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Abstract

DIANE SMEDBERG: On Epistemic Egalitarianism For My P-Zombie Twin: In Defense of The Phenomenal Concept Strategy
(Under the direction of Dr. James J. Pearson)

One current debate in philosophy of mind concerns the ontological and epistemological nature of phenomenal consciousness. Two major camps dominate this debate: property dualists and physicalists. For property dualists, the existence of an epistemic gap between the physical and the phenomenal—that our knowledge of the physical does not secure our knowledge of the phenomenal—entails an ontological gap, so that the physical and the phenomenal exist as fundamentally distinct domains. For physicalists, the ontological gap does not exist because there is only one ontological type of phenomenal property.

In this paper, I will criticize the property dualists' position. I concentrate on one of the most popular property dualists' arguments—the conceivability argument. In addition, whilst analyzing the conceivability argument, I hope to draw out an illicit change in the use of 'epistemic situation,' thus adding further support to the instability of the conceivability argument.

Further, I argue in favour of the conceptual isolation seen between our phenomenal and physical concepts by defending the 'Phenomenal Concept Strategy'. Conceptual isolation is responsible for our being able to conceive of 'philosophical zombie twins', beings that are functionally, physically, and psychologically identical to us and yet which lack phenomenal conscious experiences. The phenomenal concept strategy is designed to provide an explanation of how it is that we can conceive of such beings whilst remaining physicalists and so endorsing an ontological monism. In order for the phenomenal concept strategy to prove fruitful, the physicalist must substantiate that we share an equally good epistemic situation to our philosophical zombie twins. Our philosophical zombie twins assert claims pertaining to their phenomenal conscious experiences in the same manner that you and I do, however, *ex hypothesi,* we know that they do not possess phenomenal consciousness. I analyze the physicalists' account of our philosophical zombie twins' beliefs pertaining to their own phenomenal consciousness and argue for epistemic equality—that our philosophical zombie twins do possess a certain type of consciousness.

My thesis has two major goals. First, I hope to weaken the foundation of the property dualists' argument—the conceivability argument—and second, to force the property dualist to reevaluate the phenomenal concept strategy upon the grounds that it was developed.

Keywords: philosophical zombie, conceivability argument, physicalism, property dualism, ontology, metaphysics, epistemic situation, phenomenal concept strategy, epistemic gaps

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1 Introduction

One of the main questions in philosophy of mind is the ontological question of phenomenal consciousness: 'What exactly constitutes phenomenal consciousness?' [i] One of the main epistemological questions asked is: 'Will cognitive science be able to provide a physical explanation to our questions that pertain to consciousness?' Due to current technology, philosophers argue that the cognitive sciences will not be able to provide us with a physical explanation of phenomenal consciousness, but it is hoped that future science will be able to do so. This lack of an explanation creates the explanatory gap seen between physical reality and phenomenal reality. Some philosophers maintain that phenomenal consciousness is completely governed by basic physical facts, thereby denying an ontological gap. However, others, such as David Chalmers, argue that the explanatory gap entails an ontological gap. His reason is that phenomenal properties cannot be reduced to physical properties. For example, the property "being pure gas" can be reduced to chemical properties, "being C_8H_{18}". This position is known as 'property dualism'. To support his position, he argues that we cannot disprove that other entities, such as philosophical zombies (p-zombie), functionally, physically, and psychologically identical to us, exist yet lack phenomenal consciousness. For Chalmers and other property dualists, no amount of knowledge of the physical facts will necessitate why our experiences are accompanied by phenomenal consciousness. Some physicalists argue, in opposition to property dualists, that an explanatory gap does not necessarily entail an ontological gap.

1.1 The Hard Problem of Consciousness

Chalmers (1995) maintains that the most puzzling feature of phenomenal consciousness is that of explaining subjective experience. He labels this *the hard problem*. Chalmers writes:

> Consciousness, the subjective experience of an inner self, poses one of the greatest challenges to neuroscience. Even a detailed knowledge of the brain's workings and the neural correlates of consciousness may fail to explain how or why human beings have self-aware minds (ibid.: 90).

Chalmers writes that the sciences do not know why our "physical processes are accompanied by conscious experience" (ibid.: 93). He wants to know why we should have any experience at all

and suggests that unconscious robots or androids could perform the same undertakings as we do. Chalmers notes: "…subjective experience seems to emerge from a physical process. But we have no idea how or why this is" (ibid.: 93-4). Chalmers does not deny that our conscious states arise from the brain but would like a theory of consciousness that answers his questions.

According to Chalmers, the hard problem is that of providing an answer to the 'how and why' questions that phenomenal consciousness seems to force us to ask. We are not looking for an answer as to which neural correlate(s) of consciousness are responsible for phenomenal consciousness. What we want to understand is the 'how and why' this causal chain from the physical to the phenomenal yields conscious experiences. Without answers to these questions, some philosophers posit that we are left with three types of epistemic gaps: the explanatory gap, the conceptual gap, and the knowledge gap. These gaps are used to form arguments in an attempt to show that the physical and phenomenal properties are ontologically but not necessarily conceptually distinct entities, and so existing independent of one another.

1.2 Oh Those Troublesome Epistemic Gaps

All three of these gaps—explanatory gap, conceptual gap, knowledge gap—are understood as a form of an epistemic gap in that they individually repudiate an epistemic link between that of the physical and the phenomenal. This link encompasses what it is that we can *explain*, *conceive*, and *know*. These gaps are used to form arguments in an attempt to show that a set of concepts cannot be reduced to another set of defined concepts, and the ontological gap exists if a set of properties or facts cannot be reduced to another set of properties or facts.

The explanatory gap is understood as follows. If an agent S cannot provide an explanation of phenomenal consciousness in pure physical terms, she will see the gap between the physical facts and an explanation of phenomenal facts. In other terms, the physical is unable to explain the phenomenal. The explanatory gap suggests an ontological gap because she cannot deduce a physical explanation from the phenomenal. That is, if by way of the physical you cannot explain the phenomenal, then the phenomenal is not a physical fact. Therefore, an ontological gap exists between the physical and the phenomenal.

The conceptual (or conceivability) gap is understood as follows. If an agent S can conceive of the physical without the phenomenal, then she will see the gap due to our ability to imagine such a world in all its physicality, but missing phenomenal consciousness. The

conceptual gap suggests an ontological gap from conceivability to metaphysical possibility for the reason that one may infer from the assertion that if it is conceivable that the physical facts do not entail the phenomenal facts, then it is metaphysically possible. From here, she will conclude that physicalism is false. She will infer that physicalism is false due to her reasoning that if a logically possible world (W_1) exists that is identical to our world (W) but lacking consciousness, then consciousness must be an additional ontological fact.

The knowledge gap is understood as follows. If an agent S has complete knowledge of the physical but cannot deduce the phenomenal from the physical, then she will see that having complete knowledge of the physical does not suffice for having knowledge of the phenomenal. This results in an agent S being unable to infer the phenomenal facts from physical facts i.e., resulting in a knowledge gap between the physical and the phenomenal. The knowledge gap suggests an ontological gap due to an agent S being unable to deduce the phenomenal facts from the physical facts; leaving an agent S positing that consciousness must be an additional ontological fact.

In sum, any of these gaps give reason to think physicalism is false.

1.3 Phenomenal Concept Strategy (PCS)

A posteriori physicalists turn to a powerful strategy known as the Phenomenal Concept Strategy (PCS) to resist the inference of an ontological gap stemming from an epistemic gap that many argue is shown through Frank Jackson's (1982) Knowledge Argument. In the Knowledge Argument, we are told that Mary is an omniscient neuroscientist that has been held prisoner, since birth, in a monochrome room. Mary knows all the physical facts and has in her possession further information, assumptions. These assumptions are otherwise known as bridge laws. Mary has full capacity to deduce what it will be like to experience the colour red, yet, when Mary is released from her monochrome room, many philosophers argue that Mary learns something new when she experiences red for the first time. If this is true, then the bridge laws were of no use to Mary and we are still left with our original difficulty of getting from the physical facts to the phenomenal facts. Due to this argument, Brian Loar (1990) developed what Daniel Stoljar (2005) has labeled the PCS. Loar (1990/1997) explains that the isolation of our phenomenal concepts from our physical concepts is responsible for the issues that follow from the Knowledge Argument. Moreover, conceptual isolation explains why it seems that p-zombies are conceivable.

If the phenomenal concept strategy is successful, it will provide an explanation as to why an explanatory gap exists, and why it seems plausible that p-zombies are conceivable. It may appear that how type-B physicalists explain phenomenal consciousness will elide a reductive and non-reductive explanatory structure. This is because they can uphold the non-reduction for a set of concepts, thereby accepting the existence of the epistemic gaps, while nevertheless arguing for the reduction of the corresponding sets of properties selected by those concepts, thereby denying the ontological gap.

1.4 A Posteriori Physicalism

My focus in this paper will be on *a posteriori* physicalism (dubbed "type-B physicalism" by Chalmers, 2002).[ii] Janet Levin (2008) tells us that type-B physicalism is the doctrine that holds that even though our phenomenal states are identical with physical states, our phenomenal concepts are not connected, *a priori,* to our functional or physical concepts (ibid.: 402). This disconnect between our concepts is known as *conceptual isolation.* Phenomenal concepts are the concepts of an experience that is perceived by our senses. This type of experience is characterised as a phenomenal experience, i.e., the subjective experience. For someone to obtain a phenomenal concept, one must stand in an acquaintance relationship with "*what it is like-ness" to have this experience* (an expression coined by Thomas Nagel, 1974).

1.5 Qualia and Conscious Experience

The word "quale" is very confusing in its own right, because there is not an operational definition that everyone agrees upon. The term dates back to 1623 when Galileo Galilei wrote "The Assayer". Qualia are the characters of conscious experience: the 'what it is like'-ness of the sensation of one's private subjective (first-person) experience. In other terms, qualia are the sensations you experience when you hear middle C played, see neon green, taste vegemite, are in a painful state, experience an orgasm, experience happiness, or sadness, etc. One may ask, "When I see neon green I am cognitively processing this information, but why do I have a visual experience? How can I explain the sensation of being in pain?" We can understand that these qualities can be explained by the functional or physical but that is not what we want to know. We want to know why the physical is attended by the phenomenal.[iii] According to the property dualist, the physicalists' story cannot account for why our experiences should be accompanied

with qualia. The property dualist's account of qualia states that qualia are ontologically distinct properties and that they cannot be reduced to something physical, or explained by something that is not phenomenal. They cannot hold that the physical provides us with our conscious experiences. According to the *a posteriori* physicalist, qualia are reducible to physical properties because qualia are part of certain brain functions and therefore are not ontologically distinct.

1.6 A P-Zombie?

So, what exactly is a p-zombie? The notion of 'p-zombies' has been the topic of many heated debates among philosophers such as Chalmers, Daniel Dennett, and Robert Kirk. P-zombies are not to be confused with the zombies of Hollywood. The zombies of Hollywood are creatures that are somewhat conscious, whereas p-zombies lack all consciousness. In addition, Hollywood zombies are distinguishable from humans (skin rotting off, abnormal gait, oozing wounds, etc.), whereas p-zombies are indistinguishable from humans. To make the distinction between a Hollywood zombie and a p-zombie clear, Chalmers offers us the following provocative description:

> This creature [p-zombie] is molecule for molecule identical to me, identical to me *functionally:* he will be processing the same sort of information, reacting in a similar way to inputs… with indistinguishable behavior resulting. He will be *psychologically* identical to me…. It is just that none of this functioning will be accompanied by any real conscious experience. There will be no phenomenal feel. There is nothing it is like to be a [p-] zombie (Chalmers, 1996: 94-5, emphasis original).

Your p-zombie twin is identical to you. She will behave exactly as you do, will function as you do, and will be cognitively identical to you, but—and this is the crucial point—will lack all phenomenal conscious experience. Although your zombie twin has the ability to ascertain facts about the world, she is never in a position to have a phenomenal conscious experience of the world.

In the above passage, Chalmers distinguishes between a p-zombie being functionally and psychologically identical to us. For something to be functionally identical to us, it must be able to process inputs in the same manner as we do and its behaviour, the output, will be exactly as we would behave given the same stimuli, i.e., the resulting behaviour of my p-zombie twin will be indistinguishable from my behaviour. For example, when the p-zombie perceives an apple,

she will be able to process information concerning the apple and she will respond to the apple in the same manner to me. For something to be psychologically identical to us, it must have the abilities of introspection, providing verbal reports, paying attention, learning, remembering, etc. For example, when the p-zombie eats broccoli, she will be able to provide some type of report about the taste. Chalmers notes that the concepts just mentioned, which we are able to provide a functional analysis for, are ultimately found to have a psychological basis. For example, when tasting broccoli, our gustatory system will provide us with a functional response and how we interpret the taste will provide us with our psychological response. This is an issue for what Chalmers calls property dualism.

Property dualists, such as Chalmers, maintain that if a p-zombie is conceivable, then a p-zombie is metaphysically possible. It is important to remember that for the property dualist neither of these for the p-zombie, the functional or the psychological states, will ever be accompanied by a phenomenal conscious experience. *A priori* physicalists deny that p-zombies are conceivable, thus rendering the notion of p-zombies metaphysically impossible.[iv] *A posteriori* physicalists maintain that p-zombies are conceivable but, like *a priori* physicalists, they deny metaphysical possibility. Even though property dualists and physicalists disagree about whether p-zombies are conceivable and question their metaphysical possibility, they do agree that the language of phenomenal concepts is distinct.

1.7 The Language of Phenomenal Concepts

Peter Carruthers and Bénédicte Veillet (2007) explain there are two distinct ways we go about deploying phenomenal concepts: using first-person (private, subjective, phenomenal) language or third-person (public, descriptive, physical) language. First-person language that is about a phenomenal concept will be such that it encompasses thinking about states such as 'this' experience or 'that' experience. Third-person language is about non-phenomenal concepts, which are objective, and publically recognizable, that provides a description of a phenomenal concept. For example, my p-zombie twins' concept may be different from my phenomenal concept but as long as we are both speaking third-personally, those concepts will refer to the same thing. Therefore, phenomenal concepts can be described in third-person language.

The position I will defend in this paper is that our first-person access to phenomenal consciousness leads us, mistakenly, to hypothesize that qualia are ontologically distinct. Since

we imagine qualia in this manner, we have the ability to conceive of p-zombies who lack the phenomenal properties of consciousness. I argue that the third-person characterization can be attuned to how we perceive phenomenal properties in the functional physical domain thus denying the metaphysical significance of qualia. If our third-person characterization is justifiable, then the metaphysical possibility of p-zombies lacking qualia is dispelled just as type-B physicalists maintain.

1.8 Why Do Property Dualists Posit A P-Zombie?

Philosophers of mind posit p-zombies as an intuition pump specifically designed to test our intuitions about the relationship between the nature of the physical and the phenomenal. Philosophers of mind have spilt much ink in their attempts to dispel the conceptual and metaphysical possibility of p-zombies. Nevertheless, just as we see in the theatres, we encounter great difficulties when attempting to kill zombies. Physicalism is the doctrine that holds everything is physical in nature including phenomenal consciousness. The conceivability of p-zombies creeping around the metaphysical terrain appears to have damaging consequences for physicalism. Therefore, these p-zombies have the potential to debunk physicalism. The marrow of the problem is that p-zombies are very easily conceived; this generates a belief that they are metaphysically possible i.e., conceivability implies metaphysical possibility.

2 Arguing for the Existence of an Ontological Gap

At the root of PCS is the idea that the epistemic gaps are determined by how we think about qualia, i.e., the concepts we deploy when thinking about qualia: it is not the nature of qualia itself that determines the epistemic gaps. PCS is not provided as a defence of physicalism, but is provided as a defence against the allegation that there exists an ontological gap in the presence of an explanatory gap. Contrary to the position of the type-B physicalist, the property dualist argues that the conditional statement ‘if it is the case that all truths are physical truths, then phenomenal truths are physical truths’ is false and not knowable *a priori*, then there exists an ontological gap between that of the physical and phenomenal. The following shows how the property dualist goes about arguing for the existence of an ontological gap that shows physicalism is false:

1) There is an epistemic gap between the truths of the physical and the phenomenal.

2) If there is an epistemic gap between the truths of the physical and the phenomenal, then there is an ontological gap, and physicalism is false.

3) If it is the case that all truths are physical truths, then phenomenal truths are physical truths is not *a priori* knowable.

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4) Physicalism is false. (Chalmers, 2010: 110).

Type-B physicalists argue that premise (2) is false. Type-B physicalists argue, contrary to the property dualists, that the conditional statement 'if it is the case that all truths are physical truths, then phenomenal truths are physical truths' is true and is not *a priori* knowable but, this does not result in an ontological gap between physical truths and phenomenal truths. The key component of PCS is that it furnishes an explanation for why we are confronted with these gaps that is compatible with physicalism. By furnishing a lucid theory of how these gaps—the conceptual gap, the explanatory gap, the knowledge gap—can be maintained in a world that is completely physical, the type-B physicalist is able to show that the *a priority* that property dualists argue for, which is the link between the ontological gap and the epistemic gaps, is false.[v]

Interlude

Chalmers specifically attacks the type-B physicalists' position and this is why I will focus exclusively on this version of physicalism. On one hand, the type-B physicalist will agree with the property dualist that we have the ability to conceive of p-zombies, that there is an explanatory gap, and that the gap cannot be closed. On the other hand, the type-B physicalist will deny that p-zombies are metaphysically possible. The type-B physicalist claims there can be an explanation that is consistent with physicalism for why there is an explanatory gap, and that their account will predict a gap. They are able to assert the conditional statement 'if it is the case that all truths are physical truths, then phenomenal truths are physical truths' is true and not knowable *a priorily*, thus the *a priori entailment* can no longer be used against the conditionals' ontological importance.[vi]

Chalmers raises an objection to PCS and argues that PCS is 'doomed to fail' (Chalmers, 1996: 104). My hope is to defend PCS from the objection that Chalmers raises by arguing that his objection is itself in a rather troubling position; that is, his objection is itself subject to a quandary and thus PCS is not *doomed to fail*.

The landscape of this paper is as follows: Sections 3 - 5 is dedicated to the exposition of Chalmers' argument against PCS. In section 6, I will develop phase (1) of a quandary that shows the various outcomes when we cast *C* in phenomenal language (first-person), and then cast *C* in topic-neutral language (third-person) whilst casting our epistemic situation in phenomenal language throughout. In section 7, I will offer some objections and replies to phase (1). In section 8, I will present phase (2) of the quandary and argue that when we look at our epistemic situation in topic-neutral terms, my p-zombie twin shares an equally *good* epistemic situation as ours, contra Chalmers.

3 Thesis C

Proponents of PCS argue that thesis C is successful in explaining why we are confronted with the explanatory gap by following certain criteria. The content of this thesis is such that *C ascribes key psychological features to all human beings who are phenomenally conscious.* We can say that C is responsible for the lack of interaction between our physical and phenomenal concepts (conceptual isolation). Further, we can say that since human beings have C, this is why we have the ability to conceive of entities such as p-zombies. Therefore, the key psychological features will include all aspects of human mentality, and will explain our epistemic situation concerning phenomenal consciousness, that is:

(i) *C* is true (we do have the key psychological features);

(ii) *C* clarifies our epistemic situation in explaining why we are faced with various types of epistemic gaps; and

(iii) *C* itself can be explicated in physical terms (why we have key psychological features) (Chalmers, 2006**:** 172).

Meeting criterion (iii) amounts to an explanation of the functional and psychological by way of physical terms thus explaining the explanatory gap between the functional and physical on the one hand and the phenomenal on the other. Chalmers (2006, 2010) contends that no explanation of phenomenal properties will satisfy stipulation (ii) or (iii). In order for thesis C to succeed, (i) and (ii) cannot fail. If (i) or (ii) fail, our explanatory gap will not have been explained. If (iii) fails, then thesis C cannot provide a way to bridge the explanatory gap although "even if consciousness cannot be physically explained, we might be able to physically explain the key psychological features and our epistemic situation" (Chalmers, 2010: 134). If any of the three

fail, then it is possible that each criterion, in its own right, will develop a new gap (Chalmers, 2006: 172). Chalmers notes that some physicalists are not dedicated to (iii). Without (iii), he contends that PCS fails to block the inference from the explanatory gap to an ontological gap.

4 On Our Epistemic Situation

In defending his position, Chalmers' will invoke what he calls 'epistemic situations'. Chalmers (2006), when discussing the first horn of the dilemma (discussed below) suggests our epistemic situation might be identical to the explanatory gap we are confronted with between the facts of the physical and phenomenal. Chalmers (2010) asserts that in order for thesis C to provide an explanation of our epistemic situation concerning phenomenal consciousness, *C* must provide an explanation for why we are faced with these epistemic gaps. The major claim that Chalmers' is making is that an explanation of our epistemic situation must include an explanation of why it is we are confronted with the various epistemic gaps.

Turning to the second horn of the dilemma, Chalmers (2006, 2010) tells us we should conceptualize our epistemic situation differently:

> [T]he epistemic situation of an individual includes the truth-values of their beliefs and the epistemic status of their beliefs (as justified or unjustified and as cognitively significant or insignificant). As before, an epistemic situation (and a sentence E characterizing it) should be understood in topic-neutral terms, so that it does not build in claims about the presence of phenomenal states or phenomenal concepts. We can say that two individuals share their epistemic situation when they have corresponding beliefs, all of which have corresponding truth-values and epistemic status (Chalmers, 2010: 316; 2006: 176-77).

The definition that Chalmers provides for epistemic status is almost as vague as his definition for epistemic situation. I take it that Chalmers is asserting, in the first and third sentence, that our epistemic situation includes our beliefs' truth-values and our beliefs' epistemic status, which can be shared by two individuals. Perhaps an example will clarify. Hansel shares Gretel's epistemic situation if and only if (i) Hansel and Gretel's beliefs correspond with one another; (ii) Hansel and Gretel's beliefs have corresponding truth-values; and (iii) Hansel and Gretel's beliefs have the same epistemic status, i.e., the same justificatory strength and cognitive significance. In the second sentence, Chalmers is asserting that our epistemic situation ought to be cast in topic-neutral language.

This second way of conceptualizing our epistemic situation is important because Chalmers argues that my p-zombie twin will not share my epistemic situation due to there being no way to directly ascertain the content of a p-zombies' beliefs. Further, according to Chalmers' intuition, whatever beliefs the p-zombie might hold, those beliefs *seem* false or not as justified as ours might be (Chalmers, 2006: 177). Chalmers is asserting that in order for my p-zombie twin and I to have a different epistemic situation our corresponding beliefs cannot have the same truth-value and/ or the same epistemic status. Since Chalmers knows that it is notoriously difficult to ascertain the content of someone's beliefs, he needs to clarify how to conceptualize the notion of 'epistemic situation'; thus, he offers us the above second definition.

5 Will The Master Argument Spell Trouble for Thesis C?

5.1 The Master Argument

Chalmers (2006, 2010) argues that PCS is doomed to fail because there can be "no psychological features that are simultaneously physically explicable and able to explain the distinctive epistemic gaps in the phenomenal domain" (Chalmers, 2010: 320). Further, if type-B physicalists accept horn A, then this would be a "kiss of death for physicalism" (Balog**,** 2012: 12). This is because physicalism maintains that consciousness is physical, non-phenomenal. Therefore, C must be cast in topic-neutral language. In order to defend his position, Chalmers develops what he calls his *master argument*. Chalmers (2006, 2010) argues that there is no account of C that can satisfy criterion (ii) and (iii). He asserts that we interpret thesis C either:

1) Horn A: C is not physically explicable

Or

2) Horn B: C does not explain our epistemic situation with regards to consciousness (Chalmers, 2010: 312).

Chalmers is asking us to approach this dilemma by conceiving of a p-zombie. The key question that Chalmers is asking us is can we conceive of p-zombies, i.e., beings that are functionally, physically, and psychologically identical to us, yet who lack the features of thesis C? Alternatively, one can approach the dilemma by considering functionally identical zombies, i.e., instead of having neurons these creatures have silicone chips and thus lack phenomenal consciousness. David Papineau (2006**)** tells us that a good majority of type-B physicalists assert that silicon zombies are a metaphysical possibility as well as a conceptual possibility, and that it

is epistemically possible that functional zombies lack consciousness (ibid.: 141). From here, one can ask whether functional zombies lack the features of thesis C. If we assert that functional zombies lack the features of thesis C, then we can be, for the most part, assured that p-zombies, too, will lack the features of thesis C. Either way, if we assert 'yes' that these entities lack the features of C, we will be saying that C is not physically explicable. By formulating the question this way, Chalmers is able to set up his master argument. While we are working our way through the master argument, we need to remember that only topic-neutral language is admitted because this language will not build in claims about the presence of phenomenal states or phenomenal concepts. The following shows the shape of Chalmers' (2006) master argument:

1) Horn A: If I can conceive of a p-zombie and she lacks C, then C is not physically explicable.
2) Horn B: If I can conceive of a p-zombie and she does not lack C, then C cannot explain our epistemic situation.

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3) Therefore: Either C is not physically explicable, or C cannot explain our epistemic situation (Chalmers, 2006: 174).

This argument takes on the form of a dilemma. The structure of the dilemma is that for any reductive explanation of *C*, it is either entailed *a priori* by physical truths or it is not.

5.2 The Fine Print: Insiders Scoop to Understanding Chalmers' Conclusion

To better understand how he arrives at his conclusion, Chalmers he tells us we need some further assumptions. He asserts that, as we work our way through his master argument, we are to assume that there is a "connection between conceivability and a certain sort of reductive explanation" (Chalmers, 2010: 313). Chalmers defines conceivability as: for any statement *S*, *S* is conceivable if and only if *S* cannot be ruled out *a priori* (Chalmers, 2006: 169). For Chalmers, if something is physically explicable, then it must have a reductive explanation in physical terms. A reductive explanation is an explanans that makes "transparent why some high-level truth obtains, given that certain low-level truths obtain. If it is conceivable that the low-level truths obtain without the high-level truths obtaining, then this sort of transparent explanation will fail" (Chalmers, 2010: 313). Chalmers and Jackson (2001) assert that a necessary component of any reductive explanation in physical terms is the *a priori entailment thesis.* I will not lie out the structure of

the argument here; that is done in note (vi). What is important here is that we understand that Chalmers and Jackson argue that physicalists need to provide a transparent reductive explanation of why some phenomenal truth obtains given that some physical truth obtains. If it is conceivable that some physical truth obtains and some phenomenal truth does not obtain, then a reductive explanation cannot be given.

5.2.1 Horn A of the Dilemma

Now that we have seen the fine print, we are in a position to look at the individual horns of the dilemma. In this section, we look at horn A. In premise one—If I can conceive of a p-zombie and she lacks C, then C is not physically explicable—Chalmers is asking us if we can conceive of a p-zombie lacking *C*. If I answer 'yes', then I am asserting that *C* cannot be reductively explained. In other words, if I can conceive of a p-zombie and she lacks *C*, then physical facts do not entail *C a priori*. Therefore, according to Chalmers, if *C* resists a reductive explanation, then type-B physicalists cannot use *C*.

Conceiving of physical beings, such as p-zombies, lacking C parallels how we conceive of the physical facts obtaining and not phenomenal facts obtaining where we cannot provide a reductive explanation for the phenomenal. Therefore, we cannot give a reductive account of *C*. Thus, premise (1) obtains. I can say that if I can conceive of my p-zombie twin and that she lacks *C*, then a new gap emerges between the physical and *C*. If a new gap emerges, then we have no way to explain why it is we are in possession of C. From here, as explained by Sam Coleman (2009), it will be at least conceivable that there exist human beings who lack C, which we can label as C-zombies. In other terms, we lack a functional or physical account for why we have *C*, and we end up not with our original p-zombie but a *C*-zombie.

5.2.2 Horn B of the Dilemma

I have shown how Chalmers arrives at the conclusion that taking the first horn (A) of the dilemma does not help type-B physicalists. Let us now look at horn B: *If I can conceive of a p-zombie and she does not lack C, then C cannot explain our epistemic situation*. Suppose that we cannot conceive of our p-zombie twin lacking *C*. We posit now that *C* must be reductively explicable (and so, my p-zombie twin will meet the criteria for *C*). If *C* is reductively explained, then *C* will fail to explain why we are faced with various distinctive epistemic gaps. What would

be the result of *C* explaining our epistemic situation? If *C* is able to reductively explain our epistemic situation, then my p-zombie twin is in possession of *C* and this would entail her being in possession of an epistemic situation like ours; thus my p-zombie twin would be confronted with her own version of an explanatory gap. Nevertheless, my p-zombie twin, according to Chalmers' intuition, cannot share my epistemic situation. His intuition is that since we have no way of accessing the content of a p-zombies beliefs', he imagines that these beliefs must be false or the justificatory strength of those beliefs is less than ours. We are forced to posit that p-zombies satisfy *C* but do not satisfy the criteria for sharing our epistemic situation. To assert otherwise, we would once again face horn A of the dilemma. Thus, *C* is unable to reductively explain our epistemic situation. If this is true, then *C* is not able to explain the explanatory gap due to *C*'s inability to serve for our being in an epistemic situation i.e., if my p-zombie twin satisfies *C,* then *C* cannot include any phenomenal states. If we assume that our p-zombie twin shares our epistemic situation, then our epistemic situation has to involve something that is not understood topic-neutrally in thesis C. Ergo, according to Chalmers, we cannot posit that *C* reductively explains our epistemic situation, which renders premise (2) true.

I have now shown how Chalmers arrives at the conclusion that taking the second horn of the dilemma does not help type-B physicalists, either. Chalmers' master argument boils down to the claim that no explanation of *C* will be able to reductively explain our epistemic situation whilst simultaneously being explained by the physical. If we posit that the physical truths *a priori* entail *C*, our p-zombie twin will thus meet the criterion of *C*. Nevertheless, our p-zombie twin cannot meet the criterion of an epistemic situation, so *C* is incapable of explaining our epistemic situation. If we posit that *C* does entail *a priori* our epistemic situation, rendering our epistemic situation reductively explicable, my p-zombie twin does not meet the expectations of *C* for the reason that the physical truths do not *a priori* entail *C*, thus *C* is incapable of being reductively explained. According to Chalmers, PCS cannot provide an explanation of why we are confronted with the explanatory gap between the physical and phenomenal because the phenomenal concepts, that are to explain our epistemic situation*,* would themselves result in an explanatory gap. Therefore, Chalmers concludes that either C is reductively explicable or C fails to explain our epistemic situation concerning phenomenal consciousness.

5.3 Objections

5.3.1 Horn A

Type-B physicalists can object to Chalmers' dilemma in several ways. First, regarding horn A, we can object to Chalmers definition of physically explicable. I agree with the type-B physicalist in denying that a reductive explanation must be knowable *a priori*. One can argue that a phenomenal property is explained by physical properties yet maintain that there still exists an explanatory gap between phenomenal and physical phenomena. For example, the facts about 'gas' (low-level property) are not entailed *a priori* by C_8H_{18} (high-level set of properties). It takes empirical science to show how gas and its chemical components are identical. Carruthers and Veillet (2007) tell us that type-B physicalists can argue that if there is an explanatory gap seen in general cases, then it is no wonder that we would expect to see these gaps concerning the psychophysical (ibid.: 232-3). From here, we can argue that due to these expected gaps one cannot assert that an ontological gap is imminent, providing we do not maintain that there are ontological gaps seen in low-level and high-level properties.

I agree with Josh Weisberg (2011) when he tells us that when one accepts any theory one understands that theories are matters of the empirical domain where questions are motivated by their hypothetical efficacy. The empirical and our mental concepts are intertwined in such a manner that they are impossible to separate. In other words, we do not have some privileged access that allows us to make "*a priori* judgements about concepts and modality" that are infallible (ibid.: 587).

Carruthers (2004) argues that for reductive explanations to be successful every question that perplexes us need to be answered in such a manner demonstrating why some facts *appear* in a perplexing way to us when in fact they are not, and all thickly individuated facts can be reductively explained.[vii] Further, he argues that one, in principle, cannot provide a reductive explanation for every thinly individuated fact because thinly individual facts number infinitely (ibid.: 167). Moreover, if Chalmers' requirement is that all thinly individuated facts must admit of a reductive explanation, then, we can say that this request is irrational. In fact, this is just what Chalmers and Jackson (2001) require.

5.3.2 Objections to Horn B

Concerning Chalmers' assumption: (c) if p-zombies do not lack *C* and yet do not share our epistemic situation, then *C* cannot explain our epistemic situation. This conclusion follows from two other assumptions. First, (a) if I can imagine my p-zombie twin and it is inconceivable that she lacks *C* and it is conceivable that she lacks an epistemic situation, then it is conceivable that she possesses *C* and lacks an epistemic situation; and second, (b) it is conceivable I can imagine my p-zombie twin and she lacks an epistemic situation. This is conceivable *only* if we understand our epistemic situation as being cast in phenomenal language and your p-zombie twins' epistemic situation is being cast in topic-neutral language, then *C* cannot explain our epistemic situation. It is here that Chalmers commits the fallacy of equivocation. If we remember, Chalmers (2010) explicitly noted that our epistemic situation ought to be conceptualized in topic-neutral language so as not to build in phenomenal concepts or states (ibid.: 316). If our epistemic situation were defined in phenomenal language, not topic-neutrally, then Chalmers' claim to (c) would be warranted. Therefore, *C* can explain our epistemic situation when we restrict both, *C,* and our epistemic situation to a topic-neutral understanding. For type-B physicalists can reject premise (b) (above) and argue that when our epistemic situation is understood in topic-neutral language, *C* will explain my epistemic situation along with my p-zombie twins' epistemic situation. I hope to address this in § 8.

6 Giving PCS the Kiss of Life

Previously, I asserted that type-B physicalists could still use PCS even though Chalmers presents a seemingly compelling argument against it. My objection to Chalmers' master argument is that even if we cannot give a reductive explanation of *C*, PCS will still be able to help the type-B physicalist by providing an explanation for why we are confronted with an explanatory gap. In this section, I reply to Chalmers' objection to PCS (see page 16: 336). I will argue that when we cast *C* in topic-neutral language whilst casting our epistemic situation in phenomenal language, *C* can be reductively explained by the physical and *C* cannot reductively explain our epistemic situation. After presenting this argument, I will argue that when we cast *C* and our epistemic situation in phenomenal language, *C* will reductively explain our epistemic situation and *C* will not be reductively explained by the physical. While Chalmers is telling us how his master argument works, we are supposed to focus on his casting *C* and our epistemic situation in topic-neutral language, eschewing all references to the phenomenal. I charge Chalmers with neglecting

to show what happens when one interprets *C* using both languages whilst maintaining our epistemic situation in phenomenal language. I hope to draw out the consequences that the property dualist faces upon accepting one or the other rendition of *C*. In section (8), I hope to argue that when *C* and our epistemic situation are cast in topic-neutral language that our p-zombie twin does indeed share our epistemic situation. Together, these sections will result in a quandary: either our epistemic situation must be cast in phenomenal language or our epistemic situation must be cast in topic-neutral language. Chalmers does not have to accept the conclusions drawn from phase (1) of the quandary. If he chooses not to accept the conclusion, then he must accept that when our epistemic situation is cast in topic-neutral language our p-zombie twin does indeed share our epistemic situation as delineated in section 8. Chalmers faces a fatal quandary. He cannot have it both ways. I will argue that accepting either understanding of our epistemic situation shows that a defender of PCS has a way of responding to Chalmers' objection.

6.1 My Reply to Chalmers' Objection: Phase (1) of the Quandary

According to Chalmers, if I accept that the physical truths explain C, I must accept the devastating consequence of C not explaining my epistemic situation. Below is the argument for how he arrives at such a conclusion:

1) If the physical truths and not-C is inconceivable, then C cannot explain our epistemic situation.
2) The physical truths and not-C is not conceivable
3) Therefore, the physical truths explain C, and C cannot explain our epistemic situation

Suppose we cast *C* in topic-neutral language and cast our epistemic situation in phenomenal language. I can imagine my p-zombie twin and for me it will be inconceivable to imagine her lacking *C*. Indeed, I must imagine her in possession of *C*. After all, she is a functional, physical, and psychological duplicate of me, so it is conceivable that *C* does not *a priori* entail our epistemic situation. Now, I ought to be able to assert with confidence that the physical reductively explains *C*. Since I am confident that the physical will explain *C*, Chalmers tells me not to be so quick to celebrate, for *C* cannot provide an explanation of our epistemic situation, thus I have a problem (Chalmers, 2010). But, I do not see that I have a problem. The explanation I have just provided is indeed quite simple, and much more is involved when we try to meet

Chalmers' requirement for *C* to provide a reductive explanation of our epistemic situation whilst simultaneously being explained by the physical.

Let us take a closer look at the consequences when we argue that the physical does explain C and that C must explain our epistemic situation. When we cast our epistemic situation in phenomenal language, *C* can provide a reductive explanation of our epistemic situation if and only if *C* can provide a reductive explanation of phenomenal truths about consciousness. Another way of putting it: Suppose *C* is cast in topic-neutral language, and *C* explains our epistemic situation, we must be comfortable with asserting that *C* explains our epistemic situation only if the physical *a priori* entails the phenomenal. Thus, if it is conceivable for you that *C* reductively explains our epistemic situation, then it is conceivable for you that the physical reductively explains the phenomenal. However, some of us will not assent to this. Type-B physicalists argue PCS states that the physical does not entail *a priori* the phenomenal, i.e., the physical cannot reductively explain the phenomenal. Therefore, according to the type-B physicalist, *C* cannot reductively explain our epistemic situation when *C* is cast in topic-neutral language and our epistemic situation is cast in phenomenal language, and we see the explanatory gap, which is predicted by type-B physicalists, now between *C* and our epistemic situation.

Since the physical cannot reductively explain the phenomenal, according to type-B physicalists, the requirement that Chalmers places on PCS to provide a reductive explanation of our epistemic situation via *C* suggests that he has denied PCS before it has a chance to launch. In other terms, if *C* is cast in topic-neutral language and our epistemic situation is cast in phenomenal language, then Chalmers cannot request that *C* must explain our epistemic situation because such an explanation requires that we have a reductive explanation of phenomenal consciousness. Again, the intent of PCS is not to explain phenomenal consciousness, but to provide an explanation of why it is we are confronted with distinctive epistemic gaps consistent with physicalism.[viii] Chalmers' main objection to PCS is intended to demonstrate reasons that PCS does not succeed; not to dismiss PCS before it launches. Expecting that PCS reductively explain consciousness is a rejection of PCS's function from the very start and this shows that the property dualist is unwilling to meet the challenges of the argument on the ground that the argument was developed upon.

Now let us consider both *C* and our epistemic situation in phenomenal language. Let C* represent C as being cast in phenomenal language, therefore:

1) If the physical truths and not-C* is conceivable, then C* is not physically explicable.
2) The physical truths and not-C* is conceivable
3) Therefore, C* is not physically explicable.

I am positing that *C** can explain our epistemic situation, however, *C** will not be physically explicable. Below, I explain why.

My explanation here will bear a similarity to the above explanation. In order for *C* to reductively explain our epistemic situation, *C* will necessarily *a priori* entail our epistemic situation, thus *C* and our epistemic situation must be cast in phenomenal language. Under the presupposition that *C** is true, human beings must be phenomenally conscious. Chalmers requires that the physical truths must reductively explain why human beings are in possession of *C**. Again, for *C** to be reductively explained by the physical truths, the physical truths must reductively explain phenomenal consciousness. Chalmers' requirement is now understood as the requirement that physical truths explain *C**. This is to expect that the physical truths must *a priori* entail phenomenal truths. According to type-B physicalists, PCS is not intended to explain phenomenal consciousness. PCS is intended to explain why we are confronted with an explanatory gap between the physical and the phenomenal by explaining the conceptual isolation that holds between our physical and phenomenal concepts. Hence, Chalmers cannot require PCS to do a job it is not intended to do, (to provide a reductive explanation of phenomenal consciousness). Therefore, *C** reductively explains our epistemic situation. On the other hand, the physical truths cannot reductively explain the phenomenal truths pertaining to consciousness. Ergo, the physical truths cannot reductively explain *C** because to do so would require that the physical *a priori* entails the phenomenal. The question now becomes what can PCS do here.

7 Objections

In §4, I explained how Chalmers defines our epistemic situation. It may be the case that we can understand why we do not share our epistemic situation with our p-zombie twin, although it is hard to see why this would have an effect on PCS. The intent of PCS is to explain why there is an explanatory gap between the physical and the phenomenal. The objective of PCS is not to elucidate our *complete* epistemic situation. As noted earlier, Chalmers (2010) writes: "…to undercut the inference from the epistemic gaps to an ontological gap, PCS has to show how the truth involving epistemic gaps are consistent with physicalism" (ibid.: 324). *C* will have to

provide some type of explanation of these truth-involving epistemic gaps. The epistemic gap between the physical and the phenomenal are truth involving according to the property dualist in that they are built into these epistemic gaps based upon a separation of and the truth of the physical and the phenomenal i.e., each is a distinct and true property. This creates a problem for the physicalist. For example, one cannot show arguments where only the physical and not-phenomenal or not-physical and the phenomenal exist if the argument is a truth involving argument. Both the physical and the phenomenal have to be true in the argument. Therefore, failure to represent either the physical or the phenomenal as true in the epistemic arguments results in the physical or the phenomenal not being truth involving, hence, the epistemic arguments will not be truth involving. Furthermore, if the epistemic arguments are not truth involving, the property dualist cannot infer a truth involving ontological gap. Due to this, the property dualist asserts that to weaken the ontological gap, *C* needs to come up with a different way of explaining the truth involving epistemic gaps.

I suggest that requiring that *C* explain the truth involving gaps is far too strong. Our epistemic situation embraces our beliefs, to include our belief pertaining to consciousness, especially since this was hypothesized. Our beliefs about consciousness are not germane to the epistemic gaps we see. If our beliefs are not germane to the epistemic gaps, then *C* does not have to explain this. For example, I maintain that I am either a human being who is phenomenally conscious, or I am a p-zombie, a being that is not phenomenally conscious. This is a belief pertaining to my state of consciousness; thus, is to be part and parcel of my epistemic situation pertaining to consciousness. So now I would have to provide an explanation for why my holding that I am either a human being who is phenomenally conscious, or I am a p-zombie is true and is justified by the features it implies. Therefore, my explanation must contain facts about laws of logic. This then would result in *C* having to not only explain the truth-involving gaps, but also that *C* will have to explain laws of logic. Ergo, having *C* explain our complete epistemic situation is far too strong.

Furthermore, if our p-zombie twin meets the expectations of *C*, I am at a loss in seeing how this is a problem for our explanation of how it is that the truths pertaining to phenomenal consciousness is not *a priori* entailed by physical truths. The attempt to argue that our p-zombie twin poses an issue for how PCS is to explain phenomenal consciousness seems rather misleading. We know that our p-zombie twin has no way of inferring the truths about

phenomenal consciousness from the physical facts especially since she cannot even possibly understand phenomenal consciousness due to her lack of phenomenal concepts to extend to truths about phenomenal consciousness. I suggest that the first question the type-B physicalist ought to ask is why should *C* be required to explicate our epistemic situation concerning consciousness.

The property dualist can rebut phase (1) of the quandary by asserting this is not a conceivable possibility since we still see the lack of a reductive explanation and this lack of a reductive explanation does in fact *a priori* entail the existence of an ontological gap. Chalmers writes:

> [T]he strategy would help to *justify* the claim that the epistemic gap is compatible with ontological physicalism and so would lend significant support to type-B materialism. But the weaker version of the strategy outlined here can give no such support. On this version, the proponent needs *independent* grounds to reject the inference from an explanatory gap to an ontological gap (Chalmers, 2010: 322, emphasis original).

Chalmers asserts that the above weaker version of PCS cannot justify an explanatory gap between the physical and the phenomenal truths that do not result in an ontological gap. To this, I respond by asserting that PCS does provide justification for why the explanatory gap does not result in an ontological gap. PCS can provide a reductive explanation by way of conceptual isolation. As noted earlier, our physical and phenomenal concepts are conceptually isolated and cannot be known *a priori*. According to philosophers such as Stoljar, and Carruthers and Veillet, "Phenomenal truths are conceptually irreducible, i.e., there is no *a priori entailment* from the physical to the phenomenal" (Carruthers and Veillet, 2007: 2; Stoljar, 2005: 5). Geoffrey Lee (forthcoming) argues that it is "implausible that there is any *a priori* resolution available in the dispute between" the property dualist and the physicalist (ibid.: 16). Nevertheless, by providing a reductive explanation as to why these concepts are isolated from one another, PCS, even though admitting an explanatory gap, lends sustenance to type-B physicalism.

Furthermore, if we are to conceptualize our epistemic situation in phenomenal terms we see the predicted explanatory gap between *C* and our epistemic situation or between the physical and *C*. This gap is the same gap that we see between that of the physical and the phenomenal. In each case, we cannot provide a reductive explanation via phenomenal concepts of our epistemic situation. Papineau (2006) argues that type-B physicalists can argue that what explains the

explanatory gap is that our concepts of the physical or functional and the phenomenal, although conceptually isolated, have the ability to pick out physical states that are the same (ibid.: 141**).** PCS "shows that a purely physical world where the epistemic gaps are explained by the nature of phenomenal concepts—rather than by the nature of phenomenality *itself*—is conceivable" (Balog, 2012: 17, emphasis original). If our concepts pick out the same state, then the type-B physicalist can assert there does not exist an ontological gap in the face of an explanatory gap because there is no *a priori* entailment to dismiss a world where our phenomenal properties are identical to a physical or functional property.

Moreover, the type-B physicalist responds by asserting that this objection is just an objection to the theories that PCS is intended to debunk. In other words, the property dualist would be arguing that "phenomenal facts do not metaphysically supervene on the physical" (ibid.: 17). This argument is just a reiteration of what the property dualist previously concluded—the phenomenal facts do not metaphysically supervene upon the physical—therefore, adds nothing to the current debate. A reiteration of this argument appears to be question begging. The explanatory gap seen between the physical facts and the phenomenal facts, and between the physical facts and C* exist due to the conceptual isolation of our phenomenal concepts from the physical. Thus we can argue that if conceptual isolation is admitted into the debate, the spuriousness of the property dualists theories—the theories that are intended to dispel conceptual isolation—the type-B physicalist can account for (ibid.: 17). If the property dualist wishes to resort to asserting that PCS is inconceivable upon the grounds of maintaining that their theory is the most correct theory, a theory that PCS is attempting to debunk, then the dualist does not show that PCS is refuted. Instead, the property dualist shows that she is unwilling to meet the challenges of the argument on the ground that the argument was developed upon.

One defending Chalmers might now object by saying that if PCS does provide an explanation for the explanatory gap in terms of conceptual isolation, an explanatory gap develops between the explanation of conceptual isolation and physical truths. Thus, type-B physicalists cannot use conceptual isolation to explain the gap between the physical and the phenomenal, the physical truths and *C,* and *C* and our epistemic situation. Ergo, the type-B physicalist must provide some type of a reductive explanation for the features that explain conceptual isolation.

Type-B physicalists respond to Chalmers' objection by asserting that they are providing a

reductive account, or at least have begun to propose a reductive explanation for the features of conceptual isolation.[ix] Carruthers (2004) writes:

> Bundling these third-person characterizations into a third-person concept of phenomenal consciousness, we can then pick out each thickly individuated fact designated through the application of a purely recognitional concept by saying, 'It is the phenomenally conscious state that he/she is introspectively recognizing right now'. The claim is that each such fact − together with the various puzzling properties that make up the third-person concept of phenomenal consciousness − can in principle receive a reductive explanation (ibid.: 167-8).

On Carruthers account, he notes that our first-person phenomenal concepts can be characterised into our third-personal terms which will be available to 'introspective recognition' (ibid.: 167). Most people will then maintain that these properties are, following Dennett (1991), ineffable, and private. Further, many will assert they have privileged access to these properties via introspection thus resulting in privileged knowledge of these properties. Therefore, we can say that first-person recognitional concepts that pick out properties are the same properties that are picked out by our third-personal concepts. If we want a successful explanation of these properties, then a reductive explanation will primarily be concerned with the third-personal features of our concepts. If we can provide a reductive account of our third-personal concepts, then we may be in a position to hold the view that phenomenal consciousness has been explained (Carruthers, 2004: 169).

Loar also provides a theory of how a reductive account of conceptual isolation can be interpreted. Loar (2007) writes:

> …[B]eing a posteriori is not a modal-semantic property but a psychological-cognitive property, or, to put it another way, a matter of conceptual role. The conceptual role of the phenomenal concept *feeling like that*, and the conceptual role of the verbal-theoretical concept of C-fiber stimulation, are conceptually independent. That is all one needs to explain the a posteriori status of the identity. The phenomenal concept of feeling pain and the theoretical concept of C-fiber stimulation are such empirically independent sorts of concepts that the metaphysics of their references are, on the face of it, beside the point. Even if two such concepts connote the same mode of presentation, that is, a certain property, there is no reason to suppose that those concepts should thereby be connected a priori (ibid.: 452-3).

On Loar's account, the conceptual isolation that holds between the physical and the phenomenal is the matter of a conceptual role. Conceptual isolation can be explained by the psychological-cognitive roles. If this is true, then conceptual isolation *can* be reductively explained in physical terms. A physicalists' notion of 'C-fiber stimulation' is conceptually connected to the cognitive role within our language centres. Our phenomenal concept of 'pain' is conceptually connected to our understanding of the roles that our neurons play. Therefore, if the physical truths obtain, then conceptual isolation must be true since a physicalist can provide a reductive explanation for the features of conceptual isolation.

Now, one might try to defend Chalmers by asserting that conceptual isolation cannot be reductively explained, however, Chalmers (2010: 325) has recently admitted that conceptual isolation can be reductively explained. Chalmers, whilst arguing against PCS, notes that the beliefs a p-zombie has are not conceptually connected and that it is possible for a type-B physicalist, by way of conceptual isolation, to provide a reductive explanation of the gaps seen between the physical and *C*, *C* and our epistemic situation, and the physical and the phenomenal. If a p-zombies' physical and *quasi*-phenomenal beliefs share the same features of conceptual isolation as do our physical and phenomenal beliefs, and since Chalmers admits that a characteristic of phenomenal concepts is conceptual isolation that can be reductively explained, then Chalmers has to admit that conceptual isolation is independent of phenomenal experience. In other terms, my p-zombie twin, who lacks phenomenal consciousness, nonetheless, too, (to use Chalmers' 1996 vocabulary) "suffers" under the conceptual isolation that is found between her physical and *quasi*-phenomenal beliefs; thus, this shows that one does not need phenomenal experience for conceptual isolation to be found amongst our concepts. If this is true, then Chalmers' request that PCS needs to reductively explain conceptual isolation is met because PCS can provide a psychological-cognitive explanation for why our phenomenal concepts are conceptually isolated. In both Carruthers' and Loar's accounts we see that PCS provides a reductive explanation of the explanatory gap by way of a psychological-cognitive explanation. Conceptual isolation accounts for the gap we see between the physical and the phenomenal, and the gaps seen between the physical and *C,* and *C* and our epistemic situation.

Phase (1) Complete

Synopsis

I have argued that Chalmers' argument establishes two things: (a) a gap is seen between *C* and the physical truths when *C* is cast in phenomenal language, and (b) a gap is seen between *C* and our epistemic situation when *C* is cast in topic-neutral language. These gaps parallel the gap we see between the physical and the phenomenal where the phenomenal property is being conceptualized by phenomenal concepts and this results in our inability to provide a reductive explanation. Nevertheless, the proponents of PCS can accept both of these consequences. Type-B physicalists maintain that whether *C* is cast phenomenally or topic-neutrally, *C* is understood such that our phenomenal concepts express properties that are identical with the properties that are expressed by certain physical concepts (Loar, 1999: 467) in the sense that, although admitting to an explanatory gap, there does not exist an ontological gap. Phase (1) of the quandary remains conceivable even if the physical truths will not explain *C*. Balog (2012) writes: "Even if the world is entirely physical, as a consequence of the unique cognitive profile of phenomenal concepts, the puzzling epistemic gaps still have to arise" (ibid.: 17). Therefore, according to type-B physicalists there is no *a priori* reason in the vicinity to discount phase (1) of the quandary. When our epistemic situation is cast in phenomenal language, we see that the debate between the type-B physicalist and the property dualist does not further their positions; it simply extends the explanatory gap between the physical and the phenomenal to explanatory gaps between the physical and *C**, and *C* and our epistemic situation, and a reductive explanation is not possible. Ultimately, both the master argument and phase (1) presented here succeed in showing that there is an explanatory gap but this does not show that we must conclude there is a resultant ontological gap. Chalmers begs the question against type-B physicalism by asserting that our conceptually isolated concepts must necessarily express an ontologically distinct property. Further, Chalmers begs the question against type-B physicalism by asserting that only a reductive explanation is acceptable.

8 Epistemic Egalitarianism for My P-Zombie Twin

8.1 Phase (2) of the Quandary: Casting Our Epistemic Situation in Topic-Neutral Language

In the previous section, I argued that when we cast our epistemic situation in phenomenal terms, the physical truths reductively explain C, or C reductively explains our epistemic situation. Here, I want to argue that we have reasons to call into question our intuition that consciousness must

be ontologically distinct from our epistemic situation. Some property dualists argue that my p-zombie twin lacks phenomenal consciousness due to her brain not being wired the way my brain is, i.e., all of our brain functions and psychologies are identical, but she is missing the phenomenal property qualia that I possess. This is not to affirm that our p-zombie twin is functionally, physically, and psychologically different than us as we know *ex hypothesi* she is identical to us in those respects. Her internal states play analogous roles to our internal states. If we assert that we form trustworthy conceptual images of our surrounding location, then so will our p-zombie twin. I will argue against the property dualists' assertions that if my p-zombie twin is missing phenomenal consciousness that her epistemic situation will be different from ours. I will cast our epistemic situation in topic-neutral language (third-person language). I intend to argue contra Chalmers that my p-zombie twin and me will be in equally *good* epistemic situations. If I am successful, then this, too, will debunk one of the ways that property dualists argue that an ontological gap is generated by an epistemic gap.

Let me begin by presenting an intuition pump that seems to make it clear why we have intuitions about phenomenal consciousness as being an ontologically distinct property. One of the better intuition pumps found in recent literature comes from Barry Dainton (2008: § 6.5). Dainton's intuition pump looks at the link between phenomenal consciousness and the psychological features of character. His intuition pump concerns pre-neuron replacement therapy (NRT) Tom and post-NRT Tom. Tom's biological neurons will be replaced with silicon, i.e., he will no longer have a carbon-based brain like ours but will have a silicon-based brain. In what follows, I briefly sketch the idea conveyed in the intuition pump:

> Suppose Tom has a deadly form of brain cancer and his neurologist has told him that a procedure called NRT will eradicate his brain cancer (this procedure will also aide people with other degenerative neuronal associated diseases where death is not so readily in one's future). Tom is told that the process is simple and he can remain conscious during the whole thing. Tom opts for the procedure. During the operation, he notices no changes to what he experiences. Post-NRT Tom asserts that he is unable to detect any intellectual, personality, psychological, or behavioural changes.

Would you, if faced with something similar to Tom's situation, opt in for NRT? Dainton says, and I concur that most would sign up. Imagine, for instance, that your best friend's mom had some type of degenerative neuronal disease and she had the operation, without any noticeable

complications. The personality and intellect of those who received NRT is unaltered, as far as anyone is able to tell. However, we will be faced with those who are very critical about NRT due to the replacement of the biological neurons with silicon neurons. These critics will argue that although there are no noticeable differences in the psychological functioning and behaviour of those who received NRT, it is conceivable to infer that these recipients, such as Tom, have become *zombified* and are now walking functional silicon zombies. These walking functional silicon zombies would be able to report that they feel pain when they slam their fingers in a car door, but they will not truly feel pain because for them 'all is dark inside' (Chalmers, 2010: 318) due to their now lacking phenomenal consciousness. Knowing this objection, would you opt in for the NRT procedure? Probably not: We tend to have the intuition that having phenomenal consciousness is a key ingredient for the richness of our lives. Our intuition concerning post-NRT Tom is that he is missing phenomenal consciousness, and thus he cannot experience life in the same manner as we do. Post-NRT Tom just does not realize his life has lost a key ingredient that provides his life with all its richness.

What if our reasoning and intuitions are incorrect, though? Since we are not in possession of a consciousness detector, a device that is used to detect the existence of experience in a being, we are forced to infer or argue that post NRT-Tom is without phenomenal consciousness due to his biological neurons being replaced with silicon neurons. Therefore, based upon these inferences and arguments against NRT, some people may decide against opting in for the NRT procedure even though there are no noticeable differences between beings who have undergone NRT and those who have not.

Although it is inferred that NRT eradicates phenomenal consciousness, let us stipulate that NRT dramatically enhances functional capacity, such as answering a mathematical equation quicker. Would this still allow the critics to deny that post-NRT Tom, lacking phenomenal consciousness yet an entirely causal-functional being, has a kind of consciousness?

One might argue that we would have grounds to answer this question with a 'Yes'. You think it is at least a possibility that post-NRT Tom has been zombified. Nevertheless, you sit back and think about your past experiences with Tom prior to his NRT, and currently you and Tom enjoy your time spent together discussing, say, the differences between dualism and physicalism. Tom does not appear to lack his sense of humour, his likes and dislikes are just as they were before, and his card playing ability is still horrible (much to your relief) despite the

fact that his biological neurons have been replaced with silicon. No matter the amount of nagging you do to convince post-NRT Tom that he has been zombified, he disagrees with you and maintains that his inner states are every bit as rich as yours are. Post-NRT Tom's psychological states are the same as pre-NRT Tom's. Thus, we could speculate that a being that is in possession of psychological/functional states is in possession of a kind of consciousness. As Lee tells us, zombies "could be equally justified in their beliefs, and equally acquainted with their environment" (Lee, forthcoming: 4). Hence, functional silicon zombie states are as rich as our states. From here, we can infer that these functional silicon zombies share in our epistemic situation. That is, functional silicon zombies have it just as good as we have it. If this is the case then there is no reason not to opt in for NRT. Therefore, functional silicon zombies might very well share our epistemic situation via their possession of a kind of consciousness.

Some can argue that maybe there is an issue in Dainton's intuition pump. The issue is that we have to infer the existence of consciousness in another, rather than it being stipulated that they lack consciousness. Using functional silicon zombies to argue for the existence of an ontological gap between the physical and the phenomenal would pose problems for Chalmers because it is not explicitly stipulated that these creatures are not in possession of qualia whereas with p-zombies this is explicitly stipulated. The explicit stipulation that p-zombies lack qualia allows Chalmers to argue that PCS is doomed to fail and for the existence of an ontological gap. So, to avoid the issue of inference, let us look at a more traditional case where we imagine our Tom scenario a bit differently. Let us imagine Tom living here on planet Earth, and Zombie-Tom is Tom's counterpart living on planet Zombie (everyone on planet Zombie is a zombie and this planet is identical to planet Earth). Chalmers defines our p-zombie twin as having psychological states; therefore, he accepts that Zombie-Tom does have functional consciousness. Chalmers (1996) describes our p-zombie twin as:

> ...*psychologically* identical to me. He will perceive, in the functional sense, and tasting the chocolate, in the psychological sense. All of this follows logically from the fact that he is physically identical to me, by virtue of the functional analyses of psychological notions. He will even be "conscious" in the functional senses—he will be awake, able to report the contents of his internal states, able to focus attention in various places, and so on (ibid.: 96).

Tom and his counterpart Zombie-Tom live analogous lives, or as analogous as can be since one

has phenomenal consciousness and the other does not. Zombie-Tom does not possess phenomenal consciousness, thus his mind will be lacking compared to his counterpart Tom. That is, we understand Zombie-Tom's mind as having only non-phenomenal features. Zombie-Tom's mental states are completely non-experiential; thus, the non-phenomenal features of his mind leave out nothing in the sense that we can describe Zombie-Tom's mentality from a functional, psychological position. In other terms, in order to provide a full account of Zombie-Tom's mentality we can only speak from a third-person perspective. Contrarily, we cannot say this about Tom. We cannot characterise Tom's mind as possessing only non-phenomenal features as we know Tom possesses phenomenal consciousness; thus, in order to provide a full description of Tom's mentality we speak from both a first-personal and third-personal position. Be that as it may, whilst the mind of Tom and Zombie-Tom are very different, we can see in some sense that their minds are identical. "For every occurrent and dispositional mental state Tom has at a given time, there is a corresponding state belonging to Zombie-Tom" (Dainton, 2008: 184). Suppose Tom has some mental state, *h*, at time *t*. Then Zombie-Tom will have a state *h** at *t*, and *h* and *h** will have the same non-phenomenal features. For example, imagine Tom is viewing the Mona Lisa. He will be experiencing a complex visual experience. Meanwhile, back on planet Zombie, Zombie-Tom, too, is viewing the identical Mona Lisa. Zombie-Tom will be able to describe the painting in exactly the same ways that Tom will describe it, right down to the complexity of colours. If Tom makes judgements pertaining to his experience, Zombie-Tom will also. If Zombie-Tom wonders, 'Would my experience of these colours, the brilliant blues, be as rich if the lighting where softer?' Tom would wonder the identical thought. The difference here is that Tom is having a phenomenal visual experience: Zombie-Tom is not since he lacks phenomenal features. If this is true, then just what is Zombie-Tom talking about?

I claim that it is conceivable that, given all of Zombie-Tom's current behaviours, he, too, can refer to his internal mental states. Chalmers (1996) agrees with my claim as noted in the passage that Zombie-Tom will be "able to report the contents of his internal states" (ibid.: 96). Therefore, Zombie-Tom is making reference to his internal, non-phenomenal state that viewing the Mona Lisa has caused in his perceptual apparatus; a state which he deploys the words 'brilliant blues' to describe. Contrary to what Zombie-Tom might believe, he is having a non-phenomenal experience: Tom is having a phenomenal experience, and for every phenomenal experience Tom has, Zombie-Tom has a non-phenomenal experience. For each belief that Tom

has, Zombie-Tom will have the same non-phenomenal belief. Whatever kind of psychological state that Tom has, there will be a non-phenomenal analogue in Zombie-Tom's mind. In other terms, we can say that every experience, non-phenomenal and sensory, will have a functional role that will be exactly identical for both Tom and Zombie-Tom that pertains to occurrent states and this is not limited to just beliefs but to include each and every other type of "psychological state and ability" (Dainton, 2008:185). We do not need to be phenomenally conscious to perform various mental acts such as playing cards, solving mathematical equations, organizing objects from smallest to largest, etc. I think we can say the same applies to propositional attitudes and that our p-zombie twin can be in possession of propositional attitudes with content analogous to ours.

What Chalmers can and does deny is that Zombie-Tom and post-NRT Tom can have conscious experience. Neither Zombie-Tom nor post-NRT Tom can ever be in possession of experience in the sense that they can experience the *content* of their psychological states. Most of us would, too, deny that Zombie-Tom could have a rich psychological experience. Our denial of Zombie-Tom having rich psychological experiences stems from our intuitions that raw sensations provide us with the rich content of our psychological experiences and without these raw sensations, our experiences may feel hollow. However, one can posit that consciousness can be 'weakly' defined as a psychological state as opposed to a strong definition that consciousness must be said to include the phenomenal. If you adhere to the weak definition, then as you think about your now zombified friend Tom or your p-zombie twin, the memories he shares with you, the knowledge he has about so many different topics, etc., it seems obvious to you that he does indeed have a consciousness. You will arrive at this conclusion because you are unable to detect any differences in his psychology, personality, or other occurrent behaviours.

We all have various attitudes, beliefs, desires, etc., and it is conceivable that any typical attitude has a couple of features: propositional/ representational content where the content plays a functional role. It is conceivable that Zombie-Tom, lacking phenomenal consciousness, can have "contentful representations" of his world (ibid.: 186). Imagine, if you will, that you are being chased by an axe-wielding maniac who intends to hack you to bits. You have managed, by the hair of your chin, to avoid several very close calls by ducking into narrow alleyways, zigzagging between parked cars, running in front of on coming buses etc. You would be certain that your 'would be' attacker is functioning in the same capacity as you, in that she possesses

everything you possess mentally and in the current situation you are justified in your belief. After all, we believe that the desire to murder someone is usually driven by raw emotion. You would try to think of what you might have done or said to the axe-wielding maniac to cause her to hate you so much that she wants you dead. Now suppose that I am running along side of you. I inform you that your 'would be' attacker is a p-zombie. You would probably look at me and tell me that I must be as crazy as the axe-wielding maniac since we know that p-zombies do not possess qualia and thus cannot possess the raw emotion of hatred that is driving her to want you dead. Therefore, you would conclude that the axe-wielding maniac could not be a p-zombie. The prospect that your 'would be' attacker is functioning without some type of contentful representation of you and your surroundings would not seem true to you because there must be some raw emotion that she possesses, otherwise she would not be hunting you down and trying to kill you.

However, one could argue that the features of attitudes are non-phenomenal. We use propositional attitudes to provide some type of explanation for why someone is acting in such-and-such a manner. As Chalmers (1996) notes the functional analysis of beliefs "captures much of what is significant about belief. It is related to the idea that belief is something of an *explanatory construct*: we attribute beliefs to others largely in order to explain their behaviour" (ibid.: 19, emphasis original). Zombie-Tom's non-phenomenal attitudes suffice to explain his behaviour. Suppose Zombie-Tom really wants to purchase a bushel of Lambruscos, so he makes a substantial bet on California Chrome to win the 2015 Kentucky Derby, because he believes that the odds are favourable. Zombie-Toms' beliefs and wants are non-phenomenal and this does not infringe upon their explanatory power. The explanatory power of propositional attitudes is extremely important and non-phenomenal attitudes possess almost as much as phenomenal attitudes (Dainton, 2008: 186).

Suppose that Tom and Zombie-Tom are viewing the Mona Lisa for the first time. Let us consider Tom's epistemic situation. Chalmers will argue:

> Mary gains cognitively significant knowledge of what it is like to see red, knowledge that could not be inferred from physical knowledge. What about Mary's zombie twin, Zombie-Mary? What sort of knowledge does Zombie-Mary gain when she emerges from the black-and-white room?...There is no reason to believe that Zombie-Mary will gain cognitively significant introspective knowledge analogous to the cognitively significant

> knowledge that Mary gains. On the face of it, there is nothing for Zombie-Mary to gain knowledge of. For Zombie-Mary, all is dark inside, so even confronting her with a new sort of stimulus will not bring about new significant introspective knowledge (Chalmers, 2010: 318).

Let us relate this passage to Tom and Zombie-Tom upon seeing the Mona Lisa. In this passage, Chalmers argues that Tom's epistemic situation is different from Zombie-Tom's epistemic situation, but only with respect to Tom's gaining *cognitively significant knowledge* of what it is like to see the Mona Lisa for the first time. In this passage, some will be inclined to understand Chalmers as asserting that the notion of 'cognitive significance', which is part of his definition of epistemic situation, is a product of how an agent has arrived at justified beliefs and can come to know certain pieces of information. Chalmers *appears* to have made it clear in the passage that cognitive knowledge must include introspective knowledge. Therefore, an agent will come into possession of cognitively significant knowledge of what it is like to experience the Mona Lisa only if that agent is in a position to have an experience of the Mona Lisa and that agent has phenomenal awareness of that experience, i.e., one must stand in a direct acquaintance relationship.

It appears to me that Chalmers is wanting to force us to accept the reason that Zombie-Tom does not obtain cognitively significant knowledge is because he lacks what Tom has—phenomenal consciousness—so his epistemic situation will be different from Tom's. However, one can understand the difference in epistemic situations *only* if one assumes that Tom's epistemic situation must involve the phenomenal. I argue that Chalmers has illicitly changed the meaning of 'epistemic situation'. Let me explain why I make this claim. Chalmers' argument is that (a) either we can conceive of Zombie-Tom lacking phenomenal consciousness or that we cannot conceive of him lacking phenomenal consciousness. (b) If we can conceive of Zombie-Tom lacking phenomenal consciousness, then there exists a new explanatory gap and phenomenal consciousness cannot be explained by PCS. (c) If we cannot conceive of Zombie-Tom lacking phenomenal consciousness, then PCS cannot explain the explanatory gap. (d) Therefore, either phenomenal consciousness is not physically explicable or the explanatory gap cannot be explained by PCS. All of the premises appear true and therefore, it appears that the conclusion must follow. However, is this argument valid?

Once we start critically analyzing the argument, we notice a few problems. First, premise

(a); the term 'phenomenal consciousness' must be univocal. Second, premise (b); phenomenal consciousness must be understood in phenomenal language (first-person language), i.e., if I can conceive of Zombie-Tom lacking phenomenal consciousness, then he lacks something Tom is intimately connected with (Tom's first-personal awareness of being phenomenally conscious). Third, premise (c); phenomenal consciousness must be understood in topic-neutral language (third-person language), i.e., Tom and Zombie-Tom both possess functional, physical, and psychological properties allowing both of them to express concepts when they stand in an acquaintance relationship with some experience. If this interpretation is correct, then in Chalmers' argument, he commits the fallacy of equivocation. Even if I substitute phenomenal consciousness with cognitive introspective knowledge, or epistemic situation, the fallacy of equivocation will still be apparent.

Nevertheless, let me again make it clear that we are supposed to understand our epistemic situation in topic-neutral language (third-person language) eschewing all reference to phenomenal states and concepts (first-person language). By bringing up the phenomenal and arguing that the epistemic situations cannot be the same due to a lack of phenomenal consciousness, Chalmers is not arguing on the ground rules imposed by PCS. In other words, he has illicitly changed the meaning from a topic-neutral understanding of our epistemic situation to a phenomenal (first-person) understanding in an attempt to show his conclusion—p-zombie's cannot share in our epistemic situation—is the most plausible position to maintain. However, a topic-neutral understanding not only applies to Zombie-Tom, but must also apply to Tom. Saying that Zombie-Tom cannot obtain cognitively significant knowledge because all is dark inside is to forget that Zombie-Tom does have a psychological functional consciousness where he can form non-phenomenal beliefs, and as we shall see shortly, Chalmers will agree. Hence, I cannot accept that the epistemic situation between that of Tom and that of Zombie-Tom are different. Ergo, if Tom's epistemic situation and Zombie-Tom's epistemic situation are understood *strictly* in topic-neutral language, then Zombie-Tom satisfies the criteria for sharing Tom's epistemic situation.

Chalmers (2010) has foreseen this type of response and writes that one can assert that our p-zombie twin does share our epistemic situation. That is, Chalmers notes that I could assert that any belief that I have pertaining to consciousness, my p-zombie twin will "have corresponding beliefs with the same truth-values and epistemic status" (ibid.: 326). So, where Tom acquires

new phenomenal knowledge upon seeing the Mona Lisa for the first time, Zombie-Tom acquires new knowledge of a precisely analogous sort. Chalmers writes: "If this is right, then the crucial features of phenomenal concepts might simultaneously be physically explicable and able to explain our epistemic situation" (Chalmers, 2010: 326).

However, Chalmers is quick to point out that our p-zombies beliefs' will not be phenomenal beliefs and Zombie-Tom's knowledge will not be phenomenal knowledge since for p-zombies it is all dark inside and thus they cannot "have true beliefs that attribute phenomenal states to themselves" (ibid.: 326). Chalmers says that type-B physicalists have to conceive of p-zombies as attributing some different type of state to him or herself: *schmenomenal states* and corresponding beliefs will be *schmenomenal beliefs* (ibid.: 326). Schmenomenal states stand to phenomenal states similarly to the way Saul Kripke's (1972) liquid 'XYZ' (on Twin Earth this liquid is identical-looking to the liquid on planet Earth, except this identical-looking substance is not H_20, but is XYZ) stands in relation to water. "Schmenomenal states are not phenomenal states, but they play a role in zombies' lives that is analogous to the role that phenomenal states play in ours" (Chalmers, 2010: 326). Hence, my p-zombie twins' schmenomenal beliefs have the same truth-value and epistemic status as mine. This idea will also apply to functional silicon zombies in that they will have "schmenomenal knowledge that is epistemically analogous to humans' phenomenal knowledge" (ibid.: 327).

One defending Chalmers may argue that the content of Tom and Zombie-Tom's epistemic situation will be different; therefore, they cannot share an epistemic situation. It is interesting to note Chalmers position on the 'content' of beliefs as they pertain to both Tom and Zombie-Tom. Chalmers writes:

> [C]orresponding utterances by a conscious being and its zombie twin will express corresponding beliefs. It is important to note that this notion of correspondence does not require that corresponding beliefs have the same content. It is plausible that a non-conscious being such as a zombie cannot have beliefs with exactly the same content as our beliefs about consciousness. We can nevertheless talk of the zombie's corresponding beliefs. So, the claim that a zombie and a conscious being share their epistemic situation does not require that their beliefs have the same content. This mirrors the general requirement that epistemic situations be understood in topic-neutral terms (Chalmers, 2010: 316).

Tom and Zombie-Tom share an epistemic situation even though the content of their beliefs are different. Carruthers and Veillet (2007) argue that Tom's phenomenal concepts have the content of phenomenal states, and he is in possession of those states. Zombie-Tom's schmenomenal concepts have schmenomenal states as its content. When Zombie-Tom asserts that he is conscious, he is referring to his schmenomenal states, and he is in possession of those states (ibid.: 123). Therefore, Tom and Zombie-Tom's beliefs are true and have justificatory strength in analogous ways, i.e., they share an epistemic situation even if there is a difference in what their beliefs are about.

Chalmers (2010) writes that one can defend Zombie-Tom and Tom sharing an epistemic situation by either "deflating phenomenal knowledge of conscious beings or by inflating the corresponding knowledge of our p-zombie twin" (ibid.: 327). He points out that each strategy has its downfall. If we inflate Zombie-Tom's epistemic gain, then we are forced to maintain that Zombie-Tom gains analogous cognitively significant knowledge that involves schmenomenal concepts as Tom gains involving phenomenal concepts. For example, when Tom gains significant knowledge of the form *vegemite "causes such-and-such phenomenal state*, *I am in such-and-such phenomenal state*, and *this is such-and-such phenomenal state"* (ibid.: 328), Zombie-Tom gains significant knowledge of the same form just not with phenomenal states but with schmenomenal states. Therefore, on the inflationary strategy we have to say that Zombie-Tom's new beliefs have the same epistemic status and truth-value as Tom's corresponding beliefs. Chalmers rejects the inflationary strategy.

Chalmers gives two reasons for rejecting this inflationary strategy. First, he writes that if we accept this strategy, we are misconstruing what it is we are conceiving of when we conceive of p-zombies. He writes that we are not to be conceiving of these creatures with "something analogous to consciousness that is epistemically just as good, rather we ought to conceive of them with nothing epistemically analogous to consciousness" (Chalmers, 2010: 328). If we are conceiving of p-zombies correctly, then Chalmers tells us that we are conceiving of creatures whose inner life is not as rich as ours, but that their inner life is dramatically poorer than our own. He tells us that the difference of inner lives creates a drastic difference in the richness of introspective knowledge (ibid.: 328). Secondly, Chalmers asserts that since we have "substantial knowledge of our phenomenal lives that p-zombies can have no such analogous introspective knowledge because there is nothing analogous for them to have introspective knowledge of"

(ibid.: 328). I think Chalmers is mistaken in both his reasons for rejecting the inflationary strategy.

Let me consider Chalmers' first reason for rejecting this inflationary strategy. When we imagine our p-zombie twin, we are not imagining her as being in possession of anything that is phenomenally as good as we have it. However, we can imagine her as possessing something that is epistemically just as good since p-zombies do possess functional psychological consciousness that plays an analogous role to our lives.

Chalmers admits that it is conceivable for a p-zombie to have a sort of introspective knowledge pertaining to its states such as propositional attitudes, or representational content, however, this type of introspective knowledge cannot be considered analogous to our phenomenal introspective knowledge. Rather, this sort of introspective knowledge is analogous to, as Dainton (2008) explains, our non-phenomenal introspective knowledge. Chalmers writes:

> "Phenomenology is not all that is available to introspection, and it is not out of the question that zombies could have the sort of non-phenomenal introspective knowledge that we have. But none of this knowledge will have the character of our introspective knowledge of phenomenal states because there is nothing analogous for zombies to introspect" (Chalmers, 2010: 328-9).

Chalmers does assert it is conceivable that these creatures could have something analogous to our conscious states, *schmonsciousness*, through which they will have analogous introspective knowledge. If this is conceivable, then it is also conceivable that our p-zombie twin would have no such "analogous introspective knowledge, and this latter conceivability claim is all that the argument against PCS needs" (ibid.: 329). Hence, if it is conceivable that my p-zombie twin lacks analogous introspective knowledge, even when Chalmers' is arguing that our p-zombie twin cannot share our epistemic situation, this is suppose to show that our conceptually isolated concepts and PCS cannot provide a reductive explanation for why it is we have introspective knowledge.

From my understanding of the above passage, Chalmers is equivocating upon our introspective knowledge, thus I disagree with his argument. Let me explain. First, Chalmers is claiming that even if our p-zombie twin is in possession of *C* it is conceivable that: (a) my p-zombie twin does not have the same type of introspective knowledge I have, and (b) we are incapable of securing the content of introspective knowledge using a topic-neutral language.

That is, if we understand our type of introspective knowledge as possessing phenomenal properties, then our p-zombie twin must lack this type of knowledge (first-personally understood). If our p-zombie twin does indeed lack our phenomenal introspective knowledge, then we are unable to provide an explanation for the content of our introspective knowledge in topic-neutral language. This leads Chalmers to conclude that our p-zombie twin cannot share our epistemic situation. However—and this is a crucial point—if introspective knowledge is part of our epistemic situation, and we are casting our epistemic situation in topic-neutral language, then the content of introspective knowledge is expressible in topic-neutral language. Since it is expressible in topic-neutral language PCS can provide an explanation of our epistemic situation by arguing for the conceptual isolation that holds between our concepts and that the content of our p-zombie twins' knowledge is different. Therefore, type-B physicalists can deny the existence of an ontological gap. Thus, I do not accept stipulation (b). By not accepting stipulation (b) I, therefore, deny that our p-zombie twin does not share our epistemic situation.

Now let us consider Chalmers' second reason for rejecting this inflationary strategy. He tells us that he rejects the inflationary strategy because "where we have substantial knowledge of our phenomenal lives, p-zombies can have no such analogous introspective knowledge because there is nothing analogous for them to have introspective knowledge of" (ibid.: 328). Since we are casting our epistemic situation in topic-neutral language, type-B physicalists can refuse to accept Chalmers' claim that Tom is in possession of knowledge that Zombie-Tom cannot be in possession of. Therefore, type-B physicalists will deny the need to inflate Zombie-Tom's knowledge. If this is so, type-B physicalists can dismiss Chalmers' objections pertaining to the inflationary strategy. However, will type-B physicalists be forced to deflate Tom's knowledge?

Chalmers (1996) tells us: "We can note that there is at least a deflationary concept of belief that is purely psychological, not involving conscious experience; if a being is in the right psychological state, then it is in a state that resembles belief in many important ways, except with respect to any phenomenal aspects" (ibid.: 20). Chalmers tells us that these non-phenomenal beliefs will resemble phenomenal beliefs without the requirement of involving the concept of phenomenal consciousness. Further, these *pseudo-beliefs* could have the same explanatory power "that is done by the concept of belief" (ibid.: 20). However, I think that it is not necessary to deflate Tom's knowledge. PCS can still work by pointing out that the content of Zombie-Tom and Tom's knowledge is different. Suppose that I have a twin (Twin-Diane) living on another

planet identical to Earth. Further, suppose that "vegemite" refers to a spread in our world and "vegemitea" is an identical looking spread in my twin's world. If I believe "Vegemite tastes awesome", my twin will believe "Vegemitea tastes awesome". Both of our beliefs will be true. That is, she and I will share an epistemic situation even though my concept of "vegemite" has different content than her concept of "vegemitea". Our epistemic situation will be shared because we will have corresponding beliefs and epistemic status. Any difference between my beliefs' content and that of my twins has no bearing on our epistemic situation. When I utter 'This spread tastes awesome', you will know that I am referring to vegemite. When my twin utters the same sentence, you will know that she is referring to vegemitea. My twin and I have in our possession concepts that we will both deploy when we are in the same condition of being hungry, and these concepts are linked to certain types of perceptual states (seeing a spread). Chalmers tells us that even though the content of our concept is different, my twin and I both have corresponding beliefs with equivalent truth-value. So, when both of us utter 'This is a spread', we will be correct even though we are talking about different things. If this is true, the type-B physicalist will assert that Zombie-Tom and Tom do share the same epistemic situation even though their concepts are about two different things.

However, Chalmers asserts that when it comes to phenomenal states, Zombie-Tom and Tom will not share the same epistemic situation. If my twin, who lives on a planet that is identical to Earth, and I can share the same epistemic situation, then why cannot Zombie-Tom, who lives on planet Zombie, and Tom share the same epistemic situation? After all, there is no reason to assume that the content of my and my twin's states and concepts are the same, so there is no reason to assume this about Tom and Zombie-Tom. When Zombie-Tom makes utterances about his phenomenal consciousness, he is referring to his schmonsciousness, and we have no reason to doubt that. Equally, we have no reason to doubt that when Tom makes utterances pertaining to his phenomenal consciousness that he is referring to his phenomenal consciousness.

Now, one defending Chalmers could argue that the utterances made by our p-zombie twin are false. The falseness of our p-zombie's utterances is not due to her referring to phenomenal states that she does not possess, but is due to her phenomenal states failing to refer. Therefore, our analogy concerning vegemite should not be between planet Earth and planet Twin Earth, but between Earth and Spread-less Earth. So, Spread-less Diane's beliefs pertaining to a spread (that it tastes awesome) is false because she is under a grand chimera: on her planet there is no such

spread. Following this line of thought, Chalmers would be correct in arguing that our p-zombie twin does not share our epistemic situation. However, the type-B physicalist can simply refuse to accept the analogy of Earth and Spread-less Earth.

Still, it is hard to see how my p-zombie twins' phenomenal concepts fail to refer. Phenomenal concepts, when cast topic-neutrally, can be thought of as being employed in a recognitional sense in the company of content-bearing mental states such as a perceptual state (Carruthers & Veillet, 2007**:** 133). That is, these concepts are linked to certain types of perceptual states (e.g., seeing a spread). I fail to see how her concepts fail to refer to a perceptual state that is responsible for her deployment of a concept. Chalmers can attempt to block this by telling us: "These [phenomenal] concepts fail to refer because the referent of the concept is somehow present inside the concept's sense" (Chalmers, 2003: 233, brackets mine), i.e., something else is built into the content of the concept. For Chalmers then, the phenomenal concept should refer to something which is not functional, physical, or psychological. However, PCS states that our phenomenal concepts are conceptually isolated. So, he (Chalmers) cannot suggest that something over and above the functional, physical, and psychological is built into the concepts sense because to do so would make Chalmers' claim inconsistent with PCS.

Chalmers (1996) will now argue that it is at the very least plausible that Zombie-Tom's concepts are empty, that is, his concepts and beliefs are content-less (ibid.: 257). In other terms, Chalmers is telling us that Tom's phenomenal beliefs and concepts are partly constituted by underlying phenomenal qualities and since Zombie-Tom lacks these qualities he cannot have beliefs and concepts with the same content as Tom's beliefs. However, type-B physicalists will quickly respond by saying that Chalmers' claim is question begging. Chalmers' idea of phenomenal concepts is precisely developed within his own dualistic framework where he presupposes entities, such as qualia, as being irreducible. In this section of the paper, I am presupposing that phenomenal concepts have characteristics that are topic-neutral. Hence, type-B physicalists will argue that all concepts will have some non-phenomenal content. In other terms, every concept includes some functional, physical, or psychological quality. Therefore, since we are speaking strictly in third-person (topic-neutral) language, Zombie-Toms' concepts definitely share our non-phenomenal content and thus are neither empty nor content-less. For example, when both Tom and Zombie-Tom utter, topic-neutrally, "I am phenomenally conscious", both Tom and Zombie-Tom will be referring to consciousness in the same manner, i.e., functionally,

physically, and psychologically.

Again, our phenomenal concepts can be understood either in first- or third-person language, first-person when these concepts are deployed in response to phenomenal states, or third-person when these concepts are deployed in response to perceptual states. For example, I could say that a first-person perspective of a phenomenal concept would be one where I deploy a phenomenal concept while I contemplate 'this' experience. Alternatively, I could say that my phenomenal concept is deployed by a perceptual state and then describe that perceptual state in first-person language by thinking that such states are like 'this'. When speaking third-personally, I could say that my phenomenal concept is a conceptually isolated recognitional concept that I deploy when I have a perceptual state (e.g., seeing a spread). In this section, I am focusing strictly on the deployment of phenomenal concepts in third-person language. Therefore, Tom and Zombie-Tom use their concepts equally because those concepts are deployed in the presence of functional, psychological states, and these concepts are conceptually isolated. If Chalmers re-introduces the 'phenomenal feel' of functional, psychological states into the debate for Tom, he is illicitly switching the meaning from a third-person characterisation to a first-person characterisation. By allowing for the type of content that our phenomenal concepts have into the debate, type-B physicalists are given sufficient grounds to argue that Tom and Zombie-Tom both gain exactly the same amount of knowledge, however—and crucially—both gain the same amount of knowledge about different things (Carruthers and Veillet**,** 2007: 124). Tom gains knowledge pertaining to phenomenal states. Zombie-Tom gains knowledge of schmenomenal states. This parallels my knowledge 'of a spread' (vegemite) and my twin's knowledge 'of a spread' (vegemitea). Therefore, I see no need to deflate whatever knowledge is gained by Tom, or inflate whatever knowledge is gained by Zombie-Tom. Type-B physicalists could simply assert that the object of knowledge is different in these cases, mine and my twin's and Tom and Zombie-Tom's.

So now let us focus on this question: Is the idea that our p-zombie twin cannot share our epistemic situation when cast in topic-neutral language due to their not being in a position to conceptualize these epistemic gaps? I will argue the answer to this question is "No".

Returning to Tom and Zombie-Tom, both will share an epistemic situation. Tom's and Zombie-Tom's phenomenal concepts and *quasi*-phenomenal concepts respectively are conceptually isolated from their physical or functional concepts. Zombie-Tom will be talking

about schmonsciousness, using his *quasi*-phenomenal concepts that are conceptually isolated. Therefore, just as Tom concludes there is an epistemic gap between the phenomenal and the physical, Zombie-Tom will conclude that there exists an epistemic gap between the physical and schmonsciousness. Further, Zombie-Tom will be able to conceive of his duplicate (Zombie-Zombie-Tom) that lacks what he has, *this* type of state, and run a master argument like Chalmers'. Zombie-Tom could utter: "Hmmm, I can conceive of my duplicate who is functionally, physically, and psychologically identical to me but he lacks 'this' certain type of state." As argued by Esa Díaz-León (2010), Zombie-Tom will not be in a position to draw a logical conclusion that the notion of schmonsciousness derives from schmenomenal truths since his concepts are conceptually isolated, so there will be no "hidden contradiction in Zombie-Toms' thoughts that he would be capable of detecting *a priori*" (Carruthers and Veillet, 2007: 130). Hence, since I am arguing that these gaps can be conceptualized in a topic-neutral language, Tom and Zombie-Tom share an equally good (or bad depending upon how you look at it) epistemic situation. Therefore, Zombie-Tom will be justified in arguing for the epistemic gaps because whatever concept he is inclined to express when he utters 'this' will be conceptually isolated.

One might try to defend Chalmers' position that our p-zombie twin cannot share our epistemic situation and maintain that our epistemic situation must be cast in topic-neutral terms. I have argued against this idea, and I do not see this as a possible scenario. We know *ex hypothesi* that the only difference between my p-zombie twin and me is that she lacks something I have, phenomenal consciousness. The only way that her epistemic situation can be distinct from mine is if we are portraying our (me and my p-zombie twin) epistemic situation in phenomenal language. Due to PCS explicitly requiring our epistemic situation, my p-zombie twins', be cast in topic-neutral language, and mine, one cannot argue that our respective epistemic situations differ; they must be the same. This makes it impossible for Chalmers to argue that while our epistemic situation is being cast in topic-neutral language that we do not share an epistemic situation with our p-zombie twin.

Now, someone defending Chalmers might assert that when she utters 'I am phenomenally conscious', she utters a true assertion opposed to my p-zombies' utterance of the same, therefore, allowing one to feel that she is justified in maintaining that p-zombies do not share our epistemic

situation. Be that as it may, I am not convinced by this line of reasoning for several reasons. First, Chalmers (1996) tells us that from a third-person point of view we must accept:

> "My zombie twin makes the same phenomenal judgments that I do. Where I judge that I am conscious, he judges that he is conscious. Further, his judgments are produced by the same mechanisms as my judgments. If justification accrues to judgments solely in virtue of the mechanisms by which they are formed, as is often supposed, then the zombie's judgments will be as justified as mine…. It seems to follow that my judgments cannot be justified, either. They are produced by the same mechanisms that are responsible for deluded judgments in a zombie, and so they surely cannot qualify as knowledge. If my phenomenal judgments are no more justified than a zombie's, then the ground is cut out from under the non-reductive position" (ibid.: 192).

Chalmers' intuition is that any judgements made by our p-zombie twin must be 'deluded'. I think the use of that term, deluded, is an unfair characterization of the p-zombies judgements. We have absolutely no evidence as to whether or not their judgements are deluded. This is a conjecture that I do not believe Chalmers is entitled to make. Could not your p-zombie twin be allowed to say that your judgements are deluded? Hence, we are confronted with a paradox that Chalmers rightly notes in this passage. Let us suppose I told you that your judgements are deluded because you lack phenomenal consciousness and my judgements are not deluded because I am in possession of phenomenal consciousness, what reaction would you have? I would assume your reaction would be to defend yourself by asserting that you are every bit as conscious as I am. You might even comment that I have just insulted you. You would argue that we both form judgements in the same manner, say, perhaps, from some perceptual state, and if my judgements are correct, then so are yours; likewise, if my judgements are deluded, then so are yours. No matter what I say to try to convince you that you are deluded, you will make parallel arguments to my arguments. Moreover, Chalmers must argue that PCS cannot provide a physical functional explanation for why we are confronted with these epistemic gaps because failure to do so would put the property dualists' arguments in dire straights. I think that due to passages like the above Chalmers is forced into returning to his argument from a first-person perspective i.e., by bringing up the phenomenal feel of some experience.

Next, earlier I noted that Chalmers had to re-define how we conceptualize our notion of an epistemic situation. I said that: '…Chalmers knows that it is notoriously difficult to ascertain

the content of someone's beliefs' therefore, Chalmers was forced to develop a second definition of 'epistemic situation'. Chalmers' argument against the idea that my p-zombie twin does not share an equally good epistemic situation as I do is based upon controversial ground. This unsubstantiated claim puts Chalmers' argument against PCS on an unstable footing.

Finally, if you wish to maintain that the utterance from a p-zombie, who is referring to her schmonsciousness when uttering: 'I am phenomenally conscious' is false, and your same utterance is true because you are referring to your phenomenal consciousness, then you are maintaining that both epistemic situations are being cast in first-person language and not in topic-neutral (third-person) language. This is the only way that you can conclude that your p-zombies twins' utterance is false and that she does not share your epistemic situation. Remember, however, in this section of the thesis we are conceiving of both epistemic situations as being cast in topic-neutral language.

One might now reply, 'Chalmers must mean he is talking about the 'phenomenal feel' of a particular state'. However, my concepts and my p-zombie twin's concepts (described topic-neutrally) are employed by our individual functional, psychological states, and we know these concepts are conceptually isolated from the phenomenal. Again, re-introducing the 'phenomenal feel' is to illicitly switch from a third-person characterization to a first-person characterization.

Chalmers would be in his right to claim that what is at stake is the lack of phenomenal states that are referred to by those concepts when the p-zombie deploys them. It is the presence of *this* phenomenal state that makes my epistemic situation distinct from that of my p-zombie twin and thereby is the crucial difference between us.

Nevertheless, if Chalmers were to argue that it is 'this' phenomenal state that makes my epistemic situation distinct from my p-zombie twin, then the type-B physicalist will respond by asserting that this claim is question begging. If my epistemic situation is, in part, portrayed in terms of my possessing *this* phenomenal state that my p-zombie lacks, then I am saying that it is crucial to my epistemic situation that I possess phenomenal states that do not lack qualia whereas my p-zombie twin lacks phenomenal states that possess qualia. This is question begging because both the property dualist and the type-B physicalist agreed this is understood. Type-B physicalists agree with the property dualist that the notion of my p-zombie twin is conceivable, but lacks my phenomenal conscious states. However, defenders of PCS assert that PCS can

explain why my p-zombie twin is conceivable without resorting to anything existing outside the domains of the functional, physical, or psychological.

Further, there is nothing to say that it is impossible to form a positive notion of how it is that consciousness might be a physical property. Conceiving of your p-zombie twin involves conjoining the notions of a functional, physical, and psychological duplicate, and schmonsciousness, and *prima facie* this is no more difficult than disjoining our physical constitution from our phenomenal consciousness. I will grant that it is difficult to conceive of our phenomenal consciousness simply as a by-product of our physical constitution. For example, you may ask yourself 'How could *this*' (mentally pointing inward to some past or current experience) simply be just a functional, or physical, or psychological state?' Be that as it may, the level of difficulty is not germane here. When we conceive of something, there is no middle ground to teeter upon. So conceiving of one state of affairs may simply be more difficult than conceiving of another state of affairs, however, conceiving of one state of affairs is no less conceivable than the other. For example, it is much harder to conceive of President Obama and Osama bin Laden as the same person than to imagine their identity as distinct. Nevertheless, these two scenarios are equally important when we are conceiving of some state of affairs.

Again, as noted in phase (1) of the quandary, if Chalmers is to insist that PCS is doomed to fail because my phenomenal states are part and parcel of my epistemic situation and that PCS cannot explain these phenomenal states, then this is to deny PCS before it has a chance to launch. By taking this route, Chalmers is again requiring that PCS ought to explain the presence of qualia, i.e., phenomenal consciousness. PCS is neither designed nor intended to provide an explanation of this; it is to explain why we can conceive of p-zombies, and why we are faced with the epistemic gaps. Hence, PCS is not put forth to explain our phenomenal consciousness reductively, therefore, our epistemic situation cannot be characterised in such a way as to imply 'phenomenal feels'. Chalmers cannot have it both ways, either we understand our epistemic situation in phenomenal language and our p-zombie does not share our epistemic situation or our epistemic situation is understood in topic-neutral language and p-zombies do share our epistemic situation.

Type-B physicalists will argue that since all we have are functional, physical, and psychological properties and no cause to hold that our phenomenal consciousness is distinct from that of our p-zombie twin or post-NRT Tom, our phenomenal consciousness stands in an

analogous relationship to their schmonsciousness. Our p-zombie twin and post-NRT Tom stand in an analogous epistemic relationship to us when our epistemic situation is properly conceived in topic-neutral language. This shows us that PCS can and does provide an explanation in physical or functional or psychological language of our conception of phenomenal properties that does not generate an ontological gap.

Phase (2) complete

Synopsis

Type-B physicalists maintain that the physical entails the phenomenal, that an epistemic gap but not an ontological gap, exists, and that p-zombies are a conceptual possibility but not a metaphysical possibility. They argue that if a p-zombie shares our physical constitution, then it necessarily shares our phenomenal properties. Type-B physicalists recognize that there are two possible ways to conceive of phenomenal properties. We can think about p-zombies as sharing our epistemic situation because they possess functional psychological consciousness identical to ours. Or, we can think of them as not sharing our epistemic situation because they lack the phenomenal properties of qualia i.e., they lack phenomenal consciousness. In these two ways of conceiving of a p-zombie, one not need be worried that a functional or physical explanation of our epistemic situation (with respect to phenomenal consciousness or with respect to our epistemic gaps) will not pertain correspondingly to zombies since that explanation can be applied correspondingly to either with the same amount of power.

Type-B physicalists argue that our p-zombie twin and post-NRT Tom will necessarily be conscious (i.e., they possess schmonsciousness). Since we have phenomenal concepts that are conceptually isolated from our physical concepts, we have the ability to think in terms of the phenomenal. It is conceptual isolation that makes it possible for us to think in terms of conceivability, thereby affording us the ability to conceive of p-zombies lacking phenomenal consciousness and rendering them mindless beings. I do not think that the type-B physicalist need be worried since we are conceiving of a hypothetical creature (our p-zombie twin) that is not a metaphysical possibility and therefore cannot be an authentic representation of how we truly identify with phenomenal consciousness. Our (to use Chalmers' 1996 vocabulary) "suffering" under C and our ability to conceive of such creatures does not entail that a functional or physical explanation of consciousness leaves something out because, for type-B physicalists,

the phenomenal is physical. Therefore, there is no reason to posit that phenomenal consciousness is ontologically distinct where a functional or physical explanation is incapable of explaining it.

Earlier I discussed post-NRT Tom, our functional silicon zombie. Post-NRT Tom like our p-zombie twin is a being that shares our functional physical constitution excluding his brain, which is comprised of silicon and not carbon-based like our brain. This renders our silicon zombie a mindless being, for him all *is* dark inside. I also noted that it is an open question for type-B physicalists as to whether this type of zombie (a functional silicon zombie) is a metaphysical and conceptual possibility. Suppose Chalmers' second horn is strictly a functional analysis. On this analysis, post-NRT Tom is acquainted with phenomenal concepts and these concepts will behave in a manner that will be identical to the behaviour of our phenomenal concepts (in third-person language). That is, post-NRT Tom necessarily needs to stand in an acquaintance relationship with the Mona Lisa in order to come into possession of the phenomenal concept 'brilliant blues'; we will have to do the exact same in order to acquire a phenomenal concept. Once he acquires the phenomenal concept, he, too, will *suffer* under C.

I claim just because we humans suffer under C and have the intuition that we are in possession of phenomenal properties does not necessarily mean we are granted some privileged epistemological access to states that post-NRT Tom or our p-zombie twin cannot enjoy or share with us. Whether post-NRT Tom or our p-zombie twin, both zombie types will be in possession of schmonsciousness. Schmonsciousness is responsible for allowing their schmenomenal concepts to refer to their internal mental states and properties in just the same manner as our phenomenal concepts refer to our internal mental states and properties, therefore, showing an analogous relationship between the zombie and us in that the explanatory power is the same.

My response is not the only way one could respond to Chalmers. For example, one might respond to Chalmers by objecting to Chalmers and Jackson (2001) *a priori* entailment thesis. One could argue that there are various ways in which this thesis could be undermined. For example, see Carruthers (2004) "Reductive Explanation and the 'Explanatory Gap'. Next, one could argue that arguments, such as Keith Frankish's (2007) "Anti-Zombie Argument", show Chalmers' master argument is itself superfluous. Finally, one could respond to Chalmers by arguing that our phenomenal concepts are understood in one of three ways. For example, one could argue that phenomenal concepts are strictly to be understood either demonstratively,

representationally, or constitutionally. For example, see Robert Schroer (2010) "Where's the Beef? Phenomenal Concepts as Both Demonstrative and Substantial".[x]

My response to Chalmers' dilemma is limited to showing how his dilemma is faced with a dilemma without adhering to strictly one view of phenomenal concepts. I maintain that PCS can and does provide a powerful reply to the property dualists' assertions and intuition pumps. I reached the conclusion that Chalmers cannot demand that our epistemic situation must be cast in topic-neutral language and yet still be different from our p-zombie twins epistemic situation. If Chalmers were to now say that p-zombies do share our epistemic situation, then the second horn in his master argument fails. If Chalmers were to now say that our epistemic situation needs to be cast in phenomenal language, then his master argument becomes the claim that PCS must accept that a new gap develops between either the physical and *C* (when cast phenomenally) or *C* (when cast topic-neutrally) and our epistemic situation. However, PCS predicts these gaps and is able to provide an explanation for why we see these new epistemic gaps. Overall, I think I have given a plethora of reasons for my belief that Chalmers' master argument against PCS fails.

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Notes

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[i] Phenomenal consciousness is to be understood throughout the body of this paper by the definition that Thomas Nagel (1974) offered. He tells us that what it means to be phenomenally conscious is to have a subjective experience where there is *something it is like to be* in a phenomenal conscious state.

[ii] *A posteriori* physicalism is the thesis that denies the path from microphysical facts (low-level) to mental facts (high-level) is *a priorily* known. However, *a posteriori* physicalists argue that the microphysical facts establish all high-level facts. This may sound confusing so an example will help to illuminate this idea. We can say that it is not known *a priori* from "Stephen King was born on September 21, 1947" and "Richard Bachman wrote "The Dark Half"" that Stephen King wrote "The Dark Half". Nevertheless, the previous facts wholly entail the latter. Hence, there is no way to surmise *a priori* that Stephen King wrote "The Dark Half" since our beginning facts are not all-inclusive. We might have been able to conclude *a priori* that Stephen King wrote "The Dark Half" if we were told that Stephen King and Richard Bachman are one in the same identity from the start.

Still, it is not clear how it is we could be in possession of the all-inclusive facts pertaining to the microphysical that entail all the high-level facts yet do not *a priori* entail them. It seems that we need something further to get from the microphysical to the high-level (mental) facts, which are not constituted by the physical. In order to get from the microphysical to the high-level *a priorily* we need some further information (assumptions) and this is called 'bridge laws'. Yet, bridge laws cannot fix the issue of deducing the high-level from the microphysical. To briefly cash this out, let us look at Frank Jackson's Knowledge Argument (Jackson, 1982). We are told that Mary is an omniscient neuroscientist that has been held prisoner, since birth, in a monochrome room. We can posit that Mary knows all the microphysical facts, and has in her possession further information (bridge laws). She has full capacity to deduce what it will be like to experience the colour red, yet, when Mary is released from her monochrome room, many philosophers argue that Mary learns something new when she experiences red for the first time. If this is true, then the bridge laws were of no use to Mary, and thus we are still left with our original difficulty of getting from the microphysical facts to the high-level facts.

Moreover, some type-B physicalists maintain a type of *conceptual dualism* with an associated *ontological monism*. Robert Francescotti (2000) describes ontological monism as the thesis that for any high-level phenomena, there is a physical property, such that the high-level phenomena are identical to the physical property (ibid.: 350). By maintaining ontological monism, physicalists can argue that there does not exist an ontological gap in the presence of an explanatory gap. They assert that phenomenal concepts are different from any functional or physical concepts (conceptual dualism) and they claim that phenomenal properties, such as qualia, are identical to certain functional or physical properties (Chalmers, 2010: 307-8). Therefore, by maintaining conceptual dualism, type-B physicalists cannot deny the explanatory gap because it has been argued that conceptual dualism gives rise to the explanatory gap. By maintaining ontological monism, type-B physicalists deny an ontological gap. The type-B physicalist accepts that there is a hard problem, but this hard problem is not indicative of an ontological gap. The hard problem is the lack of explanatory power, resulting in epistemic gaps.

[iii] For more on the various ways that qualia are understood see e.g. Ned Block, 1990; David Chalmers, 1996; Daniel Dennett, 1988; Fred Dretske, 1995; Galilei, 2008; Frank Jackson, 1982; William Lycan, 2008; Peter Mandik, 2006; Thomas Nagel 1974; Smythies, 2008; and White, 2008.

[iv] A priori physicalism (dubbed "type-A physicalism" by David Chalmers (2002) is the thesis that if one knows every fact pertaining to the physical, one would not need bridge laws, or further information, in order to know all the high-level (mental) facts. Type-A physicalists argue that the only things that need explaining are how we account for the function of various phenomena. Once there is an explanation of the various functions involved, everything has been explained. For some type-A physicalists, consciousness exists but in terms such as 'reportability'. So, they deny any relevant epistemic gap.

[v] Type-B physicalists argue that PCS discriminates between functional or physical concepts and phenomenal concepts. Type-B physicalists posit that our phenomenal states can be identified by specific functional or physical states. This identity is not grasped through *a priori* knowledge but rather, through empirical science (*a posteriori* knowledge). For example, the concept 'gas' is distinct from the concept 'C_8H_{18}'. The role of this example is to show that it is a scientific discovery that our concepts 'gas' and 'C_8H_{18}' refer to the same properties, i.e., it is not *a priori* known that these concepts refer to the same property. The type-B physicalist maintains that the same idea holds for phenomenal consciousness. Even though the functional or physical concepts and the phenomenal concepts may pick out the same entities, these concepts are conceptually isolated. Further, due to these concepts being conceptually isolated, one cannot rely purely on *a priori* reasoning when one is attempting to logically decide if a phenomenal explanation refers to a functional or physical explanation. Our cognitive system has distinctive roles for the different concepts and these roles are responsible for keeping these concepts isolated (Loar, 1999: 597). For this reason it is imperative that phenomenal concepts be understood as conceptually isolated from functional or physical concepts. Conceptual isolation plays a significant role in PCS.

[vi] Chalmers and Jackson (2001) argue that the *a priori entailment thesis* is a necessary part of any reductive explanation in physical terms. The following shows the structure of their argument:

i. There is an *a priori* entailment form microphysical truths to ordinary macroscopic truths.
ii. If there is no *a priori* entailment from microphysical truths to phenomenal truths, then reductive explanation of the phenomenal fails.
iii. If there is no *a priori* entailment from microphysical truths to phenomenal truths, physicalism is false.
iv. There is no *a priori* entailment from microphysical truths to phenomenal truths.
v. Therefore, reductive explanation of phenomenal truths in physical terms fails (ibid.: 208).

Most of the literature that examines Chalmers' master argument uses the term 'physical explanation' while describing the structure of this argument. Chalmers, himself, uses the same terminology. As long as we remember, exactly, how Chalmers has defined 'physical explanation' there should be no confusion between the terminological the differences of a physical explanation and a reductive explanation, because a reductive explanation is how he

defines a physical explanation. For more on this see Chalmers, 1996; 2006; 2010; and Chalmers and Jackson, 2001.

[vii] My understanding of a *thickly individuated fact* is that one may maintain the fact of some thing that is situated in many different thoughts. For example, the fact that I am looking at ten toes, and the fact that the number of toes I am looking at is the smallest even number greater than eight, is the identical fact. A *thinly individuated fact*, on my understanding, is a fact of some thing can be distinctly singled out in terms of the ideas used to convey them. In the example above, a thin account would claim these are not the same fact, but are two distinct facts.

[viii] A defender of Chalmers may argue that our epistemic situation is understood only in terms of distinctive epistemic gaps, but this will not work, either. I hope to address this in section 8.

[ix] For example, Carruthers (2004) and Loar (2007).

[x] ***Phenomenal Concepts are Distinctive***

In order to defend conceptual dualism and ontological monism from the assertion that conceptual dualism culminates into ontological dualism, the type-B physicalists asserts that there are distinctive features of our phenomenal concepts. In the following, I will briefly sketch how physicalists defend these distinctive features of phenomenal concepts.

A Constitutional Account of Phenomenal Concepts

Most accounts of phenomenal concepts fall into the representational theory of mind (RTM). Jerry Fodor (2008) asserts that the RTM can be understood as the thoughts we think, and the beliefs we form, all take the form of a mental representation. It is not necessarily the case that our propositional attitudes must have truth-values, or must be justified. When we consider this understanding of RTM, the very act of thinking is an "internal language of thought" (Mentalese) i.e., mental images and sentences of the internal language of thought where one has the ability to control terms Fodor (2008). Chalmers asserts, in a footnote, that concepts are part of our mental representations and that concepts are part of our beliefs. "I take concepts to be mental entities on a par with beliefs: they are constituents of beliefs (and other propositional attitudes) in a manner loosely analogous to the way in which words are constituents of sentences. Like beliefs, concepts are tokens rather than types in the first instance" (Chalmers, 2003: 223, parenthetical original). Therefore, the mental images can be thought of as concepts we use. The concepts form sentences in our language of thought, and might be part of, or constituents of, our beliefs.

Further, according to Fodor's language of thought, there is a causal connection between our phenomenal concepts and its referents. These referents are phenomenal properties (qualia). These referents are said to be "the content of concepts" (Fodor, 2008: 16) and this is what makes it a constitutional account of phenomenal concepts. If the referents are not part of the content of the concept, then this is considered a non-constitutional account.

Phenomenal Concepts as Pure Demonstratives

An indexical demonstrative is an expression where one must provide some type of demonstration, for example, pointing. If I utter "That's Tim" and I demonstrate that that is Tim by the act of a pointing gesture, then my pointing refers to, or picks out, the object 'Tim' and my demonstration is the act of pointing. However, according to David Kaplan (1989) with pure indexical demonstratives it is not the case that there is a demonstration that is required. Pure

indexical demonstratives such as ‘I’, and ‘today’, are self-referential.

An account of type-demonstrative phenomenal concepts is provided by Brian Loar (1990/1997) although, he labels his account of phenomenal concepts as “recognitional/ imaginative concepts” (Loar, 1997: 87). According to Loar, a phenomenal concept directly picks out its referent because we have the capacity to make judgements based solely upon recognitional dispositions; we do not have to call to any theoretical knowledge or any background knowledge concerning the phenomenal property of ‘what it is like to x’ (Loar, 1997: 87).