*}$ yet not sufficiently enough that NE^{S*} do not cause the proper NE^* . From this, however, we see (b) still does not support (M1), nor could it ever. In the first place, (b) requires two *non-causally linked* purported causes for a single effect event as in **Figure 4**. The single-chain causation represented in (M1) and (M2) cannot be explained by (b), nor, I believe, does it have to for PCD to remain coherent. What must be defended is Pseudo-Cartesian dualism single-chain causation.

Paul M. Pietroski called the causal chain from NE^S to NE^* “mechanical.” Presumably, he was referring to the physical, mechanistic manner neurons interacted with each other. There can be no causal problems in this way, if not at least for the pairing relation between each neuron. However, if the chain involves any ME, a problem arises:

MEs seem different from NEs—at least from a subjective viewpoint, and perhaps from a third person viewpoint as well—because they *are* different; bodily motions can be caused by both MEs and NEs, in particular, the NEs in sensory and motor systems; yet such motions are still *voluntary*, since MEs are influenced-but-not mechanically-determined-by the external stimulus... Descartes' views about substances may well render his version of dualistic interactionism incoherent. But even purged of soul-stuff, I think his abstract model of mental causation remains inhospitable to dualism.⁴⁵

Pietroski's problem against psychophysical single-chain causation stems from a Cartesian understanding of the mind and body. Understandingly, it would be inconsistent under Cartesian dualism because he is concerned with the interaction between ME and NE. There is simply no coherent explanation for what he supposed to be Descartes' conception of "influence-but-not mechanically-determined-by-external-stimulus" MEs. If PCD were Cartesian, (M1) and (M2) would be unintelligible. However, if I've defended the possibility of minds in space properly, psychophysical single-chain causation, strange as it may seem, would not be unintelligible.

Conclusion

In this project, I have argued Pseudo-Cartesian Dualism to be a version of dualism that explains how we came to have consciousness rather than claiming it to be the mind or the soul's mental property. While it may still be argued that I have not really answered *why* consciousness emerges from the relation between the mind and body (for how and why can be so similar), PCD's theory of persons has given a unique and intelligible explanation for the Scripturally based belief that the mind *and* body form the unity of person. If I have sufficiently defended it against Kim's pairing problem by showing the mind to be a consistently immaterial substance despite having a spatial relation with the body, then Pseudo-Cartesian Dualism qualifies to be a viable mind-body theory.

⁴⁵ Pietroski, Paul M. "Mental Causation for Dualists." *Mind & Language*, vol. 9, no. 3, 1994, pp. 336–366., doi:10.1111/j.1468-0017.1994.tb00229.x.

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