

PSYCHO-PHYSICAL UNION: THE PROBLEM OF THE INTERACTION IN THE CARTESIAN PROGRAMME

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Abstract: In the contemporary philosophy of mind, the term Cartesian dualism is generally accepted to refer to Descartes' doctrine of the incorporeality of the mind. Due to the dualistic ontology, a human being is a union of two independent alien substances, namely mind and body. The body, as a part of the mechanical universe, is an entirely physical and thereby extended substance (*res extensa*). For this reason, the workings of the human body can be explained in merely physical and mechanical terms, that is, the laws of matter in motion. However, the mind is entirely a non-corporeal and therefore unextended thinking substance (*res cogitans*). The most apparent problem with such dualistic philosophy of mind arises from its immateriality. The idea of the "immateriality" of the mind inevitably brought about the problem of 'unity' between mind and body and that of the 'interaction' between them. The purpose of this article, as distinct from the dualistic thesis, is to provide a critical evaluation of the Cartesian doctrine of the essential 'union' of the mind and body and especially the nature of psychophysical interaction.

Key Words: Substantial Union, Causal Link, Sensation, Imagination, Analogy of Gravity and Pineal Gland.

Özet: Çağdaş zihin felsefesinde Kartezyen Düalizm genellikle Descartes'in zihnin maddi bir şey olmadığı tezine işaret eden bir terim olarak kabul edilmiştir. Kartezyen ontoloji yalnızca iki tür töze izin verdiğinden, insan da

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sonuçta tamamen iki bağımsız, yabancı tözün birleşiminden oluşan bir varlıktır. Onun bir parçası olan beden, mekanik dünyanın bir parçası olarak, bütünüyle maddi ve yayılımlı olan (res extensa) bir tözdür. Bu yüzden, insan bedeninin işleyişi yalnızca fiziksel ve mekanik terimlerle, yani hareket halindeki maddenin yasaları ile açıklanabilir. Oysa zihin bütünüyle maddi olmayan ve bu yüzden de uzamsız düşünen (res cogitans) bir tözdür. Böyle düalist zihin felsefesine ilişkin en belirgin sorun, onun, yani zihnin maddi olmayan bir şey olmasından kaynaklanır. Zihnin maddi bir şey olmadığı fikri ise kaçınılmaz olarak zihin ile beden arasındaki ‘birlik’ ve ‘etkileşim’ problemini de beraberinde getirmiştir. Bu makalenin amacı, düalist tezlerin aksine, zihin ile bedenin zorunlu ‘birliği’ ve özellikle psikofiziksel etkileşimlerin doğasına ilişkin Kartezyen iddiaları eleştirel bir yaklaşımla ele alınıp değerlendirmektir.

Anahtar Kelimeler: Tözsel Birlik, Nedensel Bağlantı, Duyumlama, Hayalgücü, Yerçekimi Analogisi ve Epifiz Bezi.

Introduction

In his philosophical masterpiece, *the Meditations on First Philosophy*, written in Latin and published in Paris in 1641, Descartes essentially relies on the testimony of his reason alone.¹ On this basis, he argues that “he is in the strict sense only a thing that thinks (*res cogitans*), that is, a mind or intelligence, or intellect, or reason.”²In principle, a thinking thing is capable of pondering over its own nature and existence. The existence of the rational soul and the use of language clearly separate thinking beings from all other living beings. In the *Discourse on the Method*, appeared first at Leiden in 1637, Descartes goes on to argue that “I am a substance whose whole essence or nature is simply to think, and which does not require any place, or depend on any material thing in order to exist. And this ‘I’ - that is, the soul by which I am what I am - is entirely distinct from the body... and would not fail to be whatever it is, even if the body did not exist”³. Surely, in this picture, man, as a self-conscious and language-using being, is an *ens per accidens*. In other words, a human being is a compound of two diverse substances, but not an essential unity in its own right. That being said, as a vocal proponent of Cartesianism, Henricus Regius (1598-1679), Professor of Medicine at the University of Utrecht, interpreted the Cartesian philosophy of mind as claiming that the mind and body unification is *ens per accidens*. That means that the human soul, a thinking thing, is incidentally connected with the body in the course of man’s terrestrial life.

¹ In this paper, AT refers to Charles Adam and Paul Tannery, eds., *Oeuvres de Descartes*. CSM refers to John Cottingham, Robert Stoothoff, and Dugald Murdoch, eds. and trans., *The Philosophical Writings of Descartes*. CSMK refers to Volume 3 of the preceding, by the same translators and Anthony Kenny. CB refers to John Cottingham, trans., *Descartes’ Conversation with Burman*. K refers to Anthony Kenny, ed. and trans., *Descartes: Philosophical Letters*. Other works are given as follows: the author’s name, the publication title, and page numbers. For detailed information about the works, see the bibliography.

² Descartes, (AT VII 27: CSM II 18).

³ Descartes, (AT VI 33: CSM I 127).

However, perhaps not to provoke the followers of Aristotle, Descartes was unwilling to put the matter in this manner. He suggests his disciple Regius to present the issue as follows: “In public and in private, you should give out that you believe that a human being is a true *ens per se*, and not an *ens per accidens*, and that the mind is united in a real and substantial manner to the body”⁴. He believes that, in connection with the mind-body relationship, a human being differs from an angel, traditionally conceived to be a spirit, an incorporeal being. The philosopher continues to argue that “You could do so, however, as I did in my *Metaphysics*, by saying that we perceive that sensations such as pain are not pure thoughts of a mind distinct from a body, but confused perceptions of a mind really united to a body. For if an angel were in a human body, he would not have sensations as we do, but would simply perceive the motions which are caused by external objects, and in this way would differ from a real man...”⁵

Strictly speaking, the philosopher claims that our everyday experiences like seeing, hearing, feeling hungry, experiencing pain and the like evidently testify to the fact that we are very much *embodied creatures*. In a word, the facts of our ordinary experience, like hunger, thirst, pleasure and pain testify to our embodied nature as humans, that is to say, the union of mind and body⁶. The activities derived from the powers of sensation and imagination constitute crucial evidence for the ‘substantial union’ between the human soul and body.⁷

2. The Intimate Union of our Mind with the Body:

As Descartes himself acknowledged, dualism actually confronts considerable difficulties arising from the “immateriality” of soul. The most

⁴Descartes, (AT III 493: CSMK 206).

⁵ Descartes, (AT III 493: CSMK 206); Cottingham, A Descartes Dictionary, 13.

⁶Descartes, (AT VII 81: CSM II 56).

⁷ Cottingham, Descartes, 122-126.

important of these is the problem of “interaction” between mind (*res cogitans*) and body (*res extensa*). In spite of his dualistic ontology, Descartes appears to acknowledge that there is a substantial union between the two alien substances. For our embodied nature as humans are testified by the facts of our ordinary experience.⁸ We evidently know from our everyday experience that there is a reciprocal influence or mutual dependence between physical and mental events. In other words, mind and body do not act in complete separation, but closely interconnect with each other. On the face of it, a physical experience can cause a mental one. For example, when someone’s blood is taken from his body, he begins to desire to eat sugar and drink more water. On the other hand, a mental experience can cause a physical change. For instance, if someone desires to drive a car, his feet move his body to the car and his hands open the car’s door.

Descartes sometimes appears to suggest the idea that the mind is in some way diffused throughout the body.⁹ Nevertheless, this implies the idea that the mind has some kind of extension. Without doubt, such a feature is openly denied by the Cartesian dualistic theory of the mind. In this regard, in the *Passions of the Soul*, published in 1649 and dedicated to Princess Elisabeth of Bohemia, Descartes claims that the soul, whose sole essence is to think, “must be of such a nature that it has no relation to extension, or to the dimensions or other properties of the matter of which the body is composed: it is related solely to the whole assemblage of the body’s organs.”¹⁰

Seemingly, Descartes recognized a close relationship between mind and body, since he was influenced by the scientific evidence and common-sense. He wrote to Princess Elisabeth of Bohemia (1618–1680) “There are

⁸ B. Williams, Descartes, 278-281

⁹ Descartes, (AT VII 442: CSM II 298).

¹⁰ Descartes, (AT XI 351: CSM I 339).

two facts about the human soul on which depend all the things we can know of its nature. The first is that it thinks, the second is that it is united to the body, and can act and be acted upon along with it.”¹¹

During his philosophical interview with Descartes, the young Dutchman Frans Burman (1628-1679) put forward this main question; “How can the soul be affected by the body and vice versa when their natures are completely different?”¹² The philosopher replied to him as follows: “This is very difficult to explain, but here our experience is sufficient, since it is so clear on this point that it cannot be gainsaid”¹³

Henricus Regius, as mentioned above, interpreted the Cartesian philosophy of mind as claiming that man is *ens per accidens*, that is to say a human being is composed of two independent alien substances, but not a true entity in its own right. But Descartes tried to distance himself from Regius’ interpretation by claiming that man is an *ens per se* (an entity in its own right). This essentially means that “the human mind is united in a real and substantial manner to the body.”¹⁴ The substantial union of mind and body constitutes a true human being. In doing so, he possibly hoped to avoid the wrath of scholastic philosophers, who were partisans of Aristotle. The unity or intimacy of the mind and body under consideration is explained in terms of our everyday sensory experiences. The proof for our embodied nature from the perceptions of imagination and sensation appears in the Sixth Meditation, where the philosopher states:

Nature also teaches me, by these sensations of pain, hunger, thirst and so on, that I am not merely present in my body as a sailor is present in a ship, but that I am very closely joined and, as it were, intermingled with it,

¹¹ Descartes, (AT III 664: K 137).

¹² Descartes, (AT V 163: CB 28).

¹³ Ibid.

¹⁴ Descartes, (AT III 493: CSMK 206).

so that I and the body form a unit. If this were not so, I, who am nothing but a thinking thing, would not feel pain when the body was hurt, but would perceive the damage purely by the intellect, just as a sailor perceives by sight if anything in his ship is broken.¹⁵

Indeed, in the Cartesian system, one can observe an unyielding contrariety between mind and body, from whose accidental unification the human being emerged. However, as clearly apparent in the passage above, in the Cartesian scheme, it is equally possible to discover the idea of the substantial unity of mind and body. Actually, at this point, it is important to acknowledge that these different findings result from the operations of different cognitive faculties. It is the activity of the pure reason that testifies to the radical disparity between mind and body. Nevertheless, it is the operation of the senses which provides evidence for the intimate and substantial union of mind with the body. This may be an inconsistency, but both sides which are legitimate. In Part One of the *Principles*, Descartes, as the first consideration, divides all the facts into two categories:

But I recognise only two ultimate classes of things: first, intellectual or thinking things, i.e. those which pertain to mind or thinking substance; and secondly, material things, i.e. those which pertain to extended substance or body. Perception, volition and all the modes both of perceiving and of willing are referred to thinking substance; while to extended substance belong size (that is, extension in length, breadth and depth), shape, motion, position, divisibility of component parts and the like.¹⁶

Immediately then, the philosopher goes on to say that there is a 'special' mode of consciousness, that is, imaginary and sensory perceptions which provide corroboration for the apprehension of mind-body unification:

¹⁵ Descartes, (AT VII 81: CSM II 56).

¹⁶ Descartes, (AT VIII A 23: CSM I 208-9).

But we also experience within ourselves certain other things which must *not be referred either to the mind alone or to the body alone*. These arise ... from *the close and intimate union of our mind with the body*. This list includes, first, appetites like hunger and thirst; secondly, the emotions or passions of the mind which do not consist of thought alone, such as the emotions of anger, joy, sadness and love; and finally, all the sensations, such as those of pain, pleasure, light, colours, sounds, smells, tastes, heat, hardness and the other tactile qualities.¹⁷

It is clear from the context of this passage that the nature of our sensory experience provides evidence for the unity of man. For our sensory perceptions like pain, pleasure, hunger, thirst, smell, taste and others of a similar kind are nothing more than just “confused modes of thinking which arise from the union and, as it were, intermingling of mind and body”.¹⁸ These sensory experiences necessitate the existence of the substantial union of mind and body. And this unity constitutes a true human being.

Moreover, in Part Six of the *Discourse*, we are once more informed that it is through our sensory experiences like pain, hunger, and thirst that we are aware of our nature as a mind-body unity. In this passage, the philosopher argues that human body cannot simply be compared to the ship since the mind is ‘very closely joined and intermingled’ with the body, so that we are capable of perceiving all sensory information in the body. In contrast, the helmsman only perceives his ship as an external object.¹⁹ Thus, we can conceive the intimate union of our mind with the body in terms of the

¹⁷ Descartes, (AT VIII A 23: CSM I 209).

¹⁸ Descartes, (AT VII 81: CSM II 56).

¹⁹ Descartes, (AT VI 59: CSM I 141).

everyday experience, ‘the ordinary course of life and conversation’ without referring to the mediation of pure reason.²⁰

Furthermore, in the Sixth Set of Replies, Descartes has no hesitation in arguing that only the human being is a real mind-bodyunification. There, he presents two different analogies in order to make more plausible the concept of mind-body union, and thus convince his critics on this issue. First, the analogy from the bones and flesh appears as follows:

When they [i.e., a thinking thing and an extended thing] are said to be ‘one and the same’ is this not rather in respect of unity of composition, in so far as they are found in the same man, just as bones and flesh are found in the same animal? The latter view is the one I maintain, since I observe a distinction or difference in every respect between the nature of an extended thing and that of thinking thing, which is no less than that to be found between bones and flesh.²¹

Second, we observe Descartes’ reference to the analogy of the union between a man and his clothes. The human being, that is, the mind-body unification is a substance in itself in the same way as “clothing, regarded in itself, is a substance, even though when referred to the man who wears it, it is a quality”²²

In the Sixth Reply, Descartes also tried to provide evidence for the existence of the soul inside the body by appealing to qualities such as gravity or heaviness which are claimed to exist coextensively within the objects. He says that “Gravity, while remaining coextensive with the heavy body, could exercise all its force in any one part of the body; ...This is exactly the way in which I now understand the mind to be coextensive with

²⁰ Descartes, (AT III 692: CSMK 227).

²¹ Descartes, (AT VII 424: CSM II 286).

²² Descartes, (AT VII 441: CSM II 297).

the body – the whole mind in the whole body and the whole mind in any one of its parts.”²³

Unfortunately, this analogy does not seem to solve the problem of interaction, and Descartes becomes more obscure. For, it remains to be explained of what he means by the word ‘coextensive’ here. Does he just mean that the soul can affect or be affected by any part of the body? Or does he mean by ‘coextensive’ that the soul is an extended thing? If so, it contradicts his definition of the soul as an unextended thing. Moreover, why should one compare the soul with qualities like gravity or heaviness in order to give an account of the existence of the soul or mind? The comparison is a peculiar one since qualities like gravity or heaviness do not contain any mental attributes (e.g. thinking, understanding, imagining etc.). Therefore, if soul is a substance, then it must be explained in its own manner, not by appealing to the some qualities, which matter has. Descartes himself does not seem to accept ‘gravity’ or ‘heaviness’ as real qualities in his physics. Hence, how can he explain the existence of soul by appealing to them?

3. The Seat of the Soul:the *Conarion*, or Pineal Gland

How does an immaterial mind act on the body, or vice versa? Where must the soul as incorporeal and indivisible substance be located in the body in order to exercise its function? Despite the mystery of psycho-physical causal interaction within the Cartesian system, in the *Passions of the Soul*, Descartes suggests one particular part of the brain where causal interaction between mind and body takes place. Now let us turn our attention to this special part of the body, that is, the pineal gland or *conation*. It has special prominence, as the seat of the soul, for the Cartesian physiological mechanisms of the relation between mind and body.He wrote that “...the soul directly exercises its functions...in the innermost part of the brain,

²³ Descartes, (AT VII 442: CSM II 298).

which is a certain very small gland situated in the middle of the brain's substance."²⁴

Moreover, it is worth pointing out that in the Sixth Meditation Descartes claims that "the mind is not immediately affected by all parts of the body, but only the brain, or perhaps just by one small part of the brain."²⁵ In this assertion Descartes basically relies on the experimental and observational facts about the nature of the mind rather than *a priori* ones.

On the basis of his observations, the picture Descartes draws is that the interaction or interconnection between mind and body took place in a specific section of the brain, namely, the *pineal gland* or the *conarion*.²⁶ And this gland is particularly located at the innermost part of the central nervous system or brain, where the soul directly performs its functions. It would be better to say that the soul directly moves in the pineal gland, and thereby affects the *animal spirits*, which are the medium for the transmission of information throughout the nervous system. The soul is able to have a single perception or thought in this particular place by having binomial facts coming from sense organs. Thus, it is clear that the 'principal of the soul' is this particular gland, because it is the only part of the central nervous system or brain which is not duplicated. He writes:

Apart from this gland, there cannot be any other place in the whole body where the soul directly exercises its functions. I am convinced of this by the observation that all other parts of our brain are double, as also all the organs of our external senses – eyes, hands, ears, and so on. But in so far as we have only one simple thought about a given object at any one time, there must necessarily be some place where the two images coming through the

²⁴ Descartes, (AT XI 352: CSM I 340). For the conarium or the pineal gland, see also, Treatise on Man (AT XI 177: CSM I 106); Letter to Mersenne of 21 April 1641 (AT III 361-2: CSMK 180).

²⁵ Descartes, (AT VII 86: CSM I 59).

²⁶P. Edwards, The Encyclopaedia of Philosophy, 184-185.

two eyes, or the two impressions coming from a single object through the double organs of any other sense, can come together in a single image or impression before reaching the soul, so that they do not present to it two objects instead of one. We can easily understand that these images or the other impressions are unified in this gland by means of the [animal] spirits which fill the cavities of the brain. But they cannot exist united in this way in any other place in the body except as the result of being united in this gland.²⁷

Accordingly, it is clear that, for Descartes, the pineal gland is the brain's sense-data integrative apparatus. This particular gland is not doubled. In relation to the animal spirits, Descartes writes: “[V]ery fine parts of the blood make up the animal spirits. For them to do this the only change they need to undergo in the brain is to be separated from the other less fine parts of the blood.”²⁸ He also describes them in the *Treatise on Man* as: “A very fine wind or rather a very lively and pure flame.”²⁹

The Cartesian conception of the ‘animal spirits’ in the present state must not be confused with the Aristotelian notion of the ‘animal soul’. By ‘animal spirits’ Descartes refers to physical substances, in modern terms ‘neuro-electrical impulses’, by means of which information is transmitted from the brain to other parts of the body via the nerves, or vice versa. The philosopher describes the mechanical neural activity in the following manner: the nerves are little pipes by means of which the animal spirits, i.e. fast-moving vapour, flows to the brain, so that the brain sends the animal spirits to the muscles to inflate them and to give rise to activity in the parts of

²⁷ Descartes, (AT XI 352-3; CSM I 340).

²⁸ Descartes, (AT XI 335; CSM I 331).

²⁹ Descartes, (AT XI 129; CSM I 100).

the body.³⁰ Furthermore, Descartes makes it clear in *The Passions* what he means by the term ‘spirits’:

For what I am calling ‘spirits’ here are merely bodies: they have no property other than that of being extremely small bodies which move very quickly, like the jets of flame that come from a torch. They never stop in any place, and as some of them enter the brain’s cavities, others leave it through the pores in its substance. These pores conduct them into the nerves, and then to the muscles. In this way the animal spirits move the body in all the various ways it can be moved.³¹

Thus, Descartes believes that ‘animal spirits’ function to intervene between the two different kinds of substances. He tries to solve the problems of interaction, union, and location in terms of the pineal gland and the movements of its animal spirits. The rational soul stationed in the pineal gland alters the direction of the animal spirits. In this regard, the philosopher states: “When a rational soul is present in the [bodily] machine, it will have its principal seat in the brain, and reside there like the fountain keeper who must be stationed at the tanks to which the fountain’s pipes return, if he wants to produce, or prevent, or change, their movements in some way.”³²

At all events, Descartes’ justification does not seem to solve the perennial problem. He still needs to explain how a physical kernel, that is, the pineal gland interacts with an immaterial entity – soul or mind. According to his contemporaries, Descartes inadequately claimed that every human being can experience the nature of the interaction by possessing certain and private experiences in the brain. He was unable to explain how mind and body were united. Indeed, he replied to Princess Elizabeth’s doubt

³⁰ Descartes, (AT XI 165: CSM I 104).

³¹ Descartes, (AT XI 335: CSM I 331-2); Cottingham, *A Descartes Dictionary*, 13; idem, *Descartes*, 107.

³² Descartes, (AT XI 131: CSM I 101).

about the possibility of the mind causing anything physical by suggesting that such doubt simply expressed her own personal confusion. He advised that she devote less of her energies to philosophy.³³

4. The Notion of a Two-way Causal Flow

There is no doubt that there is a physiological transmission of impulses between brain and bodily organs via the nerves. But a philosophical puzzle at the heart of the Cartesian theory remains to be explained. According to the theory, we are supposed to believe the idea of a two-way *causal flow* between immaterial spirit and extended matter. When everyday experience is taken into consideration, it appears that bodily events can cause modifications in our consciousness; and similarly a mental change can cause bodily movements.³⁴ In fact, Descartes is well aware of the problem of two-way causal flow, and attempts to resolve it by appealing to an intermediate mechanism, as explained above. The soul directly interacts with the pineal gland, which respectively produce movements in the nerves connected to the limbs of the human body. Once movements are given a start in the pineal gland, they can be carried to other parts of the body. But Descartes still has to explain *how* an immaterial soul can cause such activities in the beginning. Likewise, bodily stimuli cause changes in the nervous system which encourage the soul to feel emotions like pain, anger, fear or happiness. Once again Descartes does not efficiently explain *how* brain events could have the capability to awaken physiological occurrences in the intellectual or psychological realm. Descartes was well informed about the fact that this strange notion like pineal gland would hardly provide a solution to the problem of psycho-physical causation.³⁵

³³ Descartes, (AT III 690 ff.: K, 140 ff).

³⁴ See G. Hatfield, "Descartes' physiology and its relation to his psychology, in *The Cambridge Companion to Descartes*, 349-350.

³⁵ For an argument against Cartesian Dualism (i.e., the problem of its lack of explanatory power), see P. Churchland, *Matter and Consciousness*, 18.

For all that, within the Cartesian picture it is very difficult to understand and even more difficult to explain how this causal interaction is possible. Here, let us remember Descartes' *Causal adequacy principle*. In the Third Meditation, this principle is stated as follows: "Now it is manifest by the natural light that there must be at least as much <reality> in the efficient and total cause as in the effect of that cause." In other words, "It is just the same as the common notion *Nothing comes from nothing*."³⁶ Descartes also directs our attention to his causal principle in some other passages. For instance, the self-evident causal maxim comes in sight in the Second Set of Replies like this: "There is nothing in the effect which was not previously present in the cause, either in a similar or in a higher form."³⁷ In the same text, it is also formulated as follows: "Whatever reality or perfection there is in a thing is present either formally or eminently in its first and adequate cause."³⁸ Again, in the letter to Hyperaspistes, August 1641, Descartes writes: "There can be nothing in an effect which was not previously present in the cause."³⁹

According to experts, Descartes actually quotes approvingly the traditional maxim of the scholastics, "the effect is like the cause."⁴⁰ The slogan actually shows Descartes' loyalty to the notion of a rationally intelligible link between cause and effect. If X and Y are causally related, then there must be some intelligible (necessary) connection between them. In this regard, Cottingham writes: "If an effect has some feature *F*, than that feature cannot have come from nothing; it must have been present, in some form, in the cause. It follows from this that ... there must be some necessary connection – some link in terms of shared or common features – between

³⁶ Descartes, (AT VII 41: CSM II 28).

³⁷ Descartes (AT VII 135: CSM II 97).

³⁸ Descartes (AT VII 165: CSM II 116).

³⁹ Descartes, (AT III 428: CSMK 192); (AT III 274: CSMK 166).

⁴⁰ Descartes, (AT V 156: CSMK 340).

cause and effect”⁴¹ As a matter of fact, the principle of causation firmly declares that there is an indispensable connection between a cause and its effects. If the principle under consideration is accepted, then we have to accept that the incorporeal mind and corporeal body have some common features. The mind can give rise to changes in the body, and vice versa, if and only if they share *similar* features. However, this is surely inconsistent with the Cartesian doctrine of dualistic ontology in which mind and body are conceived to be different substances.⁴² Thus, it appears that the causal maxim cannot be inapplicable to the case of mind-body relationship.

In that case, the relation between physical events and mental events is not essential, but completely ‘contingent’ or ‘arbitrary’. It would be better to say that Descartes has to acknowledge the fact that there is no intelligible or necessary connection between a certain type of movement in the brain and a certain type of sensation. A certain type of sensation (like pain) is caused by a particular type of movement in the pineal gland. But events might have been distinct. In connection with this matter, Descartes writes:

“It is true that God could have made the nature of man such that this particular motion in the brain indicated something else to the mind; it might, for example, have made the mind aware of the actual motion occurring in the brain, or in the foot, or in any of the intermediate regions; or it might have indicated something else entirely. But there is nothing else which would have been so conducive to the continued well-being of the body. In the same way, when we need drink, there arises a certain dryness in the throat; this sets in motion the nerves of the throat, which in turn move the inner parts of the brain. This motion produces in the mind a sensation of thirst, because the most useful thing for us to know about the whole business

⁴¹ Cottingham, *The Rationalists*, 81-82.

⁴² For the rejection of the Two-Worlds view, see G. Ryle, *The Concept of Mind*, 13-17.

is that we need drink in order to stay healthy. And so it is in the other cases."⁴³

Despite of a determinist or mechanist approach, Descartes appears to take the line of an occasionalist solution. God's decrees is specially required to explain why such and such sensations follow on such and such brain events⁴⁴. This means that only a divine ordinance can bridge the gulf between the purely physical events in the brain, and the conscious experiences of the perceiving mind or soul. This 'occasionalist' theme is strongly developed by his disciple Nicolas Malebranche (1638-1715). For Malebranche, mental and physical events have nothing to do with one another. Whenever anything happens in one realm, the Devine Being makes something corresponding occur in the other realm. The events in one realm are not the *causes* of events in the other realm. Rather, they are only the *occasions* of God's actions.⁴⁵

5. Conclusion

To sum up, as far as the status of a human being is concerned, an evident paradox still lies at the heart of the Cartesian philosophy of mind. For Descartes, on the one hand, continued to argue that there are two kinds of substance, a pure incorporeal spirit or mind (*res cogitans*) and body (a certain configuration of limbs and other accidents of this sort), whose composition or unification makes up the human being. Clearly, such a dualistic approach, as we explained, does not conceive the human being as an essential unity but rather a mixture of two different things. For the Cartesian meditator reflects upon himself, and his 'reason' tells him that the biological body and its faculties are completely alien and irrelevant to his

⁴³ Descartes, (AT VII. 88: CSM II 60-61).

⁴⁴ Cottingham, *The Rationalists*, 127.

⁴⁵ Malebranche, *The Search after Truth*, 338; R. Popkin, *Philosophy Made Simple*, 101-102.

essence as a conscious being. Through metaphysical reflection the meditator realises that his essence is alone the soul or mind, that is the ‘thinking thing’ entirely immaterial and thereby essentially distinct from the body.⁴⁶

However, on the other hand, if we leave the meditator’s metaphysical mental self-reflection aside, the ordinary, non-philosophical person through his ordinary everyday experience, as we saw, realises the quite opposite thing that he is an organic unity (i.e., the outcome of the substantial unity of mind and body). Undoubtedly, this conflict in the Cartesian system emerged between the mental experience (i.e. introspection) of reason and the experience of the senses. Through his metaphysical thought, Descartes regards all human attributes either as modes of thought, or as modes of extension, within his official dualistic framework. However, on the other hand, the philosopher argues that our sensory experience cannot be reduced to either category, but represents a particular and irreducible category of its own. Our everyday sensory experiences such as hunger, thirst, pleasure and pain construct a specific and distinctive body of evidence for the fact that we are embodied human beings (i.e. the unity of mind and body in the strong sense) since they are “confused modes of thinking which arise from the union and, as it were, intermingling of mind with body.”⁴⁷ Apart from such sensory experience, neither intellect nor imagination is able to testify to, or grasp, our real embodied nature -the union of the soul and the body.

In any case, the problem that is created by the metaphysical arguments of the *Mediations* still remains to be solved, i.e., how the two separate and incompatible substances can unite, and therefore constitute an embodied human being and give rise to such experiences. Indeed, it is hard to understand why Descartes first affirms the real and complete distinction

⁴⁶ Descartes, (AT VI 33: CSM I 127).

⁴⁷ Descartes, (AT VII 81: CSM II 56).

of the soul from the body, and then goes on to give an account of the intimate connection and even the substantial unity of these completely distinct substances. Although Descartes himself does not seem to be confused, one of his admirers, Princess Elizabeth was certainly confused and puzzled about this issue. That is presumably why she had asked Descartes twice about the problem.⁴⁸ In the *Meditations*, Descartes does not seem to shed much light on the union of mind and body. Rather, the Cartesian discussion here has focused mainly on the fact that the mind is a *res cogitans*. When the *Meditations* are taken into consideration, most scholars find the Cartesian notion of the union problematic. But if we consider Descartes' other writings, then the Cartesian concept of mind-body union and the interaction appear to be consistent. For Descartes, the interaction between mind and body involves a *sui generis* type of 'causation' which is not similar to a body-body type of causal relation.⁴⁹

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⁴⁸ Descartes, (AT III 663-8: CSMK 217-20); (AT III 690-5: CSMK 226-9).

⁴⁹ For an interpretation of Descartes' notion of the mind-body union in terms of causal interaction, see M. Wilson, Descartes, 219; For a valuable discussion on this issue, see also E. Chavez-Arviso, “Descartes' Interactionism and His Principle of Causality”, 959-971.

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