

Critical analysis of the Cartesian model of dualism

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Abstract: Given dualism, this study would address questions as how is the mind related to the body? Is there a causal connection between mind and body? Can there be a ground for the dualistic supposition that mind survives the disintegration of body? If the mind is governed by the same laws that govern the body, does this lead to the determinism regarding which notions of freedom of will, choice, merit and responsibility become meaningless? The essay will also be dealing with the problems left by the Cartesian dualism such as the problem of the interaction between mind and body, the problem of the existence of the other minds and the problem of solipsism. The fundamental notions of cogito, interactionism and the existence of other minds will be analyzed and evaluated from the viewpoints of Ludwig Wittgenstein, Gilbert Ryle and John Searle.

Key words: Mind; Cogito; Dualism; Intuition; Deduction

1. Introduction

In Aristotle's view, accordingly, the psyche or the soul in a wider sense constitutes the form of all living beings. On this view what makes human soul distinct from the soul of other living beings is that human soul encompasses not only the lower forms of soul, namely, the nutritive and the sensitive faculties, but also the rational or intellective faculty as well. The intellective soul has the power of rational activities, that is, man is a being who is capable of reflecting, reasoning and being involved in scientific thought. Man has the capacity of distinguishing between different kinds of things and also the understanding of the relationships of things to each other.

Human soul, nonetheless, according to Aristotle, is inseparable from his body. Apart from the body, the human soul can have no existence. The body and the soul form one and the same substance whose "matter" is body and whose "form" is the soul. Thus, Aristotle sharply disagrees with Plato's doctrine of the preexistence of the soul. While Plato takes the body as the prison of the soul and speaks of the immortality of the human soul, Aristotle considers the body and the soul as two aspects of the same single unity so that with the destruction of the body the soul also ceases to exist.

Although there is a kind of inconsistency in Aristotle's explanation of the human soul when he remains uncertain whether some parts of the soul is separable from his body, the way he preserves the unity of "matter" and the "form" as the single inseparable substance, he avoids the complicated problem of the interaction between body and the soul. On this view all the rational activities of the human soul such as thinking, reasoning, and being

involved in abstract contemplation can be accounted for by physical processes. This paves the way for many of Aristotle's successors to develop a completely materialistic account of reality including the nature of human soul.

1.1. A historical background

In ancient Greece, the philosophers who were concerned with mental aspects of human life mostly used the word "psyche" which is now generally translated into the word soul. In his *treatise, On The Soul*, Aristotle (384-323 BCE) took the word *psyche* or *soul* in a very broad sense of being alive by which all animals and even plants were included. All living being possessed souls which was the "principle of life" by which living beings are distinguished from the inanimate beings.

Aristotle believed in three types of soul, namely, the nutritive, sensitive, and rational or intellective souls and he held that they represent various types of activities, the first being simply the act of living, the second both living and sensing, and third a body that includes living, sensing, and thinking. Of these three types of faculties it is only the rational or the intellective that should be identified with mind because this is the capacity which is capable of reflecting, reasoning and being involved in abstract thought. Aristotle writes:

Turning now to the part of the soul with which the soul knows and thinks (whether this is separable from the others in definition only, or spatially as well) we have to inquire (1) what differentiates this part, and (2) how thinking can take place. If thinking is like perceiving, it must be either a process in which the soul is acted upon by what is capable of being thought, or a process different from but analogous to that. The thinking part of the soul must

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therefore be, while impassible, capable of receiving the form of an object; that is, must be potentially identical in character with its object without being the object. Mind must be related to what is thinkable, as sense is to what is sensible (Beakley, 2007). Thus, according to Aristotle, only human being possesses the capacity of being intellective, although his soul shared with those of plants and animals the capacity for self-nutrition and with animals the capacity of movement and perception.

Aristotle maintained that each substance in the universe consists of a "matter" and a "form" so that it can be what it is. In other words everything in the world is a "matter" which has taken a particular "form". He gives the example of an axe which is called a substance in his terminology. This substance is made out of wood and metal combined in a particular form which makes it capable of fulfilling the particular function of an axe. The soul and matter are not two separate things but are rather the matter and form of a single unity. Without the matter and the form a thing would not be what it is. A piece of metal and a piece of wood won't make an axe until and unless they are put together in an appropriate form; but obviously without the matter, the soul also cannot exist anymore that there can be vision without an eye. Aristotle's argument is this:

We have now given an answer to the question, what is soul?—an answer which applies to it in its full extent. It is substance in the sense which corresponds to the definitive formula of a thing's essence. That means that it is "the essential whatness" of a body of the character just assigned.... Suppose that the eye were an animal—sight would have been its soul, for sight is the substance, or *essence*, of the eye which corresponds to the formula, the eye being merely the matter of seeing; when seeing is removed the eye is no longer an eye, except in name – it is no more a real eye than the eye of a statue or of a painted figure. We must now extend out consideration from the "parts" to the whole living body; for what the departmental sense is to the bodily part which is its organ that the whole faculty of sense is to the whole sensitive body as such (ibid., p. 24).

1.3. Descartes' dualism

Rene Descartes (1596-1650) who is generally believed to be the father of the modern philosophy set the agenda for the modern philosophy of mind. He combined the common sense view of the human nature with that of the modern scientific world view and systematically elaborated a dualistic view of the human nature which has dominated a great deal of discourses about mind since his time. In this sense the influence of Descartes philosophy of mind was so great that we can consider the history of philosophy since Descartes as a succession of reactions against his work.

To understand Descartes' view of mind, it is necessary to get a clear view of the very foundation of his philosophy. Being very strongly influenced by

certainty and the precision of the abstract mathematical thought, Descartes aimed at creating a new framework of reflecting about the universe that would provide him a true edifice of knowledge with the exactness and the precision of mathematics. To do this, he set out to build his whole system upon the foundation of what he called his inner experience or an intuition and deduction. For Descartes intuition and deduction are the most certain sources of genuine knowledge and any other way of getting knowledge is rejected as suspect and dangerous.

For Descartes the very first certain route to acquire knowledge is intuition. It is difficult to draw a borderline between Descartes' intuitive ideas and the innate ideas or the truths which preexist in the mind. These are the truths which we are deriving them from no other sources than certain germs of truth which exist naturally in our souls.

Descartes gives no clear examples of what the so-called innate ideas are, but he clearly takes intuition as the source of all the intellectual activities of such clarity that they leave no doubt in the mind. According to Descartes therefore, first principles are given by intuition. These truths are simple, basic and irreducible, while the remote conclusions are furnished by deduction. The deductive ideas are not simple and irreducible ideas. Deduction is a process and it shows the relations of truths to each other.

The first basic, simple, and irreducible idea which Descartes immediately grasps by intuition is the notion of self which leaves no doubt in his mind. Descartes says that although he can doubt that his body exists, or that he is awake, or that he is being deceived, one thing remains about which he can have no doubt at all, that he thinks. He holds that to doubt is to think, but "Immediately afterwards I noticed that whilst I thus wished to think all things false, it was absolutely essential that the "I" who thought this should be somewhat, and remarking that this truth '*I think, therefore I am*' was so certain and so assured that all the most extravagant suppositions brought forward by the skeptics were incapable of shaking it, I came to the conclusion that I could receive it without scruple as the first principle of the philosophy for which I was seeking" (Descartes, 2003).

Descartes' conclusion of *Cogito ergo sum* was that whatever he could doubt, he could not doubt his own self as a thinking being, because the very act of doubting involved in itself the thought. And it is worth mentioning here that Descartes was not the first philosopher who reached at such a conclusion. St. Augustine (354 A.D.) had brought about this conclusion in his *De Trinitate, Book x*, arguing that *Si fallor, sum* – in order for me to be deceived and in error, I must exist (Thompson, 2003).

For Descartes *cogito ergo sum* meant that he could clearly and distinctly conceive his own existence: "But what then am I? It is a thing which doubts, understands, affirms, denies, wills, refuses, and which also imagines and feels." (Descartes, 2003, 75) What Descartes assumes is that because of the *cogito*, there must be a thinker, a thing which thinks.

But this "thing" is not the corporeal body, because "I knew that I was a substance the whole nature of which is to think, and for its existence no place is needed, and it does not depend on any corporeal thing" (ibid., p. 73).

Descartes obviously accepts the Aristotelian notion that the world consists of substances and these substances have particular attributes or properties. He maintains that we know each substance by its particular attribute, and since we clearly and distinctly know two totally different attributes, namely, thought and extension, there must be two completely different substances, the corporeal and the incorporeal, body and mind. To quote Descartes:

Examining attentively that which I was, I saw that I could conceive that I had no body, and that there was neither world nor place I might be; but yet that I could not for all that conceive that I was not. On the contrary, I saw from the very fact that I thought of doubting the truth of other things, it very evidently and certainly followed that I was; on the other hand if I had only ceased from thinking, even if all the rest of what I had ever imagined had really existed, I should have no reason for thinking that I had existed. From that I knew that I was a substance the whole

essence or nature of which is to think, and that for its existence there is no need of any place, nor does it depend on any material thing; so that this 'me,' that is to say, the soul by which I am what I am, is entirely distinct from body, and is even more easy to know than is the latter; and even if the body were not, the soul would not cease to be what it is (ibid., p. 23). For Descartes the essence of the physical substance is extension. He says that all physical bodies are extended in space. Spatial extension is the essence of the physical world. The physical extended bodies are known by their properties like length, height, mass, motion, and spatial location, and they are composed of purely physical parts – molecules, atoms and subatomic particles – and governed by the laws of physics.

But, besides this physical world there is another entity and that is mental substance. And the essence of this mental substance is thinking. This thinking substance or mind, by contrast, is devoid of any shape, length, mass and location in space, and governed by rational power rather than the laws of physics. John Searle summarizes Descartes account of the relationship between mind and body in the Table 1 (Searle, 2004).

Table 1: relationship between mind and body

		Substances	
		Mind	Body
Essence		Thinking (consciousness)	Extension(having spatial dimensions)
		known directly	known indirectly
Properties		Free	Determined
		Indivisible	Infinitely divisible
		Indestructible	Destructible

Since Descartes defines each substance as an existent thing which requires nothing but itself to exist, he thinks of each substance as totally different and independent of the other. If we want to know anything about the mind, we don't need to make any reference to the body and the body also can be understood without any reference to mind.

Descartes maintained that because living entities have the property of extension, they are part of the physical world. This leads Descartes' thought to the radical notion that living entities operate according to the same mechanical laws that govern other physical things in the material world. Speaking, for example, of animals he considered them to be machines or automata. Descartes thus, radically denied attributing mental powers to animals, believing that their activities can be accounted for by mechanical consideration alone, since it is nature which acts in them according to the disposition of their organs, just as a clock, which is only composed of wheels and weights.

Comparing human body with that of animals, Descartes said that many activities of the human body are as mechanical as those of animals. The working of human body like any other physical event can be accounted for by consideration of mechanical causes. Furthermore, as the total quantity of motion

in the universe is constant, he concluded that the movement of the human body could not originate in the human mind or soul; the soul could only alter the direction of the motion in certain elements or parts of the body. But how the mind could do this was difficult to explain, because thought and extension were for Descartes such different and separate substances. He said that the soul does not move the various parts of the body directly but, having "its principle seat in the brain," in the *pineal gland* it interacts with the body.

In Descartes view then, our minds as non-extended entities are indivisible; there is no way that we can divide our minds into different parts whereas our physical bodies as any other physical being are divisible. And the important consequence of this is that our minds are indestructible; bodies can be destroyed, but the mind or the soul cannot be destroyed by physical forces because it is not a part of the physical universe. Descartes writes:

I here say, in the first place, that there is a great difference between mind and body, inasmuch as body is by nature always divisible, and the mind is entirely indivisible. For, as a matter of fact, when I consider the mind, that is to say, myself inasmuch as I am only a thinking thing, I cannot distinguish in myself any parts, but apprehend myself to be clearly

one and entire; and although the whole mind seems to be united to the whole body, yet if a foot, or an arm, or some other part, is separated from my body, I am aware that nothing has been taken away from my mind. And the faculties of willing, feeling, conceiving, etc. cannot be properly speaking said to be its parts, for it is one and the same mind which employs itself in willing and in feeling and understanding. (Descartes, 2003, 118)

There is still one more aspect of *cogito ergo sum* which is inferred from that and that is each of us possess a kind of inner awareness, that each of us knows with certainty what is going on within himself by a kind of inner and immediate self-awareness. We know with certainty about the contents of our minds by the act of *cogito*, by the act of I think.

2. The analytic philosophy vis-à-vis the Cartesian model of dualism

Taking into consideration all the aspects of Descartes' *cogito*, we know now three consequences of the mind as a conscious entity, as a thinking being: the mind is eternal or immortal; there is freedom of will; and that we have certain knowledge of the contents of our minds or that we are aware of what is going on in our minds. All these consequences are on the basis of Descartes' *cogito ergo sum* and they accord very well with Descartes' Christian belief. In *The Concept of Mind*, Gilbert Ryle describes the situation in Descartes' time like this:

When Galileo showed that his methods of scientific discovery were competent to provide a mechanical theory which should cover every occupant of space, Descartes found in him two conflicting motives. As a man of scientific genius he could not but endorse the claims of mechanics, yet as a religious and moral man he could not accept, as Hobbes accepted, the discouraging rider to those claims, namely that human nature differs only in degree of complexity from clockwork. The mental could not be just a variety of the mechanical. He and subsequent philosophers naturally but erroneously availed themselves of the following escape-route. Since mental-conduct words are not to be construed as signifying the occurrence of mechanical processes, they must be construed as signifying the occurrence of mechanical processes; since mechanical laws explain movements in space as the effects of other movements in space, other laws must explain some of the non-spatial workings of minds as the effects of other non-spatial workings of minds. The difference between the human behaviors which we describe as intelligent and those which we describe as unintelligent must be a difference in their causation; so, while some movements of human tongues and limbs are the effects of mechanical causes, others must be the effects of non-mechanical causes, i.e. some issue from movements of particles of matter, others from workings of the mind (Ryle, 1963).

Descartes' *cogito* obviously gave him the doctrine of eternal or immortal soul and the distinction of the mind and body also became very useful because it

paved the way for having one domain to science, the domain of physical reality and preserved another domain for religion, the domain of mental or spiritual. John Searle describes the function of the Cartesian model of dualism in the seventeenth century as follows:

In Descartes' time, in the seventeenth century, the Christian dualism was very important for a number of reasons, not the least of which being that it seemed to divide up the territory between science and religion. In the seventeenth century the new scientific discoveries seemed to pose a threat to traditional religion and there were terrific disputes about the apparent conflict between faith and reason. Descartes partly, although not entirely, diffused this conflict by, giving the material world to the scientists and the mental world to the theologians. (Searle, 2004, pp. 9-10)

This Cartesian model of dualism which is now a part of our popular culture and it is very deeply linked with the religious ideas gives rise to some fundamental and technical problems which are still with us. They form a huge part of our contemporary philosophy and cognitive science. The first problem we come across by accepting Descartes' dualism is this: if there are two completely separate realms, the mental and the physical, how are they supposed to relate to each other and how can there be a causal relation between one and the other? Gilbert Ryle puts this problem like this:

There was from the beginning felt to be a major theoretical difficulty in explaining how minds can influence and be influenced by bodies. How can a mental process, such as willing cause spatial movements like the movements of the tongue? How can a physical change in the optic nerve have among its effects a mind's perception of a flash of light? This notorious crux by itself shows the logical mould into which Descartes pressed his theory of the mind. It was the self-same mould into which he and Galileo set their mechanics. Still unwittingly adhering to the grammar of mechanics, he tried to avert disaster by describing minds in what was merely an obverse vocabulary. The workings of minds had to be described by the mere negatives of the specific descriptions given to bodies; they are not in space, they are not motions, they are not modifications of matter, they are not accessible to public observations. Minds are not bits of clockwork; they are just bits of not-clockwork (Ryle, 1963).

We know the ways our minds affect our bodies and the ways our bodies also affect the contents of our minds. To give a few examples: when you get in love with someone (a mental state), your heart begins to beat (a bodily condition). Embarrassment causes you to blush, happiness makes you smile, and fear to tremble. These are instances of causal influence of the mind on the body. There are also many evidences of causal relations in the opposite direction: indigestion (a bodily condition) makes us irritable (a mental state), consumption of alcohol produces hallucination, some drugs make us calm, others make excited. So, as we see there seems to be

such a close causal connection between mental states and bodily conditions. How can this be explained in terms of Descartes' dualism of mind and body? The Cartesian dualism which is also referred as dualistic interactionism claims that the mind and body are distinct but there are causal influences in both directions (Wittgenstein, 1972, pp. 88-89)

3. Double aspect theory

To avoid the problems of the Cartesian style dualism, a serious attempt was made by Spinoza (1632-1677) who set out to establish a theory of mind on the basis of the doctrine of monism. He took the radical view that God and nature were one and the same substance and that the single substance which was God or nature, had the two aspects of mental and physical. "Spinoza identified God with the whole cosmos. His famous formula was *Deus Sive Nature*, God or nature, as if to say that these two words are interchangeable" (Stumpf, 1989).

Opposing Descartes' notion of dualism, Spinoza thought that it is more plausible to argue that there is a single substance that is both extended and conscious. This view which is also called 'identity theory' or 'property dualism', says that brain processes and the conscious states are just two aspects of the same phenomenon. According to property dualism, rather than having two very fundamental different substances, physical and mental, we can assume that there is a single substance with two kinds of properties. We all experience ourselves as having the two aspects of physical and mental life: as thinking, dreaming, imagining, feeling pain, making decision and so on (the 'mental' life), and as sleeping, sitting, walking, eating and so on (the bodily life). Having all these properties, according to 'property dualism', does not imply that there are two kinds of separate substances in the world, but that it is the very nature of human being that he possesses physical as well as mental properties. This very serious attempt to get rid of the problems of Cartesian dualism, especially that of the notion of the interaction between two separate and independent substances failed as it became obvious that the property dualism also inherited the serious difficulties of the Cartesian dualism. Here is how John Searle discloses the problem:

Property dualism avoids postulating a separate mental substance, but it inherits some of the difficulties of substance dualism. What are the relationships between the mental and the physical supposed to be? How is it that physical events can ever cause mental properties? And there is a particular problem that property dualists seem to be beset with, and that is the problem of how the mental properties, granted that they exist, can ever function causally to produce anything (Searle, 2004).

4. Epiphenomenalism

The attempt to get rid of the complicated problem of interaction between mind and body leads to another approach known as epiphenomenalism. Epiphenomenalism is the doctrine according to which the events in the body cause mental events, but mental events do not cause physical ones, nor do they give rise to other mental ones. This approach maintains that mind is in fact the natural by-product of a complex brain and nervous system. The various things that I think about are only epiphenomena. They are caused by the electrical impulses that move between brain cells, but they are not actually part of those physical phenomena – they are 'above' (epi-) those phenomena. Our various experiences and desires, according to the doctrine of epiphenomenalism, do not have the least possible effect on our physical behavior; the cause of our physical behavior is also the physical and unconscious brain processes. Although this approach may sound appealing as it avoids the problem of interaction between mind and body and it does not appeal to the existence of God or any metaphysical explanation as the notion of occasionalism or the doctrine of parallelism or pre-established harmony, but it still remains to be unconvincing as it obviously does not accord with our common sense experiences. To interpret our conscious mental activities, whatever their true nature is, as the by-product of the unconscious physical processes cannot be very convincing. In any physical activity what we clearly and distinctly experience is that our desires and decisions always precede our actions. And our mental states always seem to be causally responsible for our actions. John Searle puts forward a series of challenging questions against the notion of epiphenomenalism. His objection against epiphenomenalism is this:

How could mental states play any causal role in determining physical events when they are not themselves physical? If we assume, as it seems we must, that the physical universe is causally closed, in the sense that nothing outside it could have any effects inside; and if consciousness is not part of the physical universe, then it would seem to follow that consciousness can have no effect in the physical universe (Searle, 2004).

5. Conclusion

The big problem faced by Descartes and his followers was that without some point of interaction there was no way of explaining how a non-extended mind can cause even the slightest movement in a physical body. How a mental event (e.g. willing something) can have physical results (e.g. scratching my nose)? Thus, there seems to be a huge gap between phenomena as different as mental events such as volitions on the one hand and physical events on the other. Moreover, the Cartesian notion of interactionism seems to be in conflict with the law of the Conservation of Energy according to which the amount of energy in the world is always constant.

This principle says that energy can neither be created nor destroyed. But, whenever the Cartesian interaction takes place and the mind affects the body, energy would be gained because Descartes' incorporeal substance which is not located in a place in the physical world would bring some energy into the physical world, and when the body affects the mind, obviously some energy would be lost because the mind would take some energy out of the physical world. Either way, by this interaction the amount of energy in the physical world would not be constant. We should in all such cases have exceptions to the law of Conservation of Energy. There is, however, no evidence that such violations of the principle takes place.

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