

A PHYSICALISTIC APPROACH TO THE EXPLANATORY GAP PROBLEM

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## **ABSTRACT**

### **A PHYSICALISTIC APPROACH TO THE EXPLANATORY GAP PROBLEM**

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A given qualitative mental experience possesses qualitative aspects, or qualia, that identify and distinguish it from other qualitative mental states. While some philosophers explained the mental phenomena by positing nonphysical kinds of entities, some others propose wholly physical explanations. Even if those physicalistic explanations of the mental shed some light on the issue of body-mind relation, Joseph Levine claims that there still exists an explanatory gap between a qualitative mental state and the physical state supposedly responsible for it, since there is no explanation of how and why a certain kind of physical state gives rise to a specific kind of quale. This thesis is an exploration of this problem and evaluation of some of the views that interpret the gap as either ontological or epistemological in order to find out whether the gap is compatible with physicalism or not. The focus is on the Phenomenal Concept Strategy that proposes a physicalistic account for the existence of the gap that is based on the character of phenomenal concepts. I examine whether this strategy is satisfactory or not and propose a possible physicalist account to the special character of phenomenal concepts.

Keywords: The Explanatory Gap, Phenomenal Concept, Physicalism

## ÖZ

### AÇIKLAMA BOŞLUĞU PROBLEMİNE FİZİKALİST BİR YAKLAŞIM

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Bazı nitel zihinsel deneyimler onları diğerlerinden ayıran kimi niteliksel özelliklere sahiptir. Bazı düşünürler bu zihinsel fenomenleri fiziksel olmayan varlıklarla açıklamaya çalışırken, kimileri tümüyle fiziksel açıklamalar sunmaktadırlar. Bu fiziksel açıklamalar zihin-beden ilişkisini belli bir ölçüde aydınlatsa bile, Joseph Levine'e göre bir nitel zihinsel deneyim ile buna sebebiyet verdiği düşünülen fiziksel olay arasında hala bir açıklama boşluğu vardır, çünkü belli bir fiziksel olayın belli bir niteliksel ve zihinsel deneyimi neden ve nasıl doğurduğunun açıklaması yoktur. Bu tezde açıklama boşluğunun fizikalizmle bağdaşıp bağdaşmayacağını görmek için, bu sorun araştırılmakta ve böylesi bir açıklama boşluğunu ontolojik veya epistemolojik olarak yorumlayan bazı görüşler değerlendirilmektedir. Çalışmanın odak noktası fenomenal kavramlara gönderme yaparak açıklama boşluğuna fizikalist bir temel getiren Fenomenal Kavramlar Stratejisi'dir. Bu temellendirmenin yeterli olup olmadığı incelenmekte ve fenomenal kavramlara olası fizikalist bir açıklama önerilmektedir.

Anahtar Kelimeler: Açıklama Boşluğu, Fenomenal Kavram, Fizikalizm

To My Parents

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## **CHAPTER 1**

### **INTRODUCTION**

Philosophy of mind has endured a long debate about the nature of mind that still preserves its liveliness. The ontological status of the mind still remains as a mystery since no account of the mind wholly fits its special properties and explains its relations to the physical body satisfactorily. While trying to explain the special features of the mind such as consciousness and intentionality, and considering it as distinct from the body, many philosophers, especially René Descartes, open the question of what the relation between the mind and the body is. In trying to answer this question, that is, to solve the mind-body problem, many theories emerged, one of which is physicalism. Physicalism is a view that can deal with many problems of philosophy of mind such as the mind-body interaction problem, but it becomes paralyzed when it comes to the issue of consciousness, of why physical entities give rise to consciousness. Even if physicalism is mostly seen as a more advantageous theory than its alternatives, it faces difficulties in explaining consciousness and phenomenal feels (qualia) in physical terms without leaving any explanatory gap.

The term ‘explanatory gap’ about consciousness that was first introduced by Joseph Levine can be seen as a modern extension of the mind-body problem that goes back even to Plato. By introducing the explanatory gap, that is, the lack of explanation of why a physical state gives rise to a conscious state or why certain psycho-physical identity statements are true, Levine enlightens the way of the mind-body problem by relocating it from an ontological status to an epistemological one. In other words, he shows another way to deal with the problem. He invites us to see the problem and all dualist intuitions against physicalism, such as the conceivability of the mind as distinct from the body, not

necessarily as metaphysical issues that require ontological explanations, but to see them as epistemological issues whose explanation lies in the way we understand psycho-physical identity statements. Accordingly, most of the views that are presented in this thesis do not attempt to solve the problem, that is, to bridge the gap but rather to find an explanation of why it exists. All these attempts also reflect the way philosophers react to the mind-body problem and their ontological standing towards the mind. Therefore, I believe that the explanation of the explanatory gap would also explain away the mind-body problem, and if it can be shown that the gap is merely epistemological, the mind-body problem will be dissolved since it will lose its metaphysical standing.

The aim of this thesis is to present and evaluate the explanatory gap problem; its definition and motivations behind the arguments given for its existence, and various approaches to it, in order to find out whether physicalism can both accept the existence of the explanatory gap and can provide an explanation compatible with itself. In short, my aim is to see whether physicalism can accept the apparent mystery of consciousness without contradicting itself. I will attempt to reconcile the gap and physicalism by assuming the truth of physicalism. I will try to do this on the basis of a strategy used by several philosophers and that is based on phenomenal concepts, in order to overcome the mind-body problem without eliminating qualia and without abandoning physicalism. The reason why I choose to study this subject is primarily based on the fact the mind-body problem has a crucial role in philosophy and that it is scattered to every area of philosophy of mind. However, I prefer to focus on the explanatory gap because it reflects two seemingly contradictory intuitions that lie behind the most serious debate about the mind-body problem. The explanatory gap problem embodies both our reluctance to deny that there is something mysterious and special about the mind and our tendency to locate the mind within a physical world as a part of the causal chain of the world. Levine highlights the possibility that the problem with the mind may be a merely epistemological matter and that we can both believe in physicalism and in the mystery of consciousness. So, by studying the explanatory gap, by searching why it exists, it is possible to reevaluate physicalism in order to exclude its counter-

intuitive aspects concerning the mind. Moreover, studying the gap within the framework of physicalism will also show an alternative way to deal with the mind-body problem by relocating it to an epistemological position. It will provide a possible way to dissolve the mind-body problem by making it lose its metaphysical power.

The second chapter of the thesis will be an introductory chapter that presents the philosophical background of the explanatory gap. In this part, I will briefly present and explain what the mind-body problem is and why it arises by referring to Descartes' arguments for dualism. I will present some ontological approaches to mind that attempt to overcome the mind-body problem. Secondly, I will give a brief explanation and evaluation of the notion of 'qualia' or 'phenomenal feels' that constitute an important problem for physicalism.

The third chapter will be a detailed explanation of the explanatory gap and various interpretations of it. In this chapter, I will firstly describe the gap as formulated by Joseph Levine that is based on an evaluation of the conceivability argument reconstructed by Kripke. Later, I will examine two main streams that consider the gap as ontological and epistemological, respectively. The epistemological approaches vary widely. The epistemological approaches that are separated into three headings one of which is the strategy based on phenomenal concepts will be explained.

The fourth chapter is mainly based on the view that the gap is the consequence of the way phenomenal concepts differ from non-phenomenal ones. So, the reason why I choose to focus on this approach and my criticism that it is a plausible but unsatisfactory account will be presented. Later I will elaborate on how the phenomenal concepts, hence the explanatory gap, can be accounted for by mentioning the difference between our cognitive processes by which we become aware of external objects and our mental states. This difference will be established on the basis of causal accounts of perception and introspection. Finally, the position that I assumed from the beginning, namely, physicalism will be reevaluated in order to understand more clearly how it can be compatible with the

existence of an epistemological gap. To this end, I will present two characterizations of physicalism, namely a priori physicalism and a posteriori physicalism and show that the latter kind is the characterization which is compatible with the explanatory gap.

## CHAPTER 2

### THE MIND-BODY PROBLEM AND QUALIA

#### 2. 1 The Mind-Body Problem

The mind-body problem is an ancient problem that emerges especially out of a dualist understanding of mentality that considers the mind and the body as different kinds of entities. This problem keeps its severity even today. The problem briefly consists of the question of what the relation between the mind and the body is, or more generally, where the mind stands in a physical world. Therefore, besides being usually associated with René Descartes, it can be said that it goes back to the first conception of an immaterial mind or soul possessing non-natural properties and reaches out to current debates in philosophy of mind. Plato who was the most remarkable ancient figure employing such an immaterial understanding of mentality believed that a human had a soul (mind) that was unlike and distinct from his/her body. The soul existed independently, since it had existed disembodied before that human's birth, whereas the body was only a corruptible vehicle for the soul's existence in the physical world.<sup>1</sup> That is, the soul was essentially different from the physical body. So, it can be said that Plato was one of the first philosophers who laid the ground for the mind-body problem by pointing to radical differences between the mind and the body.

However, dualism was clearly stated by Descartes in 17<sup>th</sup> century and his arguments led to a clear formulation of the mind-body problem. Descartes believed that mind and body were two distinct substances that causally interact and that form a kind of union. The mind was a non-extended thinking being, whereas the

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<sup>1</sup> Plato, "Meno," in Eric H. Warmington and Philip G Rouse (eds.) *Great Dialogues of Plato* (New York: The New American Library, 1956) translated by W. H. D. Rouse, p.51.

body was an extended non-thinking being, and the two come together and interacted in the pineal gland.<sup>2</sup> Descartes' conclusion derives from two main arguments. The first one (indivisibility argument) is based on the fact that mind is a simple substance, that is to say, indivisible, whereas the body is composed of several parts. From this fact Descartes concludes that they cannot be one and the same thing. As Descartes puts it:

...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 the mind.<sup>3</sup>

The second and I believe the more important one is the conceivability argument, where Descartes claims that given the fact that he can conceive of his mind as existing independently of his body they should be two distinct substances. That is to say, Descartes concludes that mind and body must be different substances from the fact that they are conceivably so. Descartes expresses his argument as follows:

... I possess a body with which I am very intimately conjoined, yet because, on the one side, I have a clear and distinct idea of myself, inasmuch as I am only a thinking and unextended thing, and as, on the other, I possess a distinct idea of body, inasmuch as it is only an extended and unthinking thing, it is certain that this I, [that is to say, my soul, by which I am what I am], is entirely and absolutely distinct from my body, and can exist without it.<sup>4</sup>

It should be noted that the conceivability argument has an important place in philosophy of mind and will be mentioned several times throughout my thesis because it highlights other relevant problems and motivates philosophers to find out different versions, solutions and theories. Therefore, it is relevant and

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<sup>2</sup> René Descartes, "The Passions of the Soul," in Elizabeth S. Haldane and G. R. T. Ross (trans.) *The Philosophical Works of Descartes* (Cambridge: Cambridge University Press, 1973), pp. 331-427, see; p. 347.

<sup>3</sup> René Descartes, "Meditations on the First Philosophy," in Haldane and Ross 1973, pp. 131-199, see; p. 193

<sup>4</sup> *Ibid.*, p. 190.



inevitable to mention it almost in all discussions about the mind that take place in extant literature.

Even though each of these arguments of Descartes could be rejected on several grounds, one of the most problematic issues and a controversial aspect of Cartesian dualism that continues to be discussed by contemporary philosophers is mind-body interaction. Descartes was an interactionist; he thought that there is a two-sided causation, occurring in the pineal gland, between the mind and the body, which possessed completely different features. Therefore, besides avoiding several problems that arise from the special and distinctive character of the mind, such as consciousness or intentionality, Cartesian dualism raises the question of how two entities (mental and material) with such distinct natures can causally interact as our minds are supposed to interact with our brains. How can a non-extended substance be in contact with an extended body? How is it that a bodily damage gives rise to pain or a simple desire gives rise to action? Cartesian dualism provided no satisfactory responses to these questions, and therefore, was rejected by most philosophers of mind today.

The mind-body interaction problem led a deep and extensive inquiry in philosophy of mind to find an alternative theory that would replace Cartesian dualism. Many theories of mind were developed in order to provide a non-problematic and more plausible account of the mind and its relation to the body. It would be useful to present major theories briefly to see how philosophers try to overcome the mind-body problem.

**Other Kinds of Dualism:** In order to avoid the interaction problem different kinds of dualism were introduced. Some philosophers such as Malebranche kept Descartes' substance dualism, but claimed that the mind and the body were not related by causal interaction, but by God's intervention. This view known as *occasionalism* states that whenever the body undergoes a physical state,

God causes the mind to undergo an accompanying mental state and vice versa.<sup>5</sup> Another kind of dualism is *parallelism* introduced by Leibniz. According to parallelism, the mind and the body are related by a pre-established harmony, such that every mental state and physical state that are seen together are synchronized and only occur at the same time. That is, there is no causation or God's intervention but merely two events that occur simultaneously in a pre-given order of events.<sup>6</sup> *Epiphenomenalism* is a form of dualism that denies a two-sided interaction but only admits a causal interaction from the physical to the mental. In other words, this view states that even though the physical body can causally produce mental occurrences, the mind has no causal power upon the physical; that is, while it can be the effect of the physical, it cannot be the cause of it.<sup>7</sup> This approach helps the dualist to escape the threat of the Causal Closure Argument.<sup>8</sup> A radically different sort of dualism is Spinoza's *Double Aspect Theory* that states that there are not two kinds of substances as other kinds of dualism suggest, but rather one kind of substance that has different aspects. So, mind and body are not two different substances but two different attributes of one and the same substance.<sup>9</sup>

**Idealism or Phenomenalism:** This is a monist view mainly developed by Berkeley that asserts that everything, including the body is mental, that is, only minds and their contents exist. Therefore, both the mind and the body are explainable in terms of the mental. Contrary to dualism, by positing only one kind of entity and considering the body as identical with the mind, idealism escapes the

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<sup>5</sup> Jaegwon Kim, *Philosophy of Mind* (Oxford: Westview Press, 1996), p. 51

<sup>6</sup> E. J. Lowe, *An Introduction to the Philosophy of Mind* (Cambridge: Cambridge University Press, 2000), p.26.

<sup>7</sup> Brian P. McLaughlin, "Epiphenomenalism," in Samuel Guttenplan (ed.), *Companion to the Philosophy of Mind* (Oxford: Blackwell Publishers, 1994), p. 277-288, see; p.277.

<sup>8</sup> The Causal Closure Argument will be explained in the section "Physicalism or Materialism".

<sup>9</sup> Kim (1996), p.51.

interaction problem that arises in Cartesian dualism which considers the mind and the body as different entities.<sup>10</sup>

**Physicalism or Materialism:** Physicalism is a metaphysical view that everything is physical or supervenes on the physical, that is, there does not exist anything which is not physical. The terms ‘physicalism’ and ‘materialism’ are usually used interchangeably, but some believe that the term ‘physical’ is more common since it has a wider scope. For instance it captures physical forces, space and energy which are not material. However, throughout my thesis I will also use these terms interchangeably. Moreover the problem of the definition of ‘physicalism’ is a complicated matter since its definition may vary among philosophers. But, I will not go into a detailed examination of different interpretations of physicalism in order to keep the subject matter of this thesis simpler. Therefore, I will only use and refer to its rough and common definition which I believe is sufficient for my purpose. The implication of physicalism in philosophy of mind is that the mind is also a physical entity and that mental states are physical events or processes of some kind. It should be noted that physicalism or materialism embodies different theories of mind that define mind in different terms. *Behaviorism* is the theory that there is nothing more to the mind and mental states than behavior, that is, mental states are constituted by outer behaviors.<sup>11</sup> *Identity theory* states that mind and brain are identical; hence certain mental states are identical to brain states or neurological states of the brain.<sup>12</sup> Finally, certain forms of *functionalism*, which is one of the most favored view lately, denies that mental states are identical to specific brain states and explains them in terms of their functions in a causal chain that can be instantiated by variously different states.<sup>13</sup> A physicalist form of functionalism explains mental states in terms of

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<sup>10</sup> Downing, Lisa, "George Berkeley", *The Stanford Encyclopedia of Philosophy (Winter 2004 Edition)*, Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/win2004/entries/berkeley/>.

<sup>11</sup> Alex Bryne, "Behaviourism," in Guttenplan 1994, pp. 132-140, see; p. 132.

<sup>12</sup> David M. Rosenthal, "Identity Theories" in Guttenplan 1994, pp. 348-355, see; pp. 342-347.

<sup>13</sup> Terence E. Horgan, "Physicalism (1)", in Guttenplan 1994, pp 471-479, see; p. 476.

functions that are instantiated in different physical states. So, like idealism, physicalism is also a monist approach; therefore, it avoids the mind-body interaction problem easily by claiming that there is only the physical.

Each of the theories presented above, despite avoiding several problems of Cartesian interactionism, are not fully explanatory and unproblematic; this is why the mind-body problem still poses a big difficulty to overcome for philosophers. However, it should be noted that the most accepted and preferred views today are physicalist ones. First of all, even though we usually think that the mind is unlike other phenomena, we intuitively tend to believe that the mind should somehow fit into the material world and should arise from the material brain; that is to say, that there should not be something mysterious and miraculous about it. On the other hand, it is a more doubtful and unsupported position to accept the existence of non-physical entities because explaining the mental phenomena with familiar entities is more secure, simpler and less daring than explaining them with mysterious and unfamiliar ones. Similarly, current developments in biology, neurophysiology and cognitive science, despite not answering every question concerning the mind, give us a great deal of reason for believing that we are merely biological organism and provide a good ground to prefer physicalistic approaches. This is why many contemporary philosophers have a tendency to employ a naturalistic approach towards mentality.

Moreover, physicalistic approaches avoid the mind-body interaction problem by letting causation to occur only between physical entities. On the other hand, “Causal Closure Argument” that is based on mental-physical causation is a very strong and influential argument supported also by physical sciences. The argument’s premises are as follows:

- (1) At every time at which a physical state has a cause, it has a fully sufficient physical cause (the principle of the causal closure of the physical).
- (2) Some physical states have mental states amongst their causes.

- (3) When a physical state has a mental state amongst its causes, it is rarely if ever causally overdetermined by that mental state and some other physical state.

The physicalist thinks that these premises entail that at least some mental states (at least mental states that have physical effects) are identical with certain physical states.<sup>14</sup> Even though Jackson's epiphenomenalism seems to overcome this difficulty by positing causal inefficacy of mental states, this view is not popular particularly because it underestimates and overlooks the causal power of mental states over the physical world.

## **2. 2 Phenomenal Qualities - Qualia**

Given the advantages of physicalism over dualism, one may wonder why the mind-body problem could not be overcome and why physicalism is not accepted as the absolutely correct theory of mind. The reason for this is that the mind has an important aspect that resists to be reduced to physical entities. For example, an experience of pain possesses an important aspect that resists to be reduced to firings of neurons. It is well known by all conscious beings that certain conscious mental states (e.g. bodily sensations, perceptual experiences) have some distinctive qualitative properties that are known directly by introspection, such as the hurtfulness of pains, the itchiness of itches or the reddishness of sensing red. Colors, tastes, smells or pains have specific felt qualities that distinguish and identify each of them, that is, each of them possesses a particular way of feeling. These felt qualities or phenomenal characters are usually referred to as "qualia" or "raw feels" and are defined as "something that it is like to be the subject of an experience".<sup>15</sup>

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<sup>14</sup> Lowe (2000), p.27.

<sup>15</sup> Thomas Nagel, "What is it Like to Be a Bat?," *Philosophical Review* 83 (1974), pp. 435-456.

Most of us know what it is like to feel pain or to see something red. However, no one knows how these states feel like for someone else. Similarly, a blind person cannot know what it is like to see red or a deaf one cannot know what it is like to hear sounds. In other words, qualia can only be directly known by the person who experiences these mental states. In that sense they possess some features not found in other phenomena: they are subjective and private. Similarly, they cannot be known without being experienced, since they are introspective. This is why qualia are what make the mind-body problem recalcitrant since, on the one hand, it is difficult to deny their existence completely, and on the other, to give them a physicalist account. It is not easy to deny that pain has a certain felt quality and to explain how it feels in terms of the brain state one has when experiencing it. Some philosophers used this fact to reject physicalism on the ground that it is too impoverished to have a place for qualia<sup>16</sup>, some other philosophers (eliminativists) choose to deny their existence altogether in order to preserve physicalism, and some philosophers such as Joseph Levine try to reconcile their existence with the truth of physicalism. In any case, qualia still pose a serious problem since identifying them with or reducing them to physical entities is what underlies Levine's explanatory gap problem as well as other relevant problems. These problems show that a physicalist explanation of the mind, even if it is successful or states an ontological fact, remains silent about these special features of consciousness, namely qualia. This is why physicalists should take them seriously and try to explain how physicalism can avoid, if it can, the threat of the explanatory gap between the mental and the physical or show that this gap is not real in any sense.

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<sup>16</sup> David Braddon-Mitchel and David Jackson, *The Philosophy of Mind and Cognition* (Blackwell Publishers, 1996) p. 123.

## CHAPTER 3

### THE EXPLANATORY GAP

#### 3.1 The Explanatory Gap

“The explanatory gap” corresponds to the lack of explanation or understanding of the mental in terms of the physical. For instance, when a physicalist theory states “pain is identical to C-fiber stimulation” there is a big chasm between the two sides of the identity that prevents us to understand what makes this identity true, that is, what makes a neural stimulation identical with a feeling that hurts or how a conscious experience can arise from or is identical with a brain state. By clearly defining this gap, Levine aims to emphasize that in physicalist theories of mind, as well as in other theories, there is no explanation of why and how a particular physical state is responsible for or identical with a particular phenomenal feel. Even though a physicalist explanation says that a certain neural activity is responsible for or identical with the sensation of red on the basis of their causal role, it does not tell us why this is not otherwise, that is, why the very same neural activity is not responsible for or identical with the sensation of blue. The question “What is the thing that makes this neural activity responsible for the sensation of red rather than blue?” remains unanswered. As Levine states:

there is more to our concept of pain than its causal role, there is its qualitative character, how it feels; and what is left unexplained by the discovery of C-fiber firing is *why pain should feel the way it does!* For there seems to be nothing about C-fiber firing which makes it naturally “fit” the phenomenal properties of pain, any more than it would fit some other set of phenomenal properties.<sup>17</sup>

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<sup>17</sup> Joseph Levine, “Materialism and Qualia: the Explanatory Gap,” *Pacific Philosophical Quarterly* (1983), pp. 354-361; see, p. 357.

However, according to Levine, this lack of explanation, despite being a problem, does not entail the falsity of physicalist theories; rather it only highlights their epistemological or explanatory inadequacy.

Levine's argument for the existence of the explanatory gap derives from the conceivability argument that goes back to Descartes and from its derivatives like the knowledge argument, the absent qualia argument and the inverted spectrum argument.<sup>18</sup> These arguments make an ontological distinction on the basis of a conceptual one. Levine tries to demonstrate that a coherent conception of the mind as distinct from the body or the insufficiency of knowledge of physics does not necessarily entail that the mind is in fact distinct from the body, but rather that it is the manifestation of an explanatory deficiency. So, he aims to show that the mind-body problem is not caused necessarily by an ontological dualism but rather may rest merely on an epistemological level.<sup>19</sup> Levine clearly demonstrates and formulates his argument on the basis of Saul Kripke's argument that is given for the existence of a posteriori necessities and against materialism that is based on the difference between psycho-physical identity statements and theoretical identity statements.

In "Naming and Necessity" Kripke argues that if a rigid designator refers at all, it refers to the same individual in all possible worlds.<sup>20</sup> He goes on to claim that an identity statement containing a rigid designator, if true at all, is true in all possible worlds, that is, it is necessarily true. So, statements like:

(1) 'Heat = Molecular motion'

(2) 'Pain = C-fiber stimulation' (where 'pain', 'C-fiber stimulation', 'heat' and 'molecular motion' are rigid designators) are necessarily true, if they are true at all, even though their truth is known a posteriori.

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<sup>18</sup>These arguments will be explained in the later parts of this chapter.

<sup>19</sup>Levine (1983), p. 354.

<sup>20</sup>Saul Kripke, *Naming and Necessity* (Oxford: Blackwell Publishers, 1984), pp. 141-155.



According to Kripke, there is a felt contingency about these statements, because it is conceivable that they are false. We can imagine a world where heat is not molecular motion and pain is not C-fiber stimulation. Therefore, in order to preserve the truth of these identities one has to show that these Cartesian intuitions are illusory, that this seeming contingency is not a real contingency at all. According to Kripke, the felt contingency of the first statement is caused by the contingency of the way the reference of the terms are determined. Kripke states that one can be in the same epistemic position as the original, while he senses a phenomenon different from heat. That is, one can sense a different thing that feels exactly the same way heat feels. So, what we conceive as being different from molecular motion is not heat but a different phenomenon that feels like heat; that is, what creates the apparent contingency is the misconception of what is really conceivable. Therefore, the necessity of (1) is preserved.<sup>21</sup>

Kripke goes on to ask whether the same account can be given for explaining away the felt contingency of (2) and argues that it cannot. The necessity of (1) is preserved by the fact that one can be in the same epistemic situation as one was when sensing heat, while he was sensing another phenomenon. However, the same analogy cannot be given for (2) because being in the same epistemic situation as if one feels pain is to feel pain. In other words, there is no distinction between feeling pain and feeling as if one feels pain since feeling like pain counts as pain itself. Therefore, it is impossible to imagine a world where one feels like pain in the absence of pain; likewise if (2) were true it would be impossible to conceive of something that feels like pain in the absence C-fiber stimulation. Kripke concludes that the contingency of (2) is a real one and it entails the falsity of this identity statement. If (2) were true, it would necessarily be so and given that it is contingent it is not true at all.<sup>22</sup>

What is fundamental in this argument, as it is in Descartes' conceivability argument and its other versions, is that it attacks physicalism by introducing the

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<sup>21</sup> *Ibid.*, p. 151.

<sup>22</sup> *Ibid.*, pp. 151, 152.

possibility of a world where mind is not identical to the physical brain and derives the conclusion that these two should be distinct. That is, it derives an ontological distinction from a conceptual one. Even though Levine shares Kripke's intuition that there is an apparent contingency in psycho-physical identity statements, he does not agree with the metaphysical conclusion derived from it. Rather, his project is to use the very same intuition to derive an epistemological conclusion that "psycho-physical identity statements leave a significant *explanatory gap*, and, as a corollary, that we don't have any way of determining exactly which psycho-physical identity statements are true."<sup>23</sup> So, he thinks that our ability to conceive of pain in the absence of C-fiber stimulation is because of the lack of a full understanding of why this identity holds, not because the identity is false.

However, there is another possibility that a physicalist can consider in order to explain away the contingency of psycho-physical identity statements. A functionalist position, by using the multiple realizability thesis, can cope with the contingency of (2) without giving up physicalism or positing an explanatory gap, since this thesis puts forward that pain can be otherwise than C-fiber stimulation. But Levine states that Kripke's argument and his own claim about the existence of an explanatory gap are not limited to mind-brain identity theories (type to type identity theories); rather they equally apply to functionalism as well. Functionalism is the view that explains mental states in terms of their functional roles that can be realized in a wide variety of physical states. Thus, it admits that pain could exist without C-fiber stimulation, if it were realized in a different physical constitution that satisfies the same functional description as the brain, but it still preserves its physicalist standing. In other words, given that the function in question is realized, there is no danger in imagining pain without C-fiber stimulation. So, not the experience of pain as a type, but rather an instance of the experience of pain can be identical to an instance of physical state. Such a physicalist view is referred to as token identity theory. However, Levine argues that functionalism will not do the work either and shows that Kripke's argument can be reconstructed in order to

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<sup>23</sup> Levine (1983), pp. 355-361.

capture functionalism too.<sup>24</sup> So, the argument against functionalism will be based on the following statement:

(3) To be in pain = To be in a state F (where 'F' is the functionalist description of pain)

Evaluated in the framework of Kripke's argument, (3) should be necessarily true if it is true at all. So, given that functionalism takes (3) to be true, it should also guarantee its necessity. But, Levine states that the felt contingency exists for this statement too. It is possible that one conceives of a situation in which the functionalist description "F" is satisfied but where there is no pain at all. He illustrates this point by making use of Block's example of the nation of China, which attempts to show that it is possible that the entire nation, where each Chinese person has the function of a single neuron and radio links behave as synapses, satisfies F but is not in pain. Therefore, according to Kripke, since (3) is conceivably false and therefore contingent, pain is not identical to "F", whereas according to Levine "F" does not provide a full explanation and understanding of pain.<sup>25</sup>

The difference between (1) on the one hand, and (2) and (3) on the other, is obvious for Kripke: (1) is true while (2) and (3) are false. But according to Levine, the difference between them is about their explanatory power, that is, (1) is fully explanatory while (2) and (3) are inadequate since they leave unexplained certain phenomena. Levine thinks that this is the main reason why (2) and (3) are so prone to be conceived as false, thus so vulnerable to the conceivability argument.

According to Levine, statements like (1) are fully explanatory because they do not leave any phenomena unexplained and, given an exhaustive knowledge of physics and chemistry of why heat is molecular energy, it is inconceivable that (1)

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<sup>24</sup> The original argument is given by Ned Block in his "Troubles with Functionalism" reprinted in *Readings in Philosophy of Psychology*, Vol. 1 (Cambridge: Harvard, 1980).

<sup>25</sup> Levine (1983), pp. 355, 356.

is false. In other words, given the whole physical story of heat, it would be impossible to imagine something that behaves like heat but that is not molecular energy, since this story would tell us why heat behaves the way it does and is identical with molecular energy. What we associate with ‘heat’ is its causal role, that is, how it affects us and other phenomena. So, (1) says that the motion of molecules play the same causal role we associate with heat, therefore it is identical to heat. According to Levine, this causal role is all there is to be explained about heat, and therefore, it is unintelligible to ask for a further explanation.<sup>26</sup>

However, when it comes to (2) and (3), Levine claims that they leave some crucial phenomena unexplained, and therefore, even if we have exhaustive knowledge of physics or neurophysiology it is still possible to coherently conceive of their being false. What statements like (2) and (3) explain is the causal role of pain, that is, it tells us how pain causes our behavior of avoidance. According to Levine, if this causal role were everything to be explained about pain, (2) and (3) would be fully explanatory, and therefore it would not be imaginable that they are false. In other words, these statements do not tell “why pain should feel the way it does”, since the causal role of pain adds nothing to the knowledge of its phenomenal character. The knowledge of C-fiber firing does not make any contribution to our understanding of why pain possesses the phenomenal properties it does. In short, psycho-physical identity statements leave an explanatory gap between physical states and qualia. Given that the connection between physical states and mental states is missing, Levine argues that it is imaginable that psycho-physical identity statements are false. It is this lack of knowledge that enables us to seem to conceive of pain in the absence of C-fiber firing since we do not know why these two should be identical. In other words:

If there is nothing we can determine about C-fiber firing that explains why having one’s C-fibers fire has the qualitative character that it does ... it immediately becomes imaginable that there be C-fiber firings without the feeling of pain, and *vice versa*.<sup>27</sup>

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<sup>26</sup> *Ibid.*, p. 357.

<sup>27</sup> *Ibid.*, p. 359.

In the light of these explanations, it can be seen that Levine thinks that while being a crucial problem for physicalism, the explanatory gap problem does not show that physicalism is false. Similarly, all forms of the conceivability argument are insufficient to attain an ontological conclusion against physicalism. In other words, Levine believes that the existence of an explanatory gap in psycho-physical identities is compatible with the truth of physicalism. Even though he aims to show the existence of a gap, it can be seen through his writings that Levine has an inclination toward physicalism. So, according to him the gap is in our understanding of how and why a physical organism possesses consciousness rather than in the nature of the phenomena, since being the metaphysical basis of consciousness does not entail being its epistemological explanation.<sup>28</sup> Moreover, Levine believes that the explanatory gap also entails the fact that we cannot determine which psycho-physical identity statements are true and which are false.<sup>29</sup> So, we cannot determine which theory of mind is the correct one. Therefore, even if physicalism were true and even though C-fiber firings and pain were the very same phenomena, this would not suffice for us to find out the right connection that will close the explanatory gap.

Knowledge is clearly sensitive of how we conceptualize the object of knowledge, and from the fact that we cannot find the right sort of connection between one conceptualization and another does not entail that they aren't, nevertheless, conceptualizations of the very same phenomenon, or situation.<sup>30</sup>

### **3. 2 The Gap is Ontological**

So far, we have seen Levine's argument for the existence of the explanatory gap and his views concerning its compatibility with the truth of physicalism. Certainly, this compatibility does not rule out the possibility of dualism nor does it undermine the reasons why some philosophers prefer dualism over physicalism,

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<sup>28</sup> Joseph Levine, *Purple Haze: the Puzzle of Consciousness* (New York: Oxford University Press, 2001), p.7.

<sup>29</sup> *Ibid.*, pp. 359, 360.

<sup>30</sup> *Ibid.*, p.77.

but it only shows that, given the difficulties that arise about consciousness, physicalism is still a tenable position. However, admitting the existence of an explanatory gap requires explaining why it exists and dualism is one alternative that will serve to this end. There are philosophers who interpret the explanatory gap as the manifestation of an ontological gap between the mental and the physical. According to such philosophers, the lack of explanation between the mental and the physical is unbridgeable in principle since the gap corresponds to an ontological difference between the mental and the physical. Frank Jackson and David Chalmers are the main figures who use the conceivability argument and the epistemic inadequacy of physics to defend a dualist position. All the arguments they use for dualism are derivatives of Descartes' conceivability argument that was explained previously. They are grounded on the same intuition: that it is conceivable that the body exists in the absence of the mind. However, it would be useful to present very briefly some of those arguments that have some weight in the literature.

In his book *The Conscious Mind*, Chalmers argues against physicalism by presenting the "Zombie Argument." The argument states that a zombie, that is, something that is physically identical to a conscious person but that lacks consciousness is logically possible. It is conceivable that there exists a creature that is molecule for molecule identical to you and that lives in an identical environment to yours and is therefore functionally and psychologically identical to you as well but lacks consciousness completely.<sup>31</sup> Such a creature will behave as you do, will give the same response to the environment; in short, all of its physical behavior, speech and other aspects are identical to yours. In other words, according to Chalmers, one can conceivably imagine a body that is indiscernible from a conscious person but lacks consciousness altogether.

Similarly, the "Inverted Spectrum Argument" shows the physical possibility of a world identical to ours in which there is a person who is physically identical to you but who has "inverted" conscious experiences. For instance, your physically

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<sup>31</sup> David J. Chalmers, *The Conscious Mind* (New York; Oxford University Press, 1997), pp. 94, 95.

identical twin will have the experience of blue while in exactly the same situation you have the experience of red. The person who possesses inverted spectrum will also be functionally and psychologically identical to you because in a physically identical environment all of his behaviors, verbal reports, ect. will also be identical to yours. For example, he will state that he sees red when looking at a tomato as you do, even though he actually has the experience of blue.<sup>32</sup>

From the fact that zombies and inverted spectrum cases are conceivable, Chalmers derives the conclusion that physical theories are insufficient to explain consciousness and that there is an explanatory gap in psycho-physical identity statements formulated by those theories. According to him, given the explanation of the physical processes and structures of the brain that are supposedly responsible for consciousness, there is still a further question: “Why are these processes accompanied by conscious experience?” or “Why should all these structures and functions give rise to experience?”<sup>33</sup> A physical story that explains your brain process would equally apply to your zombie twin or inverted twin, but it will not say why you possess consciousness and the zombie does not. Similarly, it will not say why you possess consciousness the way you do rather than another. Contrary to Levine, Chalmers does not confine himself with this conclusion, and as Descartes and Kripke did, he makes a further ontological claim that the explanatory gap is the reflection of the gap in the nature of the mental and the physical. In other words, there is an essential ontological difference between the mind and the body. According to Chalmers the explanatory gap implied by the conceivability argument shows us the fact that consciousness is a further fact about the world over and above physical facts, and for that reason it cannot be reduced to physical facts.<sup>34</sup>

Another argument constructed to show the existence of an epistemological gap and to reject materialism is known as the “Knowledge Argument.” Its best

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<sup>32</sup> *Ibid.*, pp. 99, 100.

<sup>33</sup> *Ibid.*, pp. 106, 107.

<sup>34</sup> *Ibid.*, pp. 123, 124.

known and clear version is Jackson's.<sup>35</sup> Jackson invites us to consider the following situation of Mary who is a brilliant physicist and neuroscientist:

She is confined to a black and white room, a room in which she and her surroundings look just the way a black and white film looks. She has a black and white television and a huge black and white library, and through them access to all there is to know about physics and neuroscience, and in fact all there is to know about the physical nature of our world and the creatures, humans included in it. She will then know everything there is to know about the physical nature of our world and of us, and consequently about the functional roles the various physical states play in us. In short, she will know everything there is to know about the nature of our world, about us and about our place in it, according to physicalism.<sup>36</sup>

Jackson states that if physicalism were true, there would be nothing that Mary did not know, and then questions whether there is something that Mary does not know. According to Jackson, it is clear that Mary does not know certain crucial facts about the world: she does not know what it is like to see colors other than black and white. Once she goes out of her room it is clear, Jackson says, that she will learn something new about the world when she sees the colorful environment. Jackson's point is to emphasize the fact that no matter how exhaustive physical knowledge you have about the brain and its functions, you cannot know the phenomenal feels of experiences solely on the ground of that knowledge.<sup>37</sup> The Knowledge Argument shows that physicalist theories leave an explanatory gap because they leave out qualia. Jackson also interprets the inadequacy of physical knowledge in this story as indicating the falsity of physicalism and takes qualia to be non-physical entities. In short, Jackson too reaches an ontological conclusion from an epistemological one.

Chalmers' and Jackson's conclusions also involve the claim that the explanatory gap is unbridgeable in principle. The metaphysical claim that there is a

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<sup>35</sup> Jackson has changed his mind in late 1990's and has abandoned his knowledge argument in his "Postscript on Qualia". See Jackson (1998)

<sup>36</sup> Braddon-Mitchell and Jackson (1996), pp. 127, 128.

<sup>37</sup> *Ibid.*, p.128.



discontinuity in nature, that the mental and the physical are two different realms separated by a big chasm also means that this gap is independent of us and of any other being. That is, the gap is independent of the way we come to know things, the way we conceptualize them or the state of our current physics. No matter how hard we try to close the gap or no matter how intelligent beings we are, the gap will always remain.

### **3. 3 The Gap is Epistemological**

It is very difficult to deny that there is something that remains unanswered in psycho-physical identity statements. In other words, it is difficult to believe that such statements tell us everything to be told about mental states, even though one believes that the problem is not ontological or that the identity statement is true. But besides the agreement, at least on the apparent gap, there are several ways one can interpret it and various conclusions one can derive from it. Some philosophers are more optimistic about this issue, and believe that although the gap is real for the present, it can nevertheless be closed one day. Some philosophers believe that the gap is epistemological but nevertheless unbridgeable by us due to our cognitive limitations. Some others believe that the gap exists because of the special character our phenomenal concepts possess.<sup>38</sup> What is common to all of them is that they all deny that the gap is due to an ontological separation between the mind and the body, and they all show a way to preserve physicalism without denying the existence of the explanatory gap.

#### **3. 3. 1 The Gap is not Permanent:**

Contrary to the approach that considers the gap as a metaphysical problem, some philosophers do not interpret it as a serious and unanswerable philosophical

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<sup>38</sup> Ned Block and Robert Stalnaker, "Conceptual Analysis, Dualism, and the Explanatory Gap," *The Philosophical Review*, 108 (1999), p. 1-46; see, p.1.

question, but see it as a matter of deficiency in our current conceptions or only as a matter of our current ignorance. According to such philosophers, the gap is not permanent; that is, one day it can be closed when science is sufficiently developed or when our conceptual framework is evolved enough to overcome the gap between the mental and the physical.

One philosopher who made such a claim is Thomas Nagel. Nagel highlights the fact that consciousness differs from other physical phenomena by being attached to a single point of view, that is, by being subjective. He also believes in the current inadequacy of the way we conceptualize and understand psycho-physical identity statements. He states that “At present time the status of physicalism is similar to that which the hypothesis that matter is energy would have had if uttered by a pre-Socratic philosopher.”<sup>39</sup> This statement shows that Nagel believes that the gap can be closed if our conception of psycho-physical identity statements uttered by physicalists evolves until it becomes understandable, similar to the way the Einsteinian physicist’s claim that matter is energy is now understandable. Nagel’s claim that consciousness is beyond our current conception and understanding does not mean that Nagel is making a metaphysical claim. On the contrary, he denies that physicalism can be refuted on the ground of its explanatory deficiency. His purpose is rather to show the inadequacy of the current form of reduction that physicalists use to explain mentality in physical terms. Physicalists make reductions as it is done in modern science, but the mind-body problem requires a completely different conceptual scheme. Our current conceptual framework does not capture the subjective character of consciousness; therefore, the explanatory gap holds only for the present. According to Nagel, mental states are analyzable neither in terms of their functional role nor in terms of their causal role, because these analyses leave the subjective character of consciousness out. According to him, “It (the subjective character of experience) is not captured by any of the familiar, recently devised reductive analysis of the mental, for all of them are logically compatible with its absence.”<sup>40</sup> And in order to understand the

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<sup>39</sup> Nagel (1974), pp. 435-456.

hypothesis that a physical event is identical to a mental event, we need a different conceptual scheme even though it lies in the distant intellectual future because the ordinary way to make theoretical identification fails to provide this understanding.<sup>41</sup>

Some other thinkers, who believe that the gap is not permanent, have quite simpler reasons than Nagel's. According to them, the explanatory gap is the manifestation of our current ignorance about the nature of the brain and consciousness. When science has developed sufficiently there will remain nothing mysterious about how a mental state comes to be identical with a physical state. That is to say, contrary to Nagel, those philosophers claim that the explanatory gap can be closed with our current conceptual framework but only with additional knowledge.

In his book *The Rediscovery of the Mind*, John Searle states that if we had a sufficiently adequate science of the brain the mind-body problem would disappear. According to him,

The "mystery" of consciousness today is in roughly the same shape that the mystery of life was before the development of molecular biology or the mystery of electromagnetism was before Clerk-Maxwell's equations.<sup>42</sup>

In other words, consciousness seems mysterious because we do not know how the brain can produce consciousness. Once we learn everything about the brain in all its detail the mystery will disappear.<sup>43</sup> When compared with ancient eras, it is undeniable that science, especially neurophysiology provides a great deal of knowledge about the workings of the brain that was seen as mysterious at first. But it should be noted that the structure and workings of human brain still seems to be more complicated than what we currently know about it, therefore, it is possible

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<sup>40</sup> *Ibid.*, p. 436.

<sup>41</sup> *Ibid.*, p. 435.

<sup>42</sup> John Searle, *The Rediscovery of the Mind* (Cambridge: MIT Press, 1992), pp.101, 102.

<sup>43</sup> *Ibid.*, p. 102.

that identifying phenomenal feels with physical processes or states will be less problematic once we learn more details of them.

Some people support this idea by introducing some concrete examples and analogies that help us to see how physicalism through scientific developments can explain why and how mental states are identical to physical states. W. R. Webster shows us a technique that can establish a type-type identity relation between some phenomenal feel and brain states. By the technique of pressure blinding of the eye, two types of after image were identified and a physicalist identity explanation was provided for a negative after-image and an illusory after image, which were shown to be located in the neurons of the retina, produced by a moderate stimuli. According to Webster, the study showed that neural mechanisms are the necessary and sufficient conditions for some after images since they are located in and depend on some neural structures. This study leads some philosophers to believe that the explanatory gap does not exist at least for some kinds of after-images. Given the fact that an after image is a paradigm case of a quale, Webster claims that this work also shows that all qualia can be one day identified with brain processes.<sup>44</sup> Similarly, Clyde L. Hardin gives the analogy of a map of color phenomena that can be explained in neural processes. According to this map, phenomenal qualities (colors) have structures that neurophysiology can account for. Structural differences of phenomenal qualities explain why they are identical with particular physical states and not others. According to Hardin, this analogy too gives us good reason to identify a certain neural process with a particular phenomenal state, and therefore, illustrates how materialism can bridge the explanatory gap.<sup>45</sup>

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<sup>44</sup> W. R. Webster, "A Case of Mind/Brain Identity: One Small Bridge for the Explanatory Gap," *Synthese* 131 (2002), pp. 275-287.

<sup>45</sup> Clyde L. Hardin, "Qualia and Materialism: Closing the Explanatory Gap," *Philosophy and Phenomenological Research*, 48, (1987), pp. 281-298.

### 3. 3. 1 The Gap is Unbridgeable by Us:

Another important and interesting interpretation of the explanatory gap is clearly defined and defended by Colin McGinn in his book *The Problem of Consciousness*. McGinn claims that the explanatory gap, and hence the mind-body problem, is epistemological, since it arises because of our cognitive limitations that hinder us to find out the right conception of what would bridge or solve it. In other words, McGinn argues that the explanatory gap is an epistemological gap that is unbridgeable by us or by creatures that share the same cognitive constitution as us.<sup>46</sup>

McGinn begins by explaining why he regards the mind-body problem as epistemological rather than metaphysical. According to McGinn, minds are biological products that have limited capacities. Just like the faculty of perception which is not able to perceive every feature of the world, there are also some features that our minds are cognitively closed to, but that are as real as other features that we can cognitively achieve. So, being cognitively closed to a property only shows that it is not accessible to our mind, not that it is not real. Moreover, that property may occur in a scientific theory but that theory will be cognitively inaccessible for us also. What all these mean is that we may not be in a position to solve every problem that we come up against. The mind-body problem is a problem that cannot be solved by beings like us. The property that provides the connection between the brain and consciousness is unknowable by us, though there is such a property that would solve the mind-body problem. For McGinn, this property *P* is as natural as other biological properties because consciousness is also another biological development or a process of evolution. Therefore, the explanation of consciousness should also be a naturalistic explanation. McGinn agrees with Levine's claim that "what is noumenal for us may not be miraculous in itself"<sup>47</sup> and the fact that there is an epistemological inadequacy in our

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<sup>46</sup> Colin McGinn, *The Problem of Consciousness: Essays Towards a Resolution* (Oxford: Blackwell Publishers, 1996), pp. 1-8.

<sup>47</sup> *Ibid.*, pp. 2-6.

understanding of how physical states give rise to conscious states does not necessarily entail a dualist ontology.

If the property *P* of the brain or of consciousness that is responsible for how and why consciousness arises from the brain and the theory that explains this psycho-physical linkage are natural, then why they are beyond our cognitive capacity? The reply to this question cannot only be the historical failure to solve the problem, since it is still possible that it can be solved one day. According to McGinn, the reply lies in the ways we come to know things about consciousness. He states that there are two ways one can look for *P*. One way is to look at consciousness, that is, introspection and the second is to look at the brain, that is, perception. He goes on to argue that these faculties are insufficient to reveal *P*.<sup>48</sup>

Introspection, the faculty by which we watch our consciousness, as its definition implies, gives access to only one term of the mind-brain relation. McGinn states that introspection does not present consciousness as depending upon brain states and this is why we cannot introspect *P*. He believes that the concept of *P* cannot be attained by a careful introspection and concludes that introspection is cognitively closed to that property as well as other properties in the world. For instance, introspection is limited to experiences that are experienced by the subject. However, admitting that we can achieve *P* by introspection means admitting that we know the psycho-physical explanation. This entails the fact that we can know about others' conscious experiences, even though we do not have them ourselves. According to McGinn, to say that we can achieve *P* by introspection means that introspection goes beyond its own boundaries by knowing the consciousness of other beings. Therefore, he concludes that the relation between the mind and the brain cannot be known by introspection.<sup>49</sup>

According to McGinn, another way to investigate *P* is to look at the brain by perception; that is, as it is done today by neurosciences. It is undeniable that

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<sup>48</sup> *Ibid.*, p. 7.

<sup>49</sup> *Ibid.*, pp. 7–10.

empirical investigations have introduced a great deal of new concepts about the workings of the brain. However, McGinn believes that perception cannot reveal *P* because of the way perception constrains the concepts we can apply to things.<sup>50</sup> Senses represent things in a spatial world, having spatial properties. But the property of consciousness is not a spatial property, therefore it is not an observable or perceptible property of the brain even though the brain itself is observable. Every property that we see instantiated in the brain would always put forward the question of how it gives rise to consciousness since no spatial property would provide a firm bridge for the solution to the explanatory gap. More specifically, “Conscious states are simply not, *qua* conscious states, potential objects of perception: they depend upon the brain but they cannot be observed by directing the senses onto the brain.”<sup>51</sup>

After arguing that introspection and perception are closed to *P*, McGinn goes on to argue that no form of inference from perception can reveal *P* either. The reason for this is that every inference made from perception will be analogous to what we perceive; that is, theoretical concepts derived from perception will be of the same kind as objects of perception. Given that perception does not reveal the hidden property of the brain or consciousness, it follows that no inference made through them can do the job.<sup>52</sup>

In short, McGinn claims that there is a natural property of the brain or consciousness that provides also a natural explanation of why consciousness arises from the brain. However, this property and this explanation are inaccessible and inconceivable by us or by creatures like us due to our cognitive limitations. The fact that we can never grasp how a conscious state arises from a brain state should not lead us to the conclusion that there is something non-natural responsible for

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<sup>50</sup> *Ibid.*, p. 10.

<sup>51</sup> *Ibid.*, p. 11.

<sup>52</sup> *Ibid.*, pp. 13-15.

that. The explanatory gap is not an ontological gap nor a gap that can be closed by a miracle, but rather a gap whose bridge that can close it is inherently beyond us.

### 3. 3. 3 The Gap is the Consequence of Phenomenal Concepts

The final reaction to the explanatory gap that I want to focus on is the view that interprets the existence of such an epistemic gap as the consequence of the way we conceptualize consciousness and is usually referred to as the *phenomenal concept strategy*.<sup>53</sup> The phenomenal concept strategy is the approach that regards the explanatory gap as a predictable gap, which is the consequence of the nature of phenomenal concepts, between physical processes, conceived under physical concepts, and conscious states, conceived under phenomenal concepts.<sup>54</sup> This approach suggests that the gap occurs between our phenomenal concepts, that is, “concepts we exercise when (but only when) we notice or become aware of the phenomenal character of our experiences and feelings via introspection”<sup>55</sup> and physical or non-phenomenal concepts. Proponents of this view claim that phenomenal concepts have a special nature or character. This special nature of phenomenal concepts is the reason why we see an explanatory gap in psychophysical identity statements. There is a need for explanation because of the discrepancy between the concepts in the two sides of the identity, not because there is a further explanation that awaits to be discovered in the future. In other words, the gap occurs between two importantly different conceptions of one and the same phenomenon and once this difference is recognized the gap will lose its metaphysical standing. So, this strategy tries to give an account of the explanatory gap that is compatible with the truth of physicalism and is in the defense of

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<sup>53</sup> Daniel Stoljar, “Physicalism and Phenomenal Concepts,” *Mind and Language*, 20 (2005), pp.469-494.

<sup>54</sup> David Chalmers, “Phenomenal Concepts and the Explanatory Gap,” in T. Alter and Walter (eds.) *Phenomenal Concepts and Phenomenal Knowledge: Essays on Consciousness and Physicalism* (Oxford University Press, 2006).

<sup>55</sup> Michael Tye, “A Theory of Phenomenal Concepts,” in A. O’Hear (eds.) *Minds and Persons* (Cambridge: Cambridge University Press, 2003), pp.91-105; see, p.91.



physicalism. However, despite agreeing on general points, proponents of this view differ on what this special nature is and several versions of the strategy have been developed.

According to David Papineau, phenomenal concepts are special kinds of quotational concepts that refer directly to experiences (which are material properties) by including the experience itself. Phenomenal concepts are not associated with a priori descriptions; therefore, they do not refer through a priori descriptions but rather refer to experiences by re-activating or instantiating the simulations of the experiences themselves. That is to say, when we use the term 'pain' we are re-activating or having the experience of pain. For instance, the reference of the term 'water' is fixed by an a priori associated description of the form: 'the familiar liquid which is colorless, odorless and tasteless.' Papineau suggests that phenomenal concepts are compound terms that include the mental state itself or the re-creation of the mental state in the frame provided by the operator 'the experience:---'. Just like ordinary quotation marks that are filled by a word and that form a term that refers to that word, phenomenal concepts involve a frame that is filled by an experience, and the whole refers to that experience.<sup>56</sup> For instance, when we want to refer to a word we put the term within quotation marks. The whole term 'water' (including the quotation marks) refers to the word that is in quotation marks. Similarly, the whole term 'the experience: pain' (including the quotation marks) refers to the thing in quotation marks, namely to the experience itself. According to Papineau, the reason why people are so inclined to believe that there is a need for a further explanation is the way phenomenal concepts refer. He claims that psycho-physical identity statements like "pain = C-fiber stimulation" are fully explanatory because it is an identity statement and identity statements do not need explanations. As mentioned previously, unlike concepts like 'temperature' whose referent is fixed by a description such as 'a quantity which is raised by inputs of heat and causes heat sensations in humans', phenomenal concepts' referents are not fixed via a priori descriptions; rather they refer to brain states

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<sup>56</sup> David Papineau, *Thinking about Consciousness* (Oxford University Press: New York, 2004), p. 116.

directly. In asking for a further explanation of why temperature is molecular energy, we are in fact asking why molecular energy fits a priori descriptions associated with temperature. That is, we are asking why molecular energy is raised by inputs of heat and causes heat sensation in humans. And a physical explanation of temperature will also provide a reply to this question. However, Papineau states that when it comes to phenomenal concepts, asking for such an explanation is unintelligible. Given the fact that the phenomenal concept 'pain' is not associated with a priori description, there will be no place for the explanation of why pain is identical with C-fiber stimulation. In other words, when we think of pain we think of it in terms of what it feels like rather than in terms of certain descriptions; therefore, it is not possible to seek an explanation of why pain fits certain descriptions, since there is no such description associated with it. So, the reason why we cannot give an explanation of why pain is C-fiber stimulation is not that physicalism cannot provide such an explanation; it is rather because such an explanation does not and cannot exist. In short, according to Papineau psycho-physical identity statements need no explaining, but only appear as if they need it.<sup>57</sup>

Other thinkers such as Michael Tye and Brian Loar suggest that the cognitive gap exists because of the fact that phenomenal concepts are recognitional concepts that refer to internal properties, i.e. properties of the brain. On the other hand, recognitional concepts are type-demonstratives that are grounded in dispositions to immediately classify, by way of perceptual discriminations, certain event, objects and situations. Moreover, they are also perspectival.<sup>58</sup> In short, phenomenal concepts are concepts that pick out their referent by direct recognition of phenomenal states whenever we experience them.<sup>59</sup> Unlike concepts like "water" or "temperature", phenomenal concepts do not refer by associated a priori description. Therefore, like Papineau, Tye suggests that the apparent gap in psycho-physical identity statements is of the sort that cannot be explained. It is a

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<sup>57</sup> *Ibid.*, pp. 147-151.

<sup>58</sup> Brian Loar, "Phenomenal Concepts," *Philosophical Perspectives*, 4 (1990), pp. 81-108.

<sup>59</sup> Peter Carruthers, "Consciousness: Explaining the Phenomena", in D. Walsh (ed.) *Naturalism, Evolution and the Mind* (Cambridge: Cambridge University Press, 2001), pp. 61-85; see, p.65.

gap in our understanding of why a conscious state is identical to a brain state that needs no further explanation than itself. In other words, the non-descriptive but recognitional character of phenomenal concepts eliminates the possibility of the question why pain that possesses some descriptive properties also possesses particular physical properties.

Another proponent of the phenomenal concept strategy, Scott Sturgeon, suggests that phenomenal concepts are special and unique in the way they are linked to the mental states they are the concepts of. According to Sturgeon, there is a canonical connection between our perceptions and our concepts that we apply to objects. For instance, the concept 'red' is canonically connected to the perception of red, because when we apply the concept 'red' to an object, we use our perception of red as canonical evidence. When we perceive an object as red, we use this perception as evidence and apply the concept 'red' to that object on the basis of this evidence. Similarly, when we are conceptualizing our mental states we use the same mental state as a canonical evidence. When we perceive a red object, we apply the concept Q-"red" (the concept that refers to the property of our perception of red) to our perception by using its phenomenal feature of redness as evidence. So, when we apply the concept 'red' to external objects and the concept Q-"red" to our perception of red we take the same mental state (our perception of redness) as our canonical evidence. When we are applying the concept 'red' to an object, we are forming beliefs about that object through perceiving it, that is, through a visual state. On the other hand, we are applying the concept Q-"red" to our mental state through introspection, since our mental state is not an external object of perception that we try to conceptualize. According to Sturgeon, in the case of applying concepts to external objects the phenomenal features that we use as evidence are "evidential intermediaries" since they are distinct from reality. In other words, the appearance serves as an intermediary evidence to conceptualize reality. This is why it is possible that our evidences are sometimes defeated. Our perception may lead us to apply the concept 'red' to a certain object, while later on, another perception of the same object as orange will defeat it. In the case of introspection, given that our canonical evidence and what we introspect are one and the same thing, we

cannot say that our evidence is intermediary, since appearance and reality are not distinct. Therefore, according to Sturgeon, introspection disallows defeaters. In short, according to him, “with introspection we move ... ‘directly’ from the phenomena in question to our conception of it.”<sup>60</sup> In that sense phenomenal concepts are special and unique. Moreover, for Sturgeon, an explanation of a property should also account for the reason why the evidence signals the property in question. For instance, an explanation of a color in terms of wave lengths should also be able to explain how these wave lengths produce the sensation of this color. However, if the evidence is not intermediary, as in the case of a phenomenal property, to give an explanation is impossible. If the evidence and the property that will be explained are one and the same, there will be “no room to maneuver.” In other words, given that the evidence of the concept Q-“red” that we apply to the experience of red is the experience itself, there will be nothing to be explained between them. No explanation is required to explain a mental state and its relation to its canonical evidence.<sup>61</sup>

The accounts explained above are not the only alternative ways one can distinguish phenomenal concepts from non-phenomenal ones. Philosophers may find several characteristics that are peculiar to phenomenal concepts. But all phenomenal concept strategists aim to show that the gap is due to the difference between phenomenal and non-phenomenal concepts, not due to the deficiency of physicalism nor to our epistemic limitations. The apparent gap and conceivability arguments against physicalism are the consequences of neglecting this crucial difference between the ways we conceptualize things. In that sense, the gap is not an epistemic inadequacy that can be amended. It is rather a conceptual discrepancy that does not require any explanation to be overcome. Whatever the special nature of phenomenal concepts is, whether they are recognitional, quotational or of some other kind, it is common to all accounts that they are not associated with a priori descriptions as theoretical or non-phenomenal terms are; therefore, they are

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<sup>60</sup> Scott Sturgeon, “The Epistemic View of Subjectivity,” *The Journal of Philosophy*, 91 (1994), pp. 221-235; see, p. 229.

<sup>61</sup> *Ibid.*, pp. 221-235.

isolated from and irreducible to non-phenomenal concepts. This is why there is no explanation of why C-fiber stimulation is identical to pain, since this question cannot be answered and there cannot be an explanation of the relevant sort. People's inclination to try to find out the right sort of explanation of the mental in terms of the physical is due to their failure to see the differences between phenomenal and non-phenomenal concepts.

## CHAPTER 4

### THE PHENOMENAL CONCEPT STRATEGY

#### 4.1 On the Phenomenal Concept Strategy

I believe that the essence and importance of Levine's argument for the existence of the explanatory gap lies in his attempt to reconcile physicalism with the apparent mystery of consciousness. In other words, what is crucial in positing such a gap is the fact that it highlights the very possibility that the mind-body problem is merely epistemological and that there is no metaphysical problem here that threatens physicalism at all. The explanatory gap's being an epistemological gap shows the physicalists a way to overcome the mind-body problem without being obliged to eliminate phenomenal feels. On the other hand, accepting that the gap is an ontological one would be locating the mind-body problem far away from us, because the problem would then be independent from the way we understand, interpret and conceptualize the world around us. I also believe that taking a dualist standpoint would be missing Levine's point and would be unproductive for the debates about consciousness. Moreover, problems that are posed by a dualist ontology seem to be more relevant and effective reasons to reject dualism, and therefore, physicalism seems to be a more tenable perspective to employ. This is why I prefer to treat the explanatory gap problem from this perspective, i.e. from the perspective of physicalism by leaving aside dualist replies altogether and by interpreting the gap as merely epistemological.

After presenting the explanatory gap and various approaches towards it, I will now assume that physicalism is true (i.e. that everything that exists is physical or supervenes on the physical) and that Levine is right in his epistemological worries. Accordingly, I will try to find out an account of the gap that is compatible

with this ontological standpoint and examine whether physicalism can cope with the gap successfully or not. Among the approaches that interpret the gap as epistemological I shall choose to focus on the phenomenal concept strategy because it seems to be “the most attractive option for a physicalist to take in responding to the problem of consciousness”.<sup>62</sup> First of all, I should note that the explanatory gap seems to indicate a more relevant and a more fundamental problem than a current epistemological ignorance or a permanent inadequacy due to our cognitive limitations does. That is to say, the explanatory gap does not seem to depend on the insufficiency or lack of knowledge of any kind. The question why certain physical states are identical to certain mental states does not seem to be equivalent to the question why water is H<sub>2</sub>O uttered before the development of chemistry and physics. Nor does it seem to be equivalent to the question why temperature is molecular kinetic energy when asked to a chimpanzee. Since it seems that we know enough to understand what pain and C-fiber stimulation are, what is missing should be something different from what is empirical or phenomenological. I think that the solution of the explanatory gap problem should be sought in neither side of psycho-physical identity statements. Despite the fact that developments in neuroscience help us to understand a lot about what pain is, they do not enable us to understand why pain feels the way it does. What resists to be understood is why pain and C-fiber stimulation come to be the same thing and no matter how exhaustive the knowledge of pain and C-fiber stimulation that we have, may be, the identity would still seem to be incomprehensible. Thus, the puzzle does not seem to be solvable by additional knowledge of any kind. In addition, most philosophers agree on the point that phenomenal concepts are irreducible to non-phenomenal concepts due to the fact that they are first person ascriptions and that they are subjective and perspectival. (This may be because of the character of the phenomenal concepts or phenomenal properties themselves.) This may be another reason why progress in physics or cognitive capacities would not help us to close the gap, since the radical differences between phenomenal and non-phenomenal concepts or properties would not diminish with such a progress.

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<sup>62</sup> Chalmers (2006).

Therefore, supporters of the phenomenal concept strategy suggest us to look for the explanation to bridge the gap not in the external world. Rather, they suggest us to look for the reason of the gap in the way we see, understand and conceptualize things.

Moreover, I think that, by allowing a *conceptual dualism* and by pointing to the differences between phenomenal and non-phenomenal concepts, phenomenal concept strategists are more sensitive to the problem of consciousness that seemingly arises from the dual character of the world. They are successful in explaining why people are so inclined to believe in a non-physical mentality mistakenly, that is, why dualism seems so attractive in several respects. So, I believe that the phenomenal concept strategy is compatible with and can account for our intuitions about consciousness that give rise to the conceivability argument and the knowledge argument. It can explain why mind-body distinction is conceivable and why the entire knowledge of physics does not seem to be sufficient to know what an experience feels like. As explained in the previous chapter, the phenomenal concept strategy claims that phenomenal concepts have a special nature; they refer in a particular way and are not associated with a priori descriptions as non-phenomenal concepts are. This provides an answer to the anti-physicalist conceivability argument. Given the nature of phenomenal concepts, it is an a posteriori truth that mental states are identical to brain states. Therefore, conceiving of zombies that are physically identical to us is possible, because physical concepts that we apply to zombies do not a priori entail the application of any phenomenal concept.<sup>63</sup> The knowledge argument designed to refute physicalism is faced in a similar way. The fact that Mary who knows all there is to know about physics and neurophysiology does not know what it is like to see red is a predictable fact, because phenomenal concepts cannot be deduced from physical concepts she possesses. Therefore, it is quite intelligible that Mary cannot deduce phenomenal facts from physical knowledge.<sup>64</sup> In short, the phenomenal concept

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<sup>63</sup> Peter Carruthers and Bénédicte Veillet, "The Phenomenal Concept Strategy," *Journal of Consciousness Studies*, 14 (2007).

<sup>64</sup> *Ibid.*



strategy seems to be able to deal not only with the explanatory gap, but also with the conceivability argument and the knowledge argument too.

#### **4.1.1 Chalmers' Argument against the Phenomenal Concept Strategy**

The phenomenal concept strategy, despite its being one of the most effective physicalist arguments for the unbridgeability of the explanatory gap, may be rejected or criticized in several ways one of which is to point to the lack of a physicalist explanation that phenomenal concepts require. One of the most interesting counter-arguments is Chalmers' attack on the strategy by claiming that it faces a dilemma. According to him, the fact that humans possess phenomenal concepts cannot be both explained in physical terms and explain the explanatory gap at the same time. Suppose that P is the complete physical truth about the universe and C is the thesis that human beings possess some psychological features, namely, they possess phenomenal concepts. So Chalmers' argument is as follows:

- (1) If P &  $\sim$ C is conceivable, then C is not physically explicable.
- (2) If P &  $\sim$ C is not conceivable, then C cannot explain our epistemic situation.
- (3) Therefore, either C is not physically explicable, or C cannot explain our epistemic situation.<sup>65</sup>

According to (1), given the fact that the explanatory gap was derived from the conceivability argument, the conceivability of a zombie physically identical to a person and lacks phenomenal concepts entails an explanatory gap in physical explanations of phenomenal concepts. In short, there is no explanation of why certain physical states give rise to the possession of phenomenal concepts.

In order to clarify (2), Chalmers formulates it as follows:

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<sup>65</sup> Chalmers (2006).

- (4) If  $P \ \& \ \sim C$  is not conceivable, then zombies satisfy C.
- (5) Zombies do not share our epistemic situation.
- (6) If zombies satisfy C but do not share our epistemic situation, then C cannot explain our epistemic situation.
- (7) If  $P \ \& \ \sim C$  is not conceivable, then C cannot explain our epistemic situation.<sup>66</sup>

The first premise states that if physical truths entail the possession of phenomenal concepts, then zombies that are identical to us also possess phenomenal concepts. According to Chalmers, epistemic situation includes the truth values and epistemic status (as justified or unjustified, or as substantive and insubstantive). So, (5) means that given that zombies are not conscious, our beliefs about ourselves are more substantive and more justified, therefore their epistemic situation is different from ours. When a zombie says 'I am conscious', according to Chalmers, a zombie does not assert a truth, while we do. According to (6), the conceivability of zombies possessing phenomenal concepts that lack our epistemic situation points the explanatory gap between phenomenal concepts and our epistemic situation. This means, our epistemic situation cannot be explained in terms of phenomenal concepts. As a conclusion, Chalmers infers that if it is not conceivable that a twin zombie does not possess phenomenal concepts, then those concepts cannot explain our epistemic situation.

According to Chalmers the whole argument against the phenomenal concept strategy, namely, (1) together with (2), shows us that, phenomenal concepts cannot both be explicable in physical terms and cannot explain our epistemic situation, namely, that there is an explanatory gap about consciousness. So, Chalmers believes that phenomenal concept strategists face a dilemma, because both (1) and (2) entail conclusions that are against the phenomenal concept strategy.<sup>67</sup>

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<sup>66</sup> *Ibid.*

<sup>67</sup> *Ibid.*

Chalmers' argument seems to be very strong and valid but not sound. Therefore, it is questionable whether it succeeds in refuting the phenomenal concept strategy or not. Especially premise (5) seems to be a big assumption that is questionable in several respects. For instance, Carruthers and Veillet claim that the premise (5), that is, the premise that zombies do not share our epistemic situation is mistaken; therefore, Chalmers' argument fails. Chalmers states that epistemic situations consist of the truth values and the epistemic status of our beliefs. So, even though the contents of our beliefs are different, we may be in the same epistemic position with zombies. My belief 'H<sub>2</sub>O is odorless' and the belief 'XYZ is odorless' of my twin zombie that is living in a twin world do have different contents. However, the truth value of these beliefs and the way we are justified in them are exactly the same, since we are physical duplicates that are functionally indistinguishable. Therefore, Carruthers and Veillet conclude that my epistemic situation and my twin zombie's epistemic situation are the same even though the contents of our beliefs are different. According to them, this also holds for beliefs about ourselves. The content of a zombie's phenomenal concept will be, let us say, *phenomenal* states. So, his belief about his *phenomenal* state and my belief about my phenomenal state have different content but nevertheless we have the same epistemic situation with respect to our beliefs. So, given that Chalmers' premise (5) is shown to be false, Chalmers cannot argue that phenomenal concepts cannot explain the existence of explanatory gap.<sup>68</sup>

Moreover, (5) seems to be problematic in another respect too. Chalmers seems to suppose that having different epistemic situation entails the fact that zombies do not instantiate the explanatory gap either. The phenomenal concept strategy would fail if Chalmers could have shown that zombies possess phenomenal concepts but do not instantiate any explanatory gap in understanding psycho-physical identity statements. However, according to Diaz-Leon, even though zombies may not share our epistemic situation, it is clear that zombies are not able to infer phenomenal truth from physical ones either. The reason why they find an explanatory gap may be due to different reasons than ours. Anyway, what is needed to deny the

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<sup>68</sup> Carruthers and Veillet (2007).

phenomenal concept strategy is not to show the difference between our epistemic situation and that of zombies, but rather to show that they do not instantiate the explanatory gap at all. Given that Chalmers fails to show this, his argument does not pose any serious problem for the phenomenal concept strategy.<sup>69</sup>

#### **4.1.2 A Small Criticism to the Phenomenal Concept Strategy: Does it Save Physicalism?**

Another criticism of the phenomenal concept strategy that is much more sympathetic than Chalmers' argument states that a clear physicalist explanation of phenomenal concepts is not given by the strategists. According to this criticism, any version of the strategy does not solve the explanatory gap problem completely, but rather carries it to a conceptual level, because it does not explain why phenomenal concepts are so special compared to non-phenomenal concepts. They do not explain why phenomenal concepts are quotational, recognitional or self-evidential. They leave phenomenal concepts as brute facts that need no further explanation; however, phenomenal concepts need to be explained.<sup>70</sup> Whatever this special character of phenomenal concepts is, a physicalist should also provide a physicalist explanation of this character and of why phenomenal concepts are formed, used, and do refer in the special way they are supposed to. The question "Why do the concept 'pain' and the concept 'C-fiber' stimulation (which are radically different from each other) refer to the same thing?" is replied at the cost of asking the question "Why is the concept 'pain' so special relative to the concept 'C-fiber stimulation'?" which is no less easy to answer than the former. However, this criticism does not necessarily refute the phenomenal concept strategy completely. On the contrary, I believe that the strategy seems to be correct in claiming that the explanatory gap arises between two radically different

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<sup>69</sup> Esa Diaz-Léon, "Can Phenomenal Concepts Explanatory Gap," *Joint Session of the Aristotelian Society and Mind Association* (University of Southampton, 2006).

<sup>70</sup> Brie Getler, "The Explanatory Gap is not an Illusion: Reply to Michael Tye," *Mind* 110 (2001), pp. 689-694, see p. 691.

conceptions of the same physical entity. What seems to be problematic is whether we should accept this account as a brute fact or as sufficiently illuminating on its own. Thus, it would be desirable for the strategy to give us an explanation of phenomenal concepts in physical terms. As Levine states:

... it is not sufficient to merely cite the concept property distinction and insist that what explains the gappiness is the fact that the two terms flanking the identity sign express different concepts, and that this entails nothing about a difference in properties. What we need here is an account of the conceptual distinction, and this is what we've been investigating at length.<sup>71</sup>

If we want to decide whether the strategy is successful or not, we should also look at what the strategists intend to provide. Certainly, they are not trying to close the explanatory gap, since they accept that it exists. Rather, they aim to show why it exists in a way compatible with physicalism. The presence of the explanatory gap gives an occasion to the dualist to threaten physicalism on the ground that it does not tell every truth about the world. What physicalists have to do is either to close the gap, i.e. to show that it does not exist, or to reconcile its existence with their ontological standing. The phenomenal concept strategist chooses the second option and gives an account of the gap that does not necessarily entail dualism. It is in fact questionable whether they are successful in protecting their position or not. For instance, it is possible to consider the difference between phenomenal concepts and non-phenomenal ones as a consequence of a dualist ontology. A dualist can easily claim that the phenomenal concepts are special because their referents are non-physical entities. Therefore, it is possible to claim that physicalism does not advance very much by making use of the phenomenal concept strategy but rather that it stays around the same problem. However, as mentioned previously, physicalism has already rejected dualism on the ground of the causal closure argument which is a very strong one. Therefore, it seems sufficient for physicalism to neutralize the threat posed by dualists, that is, to show that the explanatory gap does not pose a serious problem for physicalism. So, the phenomenal concept strategists are not supposed to deal directly with dualism or they are not expected to reject dualism (which was already done), but rather to

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<sup>71</sup> Levine (2001), p. 87.

provide a satisfactory explanation of the gap in physical terms. I believe that this task can be accomplished if phenomenal concepts can also be given a physicalist explanation. Therefore, leaving phenomenal concepts as brute facts will be an insufficient account that does not erase every question that should be answered.

## **4.2 A Physicalist Account of Phenomenal Concepts**

Chalmers' argument and other criticisms indicate that the special character of phenomenal concepts do not seem to be the primary reason for the explanatory gap, and stand in need of a further account that would uncover why certain psycho-physical statements are true and why there is an explanatory gap. In other words, phenomenal concepts, if not explained in physical terms, do not explain the explanatory gap exhaustively. But still they help us to understand what kind of explanation is required to solve the explanatory gap problem. What we need to look for is the basis that makes phenomenal concepts what they are supposed to be or the reason why we conceptualize things as we are supposed to do. I think that explaining why phenomenal concepts are special relative to non-phenomenal ones will strengthen the phenomenal concept strategy and provide a more satisfactory explanation of why the explanatory gap exists.

### **4.2.1 The Nature of Perception and Introspection**

Given that the explanatory gap can be interpreted as a merely epistemological question, it is not surprising that some philosophers try to find out the solution in the way we conceptualize things. Similarly, my assumption of the truth of physicalism leads me to seek the basis of our phenomenal concepts not in the nature of the world, but rather in us, in the way our minds work. Therefore, I will try to locate the specialness of phenomenal concepts on the ways we become aware of the world and of ourselves. My argument will be based on two different cognitive "faculties" (as Colin McGinn calls them) that we use to become aware of

things about the world and about ourselves: perception and introspection. I will try to show that the difference between the ways we become aware of things through these cognitive faculties can account for the difference between phenomenal concepts and non-phenomenal ones and hence for the existence of the explanatory gap.

Most phenomenal concept strategists define phenomenal concepts on the basis of the notion of the faculty of ‘introspection’. It is usually asserted by them that phenomenal concepts are special since they refer directly via introspection, while non-phenomenal ones refer via descriptions that I believe are products of perception. So, perception and introspection seem to have a vital role in explaining away the two conceptions of mental states that give rise to the explanatory gap. Perception is usually defined as the apprehension or awareness of the world around us through the use of our sense organs.<sup>72</sup> We become aware of the external world by hearing, touching, smelling, tasting or seeing things. Therefore, perception is an important determinant of the way we understand, conceptualize and know the external world. This is why I believe that there is a kind of connection between perception and non-phenomenal concepts. On the other hand, introspection that is, “the non-inferential access each person has to a variety of current mental states and events occurring in that person”<sup>73</sup> is the cognitive faculty through which we ascribe phenomenal concepts to and form beliefs about ourselves. Therefore, it can be said that it has an important role in the way phenomenal concepts are so special relative to non-phenomenal ones.

As McGinn states, introspection and perception enable us to become aware of two distinct aspects of the mind: its phenomenology and its observable properties. So, I think that a mental state is a physical occurrence that is both observable and introspectible, that is, that can be both instantiated and observed by

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<sup>72</sup> Tim Crane, "The Problem of Perception", *The Stanford Encyclopedia of Philosophy* (Winter 2006 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/win2006/entries/perception-problem/>.

<sup>73</sup> Sydney Shoemaker, “Introspection.” in Guttenplan (1994), pp. 395-400, see; pp. 395.

a subject. I also agree with McGinn on the view that introspection and perception enable us to recognize, to understand and to form beliefs about the brain in two different ways, and constrain the kinds of concepts we acquire.<sup>74</sup> However, contrary to him, I do not believe that there is a further property of the brain that is beyond our cognitive accesses and that will eventually bridge the gap. Rather, I believe that the difference between our cognitive processes by which we apprehend different terms of psycho-physical identity statements prevents us to understand psycho-physical identity statements. That is, the difference between introspection by which we apprehend the phenomenology of a mental state and perception by which we apprehend the observable properties of it creates the appearance of a gap in psycho-physical identity statements. Though not being completely analogous, this case can be assimilated to the case of an object perceived through different sense organs. For instance, we can be aware of a tomato by both seeing it and smelling it; that is, by two different processes. It is perfectly clear that what we become aware of by looking at the tomato and by smelling it are totally different sense data. Similarly, the concepts that we apply to that tomato differ importantly with respect to the way we perceive it. However, this does not change the fact that what is looked at and what is touched are one and the same object: the red tomato.<sup>75</sup> Similarly, becoming aware of a mental state by different cognitive processes producing different data does not change the fact that they are the data coming from one and the same thing, namely, the mental (brain) state.

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<sup>74</sup> McGinn (1996), p.8.

<sup>75</sup> Similarly, Dr. Bill Wringe points out that *whenever* we become aware of a property through *different perceptual processes*, there seems to be an explanatory gap that needs to be bridged or explained. For instance, the property of shape of physical objects can be accessed though both visual and tactile perceptual processes, and the question why the visual quale of, say, rectangular shape is associated with the tactual quale of rectangular shape may arise, analogous to the question of why the pain quale is associated with C-fiber firings. Can we then talk about a quale-quale explanatory gap problem in addition to the original, quale-brain process, explanatory gap problem? The answer seems to be “No,” because it is easy to explain why the visual quale of rectangular shape is (normally) associated with the tactile quale of rectangular shape. Both qualia are caused by the same physical property of rectangular shape; that is why they are (normally) concomitant. The original explanatory gap problem, however, remains; we still face the problem of why the visual (or tactual) quale of rectangular-shape perception is concomitant with such-and-such brain process. Given that the original explanatory gap is usually defined as the lack of explanation of why a particular brain process is associated with a particular quale but not with another, the point made by Wringe may lead to the question of why a particular quale is associated with a particular quale but not another. However, this question only doubles the original explanatory gap and the reason why such a question arises can be explained by explaining why the original explanatory gap exists.



Certainly, merely positing a difference between the ways we become aware of external objects and our mental states is not a satisfactory explanation of the special character of phenomenal concepts. Therefore, we should also clarify in what ways they differ. I will try to establish this difference on the basis of causal theories of perception and introspection. Many people would think that the difference between these two cognitive processes, viz. perception and introspection, is not as important as to be the cause of a conceptual gap, since they are not isolated (as phenomenal and non-phenomenal concepts are) or that they are the same kind of process. I do not deny that the way we become aware of external objects and mental states have lots of things in common (first of all, they are both physical processes). However, I believe that their relations to the mental state in question differ radically, therefore they are separated sharply. I think that the causal relation of introspection to a mental state seems somehow more direct than the causal relation of perception to an external object. Suppose that a person, call her S, is able to observe her own brain and brain states by a highly developed technological device. In such a case, S's mental states would constitute an external object of her perception. Therefore, when S experiences pain, she is able to both introspect and perceive her pain. In other words, given that pain is C-fiber stimulation, S, who can observe her brain and feel her pain at the same time, can both introspect her experience as pain and perceive it as C-fiber stimulation. So, the experience of pain can be the object of two cognitive processes: the inner object of introspection and the external object of perception. I will now try to answer the question "Why does S become aware of her mental states in such different ways?" The answer to this question will be based on the difference between causal relations one bears to an external object and to an inner object through her cognitive process.

I will begin by examining how S becomes aware of her mental state pain through introspection. Philosophers suggest different account of introspection one of which is the "distinct existences" theory that was put forward by David Armstrong. This view suggests that mental states and their introspection are two distinct states. Armstrong holds the belief that perception and introspection are

radically similar. According to him, introspection is a kind of “self-scanning process” of awareness and the operation of scanning and what is scanned cannot be identical. So, a mental state and its introspection should be distinct.<sup>76</sup> This distinctiveness also implies the fact that the relation between introspection and the mental state introspected is causal, that is, a mental state is the cause of its introspection. Some other philosophers, such as Lycan, also hold a similar but a more moderate approach to introspection. Lycan and some other philosophers also point at some distinct features introspection possesses compared to perception. For instance, according to Lycan, introspection, unlike perception, is only limited to one’s own states and does not have to involve any phenomenal feels.<sup>77</sup> It should also be noted that this view also leaves room for unconscious mental states. Given that a mental state and its introspection are distinct and causally related, it is possible for one to exist without the other. In short, a mental state and the state of its introspection are distinct states that are causally connected, just as perception is causally connected to an external object. That is, the object of introspection (which is a mental state) causes the introspection of it. So, S’s introspection of her pain has roughly the following form (arrows refer to causal connections):

(1) S’s Pain (=S’s C-fiber stimulation) → S’s introspection of S’s pain (=S’s C-fiber stimulation).

In order to explain the way S becomes aware of her pain through perception I will also assume a causal theory of perception as noted previously. The causal theory of perception states roughly that “perception involves some sort of *causal* relationship between the perceiver’s perceptual experiences and those objects which, in virtue of that relationship, the perceiver may be said to perceive.”<sup>78</sup> As Bertrand Russell claims, contrary to common sense that holds that we perceive external objects directly, there is a causal process that begins from the object and

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<sup>76</sup> D. M. Armstrong, *A Materialist Theory of the Mind* (London: Routledge, 1993), p. 107.

<sup>77</sup> William G. Lycan, *Consciousness* (Cambridge and London; The MIT Press, 1987). pp. 72-74.

<sup>78</sup> Lowe (2000), p. 137.

that ends in perception.<sup>79</sup> Accordingly, science also holds that the external stimulus stimulates the sense organs that affect the brain and causes us to perceive it. For instance, the causal transmission of light waves from objects to our sense organs causes us to perceive that object. I also believe that in order to be aware of an external object one also has to be aware of the perception of it. That is to say, we become aware of an external object by being aware of, in other words by introspecting, the perception caused by that object. So, when a person perceives her own brain or her own mental state, which constitutes an external object of her perception, this perception is caused by her own brain state. In short, in the above case where S is able to observe her own brain and brain processes by a technological device, S's pain (which is a brain process) is causing S's perception of it that in turn causes S's introspection of her perception of her pain. In other words, a person can also become aware of her (or others') mental states by introspecting her perception produced by that mental (brain) state. So, the process S becomes aware of her mental state by perception is as follows:

(2) S's Pain (=S's C-fiber stimulation) → S's perception of S's pain (=S's C-fiber stimulation) → S's introspection of S's perception of S's pain (=S's C-fiber stimulation).<sup>80</sup>

As can be seen from the schemes above, both the perception and the introspection of pain are physical events that are caused by the same object (which is S's pain). They are similar with respect to the fact that they are both physical processes that are causally connected to their objects. However, it can clearly be seen from the two formulations given above that perception and introspection have different structures. One of them contains a further mental state that mediates the awareness of external object. The other depicts a causal relation between two

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<sup>79</sup> Bertrand Russell, *The Analysis of Matter* (New York: Dover), p.197.

<sup>80</sup> Even though it is not usual for one to perceive her own mental states, I gave this example in order to clarify how perception and introspection would be so different even if the subject and the object were the same. However, we do not have to imagine such an improbable case. The physical process someone undergoes when perceiving another's mental state will be sufficient to illustrate the difference between this process and the process she undergoes when she introspects her own mental states.

mental states that is not mediated by a third one. The difference between these causal processes has important epistemic consequences. First of all, the causal process of introspection takes place in the same mind. In other words, the process begins and ends in the same brain. This is why, introspection is limited only to one's own mental state. Such a causal process cannot occur between two mental states instantiated in different brains. That is, the subject of the experience and the subject of introspection have to be the same person: one cannot introspect the mental state of another person. On the other hand, in the case of the schema (2) the perception, hence its introspection and the object perceived (which is also a mental state= S's pain) *can* occur in two different subjects. In short, the same object or mental state can be perceived by different people. This indicates why objects (mental states) are publicly observable through perception while they are introspectively accessible only to the owner of them.

Moreover, the presence of perception in the process of becoming aware of an external object leads to an epistemological mediation between the subject and the object. As noted previously, while observing an external object we must also become aware of our perception of it, which is a part of the causal process (2), in order to be aware of the external object. In other words, we can achieve the knowledge or awareness of an object by the awareness of our perception of it. This means that in order to be aware of an object by perception, we must also be aware of the second link in the causal process diagrammed in (2). While being aware of our own mental states through introspection on the other hand, we do not gain the awareness of our mental states through their perceptions, that is, we do not infer the knowledge of our mental states from the knowledge of our perceptions of them. Even though our awareness of our mental states is causally mediated, it is nevertheless epistemologically non-inferential since, contrary to external objects that are known by perception, no knowledge or awareness of the causal or neural chain between the mental state and its introspection is required in order to be aware of mental states introspectively. In other words, introspection is non-inferential since the causal processes between a mental state and its perception are not

themselves mental states<sup>81</sup> that we must be aware of. The mental states directly cause in us the awareness of them. This is why we have referential perceptual access to external objects while the awareness of mental states is non-inferential to their subject.

Given the differences between the ways we become aware of the external world and of ourselves, it is not so surprising why psycho-physical identity statements seem to require further explanations. Scientific theories and explanations rely upon observation and perception. Therefore, they depend upon the way we become aware of external objects as diagrammed in (2). Mental states, since they are physical occurrences, can be the object of science, can be perceived by different people, i.e. can be observed. However, as it was mentioned previously, this kind of awareness reveals only one term of the mind. The phenomenology of it cannot be revealed by observation; therefore it is not suitable for scientific investigations. Actually, a scientist can study the mental state of another person and the introspective process he undergoes, however this will only provide for the scientist an inferential awareness gained through perception. In order to become aware of a mental state directly we need something different from perception or observation. We need to undergo another kind of causal process, namely (1), and despite the process is physical, the phenomenology cannot be revealed by physical sciences. Observing the causal process (1) in one's brain does not provide the knowledge that person gains by undergoing this process itself. However, given that introspection of a mental state is limited to the person who experiences the mental state in question, it cannot be dealt with by scientific method, and therefore, phenomenology cannot be the object of physical sciences.

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<sup>81</sup> Armstrong (1993), p. 201.

#### **4.2.2 How can the Difference between Perception and Introspection Account for the Phenomenal Concept Strategy?**

What is the yield of the above explanations for the debates about the explanatory gap, or to the phenomenal concept strategy? I believe that the two different causal processes of becoming aware of the one and the same object are the basis of two different conceptions of one and the same object. As mentioned previously, the causal chain that produces the awareness of an object is mediated by a perceptual state. This causal mediation also leads to an epistemological one, since we become aware of an external object through the knowledge or awareness of our perception of that object. This means, our awareness of an external object is epistemologically mediated by a perceptual state. On the other hand, the causal chain of an inner object and its introspection does not lead to an epistemic mediation, since as Armstrong notes, we do not arrive at the awareness of our mental state through the knowledge or awareness of the causal chain between the mental state and its introspection. Our awareness of our mental state is, therefore, non-inferential.<sup>82</sup>

Despite the fact that different versions of the phenomenal concept strategy are developed in the literature, each of these versions considers phenomenal concepts as being conceptually isolated; that is, no physical concepts are a priori associated with them. All versions of the phenomenal concept strategy state in one way or another that phenomenal concepts reach out to their referent directly. In other words, contrary to non-phenomenal concepts that fix their referent by a priori descriptions, phenomenal concepts are not associated with such descriptions. I think that this difference between phenomenal and non-phenomenal concepts goes hand in hand with the difference between our awareness of an external object and our awareness of an inner one. To clarify this point let us look at the non-phenomenal concept ‘water.’ As Papineau states, this concept refers by associations such as “the familiar liquid which is colourless, odourless and tasteless.” On the other hand, we become aware of water, which is an external

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<sup>82</sup> *Ibid.*

object, by firstly being aware of our perception of it. We infer the knowledge of water from our perceptions of it as being odourless, colourless and tasteless. The causal process of becoming aware of 'water' makes us firstly aware of our perception and then of the object (water) of our perception. I think that this cognitive process is parallel to the way non-phenomenal concepts refer. Just as our awareness of water is mediated by our perception of it, the referring of the term 'water' is mediated by descriptions which are acquired through perception. The descriptions that we associate with water are the products of our perception of it. This is why I think that the inferential cognitive process leads non-phenomenal concepts to pick out their referents through a priori associations with descriptions. When it comes to phenomenal concepts the situation is similar. It is said that phenomenal concepts refer directly and are isolated from any kind of association with descriptions. On the other hand, the way we become aware of our mental states, though mediated causally, is not mediated by perception. In order to be aware of pain, we do not first perceive it; rather, pain directly causes our awareness of it. We do not infer our mental states from our perceptions of them. Therefore, our conception of it is direct. The non-inferential awareness of mental states seems to lead to our application of non-phenomenal concepts that pick up them out directly. Since the awareness of a mental state does not involve the perception of the mental state in question, it does not appear to us as 'having such an appearance, such a colour, such a taste etc.'. We are aware of it merely as something that feels like a certain way. Therefore, it is not possible for us to conceptualize it through a priori association of descriptions as in the case of our conceptualization of external objects.

In short, I think that the cognitive processes through which we become aware of internal and external objects are caused by their objects and they constitute the basis of our application of phenomenal and non-phenomenal concepts. Given that these cognitive processes are completely physical, it can be said that they constitute a physicalist explanation of the difference between phenomenal and non-phenomenal concepts, and hence, of the explanatory gap.

### 4.3 The Explanatory Gap and Physicalism

Given that the explanatory gap is epistemological, that is, that we cannot understand why psycho-physical identity statements are true, it does not seem to threaten physicalism at all. However, the issue is not so simple and one should also make clear what the physicalist thesis states. In other words, we should make clear what we exactly mean by ‘physicalism’, which was previously defined as the view that everything is physical or supervenes on the physical, in order to justify how it is compatible with the explanatory gap.

As it is mentioned by Stoljar, there is no consensus about how physicalism should be defined and hence there are two different characterizations of physicalism: the a priori characterization and the a posteriori characterization. According to a priori physicalism, which is clearly defined and rejected by Chalmers<sup>83</sup> and Jackson<sup>84</sup>, the mental supervenes on the physical and mental truths are a priori entailed by physical truths.<sup>85</sup> In other words, “once we have established these physical facts, then nothing *more* is needed, beyond conceptual analysis, to reach the reductive claims”.<sup>86</sup> So, besides the metaphysical claim that physical facts entail mental facts, a priori physicalists also make an epistemological claim that mental truths follow a priori from the physical truths. For instance, the whole physical story of the world and the knowledge that water is the stuff that plays a certain causal role will enable us to know a priori that water is H<sub>2</sub>O. The arguments that are given against physicalism are mainly based on this characterization. Chalmers and Jackson reject physicalism on the ground that mentality is not a priori entailed by physical truths since it is possible to conceive of one existing without the other, and to know all physical truths without knowing how it feels to see red. This understanding of physicalism does not permit the existence of an

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<sup>83</sup>Chalmers (1997), p. 166.

<sup>84</sup>Frank Jackson, *From Metaphysics to Ethics* (Oxford: Clarendon Pres, 1998), pp. 80-84.

<sup>85</sup>Daniel Stoljar, “Two Conceptions of the Physical,” *Philosophical and Phenomenological Research* (2001), pp. 253-281; see, p.253.

<sup>86</sup>Papineau (2004), p. 153.



explanatory gap between the mental and the physical, therefore is highly damaged by the conceivability argument and the knowledge argument.

It can clearly be seen that a priori physicalism is not compatible with the explanatory gap; therefore, the kind of physicalism that I assumed throughout my thesis cannot be this one. Given that I accept, as phenomenal concept strategists do, that the gap is real on an epistemological level, that is, that we cannot understand how psycho-physical identity statements are true in an a priori way, I cannot coherently admit the epistemic claim made by a priori physicalism (that we can infer mental truths from physical ones a priori). As it is mentioned previously, I believe that the way we become aware of the external world and our mental states and thus, the way we conceptualize them prevents an a priori understanding of mental states in terms of physical facts. The reason for this is not the falsity of physicalism but rather the lack of descriptions a priori associated with phenomenal concepts. Even though we know everything about the goings on in the brain, we cannot understand a priori that those brain states feel certain ways. Since phenomenal concepts have no a priori associations with non-phenomenal concepts, the instantiation of phenomenal feels cannot be inferred a priori from physical facts.<sup>87</sup> So, if we both want to be a physicalist and a realist about phenomenal consciousness, the position we should adopt can only be a posteriori physicalism. A posteriori physicalists claim that it is not the case that mental truths are a priori entailed by physical truths. According to them, a priori analysis is not the only way one can explain why psycho-physical statements are true.<sup>88</sup> In other words, a posteriori physicalists accept the ontological thesis that everything is physical or supervenes on the physical, but deny that every truth can be inferred a priori from physical truths. Given that there is an explanatory gap in psycho-physical identity statements, they clearly fail to be a priori. It is not a priori knowledge that pain is C-fiber stimulation because such an a priori analysis cannot be given due to the

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<sup>87</sup> Papineau (2004), p. 152-154.

<sup>88</sup> Brian P. McLaughlin, "A Priori versus A Posteriori Physicalism," in *Philosophy-Science - Scientific Philosophy, Main Lectures and Colloquia of GAP 5, Fifth International Congress of the Society for Analytical Philosophy*, 2003, eds. C. Nimtz and A. Beckermann. Paderborn: Mentis: 267-285.

nature of phenomenal concepts. So, what the conceivability argument and the knowledge argument reject is the a priori characterization of physicalism. The ontological claim that mental facts supervene or are identical to physical facts is still safe.

If psycho-physical identity statements are not a priori truths, that is, if an explanatory gap is involved in such statements, then what ground do we have for holding that these identity statements are true? As mentioned in previous chapters physicalism has strengthened his position with the Causal Closure Argument. However, even though this argument is effective in justifying physicalism, it does not explain why we should believe that pain is C-fiber stimulation. According to a posteriori physicalism, the knowledge of ‘pain is identical to C-fiber stimulation’ is a posteriori. Therefore, McLaughlin states that such psycho-physical identity claims can be justified by psychophysical correlations, that is, “correlations between types of states of phenomenal consciousness and types of neuro-scientific or psycho-functional states.”<sup>89</sup> So, both the Causal Closure Argument and scientific examinations are a posteriori physicalists’ justification for believing in psycho-physical identity claims. Certainly, such an empirical justification does not solve the mind-body problem or does not close the explanatory gap. But as mentioned before, a posteriori physicalists do not intend to solve these problems but rather aim to show why they exist. They believe that the explanatory gap is compatible with physicalism which is an ontological thesis and can be explained in physical term

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<sup>89</sup>*Ibid.*, p. 281.

## **CHAPTER 5**

### **CONCLUSION**

We have seen that the explanatory gap problem is an important subject of debate in contemporary philosophy of mind. The problem goes back to the mind-body problem that was clearly posed by Descartes and it still constitutes a big difficulty for philosophers of mind, especially for those who try to give a physicalist explanation to the mind and to consciousness. As can be seen from the whole literature about the mind and consciousness, the dualists' attacks to physicalism, which is usually defined as the view that everything is physical, are mainly based on two closely connected arguments: the conceivability argument and the knowledge argument. The conceivability argument that is used by Descartes to argue for mind-body distinction is developed and many derivatives of it are constructed. The intuitions that the mind can exist without the body and that the whole knowledge of physics does not give the knowledge of consciousness led to Levine's argument for the explanatory gap. Levine argues, on the basis of Kripke's argument, that those arguments do not entail any kind of dualism but rather point to an explanatory gap in psycho-physical identity statements. In short, Levine emphasizes the fact that those arguments and the explanatory gap do not entail an ontological conclusion, therefore are compatible with physicalism.

In my thesis I tried to contribute to the problem of consciousness by proposing an explanation of why the explanatory gap emerges within the framework of a physicalist point of view. I investigated the question "If physicalism is correct, then why does it not provide a full understanding of consciousness?" In order to clarify the explanatory gap and to find out the most plausible account of it that is compatible with physicalism, I first briefly presented the philosophical background of the problem. Later I gave a detailed presentation

of Levine's argument for the existence of the gap. Various interpretations of the nature and the source of the gap were also presented. We have seen that some philosophers regard the explanatory gap as an ontological chasm that is unbridgeable in principle since it exists between the nature of the mental and the physical, while others see it as merely epistemological. However, we have also seen that the epistemological interpretation differs widely, that there is no consensus on why the gap arises. Some philosophers believe that the gap arises because of our current ignorance or current misconceptions, therefore is not permanent, some believe that the gap is due to our cognitive limitations that prevent us to grasp the reality behind it, and therefore is unbridgeable by us. Finally, the phenomenal concept strategists interpret it as the consequence of the special character of phenomenal concepts: concepts that we apply to our mental states. I examined several versions of this strategy. However, despite some differences between the accounts for the special character of phenomenal concepts, we have seen that philosophers agree at least on the fact that phenomenal concepts are conceptually isolated, that is, they are not associated with any description or role. According to this strategy, the explanatory gap arises because phenomenal concepts are not suitable to conceptual analysis as non-phenomenal concepts are.

I next evaluated the phenomenal concept strategy and presented some arguments against it. These arguments indicated that the phenomenal concept strategy, despite providing an effectual account for the existence of the explanatory gap, is not satisfactory on its own. The reason for this is that while explaining why the gap exists, the strategy does not give an explanation of why phenomenal concepts are so special compared to non-phenomenal concepts. It leaves the characteristic of phenomenal concepts as a brute fact. Later on, I proposed a possible account for phenomenal and non-phenomenal concepts in physical terms in order to strengthen the strategy. I claimed that phenomenal and non-phenomenal concepts differ importantly because of the way we become aware of the external world and our mental states. I tried to support this claim on the basis of the physical differences between the causal processes of perception and introspection. In short, I

proposed an account of different conceptions of mental states in terms of different kinds of awareness of them.

All these arguments and explanations indicate that physicalists who accept the existence of the explanatory gap characterize physicalism as an ontological thesis that does not guarantee any a priori understanding of the mental in terms of the physical. Contrary to dualists who use conceptual and epistemological arguments to reject a physicalist ontology, many physicalists deny the ontological implication of those arguments and the ontological status of the mind-body problem. This position, called 'a posteriori physicalism' does not bridge the gap and does not solve the mind-body problem but rather shows that the mind-body problem does not have any metaphysical significance. A posteriori physicalism seems decent in several respects because it both admits the existence of phenomenal feels (that is very hard to reject) and avoids the metaphysical problem that arises from this acceptance.

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