Cartesian Dualism and Psychoneural Identity Theory

Explaining the relationship between the mind and the brain as well as their casual interaction is a philosophical question addressed by both Descartes in his theory of property dualism and by later philosophers in the psychoneural identity theory. In this essay I will focus on the modal argument for substance dualism as well as the pairing problem as presented by Kim. In opposition to substance dualism I will argue for the possibility that the mind is necessarily identical to at least part of the body. Finally I will discuss Kim's presentation of the neurophysical identity theory and a possible adaptation of the theory that might help alleviate some of its objections.

Kim's presentation of Descartes' modal argument for substance dualism first requires an understanding of necessary identities. The property of necessity of identities is used to make a distinction between that which is necessarily true and that which is contingently true. More specifically, we say that something is necessarily true if it is true in every possible world whereas we say that something is only contingently true if it is not true in all possible cases. Most propositions are not necessarily true for they could be conceivably false in a different world. For example, I could be height A in our current world but I also could easily conceive of myself being height B in a different world. Thus I am not necessarily height A, for I could be height B, and height A is not a necessary identity. On the other hand, Tully is necessarily Cicero because I cannot imagine another possible world where, given Tully, Tully is not Cicero. Therefore Tully and Cicero are necessary identities.

This idea of necessity plays a vital part in Descartes' modal argument in which he argues that the body is not a necessary identity of the mind. The argument, as presented by Kim, is as follows: the mind cannot be identical to the body, because if it were, by the necessity of identities

it would be so for all possible worlds; but Descartes argues that this is not the case for all possible worlds, for (a) it is possible that in some worlds the mind could exist without the body or (b) I could have a different body in another possible world. Therefore the mind cannot possibly be identical with the body and thus the existence of a body is not necessary for the existence of a soul. In order to successfully refute this argument, Kim claims, we must show why both (a) and (b) are not real possibilities.

Some critics have argued that simply being able to conceive of a disembodied mind in a metaphysical sense doesn't essentially prove the real possibility of its existence. As a consequence, this line of complaint brings an entirely new issue to the table: if metaphysical conception doesn't prove the real possibility of something, what does? If we put the line for true possible existence this high, it seems that we lose the possibility of existence for commonsensical things as well. Instead of focusing on these metaphysical complaints, I find it more profitable to focus on the property of necessary identities and its application to bodies in attempting to refute Descartes' modal argument. I hope to show that parts (a) and (b) in Descartes' argument are ultimately not real possibilities by considering more closely the distinction between mind and body.

I think that Descartes' modal argument relies on misconceptions of both the idea of body and the idea of mind. In fact, it is the very distinctness between the body and the mind that Descartes gets wrong. If we define the body as including all of the physical attributes of the human body, including that of the brain and central nervous system, as I think Descartes and Kim would allow, then I would argue that we have also already included the mind. That is to say, while we may feel as if the mind and body are somehow separable in some way, in truth they are

not (yet they can still be distinct). This is an understandable misconception; mental phenomena and our perception of external phenomena appear to us to be vastly dissimilar. But this is just an error in judgment in trying to understand large-scale and small-scale phenomena with the same set of generalizations. Just as we do not use quantum mechanics to understand Newtonian movement yet we talk about the same material things, we should not assume that just because mental states and bodies seem distinct that they are not made up of and determined by the same material things.

If it is possible to show that it is the case that mind and body are dependent, then necessarily both arguments (a) and (b) fall apart if this is the case. For then every distinct I will be in some way connected to a distinct set of mental states such that it separation of the two would be impossible. That is to say that if I am necessarily identical with my body, then the I that we speak of is necessarily inseparable from the body (or at least the brain) and thus I must be identical with at least part of my body in every possible world.

Locke believes that he can have different body in a different world. In truth, the very he Locke is describing could possibly be entirely dependent on his body. If we accept that *we* (our bodies) are physical, then it might also follow that our *minds* are also physical. Consider the mental phenomena of feeling pain: science has shown us that our sensations of pain are the result of a casual series of events starting with the stimulation of nerves to the reaction in the brain such that we can identically replicate the feeling of pain by simply manipulating the brain in the correct way regardless of external stimuli. While this is a simple example, I argue that if we accept that pain can be described in this way, then possibly all mental phenomena and activity can be similarly (perhaps much more complexly) be explained in this fashion. If we can explain

all mental phenomena and activity in this way, then it might also enough to say that we also can explain our entire mind in a purely physical sense. If we can explain our entire mind in a purely physical sense, then we have no use for any explanation of the mind that separates the body from the mind. In other words, if we accept the argument that the mind cannot exist without the brain (i.e. that they are necessary identities) then this modal argument for substantive dualism is invalid.

Casual interaction between Descartes' immaterial mind and material body is criticized by Kim in what he calls the pairing problem. The general complaint goes like this: Descartes offers no way to relate or differentiate between identical immaterial souls A and B from causing physical change C, where it is only A that is causing C. When A, B, and C are physical we have spatial relations to explain the causation but when A and B are immaterial we have no such tool. It is this very absence of any casual tool that Kim claims is strong evidence that immaterial souls are isolated such that they cannot casually interact with material bodies or other souls (they *can* casually interact within themselves).

There does not appear to be any clear way to reconcile the soul pairing issue. In the physical world we avoid this problem by stating that if objects A and B have an identical position in space that they are the same object. In the immaterial world we have no such rule. Kim suggests creating a new immaterial "positional" system that would somehow allow us to make a similar rule in such that every soul occupying the same "position" would be identical. I agree with Kim that this type of system seems unlikely to be conceived of and that even if it was created, an elaborate explanation on how this immaterial system acts upon our physical system

would be needed. Interaction between entirely non-physical and physical entities simply does not seem possible or, at the very least, straightforwardly describable.

Overall I agree with Kim that substantial dualism is not an attractive—or easily defensible—position on the mind-body problem. Trying to directly explain mental behavior with the immaterial seems to cause more issues than it explains away. I also agree with Kim that property dualism, or the idea that there are two fundamental properties, physical and mental, is a viable route of inquiry for understanding the relationship between the mind and the body.

Before it is reasonable to discuss Kim's critique of the psychoneural identity theory, it is necessary to give a brief outline of the theory itself. Kim describes the theory as such: mental states, phenomena, and experiences are nothing but diverse neuralphysical states; for every mental property there exist some neurological state in the brain that is equal to that mental property. Psychoneural identity theorists such as Smart claim that this way of looking at mental activity is accurate in virtue of its simplicity. In particular, Smart applies the principal of parsimony—Occam's Razor—and claims that, given the range of available theories for the mind-body problem, we should choose the psychoneural identity theory on the basis of its directness. Additionally, Smart claims that by asserting identity rather than correlation, as the psychoneural identity theory does, we remove any issues related to nomological danglers, or the issue of having simple events requiring incredibly complex or unintelligible explanations.

Kim attacks the argument for simplicity by claiming that the psychoneural identity theory is not necessarily simpler but instead more complex. He argues that by using identities, we only replace (not reduce) correlation claims and instead by assuming necessary identity also introduce

extra assumptions. Addressing more of Smart's arguments for and objections against the psychoneural identity theory is beyond the scope of this essay.

A more general argument for the psychoneural identity theory that does not rely on simplicity is given by Kim as follows: using identifications gives us the incredible utility of being able to "enable desirable psychological explanations while disabling the improper demands for explanation of psychoneural correlations" (Kim, p.110). This is a good argument because it allows us to address questions such as how pain might cause distress while at the same time ignore questions such as why do c-fibers and not something else cause pain. Kim claims that this argument is in fact not useful because it does not give us any further explanation of mental phenomena but instead simply lets us rewrite something we already knew. For example, if by the psychoneural identity theory we can say that pain *causes* distress, we acquired that knowledge from science such that we already could say that pain *most likely or most frequently causes* distress. By removing the most, Kim asserts, we are not offering a new explanation but instead only taking on new assumptions. In this sense I agree with Kim that simple identities for describing mental states will not result in a clear answer to the mind-body problem.

Kim's offers one final argument for and two final critiques against the psychoneural identity theory. In favor we get the argument from mental causation which states that if we accept the two premises that mental phenomena have effects in the physical world and that the physical world is a closed system such that each physical action has an entirely physical cause, then it necessarily follows that mental phenomena are also physical phenomena. Against the psychoneural identity theory is the argument for multiple realizations which states that the same mental features can be had equally by physically diverse beings. Kim argues that multiple

realizations are mutually exclusive from the psychoneural identity theory, for if every mental state is identical to a specific physical brain state then we lose the ability to say that mental states can occur in different physical beings. This is bad because we want to be able to say things such as other animals are capable of feeling pain, that pain is possible in non-carbon extraterrestrials, and that robots could possibly feel pain. This is also an issue between humans; if we want to say that all humans are capable of feeling the very same sort of pain, then we must also say that they experience the very same sort of physical neurophysical brain properties, which seems unlikely due to wide diversity of physical human brains.

It doesn't seem clear to me why multiple realizations, as described by Kim, should be the nail in the coffin for the psychoneural identity theory. It seems to me that a simple distinction could clear up most of the confusion surrounding the multiple realizations issue. Instead of saying that mental state M occurs when physical state P occurs, we should be more specific and say that *for being* A, that mental state M occurs when physical state P occurs but this must not always be the case for mental state M for every being. This brings about another issue: while we might want to say that an animal feels pain, what we really mean to say is that an animal feels something similar to the pain we feel. In other words, we don't say that every realization of some general mental property requires a specific brain state, but that only every specific mental property requires a specific brain state which is potentially unique to the being experiencing it. At the same time, we can still talk about classes of brain states such as pain that realize themselves somewhat differently for each somewhat different being. The most basic objection to this distinction is that now it is possible (and indeed likely) that every individual person experiences an individual pain which seems unintelligible given their apparent similarities. I am

willing to concede that it's certainly unintuitive that this could be the case, but at the same time I would respond that the differences between the physical realizations of pain in each individual human being are most likely so subtle that they are unnoticeable and unimportant. This distinction seems to allow for at least some of the psychoneural identity to remain intact.

In his final remark against the psychoneural identity theory, Kim argues that "all concrete individual things in this world are physical, but complex physical systems can, and sometimes do, exhibit properties that are not reducible to 'lower-level' physical properties" (Kim, p.123). It is this argument from Kim that I find most convincing as a reason to reject the identity theory. If we do not make any modifications to the identity theory, I feel as if, at least on an absolute scale, the theory loses its usefulness. If we want to keep something similar to the psychoneural identity theory, it seems like we must make a distinction between properties of a system at the macro-level and the micro-level. Consider a table: we say that the hardness (macro property) of the table is distinct yet dependent on and realized in the molecular structure (micro property) of the table. It is not that the property of the hardness of the table is reducible to the property of the molecular structure of the table but that the hardness is realized in the molecular structure.

I find Kim's perspective on the identity theory to perhaps too harsh. Rather than dismiss the theory entirely, I think Kim would be better off by suggesting possible adaptations. For example, if we instead considered that mental properties are features of the brain realized in its physical states, then many of the issues related to the theory are relaxed. We can still talk about mental properties being caused by the brain but we also recognize that there is a distinction between a macro-level mental property and a micro-level physical property. For example, this would allow us to respond to Kim's remark that not all properties of physical systems are

reducible to low-level physical properties. We could now agree and say that while the properties of the mind are not reducible by and of themselves to low-level physical properties, they are necessarily related in that they are instead realized by the low-level physical properties. The complex physical system of a mind can produce the property of feeling pain, but we can instead describe feeling pain with our new theory as something realized, not reduced, to lower-level physical properties. While this idea may still have some of the issues related to the original psychoneural identity theory (and some of its own), Kim's discussion of theory would feel more complete if it, or something like it, were considered.