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Eastern Kentucky University

Two Sides of the Same Coin: Panpsychism as a Solution to the Mind-Body Problem

Honors Thesis

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By

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Abstract

Two Sides of the Same Coin: Panpsychism as a Solution to the Mind-Body Problem

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Abstract: The Mind-Body problem in philosophy has haunted philosophers for years. It asks, “what is the relationship between the mind and the body in a human being?” Is the mind something distinct from the body? Or is it nothing more than matter within the brain? Various theories have been proposed over the years as attempts to answer these pivotal questions. This paper provides a history of the mind-body problem, along with an analysis of many of the theories that have been proposed to answer the problem. After reviewing dualism, materialism, and panpsychism as theories of mind, I defend panpsychism as the best solution to the mind-body problem. I find that panpsychism avoids many of the issues that dualism and materialism must explain. Further, it provides a more coherent account of the universe. I provide some potential criticisms of panpsychism. However, I find that these criticisms can be answered more easily than the criticisms of dualism and materialism. For these reasons, I conclude that panpsychism is the best solution to the mind-body problem.

Keywords and Phrases: Mind-body problem, panpsychism, dualism, materialism, Descartes, Spinoza, identity theory, functionalism, honors thesis, honors

Table of Contents

Acknowledgements.....	iv
Introduction.....	1
The History of the Mind-Body Problem.....	5
Descartes and Substance Dualism.....	8
Property Dualism.....	12
Epiphenomenalism.....	14
The Move to Materialism.....	15
Identity Theory.....	17
Functionalism.....	19
Criticisms of Functionalism and Materialism.....	20
Spinoza and Panpsychism.....	25
Criticisms of Panpsychism and Answers.....	29
Conclusion.....	31
Bibliography.....	33

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-Andrew

Introduction

On an otherwise calm and sleepy night, you awake to a sharp pain in your leg. This pain is severe: not only is it irritating your leg, but it is bad enough to where it is all you can seem to focus on. As you lay in bed, you try to explain how your leg feels this way. It did not hurt when you went to bed. Perhaps you were laying on it just the wrong way. You still have a few hours before you have to get ready for work. You would like to get some more sleep beforehand so that you can be well-rested for the day ahead. However, the pain in your leg is making this impossible: your mind cannot calm down due to the pain. If you want to sleep more, you realize that something must be done to alleviate the pain.

Wincingly, you decide to get out of bed. You initially try to stretch your leg muscles. This does not seem to help, as the pain persists even after stretching. Your mind remains obsessed on relieving the pain. You walk to your medicine cabinet. You open the cabinet, and inside is a container of Ibuprofen. You open the bottle and take some of the pain reliever. After a few minutes, the pain in your leg begins to subside. Simultaneously, your mind begins to calm down. The pain reliever has worked; you can finally go back to

bed with both an eased leg and a clearer mind. Hours later, you awake refreshed and ready to start your day.

While such occurrences of nightly pain are (hopefully) rare for you, it is an important example that is not far from reality. I use such an example to illustrate an important aspect of being human: the distinction between the mind and the body. The Ibuprofen in this situation did do its advertised purpose: to relieve the pain that you were experiencing. As the pain seems to be a mental phenomenon, it must have affected your mind in some way or another. Prior to taking the pain reliever, you were in distress, searching for a way to help your leg. The pain was all that your mind could focus on. After taking the reliever, your mental states changed to ones that were calmer and more conducive to sleeping.

What do these changes suggest? Perhaps the pain you were experiencing was some sort of muscle cramp in your leg. This would be at the physical level. The medicine relaxed the cramp in your leg muscle. The medicine thus has an effect on the physical level. However, another effect can be observed: the physical change seems to have affected your mental states. Initially, you were in a state of distress due to the pain. After the pain reliever set in, your mental states calmed, and you no longer experienced pain. Thus, we are left with an interesting, if not problematic, observation: we have changes both to the muscle and to your mental states from one event. There were changes in both your “mind” and your “body.”

Initial qualitative evidence would suggest that what we call the “mind” is distinct from what we call the “body.” Your body consists of physical “stuff” such as cells, organs, etc. The physical body is subject to the laws of nature and is “open” to

observation from other beings. In contrast, your mind does not seem like it is composed of this physical stuff; rather, it seems that it consists of something “different” due to its distinct nature. The mind does not appear to be “open” to objective observation. Part of being human thus seems to be consisting of both a mind and a body.

This distinction gives a distinct reality to both the mind and the body. Since the body is “open” to observation from other beings, its reality is grounded in the physical realm. In contrast, the mind is not “open” to such observation by other beings: only the being possessing the mind can view its contents. The mind does not seem to follow the same physical laws as the body (e.g. the mind doesn’t seem to have a physical mass). With these differing qualities, mind and body appear to be completely different things. Despite this, humans can still be said to have both a mind and a body.

If humans consist of both a mind and a body, then there must be some way in which both interact with one another. It is difficult to suppose that they share no connection to one another: if this were the case, how would the pain reliever cause changes to both your leg and your mental states? The reliever may not necessarily have a *direct* effect on your mind; the physical changes in your body from the medicine may cause changes in your mind. The point here is that there must be some account as to what the “mind” and “body” of a human are, along with how each would interact with one another.

When we try to give such an account, we find that we stumble upon one of the most famous (or *infamous* depending on your view) problems in the history of philosophy. This is the mind-body problem. McLaughlin defines it as “the problem of whether mental phenomena are physical and, if not, how they are related to physical

phenomena” (684). The mind-body problem thus asks a couple of key questions. For one, what is the ontological status of the mind? Is it simply another way to talk about physical entities such as brains? Does it “emerge” from the brain as something above physical states? Or is it something that is truly distinct and separate from the physical, but still able to interact with the physical? Another question the mind-body problem raises is if the mind is truly something different from physical entities, how does it interact with the body and the brain? At what point in space does this interaction occur? Thus, we can see that the mind-body problem is indeed a problem, as it leaves us with many questions that need an answer.

At this point, one may respond to the Mind-Body Problem with the simple, yet effective “So What?” Why should we care whether the mind is physical or something else? Should we really care what our mind consists of? Perhaps the problem will seem more important and practical to the average reader once we elaborate on what is at stake in trying to understand what the mind is. As humans, we not only seem to have a mind, but seem to have a sort-of inner “consciousness” that can experience and further reflect on those experiences. Since antiquity, humans have tried to account for how mind and consciousness could emerge from a universe that seemingly consists of nothing more than physical “stuff.” In more recent years, scientists have shifted to studying the brain as the potential source of consciousness (Dennett and Kinsbourne 1985). If the brain can be understood, then an understanding of how the mind operates will follow. The underlying assumption of this approach is that scientific inquiry will eventually lead to breakthroughs on how the mind operates.

At this point, we will have to say that science may be able to help us better understand the mind. However, can science account for all phenomenon inherent to the mind? This seems more difficult to answer. Our minds are so intertwined with who we are, yet their true nature seems to allude us whenever we try to study them. How could something so intimate to who we are feel so distant? This is what makes the Mind-Body problem so intriguing, yet so difficult to find an answer to.

In this paper, I will defend panpsychism as a solution to the mind-body problem. I will first present a history of the problem that highlights how the problem came about, along with a few proposed “solutions” to the problem. The focus of discussion will be Descartes’ substance dualism and various formulations of materialism that have been proposed as an answer to the problem. I will also mention several alternative solutions that have been proposed. I will then define what an adequate theory of mind will answer in its formulation. After this has been defined, I will propose panpsychism as a potential solution to the mind-body problem. This proposal will be accompanied with a defense of why this solution is stronger than the other solutions discussed. Finally, I will conclude with the potential implications that panpsychism brings to the mind-body problem. I do not hope to end discussion around the problem; in fact, my hope is that this proposal will help foster new discussion and scholarship on the subject.

The History of the Mind-Body Problem

Before proposing a solution to the mind-body problem, we must first examine the history of the problem to understand where it came from. The history will also reveal previous solutions that have been tried, along with the criticisms those solutions have

endured through time. By engaging in such a review, we can focus on these potential criticisms and hope to account for them in our proposed theory.

While the Mind-Body problem itself did not come about until the work of Rene Descartes, ancient philosophers explored similar themes in their writings. This was especially apparent in the works of the Ancient Greeks, notably Plato and Aristotle. Understanding what these philosophers had to say about how humans think and feel is paramount to understanding what Descartes was responding to in his work.

There is an important clarification to make here: the Ancient Greeks did not use the concept of “Mind” like it is used in the Mind-Body problem today. In the place of minds, there was discussion of “soul” (*psuche*). In essence, the discussion for the Greeks centered around what the relationship between the body and the soul is. It is not difficult to see how this could be considered a forerunner to the Mind-Body problem.

In the *Phaedo*, Plato presents his most famous ideas on the relationship between the soul and the body. The *Phaedo* is a dramatized account of Socrates’ final hours before he is executed by the Athenians. Plato gives his own ideas on the soul within the dialogue by using the character Socrates as his mouthpiece. In the dialogue, Plato (through Socrates) argues that humans are embodied souls. This relationship between the human soul and the body is not “friendly:” Plato likens the body to a prison, as it is said to hold the soul hostage. Through various arguments, Plato attempts to show that the soul can survive after corporal death, achieving an immortality after bodily death (Frede 27).

Plato’s view suggests that humans are unique in that they are a sort-of “entrapped soul.” This body is nothing more than a restrictive vessel. The soul is ultimately what

makes humans capable of rational thought. The soul can only achieve the highest form of contemplation and thought when it is freed of the body. This freedom is achieved through bodily death. Thus, death could be seen as a good thing in the Platonic view. At the end of the *Phaedo*, Socrates hints he may actually be better off in the next life. Socrates drinks the hemlock and dies; Socrates is gone, but his body remains. Thus, we have the idea that the soul and the body are two distinct things.

After Plato comes another intellectual giant. As a student of Plato, Aristotle also has much to say on the relationship between souls and bodies. In his *De Anima*, he argues that the soul is a “form” that is within living bodies (Lorenz). The soul is not itself strictly the same thing as a body; however, for a body to be animated, Aristotle seems to imply that it must have a soul that allows it to function. This includes biological functions (in the case of plants and animals) and psychological/rational functions (in the case of humans). For Aristotle, the soul is “natural,” in the sense that it enables organisms to function in the natural world (Lorenz).

The soul for Aristotle is not trapped in the body; in fact, it is vital for the body to be alive. Due to its intimate relationship with the body, Aristotle seems to imply that the soul may not be able to survive unchanged after physical death (Lorenz). The soul is the “form” of the body; it gives the body the shape it takes. This implies that the soul and the body may be inseparable. Compare this to Plato, who viewed physical death as freeing the immortal soul from its Earthly bondage. Thus, in contrast to Plato, the soul for Aristotle is something that may not be able to exist independently of the body. The human is an intimate union between the soul and the body.

These two theories from the Ancient Greeks are vastly influential in Western Philosophy. Not long after the Greeks, the early Christian Church started to gain followers around the world. One potential way to attract these earlier followers was to provide rational arguments as to why the teachings of the Church were true. If Christian doctrines such as Jesus' resurrection could be shown to have to have a rational basis, then it would be easier for the growing Church to attract followers (Murray and Rea). Ancient Greek philosophy could provide such rational support.

It is not difficult to see how this philosophy could be used for Christian purposes. Plato's arguments for the immortality of the soul could be particularly useful in showing why there would be an afterlife such as Heaven or Hell. The soul would also survive bodily death because it goes to an afterlife. Aristotle's idea that the soul somehow "animates" a body could be used to show how humans are special beings capable of rational thought. Also, later Christian Aristotelians like Thomas Aquinas used Aristotle's view of the unified soul/body to argue for the necessity of a bodily resurrection (Van Dyke 374). Thus, these Greek ideas informed much of Christian thought, including up to the time Descartes. It is this viewpoint that Descartes largely responds to in his revolutionary works.

Descartes and Substance Dualism

Rene Descartes (1596-1650) introduces the mind-body problem proper. From a young age, he was taught the Christian views regarding the relationship between the soul and the body, as he attended a Jesuit college (Grafton 38). At the same time, Descartes lived during the "Enlightenment" period in Europe, in which there was a newfound focus on rational inquiry and use of the scientific method. Thus, Descartes can be seen as a

“transition” figure: he knows of the traditional Christian understanding of the world, but also experiments with the new methodologies to better understand the natural world.

If the sciences could be used to understand the world, then they must rest on secure knowledge. Only if science is based on a secure foundation can our scientific findings be secure. If the foundational knowledge is false, then future findings will be false. In order to find this “secure foundation” for science to rest upon, Descartes must “raze everything to the ground” that he thought to be true (Descartes 9). By this, Descartes engages in his famous methodology, in which he rejects the existence of anything that can be doubted. Anything that can be doubted cannot be the “secure foundation” that Descartes is looking for.

This methodological doubt is carried out in his *Meditations on First Philosophy*. In the first meditation, Descartes realizes that his senses could be doubted, as every experience that he believes he has could be a trick by what he calls an “evil genius” (Descartes 9). This evil genius could manipulate everything that he perceives in reality, including the fact that Descartes has a body. Thus, Descartes rejects his senses and experiences as accurate foundations for the sciences.

Meditation One ends on this negative thought: if every experience can be doubted, how will Descartes ever get his secure foundation? The scientific method is based on empirical observation. If we cannot trust our own experiences, what can we trust? Descartes moves onto Meditation Two distraught but determined. It is here that Descartes has a genius, yet problematic thought: while he can be deceived that he has a body or experiences, he must first be in order to be deceived by the evil genius (Descartes

13). In other words, the fact that Descartes can be deceived means that he must first *exist* to be deceived. Descartes has found something that cannot be doubted.

What does this finding imply? If Descartes' own existence as a mind/thinking thing cannot be doubted but the body can, then the mind is not the same thing as a body for Descartes. In fact, they are two completely different things. Descartes holds a position that later philosophers termed "substance dualism." For Descartes, reality divides into two different substances: physical substance and mental substance (Searle 9). This corresponds to what can be called "body" and "mind." What makes something a kind of substance is that it has an essence that no other kind of substance possesses (Searle 9). The essence for body is extension, which is that bodies are extended in physical space. In contrast, the essence of mind is that it is thinking. "Thinking" is a broad term for Descartes: it includes such phenomena as conceiving, imagining, desiring, sensing, etc. From these two essences, we can infer that bodies/physical matter cannot think, and minds cannot be extended in space (Searle 9). Mind is thinking substance and nothing else, and body is extended substance and nothing else.

Humans can be said to consist of both substances for Descartes. While the "I" for Descartes is identified with the mind rather than the body, the physical body still has some connection to the mind. Here is the crux of the mind-body problem: if humans consist of both a physical substance in space and a mental substance not within space, how would the two substances interact? In other words, at what point does the mind *meet* the body? Descartes conceives of these as two distinct substances: the mind in no way "emerges" from the properties of the body. Despite this proposed distinction, humans still seem to be able to use their mind to cause changes in their body (e.g. thinking about

lifting your arm, and then subsequently raising it). Likewise, changes in the body seem to be able to cause changes in the mind (e.g. taking medicine to dull the feelings of pain within your mind). If humans have this sort of interaction between the mind and the body, then Descartes must give an account as to how this interaction occurs.

Descartes' answer to this problem reflects the difficulties that plague the mind-body problem to this day. While Descartes was alive, many contemporaries questioned the implications of his theories. Among these contemporaries was Princess Elizabeth of Bohemia (1618-1680). In her correspondence with Descartes, Elizabeth asked how an immaterial substance like the mind could cause changes in a causally-closed, material universe (Schmaltz 283). By causally-closed, I mean a universe in which every event has a physical cause. Such a universe does not rule out the possibility that events also have mental causes. However, it would rule out Descartes' claim that mental states, on their own, can produce a physical change. If the mind is distinct from the body as Descartes suggests, and doesn't even have extension, then it is difficult to see how it could cause such physical changes. Descartes responded to Elizabeth by saying of the mind, "...it is united to the body and can act and be acted upon along with it" (Hoffman 342). Despite the distinction between substances, they are indeed somehow united in such a way to allow for this interaction.

If the mind and the body are united, then there must be a point at which this unification occurs. Descartes' "unity" answer to Elizabeth is mysterious; Descartes' attempts to explain this unity are even more so. Descartes never gives Elizabeth a straight answer to her question. When pressured on the same point by others, Descartes at one point suggests that this point of interaction is the pineal gland within the brain. The pineal

gland is the “seat of the rational soul,” with it being the point in space where interaction with the immaterial mind occurs (Lokhurst sec. 2.1). At the time, Descartes believed (falsely) that the pineal gland was the point where all nerves in the body terminated (Lokhurst sec. 2.3). Since all nerves supposedly terminated there, it seemed to be the best spot in the body to suggest that the soul interacts with. The immaterial soul could move the physical body by routing through the nerves. The pineal gland was found to not be as important even during Descartes’ time. It does not disprove his theory, but it certainly does not help it. Thus, we are left with a tentative answer that the pineal gland is the keystone for mind-body interaction.

Does this conclusion seem difficult to accept? It was even for Descartes. Throughout his scholarly life, Descartes struggled to adequately explain just how the mind and body interacted; he would often redirect questions about this subject when it was posed to him (Lokhurst sec. 2.4). It is his failure to provide a good answer that gives us the mind-body problem. Because we are left with this fundamental discrepancy between the mind and body, substance dualism appears to be a failure as an adequate theory of mind.

Property Dualism

Even if substance dualism fails, perhaps there is another form of dualism that may be able to avoid some of the problems of substance dualism. In contrast to substance dualism, there is a theory known as “property dualism.” This view holds that rather than there being two distinct substances, there is in fact only one kind of substance, that being physical substance (Zimmerman 120). The “dualism” of this view comes from the

properties of this physical substance. There are still the normal properties that one would expect out of purely physical matter (extension, mass, etc.). In addition to these properties, certain instances of physical substance will also exhibit mental properties (Yang 3212). Mental properties are not identical with physical properties; despite this, they still must be included as essential features in a physical universe (Yang 3212).

Does property dualism present an adequate account of mind? The evidence is shaky. One problem with property dualism is that it seems to be difficult to determine just *where* the mental properties arise in a physical universe. Many proponents of property dualism hold the brain to be the physical area that exhibits both physical and mental properties (Zimmerman 120). This view leads to a problem: what qualities must a physical substance have in order to exhibit the mental properties? The property dualist must explain just why it is that physical objects as brains can have mental properties but other physical things such as a block of wood cannot. It seems that it would be difficult to determine where the line is for mental properties to be present, compared to instances of physical matter where they are not present.

An example can help illustrate this. Upon observation, it does not seem to be a stretch to say that dogs exhibit some sort of mental properties. We cannot observe their mental life, but the properties seem to be reflected in their behavior. Dogs seem to be familiar and comfortable around their owners. They behave accordingly. In order for them to have this familiarity, it would seem to be the case that they must have some capacity for conscious memory. They seem to be able to remember particular scents, what their owners look like, etc. These experiences have a particular “what it’s like to be a dog” aspect attached to themselves. I would argue that these “dog experiences” would

qualify as mental properties. Dogs therefore exhibit mental properties that the property dualist would say comes from their brains.

What happens when we go to more simple organisms? It seems counterintuitive to suppose that mental properties will appear only at a certain point of complexity in a being's brain. Where would this point of complexity exactly *be at*? The property dualist could say that only human brains are capable of expressing mental properties, but this would be denying the experiences of more complex animals. The property dualist could also draw the line at some specific point in the chain of being, but any specific point seems to be arbitrary without an adequate argument to justify it. This does not kill property dualism as an argument, but it makes it more mysterious to those that the property dualist hopes to persuade.

Property dualism also runs into another big problem. Is it any better off for accounting for interaction than substance dualism? Even if the mental side of reality interacts with the brain as a property, this interaction is still just as mysterious as substance dualism. Why should one adopt property dualism over substance dualism if it is still just as mysterious? If the property dualist wants to argue that this theory is the better version of dualism, they will need to show why the interaction is less mysterious between properties within physical substance compared to between substances.

Epiphenomenalism

Attempts have been made to accomplish this task, but the arguments are still lacking. The variant of property dualism that I described above is also commonly associated with another view called epiphenomenalism. With epiphenomenalism, mental

events (such as thinking, feeling, desiring, etc.) can be caused by physical causes, but they themselves cannot cause physical events (Popper 183). Mental properties in this view are something different than physical matter, but they themselves have no causal power in the universe. The universe is here causally-closed, with only physical events being able to cause anything. Thus, mental properties are nothing more than a by-product from physical processes.

For the epiphenomenalist, any appearance that mental properties or states can have a causal role in the physical universe is simply an illusion. This is a step further than property dualism; the property dualist will still say that mental properties will somehow play a causal role in the universe, no matter how mysterious that role may be. The epiphenomenalist view of the universe simply writes off subjective mental experience as just a useless aftereffect, which has no impact on the world or even on other mental states. Does this seem right to say? Again, shaky at best. At this point, why even say that there is a non-physical by-product of physical structures that plays no causal role in the universe? Perhaps it would be easier to say that in reality there is nothing above and beyond the physical.

The Move to Materialism

With the problems associated with substance dualism, the next logical step is to move away from suggesting that there are two substances, but rather that there is only one. Monism (a theory that there is only one kind of substance in reality) may better explain the mind-body problem. In keeping with the trend of reducing the role of the mental side of reality, why not go one step further and eliminate this role completely?

Why not eliminate mental properties? Materialism is the view that everything in reality is composed of physical substance and that mental states are really nothing but physical states (Searle 34). If something exists, it must be a physical substance *and nothing else*. Likewise, any property which a thing has is reducible to a physical property.

Materialism has had many proponents in one way or another throughout the history of philosophy. In Ancient Greece, philosophers such as Democritus and Leucippus argued for an atomic theory of the universe in which everything is somehow composed of physical atoms in a vacuum called the “void” (Berryman sec. 2). The void is taken here to be the absence of atoms, or nothing more than the space in which the atoms reside in (Berryman sec. 2). It is not important here to explain the details of Ancient atomism; the point here is that materialism had proponents even near the beginning of recorded philosophy.

Support for materialism continued to the time of Descartes. Thomas Hobbes (1588 – 1679), English philosopher and contemporary of Descartes, argued for a version of materialism. While it is not important to capture the specific details of the theory, it is important to note that this theory lays the foundation for future materialists to develop the theory from. At one point in his magnum opus *Leviathan*, Hobbes gives a basic statement of his materialism: “The world, (I mean not the earth only, that denominates the lovers of it *worldly men*, but the *universe*, that is, the whole mass of all things that are) is corporeal, that is to say, body; and hath the dimensions of magnitude, namely, length, breadth, and depth: also every part of body, is likewise body, and hath the like dimensions; and consequently every part of the universe, is body, and that which is not body, is no part of the universe: and because the universe is all, that which is no part of it,

is *nothing*; and consequently *nowhere*” (Leviathan Ch. 46, par. 15). In essence, Hobbes here says that everything in reality is body (or material). Talk about such things as “incorporeal substances” or something outside of the material universe is for Hobbes ridiculous; everything must in some way be composed of matter.

Identity Theory

Materialism was present during the time of Descartes, but support for it has continued to contemporary times. During the 20th century, many materialists adopted a view that is often called the Mind/Brain Identity Theory. This view holds that the mind is, strictly speaking, identical with the brain (Smart 56). Reports of the mind and mental processes are in fact reports of the brain and brain processes. While we may speak of the mind as being something different than the brain, if we really investigate the nature of the mind we will ultimately find that it is just brain processes at work.

When we say such a phrase as “I am in pain,” the identity theorist thinks that we are in fact reporting a particular brain state that we are in. This sensation is nothing above and beyond the physical brain process; to suppose otherwise is for the identity theorist to posit something non-physical. The statement itself is not a brain process, but it is the report of a brain process (Smart 56). Everything classified as “mental” is thus a process that in the end is “physical.” The identity theorist thus has their own account of “mind” and “body.”

If the identity theory is correct, then materialism seems to have provided a complete account of both mind and body. Identity theory is especially attractive because of the positive consequences the theory gives if it is indeed true. For one, the mind is

ultimately just brain processes, and thus observable. This means that the mind can be explained by scientific inquiry. This is very attractive, particularly today when there is such a push to understand the universe through the use of science. The mind would be one more part of the universe that science will ultimately learn everything about. Also, the reduction to only physical “stuff” and its properties in the universe allows for a parsimony in one’s theory that is not found in substance or property dualism. Materialism thus seems to be a simpler way of explaining the universe.

Have we found a complete answer to the mind-body problem? While it may seem like this is an adequate explanation for some, something seems off with identity theory. If dualism cannot escape without criticism, the same can be said about identity theory. Does it really seem like a phrase such as “I feel happy” could be translated into such a phrase as “I am in brain-state #29743?” In other words, does it seem human thinking, desiring, emotion, etc. is simply nothing but processes in the brain? Perhaps there are actually some facts of existence that cannot be reduced to brain processes. If this is the case, identity theory falls apart.

Identity theory is also too restrictive in what it allows as mental states. If identity theory, by definition, states that mental states *are* brain states, then only beings that have brains like humans could ever be said to have mental states. Other beings, such as insects, could not have mental states, since they lack the brain that a human would have. Despite this, insects seem to exhibit behavior that suggests mental function in some sense: for example, bees gather materials for their hives from plants. In order to distinguish a plant from a predator, they must have some way to sense or perceive the difference between things, like a flower compared to a frog. Wouldn’t this capacity to distinguish be some

sort of mental state for the bee? By the identity theorist's account, bees cannot have such mental states since they do not have the brain states of humans. At best, other beings could only operate through involuntary processes that require no mental states (akin to your heart beating, whether you want it to or not).

Functionalism

This problem with identity theory seemed too difficult to explain for many identity theorists. How could they say that every other being in nature has *no* mental states whatsoever? Perhaps mental states are multiple realizable, in that they can come about from more than one physical structure in nature. To account for multiple realizability, many identity theorists modified the theory to allow for it. In the process, a new theory called functionalism emerged from this modification. Functionalism redefines what a mental state is: instead of strictly being identical with a brain process, mental states are functional in relation to the behavior within a particular organism (Searle 43). In other words, mental states are causally related to the external stimuli and behaviors. For example, a person may perceive that there is a glass of water sitting on a table. The external stimuli (the glass) causes a mental state of the desire to drink the water. This mental state, in conjunction with one's beliefs and other mental states, then causes the person to exhibit the behavior of picking up and drinking the water. Mental states thus serve as functions between stimuli and behavior.

Functionalism, when applied to the brain, sees the brain as a sort-of computer. The brain is the hardware of the computer itself, in that it is composed of nothing but physical matter. When the brain receives external stimuli (connected causally) this could

be like someone typing on the keyboard of the computer. This stimuli, in turn, will eventually lead to a program on the computer (or software). The software are the mental states, which are functional. Functionalism seems to lead to multiple realizability, as it suggests the idea that mental states could be realized in multiple different systems. For the functionalist, a complex-enough computer could, in fact, be said to exhibit mental states due to the causal connections they have with the stimuli in the physical system.

Criticisms of Functionalism and Materialism

While it may solve the problem of multiple realizability that identity theory could not, functionalism does have problems of its own. Just what counts as a “system” in which mental states can be potentially realized? In a critique of functionalism, Ned Block presents an argument that is known as the “China Brain” argument. Block asks what would happen if the whole nation of China organized itself in such a way as to mimic a human brain (Block 279). Each person in China could function as an individual neuron within the “brain.” Now here is functionalism applied to the scenario: as long as each person within the nation brain system performed their assigned functional role, the functionalist may have to say that mental states could be realized by the collective Chinese system. If it is the same system as a brain (only on a larger scale), then mental states or even a substantial mind should come about from the functional organization. In contrast to saying this, Block argues that this is absurd; there would not be anything close to a “mind” form within the Chinese system. Block concludes that the functionalist idea of “multiple realizability” seems arbitrary, in that we are unable to determine what can count as a “mind” under functionalism.

What are we to think of functionalism? It seems to be a clear improvement over identity theory, since it does allow for multiple realizability. On the other hand, the multiple realizability that it purports to allow for seems to be problematic. We could say that Block's Chinese nation would indeed be a realized mind under functionalism, but there is a reluctance to admit this. What we take to be mental seems to have qualities that are specific to itself, rather than only coming about by being functional within a physical system. Functionalism would be adequate as a theory of mind if it could qualify itself in saying that only certain types of systems can allow for realizability. But there does not appear to be any criteria that can tell us why one system can realize mental states and another one can't. Until such valid criteria are explained, functionalism will always seem flawed.

While functionalism itself is lacking, there are several strong arguments against any position, whether functionalist or materialistic, which attempts to reduce first-person or subjective mental properties to something knowable from a third-person or objective perspective. In a classic criticism, philosopher Thomas Nagel presents an interesting example that highlights a major problem with these types of theories. Nagel asks the question, "What's it like to be a bat?" This is an inquiry into the nature of the subjective consciousness that beings experience; in this case, Nagel asks what it is to be a bat. He states that for anything that could be said to have conscious experience, there must be something that it is like to be that thing (Nagel 436). Thus, if we are to say that bats have some sort of conscious experience, then we must say that there must be something that it is like to be a bat. Nagel here asks if we can account for the conscious experience of the bat.

The materialist and functionalist seem to think that we would be able to. It seems reasonable to say that bats do have some sort of experience, as they can do such complex things as navigate in caves with their faculties. One could deny that bats have experiences, but this seems like the more difficult point to argue; bats are mammals and seem to have similar behavior to other animals that we would say have experiences (like a dog). If the materialist does admit that bats have experiences, then these experiences must somehow be shown to be nothing above and beyond physical substance. If the functionalist admits it, then these experiences must somehow be shown to be nothing above and beyond what a bat does. On both theories these experiences are completely within the realm of scientific observation. Thus, we as humans should be able to provide a complete account of the bat's experiences.

What happens when we try to do this? So far, science has shown that even though bats have eyes, they have little use for vision, at least the kind we are used to. Bats, particularly if they live in caves, navigate through some form of echolocation, in which their advanced hearing allows them to fly from place to place. While we as humans can examine the bats' faculties and determine that they navigate using echolocation, can we in fact really experience what echolocation is like for the bat? It seems to be that only bats have access to this experience, and we are in fact closed off from the consciousness of the bat. The experience of the bat is not translatable into the objective, scientific language that the materialist or functionalist wants to say can account for the entire universe. But for these theories, it is impossible for echolocation to be anything other than a process describable in objective, scientific language.

Another famous example adds to this criticism. In “What Mary Didn’t Know,” Frank Jackson presents the interesting fictional case of Mary. Mary is confined to a room from birth to adulthood. What is peculiar about the room is that everything in there is black and white, including Mary. Furthermore, Mary is fed by black and white nutrition, reads black and white books, and has a black and white TV. There are no windows for her to look out of. Thus, Mary experiences only things in black and white from birth (Jackson 291).

What does Mary do to occupy her time? She decides to become sort-of a scientist, in that she invests her time to learn every physical fact about the universe through books and lectures on the television. Jackson uses physical in a complete sense, in that he refers to Mary learning everything in physics, chemistry, and biology, along with the causal roles between everything (Jackson 291). Thus, Mary could be said to have a complete knowledge of the material universe, which for the materialist is everything in existence. This would include Mary understanding everything there is to know about color, as she must have studied how colors are perceived by the eye during her time in the room.

Now here is the twist in Jackson’s scenario: suppose that Mary was able to escape the confines of the black and white room. Furthermore, suppose that the world outside of the room is completely “normal” as we would imagine it: the grass is green, the sky is blue. What would Mary experience outside of the room? If she knows every physical fact about the universe from her studies inside of the room, then coming outside of the room should not faze her. Upon seeing such things as the blue sky, she should not have a special reaction due to already studying why the sky is blue. She should not react to the green grass before her, as she already knows that grass is green due to the chlorophyll

found within the cells of the plant. Thus, under the materialist and functionalist views, Mary would be unfazed from her experiences of colors such as blue and green for the first time.

Does this seem right? Again, we must doubt that physical facts can account for everything in the universe. It seems to be that Mary would learn something new by actually experiencing the colors she read about in her black and white textbooks. This subjective experience that Mary now has could not be learned within the confines of a room. Nor could it be experienced by merely knowing all the physical facts about the world. Thus, Jackson concludes that materialism and functionalism leave out substantial parts of the universe when they try to treat mental states as physical facts.

From the above cases, we may reach a conclusion about materialism and functionalism. Both seem to leave out the subjective experiences of conscious beings in their accounts. Whether it be the experience of a bat or the experience of seeing a color for the first time, subjective facts must be acknowledged. These theories try to reduce them to physical facts by claiming that such experiences are in fact just processes in the brain, or functional system. But it is difficult to see how “I feel happy” *is* nothing above and beyond these processes. Perhaps science may eventually advance enough to show how subjective experiences are really nothing but these processes. Until then, these philosophers must provide a separate account of how these subjective experiences can be equated with physical facts. To admit that they are not physical is to adopt a position at odds with both functionalism and the identity theory.

Spinoza and Panpsychism

At this point, let's review what we have discovered so far. First, it is clear from our earlier analysis that problems arise when we view ourselves as composed of two completely different substances. It is impossible to determine how a non-physical mind and a physical body could interact, and at what point this interaction would occur. The problem remains when we switch to property dualism and ask how the mental properties and physical properties of a material thing could interact. At the same time, we cannot simply reduce everything that is considered mental into nothing but the physical properties of physical things. Nor can we reduce them merely as functional states. Thus, in order for the Mind-Body problem to be solved, we must find a theory that allows for mental states that exist over and above the body and its processes and behavior. Furthermore, mentality cannot be in the universe at specific points for seemingly arbitrary reasons; mentality cannot just suddenly "be there" when a physical system reaches a certain level of complexity. Finally, we must still recognize that the universe does have physical "stuff" within it; we cannot say that matter is an illusion. Scientific inquiry into the natural universe is still valid and provides us with information about how the universe operates. Thus, we must also recognize the physical side of reality.

Is there a theory that is able to meet these criteria? The picture becomes bleaker after each theory is found to be flawed. However, I have by no means provided an exhaustive list of the theories that have been tried. Versions of dualism and materialism have historically been the dominant views in regard to the Mind-Body problem, but they are not the only ones. In fact, dualism and materialism seem to have the most problems

associated with them. Out of all the theories that have not been reviewed yet, one seems to meet the criteria that we have set for an adequate theory of mind. This is panpsychism.

Panpsychism is not a new theory. When we try to find a proponent of the theory, we can go to shortly after the time of Descartes. Baruch Spinoza (1632-1677) was a Jewish-Dutch philosopher living in the Netherlands. While renowned for his philosophy today, Spinoza worked as a lens grinder to earn a living. Spinoza presents his own theory of mind within his *Ethics*. The *Ethics* follows the pattern of Euclid's *Elements*, in that Spinoza begins with basic axioms from which he derives further ideas through logic. The theory of mind that follows is in stark contrast to both Descartes and any form of materialism.

In the *Ethics*, Spinoza argues that there is in fact only one substance (using the Cartesian terminology). This substance, for Spinoza, is known as God or Nature (Part I, Prop. 14). For Spinoza, all things ultimately are caused by and exist in the one substance. This is because of the divine nature of the one substance; everything must necessarily exist as a modification or mode of this substance, since for Spinoza the substance *is* the one and only reality (Part I, Prop. 16). Furthermore, this substance has infinite attributes, which are ways in which a substance has its "essence" (Def. 4). Since God is the only substance and is infinite, God has infinite attributes and each of its parts or modes is expressed through infinite attributes. Despite having these infinite attributes, Spinoza argues that humans are only capable of understanding two: extension and thought.

Sound familiar? Thought and extension are what Descartes believed were the essences of his two substances. The difference here is that instead of there being two

distinct substances, Spinoza argues that there is in fact only one eternal substance. Since thought and extension are attributes of one underlying system, and not distinct substances, our whole perspective changes on the issue of Mind-Body interaction. Furthermore, Spinoza's system solves many of the problems that plague both dualism and materialism.

Each attribute is one of an infinite number of ways that the one substance manifests itself. As mentioned, humans are only capable of understanding the attributes of thought and extension. For any given object in nature or mode of the one substance, we are able to comprehend it both as a physical thing in nature and as an idea within thought. To illustrate this, Spinoza states, "...a circle existing in Nature and the idea of the existing circle – which is also God – are one and the same thing, explicated through different attributes. And so, whether we conceive Nature under the attribute of Extension or under the attribute of Thought or under any other attribute, we find one in the same order, or one in the same connection of causes..." (Part II, Prop. 7, Scholium). We can thus comprehend anything in reality under the attribute of extension or the attribute of thought; what is important here is to realize that for Spinoza, they are not two distinct things, but two ways of viewing the same thing. In this way, thought and extension are two sides of the same coin: simply flip over the coin to see a different perspective of the same thing.

What happens when we take this metaphysical theory and apply it to ourselves as humans? If there is only one substance, and we are not outside of reality but merely a part or modification of that one substance, then we do not escape the things that Spinoza believes logically flow from the one substance. As mentioned earlier, humans seem to

have what we would call a mind and a body. For Spinoza, these are two different attributes of the one eternal substance. Humans understand the universe (and themselves) through these attributes. When we talk about our body or physical states, we are comprehending one part of the universe through extension and its properties, and when we talk about our mind and its mental states we are comprehending the same part of the universe through thought and its properties. We are thus left with two different ways of comprehending one and the same mode of substance.

It seems to be clear how Spinoza's panpsychist theory purports to "solve" the mind-body problem. Technically speaking, the mind-body problem does not even arise within this view (Nadler sec. 2.2). Within Spinoza's system, the attributes of thought and extension cannot interact within one another at any point in the causal chain. The description of the modes of God conceived as physical is conceptually independent from the description of those same modes conceived as mental. Causes between extended things and the human body are one way the infinite substance manifests itself, while the causal chain of thought into minds are another way. For Spinoza, each attribute cannot cross into the other; ideas do not flow from extension, nor do bodies flow from the attribute of thought. Thus, Spinoza's theory also entails parallelism, which is the thesis that each thing in the universe can be seen as both a mode in the attribute of thought and a mode in the attribute of extension. However, each attribute cannot affect the other, as attributes are distinct from each other. The mind-body problem does not arise because of this parallelism between the modes in each attribute.

If Spinoza is right, then the mind-body problem has indeed been solved. Interaction does not need to be explained, because it cannot occur due to the attributes

being causally distinct from one another. Furthermore, both aspects of being human are accounted for in the theory: bodies are accounted for through the attribute of extension, and minds are accounted for through the attribute of thought. Thus, panpsychism provides a theory that accounts for both aspects of being human, yet does so by not adding a new substance to account for mind. Perhaps we have finally found a theory that achieves everything that an adequate theory of mind should.

Criticisms of Panpsychism and Answers

Since panpsychism seems to solve the mind-body problem, one would expect that it would be a widely-held view today. As expected in philosophy, it is not. Despite its ability to solve these problems of mind, panpsychism, like any other theory, does not escape criticism. However, while the criticisms of panpsychism are fair, they ultimately are easier to answer than the problems that both dualism and materialism face. While it will never be a perfect theory, panpsychism will ultimately appear the strongest position of mind once these criticisms are answered. Accordingly, I will provide some potential criticisms and subsequently answer them.

First, the critic may notice what the parallelism within Spinoza's argument really entails: if each attribute is separate from any other and in no way interacts, then how can we explain why humans seem to have mind-body interaction? In other words, why does the mind appear to be aware of what goes on in the body, even if it cannot in any way affect the body? This mystery can be answered when we really pay attention to what Spinoza means when he talks about the attributes. For the body, it is subject to a chain of causes that are modes of the attribute of extension. The human body can only be acted on

by other physical, extended things. With each link in the causal chain, there is a corresponding mental cause upon the mind. That is why if you were to be hit with something and you felt pain in your arm, you would have the ability to think about the event that just occurred. There is ultimately one event that occurs, and only one chain of causes that affect it, but each thing in reality can be conceived under both attributes. So, for the human being, the perception that we are both a mind and a body that can interact with one another is just a confusion in which we take one event with two aspects to be two really distinct events instead.

Panpsychism is often criticized for being “too strange” of a theory to accept. In contemporary times, the general trend for intellectuals is to suppose that materialism is true, even if we lack the scientific evidence to completely validate it at this time. Materialism *must* be true, and science will eventually progress enough to confirm this. For many, panpsychism is contrary to this basic assumption that the universe is completely material: not only does panpsychism posit something other than the material, but by definition it suggests that all reality is also *mental*. Such a view is too strange to have any weight in today’s intellectual debates.

Admittedly, panpsychism is a strange view. It is not conventional, and support for it has been significantly less than the dominant theories over the years. However, is it any stranger than both dualism and materialism? Dualism is strange because it tries to “add” a non-physical substance to reality that does not seem conducive for it. There is no reason as to why mind is present at certain points in reality and not at others. Conversely, panpsychism does not add this non-physical mind at specific points in space; rather, mind *is* everywhere in reality. There is no need to explain why mind is at specific locations in

space. Materialism is strange because it tries to package all mental phenomena into one physical package. Mental phenomena are more complex than this. Panpsychism does not try this, as it holds that mind is from a separate attribute than material, extended things. Thus, panpsychism is no stranger than the other theories that try to account for mind.

Finally, panpsychism is often criticized for supposing that everything in reality has a mind. This would include such things as rocks, the sun, subatomic particles, a bacterium, etc. Each of these things are thought to have a mind that is capable of thinking, feeling, and desiring. Panpsychism could be taken this far, but such a view would be hard to defend due to the implausibility of the position. Fortunately, such a position need not be the case for panpsychism. Instead, we can say that every mode (thing) in reality could have differing levels of the mentality that flows from the attribute of thought. Whereas humans possess a complex mind, further down the chain, such things as rocks and subatomic particles have only a minimal level of mentality. Since they are real modes of extension, it is necessary that they have some level of mentality, but this mentality could be present only at a minimum level. Such things do not need minds like ours in order to exist; only the most fleeting and vague mentality must be present.

Conclusion

Obviously, this analysis of the mind-body problem and the theories that have been posited to solve it is by no means complete. One could write several volumes on the topic and still barely scratch the surface. It is doubtful that the problem will ever go away or be settled to the point that everyone is in agreement. Despite this, we continue to discuss

what it means to have a mind, and what it means to be human. Panpsychism offers the best account for why we have both a mind and a body. Of course, this is only what we have to work with now. There may be a theory in the future that provides an even fuller account of reality. Until then, panpsychism provides the fullest account of our physiology, thoughts, feelings, desires, and dreams.

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