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A Debate of Mind: Functionalism V.S. Cartesian Dualism

While Functionalism solves the Princess Elisabethian mind-body connection problem and clarifies the materialist theories prior to its conception, it ultimately fails at its task of providing a complete and inclusive theory of the mind to replace Cartesian Dualism. This paper will discuss how Functionalism succeeds at solving the problems of its materialist predecessors and Cartesian Dualism through its "middle-ground" dualism, before highlighting its failings through the lens of categorization problems and Qualia, finally concluding with a discussion of Functionalism's utility and compatibility with Cartesian "substance" Dualism.

In his *Discourse on Method*, René Descartes uttered his most famous words: *Cogito ergo sum.* His method of doubt led him to certain knowledge about himself as a thinking thing, and less certain knowledge about the world and the substances that make it up. Descartes believed that our bodies were made up of these physical substances and that our minds were made of an entirely different, spiritual, non-physical substance. Our bodies are three-dimensional, divisible, and spatial. Our minds are indivisible and do not exist in space. (Lyons 8) And, as Gilbert Ryle summarizes, "the workings of one mind are not witnessable by other observers; its career is private." (Lyons 9) Descartes also argued out of his principle of distinctness: we can conceive of a mind without a body, so it must be distinct. (Lyons 8) Substance dualism claims humans live two separate lives: the conscious and the bodily. When one is dreaming or deep in thought, this distinction seems more apparent. Other times, when one is in pain or consciously controlling movement, these two worlds collide. While such a theory appears natural – many a time have I heard "I am not my body" – substance dualism has an Achilles heel: the mind-body connection problem.

In her letter to Descartes, Princess Elisabeth of Bohemia writes:

> "For it seems every determination of movement happens from the impulsion of a thing moved, according to the manner in which it is pushed by that which moves it, or else, depends on the qualification and figures of the superficies of the latter. Contact is required for the first two conditions, extension is required for the third. You entirely exclude extension from your notion of the soul, and contact seems to me incompatible with an immaterial thing." (Tollefsen 62)

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In postulating that the mind is a sort of "ghost in the machine," Descartes must now prove that an immaterial substance can cause the material body to move. Essentially, when I think of moving my hand, how is it that my hand moves? Descartes argued that a piece of the brain, the pineal gland, acted as a soul conduit, in which the soul sits and executes its functions. (Dendy 286) While we still do not know the function of the pineal gland completely, this claim does not answer the question of *how* the soul acts on this gland. Descartes' response to Princess Elisabeth is unsatisfactory. He claims that gravity, or as he puts it "the weight of a rock [moving] the rock," is an example of a non-physical force moving a physical one. (Bennett) But we know now that gravity *is* a physical force. It stands to reason that Descartes is not on solid ground on the question of mind-body connection.

The unsolvable mind-body connection problem plaguing substance dualism inspired a new branch of theorizers: the materialists. If the mind is a physical substance, it does not need an explanation for how it can move the body. The first of these materialist theories was behaviorism, which claimed that mental states were defined by their outward displays. The mental state of being anxious, for example, is merely the outward display of sweating and tapping one's foot. (Lyons 60) Behaviourism's most critical flaws were that of diffuseness, the same psychological states having different symptoms in different people, and privacy, our mental events normally being considered private affairs. When the thinker is sitting down thinking, what is he doing?

This "*le penseur"* problem and advancements in neuroscience led to identity theory: that mental processes correspond to processes in the brain. When we speak of "imagining" or "remembering," we are speaking of neurons firing. Since these brain processes are private and internal, our *le penseur* problem is solved. But identity theory introduces two new problems, problems which will lead to its functionalist ancestors. The first is that identity theory is based on an unresolved promise: that neuroscience will explain consciousness. Yet neuroscience seems no closer today to this goal than at identity theory's invention. We have found specific examples of neuroscience explaining certain brain processes such as sight, hallucination, and speech, but we commit a logical fallacy in assuming just because certain parts of the brain contribute to our conscious experience, our conscious experience is nothing but the brain. Identity theory also comes under criticism, especially by functionalists, for pushing a speciesist chauvinism of

consciousness. In directly linking the behavior of neurons and brains to mental phenomena, we argue that only beings with brains like ours can be conscious. This is a problem foreign to behaviorists, who would argue that if a machine, spirit, or martian displays symptoms of mental processes, they must be conscious. Materialists sought a middle ground, then, between display-focused behaviorists and chauvinistic identity theorists, a middle ground they found in functionalism.

At the heart of functionalism lies the analogy of the mind-brain relationship being like that of a computer: the brain is the hardware and the mind is the software. In crafting this analogy, functionalists claim that mental states are functional, receiving inputs that correspond to outputs. Functionalism creates a dualism unlike the substantive nature of cartesian dualism. Rather, functionalism's dualistic nature is a conceptual one, that while the mind and brain are both physical (functionalism is still a materialist theory), the mind can be better understood symbolically and representationally. Hilary Putnam, a pioneer of functionalism, noted that while the mind could theoretically be understood at the material level as the identity theorists desired, "it would take an inordinate amount of time to produce" and "few if any people…would be able to understand it." (Lyons 155) Thus, functionalism contains identity theory within it. A functionalist would claim that an identity theorist is observing a single realization of the software/hardware definition of the mind.

But functionalism does not need to maintain the chauvinism unavoidable in identity theory. For a functionalist, the mind as Fodor puts it, "depends not on the stuff it is made of…but on how the stuff is put together." (Fodor 114) As long as a being's hardware, whether organic, inorganic, or spiritual, can realize the software of the mind, that being is classified as conscious. Functionalism does not depend on neuroscience either, for its functional definition of mental processes allows for a broad definition of consciousness independent of the physical sciences. The symbolic structure of both brains and computers allows for 'folk psychology,' or a discussion of beliefs, hopes, decisions, and desires to have a philosophical basis. Because we think in language, we can discuss thought in the context of symbols (words) rather than needing to resort to the hard sciences. This is similar to the way we discuss computer programming. While we could in theory discuss the instructions we write to machines in the context of

electrons moving through wires and gates, we usually tend to refer instead to “programming languages” which symbolically represent these material results.

Functionalism can also adopt some of the tenets of behaviorism without assuming its drawbacks. Behaviourism is practical. It allows us to classify what a “mind” is without the use of scientific analysis. It relies on an inherently true solipsism; I can never look into your mind and vice versa, so we must rely on the brain’s outputs. Functionalism maintains this pragmatic nature, making sense “of both the causal and the relational character of the mental.” (Fodor 118) Functional states are both private and public affairs. Functionalism allows for internal processes, such as beliefs and desires, to relate both to each other and external processes, such as exclamations, behavioral tics, and actions.

But functionalism has its weaknesses, weaknesses which can be divided into two types of problems: (1) categorization problems and (2) qualia problems. We will discuss categorization problems first, which attempt to construct *reductio ad absurdum* arguments that functionalist definitions of consciousness don’t work by forcing the functionalist to accept unorthodox mechanisms as brains. One of these thought experiments, known as the ‘Great Mind of China,’ constructs a system in which a billion people in China each hold a radio connected to an artificial body. Letters are written with satellites in the air, and when the people see these letters they use the radios to cause some action on the part of the artificial body. (Lyons 163) A devout functionalist must admit that this mind is just as real as any other since the people are performing the same ‘mental functions’ that occur in the brain, receiving inputs that correspond to some output.

Another one of these thought experiments, one more geared as an attack on artificial intelligent machines being real minds, is John Searle’s ‘Chinese Room.’ Searle imagines himself stuck in a room in which Chinese characters are slid under the door, and he must use a set of instructions written for him to send a corresponding character back out the door. Searle himself knows no Chinese, but an outside observer may think they are conversing with some intelligent individual fluent in the language. (Searle 26) Searle’s experiment points out that a functionalist definition of mind misses a sense of “knowledge” that we normally attribute to consciousness. A

functionalist must admit that this entire system, one with some "mover and reader" corresponding to a set of rules, is a conscious one.

These thought experiments, while entertaining, do not serve as a direct attack on functionalism. Because if a functionalist is ready to adopt these unconventional instances of mind, the argument ends. But the issue of Qualia, or consciousness, is a problem to which Functionalism has no concrete response. Qualia, as Fodor points out, is extraordinarily difficult to define. He chooses to define it as looking at a blank wall through a red filter and then through a green one. When we change filters, something about the qualitative content of our experience changes. (Fodor 122) Seager defines Qualia as "the subjectively apprehendable properties that some mental states, such as pain, possess." (Seager 175) In a computer, we can represent pain with a number and subtract or add to it to *symbolize* degrees of pain, but the qualitative content of pain goes beyond symbolization. This is what makes Qualia so difficult to define: words are symbols and Qualia is beyond them.

Another thought experiment, that of 'inverted spectra,' outlines the existence of Qualia and functionalism's inability to capture it in its definition of mind. Imagine a world in which the color we see when we refer to "red" is actually the color we refer to as "green." The words we use to refer to each color do not change, but our perceptions of them do. The functionalist, even knowing that the content of the experiences of individuals in these respective worlds is different, must say that these worlds are the same. Because functionally, the same outputs are produced. When we think of tomatoes, we think of the word "red." When a child sees a firetruck, they may say "the truck is red." But the experiences of individuals in these respective worlds are different. This issue of Qualia matters because it would have us believe that "mental states with a qualitative character such as pain are not function states." (Seager 182) If this is true, the functionalist claim that "all mental states are functional states" has been refuted.

Returning to Dualism, it seems that all problems but the mind-body problem are resolved. So now the question remains: do we stick to a dualist notion that the mind is of a different substance that can possess Qualia, even if we have no explanation for how it interacts with the brain, or do we accept functionalism, denying the existence of Qualia but resolving mind-body interaction? It seems to me that these schools of thought are compatible, that a "conceptual

realization" and a "spiritual realization" of consciousness could coexist. That being said, without falling victim to the middle ground fallacy, Functionalism seems a more practical approach. It sets out a stronger set of rules for determining whether something is conscious, whereas with dualism we're left with the difficulty of determining what things possess a "spiritual substance." Functionalism has some strong ethical implications as well. If aliens visited us, would you rather them be functionalists or dualists? After all, as much as we would love to be special, isn't it more important to treat everything as conscious when in doubt?

Works Cited

Books:

Lyons, William E. *Matters of the Mind*. Routledge, 2001.

Journals:

Dendy, Arthur. "The Pineal Gland." *Science Progress in the Twentieth Century*, vol. 2, no. 6, 1907, pp. 284-306. *JSTOR*.

Fodor, Jerry A. "The Mind-Body Problem." *Scientific American*, vol. 244, no. 1, 1981, pp. 114-123. *JSTOR*.

Seager, W. "Functionalism, Qualia and Causation." *Mind*, vol. 92, no. 366, 1983, pp. 174-188. *JSTOR*.

Searle, John R. "Is the Brain's Mind a Computer Program?" *Scientific American*, vol. 262, no. 1, 1990, pp. 25-31. *JSTOR*.

Tollefsen, Deborah. "Princess Elisabeth and the Problem of Mind-Body Interaction." *Hypatia*, vol. 14, no. 3, 1999, pp. 59-77. *JSTOR*.

Websites:

Bennett, Jonathan. "Correspondence between Descartes and Princess Elisabeth." *Early Modern Texts*, 2009, https://www.earlymoderntexts.com/assets/pdfs/descartes1643_1.pdf. Accessed 5 October 2022.