§1- The Zombie Intuition

There are many thought-experiments and arguments that intend to show that consciousness is irreducible to the physical. The zombie thought-experiment or zombie argument\textsuperscript{1} is a quintessential example of this and has appeared in various forms at least as far back as Descartes.\textsuperscript{2} Chalmers espouses the most lucid and well-argued version of the argument and this is the form of the argument we will discuss.\textsuperscript{3} But first, let's consider the intuition behind 'zombies' so that we can better understand what they are.

When philosophers talk about zombies, they are not referring to Hollywood-style, brain-munching, brain-dead zombies. They are talking about a thing that is physically and behaviourally identical to a conscious being but which lacks consciousness. These creatures are known as philosophical zombies, abbreviated to 'p-zombies' hereafter. The question then is: Can you conceive of a p-zombie? Intuitions are notoriously unreliable here. As Dennett notes,\textsuperscript{4} you may have the "zombic hunch" but whether or not you credit it is another matter.

\textsuperscript{1} It seems to operate as both. On the one hand, there is the zombic hunch as Dennett (1999) calls it. On the other, Chalmers (1996) provides an advanced formal argument.

\textsuperscript{2} See Campbell's (1970) 'imitation man' which was physico-chemically identical to a conscious being but lacked feelings. Also, see Descartes's (1954) argument for the real distinction between the mind and body. However, note that these arguments, although of roughly the same form, differ in details that give rise to substantial philosophical differences.

\textsuperscript{3} Chalmers 1996.

\textsuperscript{4} Dennett 1999.
However, there is more to p-zombies than the intuition. There is the argument.

§1.1- The P-Zombie Argument

Put in its most simple form while preserving all the important aspects, Chalmers argument is:

1. P-zombies are conceivable.
2. Conceivability implies possibility.
3. Therefore, p-zombies are possible.

The kind of possibility Chalmers is referring to is logical possibility. As long as the idea of a p-zombie is not contradictory, p-zombies are possible in Chalmers' sense. He calls this "conceptual coherence".  

The upshot of the argument is that if "the physical facts are the same [as they are in our world] but the facts about consciousness are different" from ours, in a p-zombie world, then this shows that "consciousness is not logically supervenient on the physical". Since consciousness cannot be accounted for by a complete physical description, it must be accounted for in some other way; by some other type of property. The argument runs contrary to physicalism then, if physicalism is understood as the doctrine that there are only physical properties.

We should now be able to see that, being contrary to physicalism, the p-zombie argument supports some kind of dualism, namely, \textit{property dualism}: the view that there are two types of property.

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6 Supervenience is a controversial topic that I have no wish to weigh in on here. For my purposes it entails that there cannot be a difference in x-properties without a difference in y-properties, if the x-properties supervene on the y-properties.
7 Chalmers 1996, p.91.
§2- Criticism of Chalmers’ P-Zombie Argument for Dualism

First I will explain the notion of weak conceivability and argue that weak conceivability does not imply possibility (§2.1). Secondly, I will explain strong conceivability and support my claim that conceivability only implies possibility if we have an adequate concept of the subject-matter⁸ (§2.2). I argue that we do not have an adequate concept of a p-zombie and therefore, the truth of premise one is not established (§2.3 & §2.4). Finally, I reject what I believe to be the most viable objection to my argument and conclude that in the end Chalmers is faced with a dilemma: either he takes a weak notion of conceivability and the second premise comes out false, or he takes a strong notion of conceivability and the truth of premise one is not established (§2.5).

§2.1- Weak Conceivability

What is it to say that something is conceivable? I want to demarcate two broad types of conceivability. The first I call weak conceivability. Weak conceivability is equivalent to what I call the two I’s: imaginability and ignorance. What do I mean by this? Take the example of Oedipus. In the Greek tragedy of the same name, Oedipus unknowingly marries his own Mother. We can appeal to his mistake in order to illustrate the two I’s:

i) Imaginability

Oedipus might have imagined Jocasta attending his wedding, and his Mother not attending his wedding. But since the singular terms “Jocasta” and “Mother” pick out the same object – call it A – this is not a genuine possibility. According to the law of excluded middle, the sentence “A is at the wedding” is either true or false. But the claim that Jocasta attends his wedding while his Mother does not breaches this law because it would make it both true and false.

⁸ I draw on the exchange between Descartes and Arnauld in the Objections and Replies to Descartes' Meditations on First Philosophy (Descartes 1954).
that "A is at the wedding". But despite the fact that this situation was logically contradictory, it was still imaginable to Oedipus. How can something be imaginable, if that something is logically contradictory?\(^9\)

ii) Ignorance

The contradictory state of affairs was imaginable to Oedipus because he did not have an adequate idea of the concepts involved in the situation. In other words, he didn't know the relevant facts about Jocasta or his Mother; he was ignorant of some of the relevant facts. If he had had an adequate concept of Jocasta or his Mother – if he hadn't been ignorant – then he would have realised that they were the same person and so would have seen he could not actually imagine the situation.

Weak conceivability is the conjunction of imaginability and ignorance. We have just seen how in Oedipus’ case this can lead to tragic mistakes, the kinds of mistakes that lead to logical contradictions (and incestuous relationships). Further, we said at the beginning that Chalmers bases his argument on a notion of logical possibility – the idea that something is possible iff its obtaining does not lead to a logical contradiction. What I have just shown is that weak conceivability can lead to claims that contradictory states of affairs can obtain. Clearly then weak conceivability does not entail possibility. So, if Chalmers' argument involves a weak notion of conceivability, then the second premise – that conceivability implies possibility – would come out false. This is the first horn of the dilemma.

So Chalmers' argument requires a stronger notion of conceivability. I

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9 Underlying this example is the strong necessity: 'Jocasta = Oedipus' Mother'. A strong necessity is an a posteriori necessity whose falsity is conceivable yet impossible. Strong necessities are sometimes considered to be 'brute' - fundamental facts that admit of no further explanation. This bruteness is often taken to be a good reason to reject strong necessities. However, strong necessities need not be brute. Rather they can be explained by the essences of the objects involved. For an excellent discussion of these issues see (Goff and Papineau 2014)."
will now discuss what exactly it means to conceive of something in the strong sense and why that is so important.

§2.2- Strong Conceivability

We should remind ourselves what the function of conceivability is in this context. Chalmers needs a notion of conceivability that implies possibility. We saw how employing a weak notion of conceivability does not achieve this. We also identified ignorance as the reason why it does not achieve this. What Chalmers needs to do in order to establish the truth of his second premise is to eliminate the ignorance. That is precisely what conceiving of something in the strong sense does. To conceive of something in the strong sense is to have an adequate\(^{10}\) concept of the things one is conceiving of. I hold that when we conceive of a concept adequately, conceivability implies possibility.

To demonstrate this, imagine a new entity existing on a two-dimensional spatial plane. Let’s call it the Up-Down entity. All it is to have an adequate concept of the Up-Down entity is to know this fact about it: the Up-Down entity can only move up or down; it can only move on the y-axis.

Notice what happens when I operate with an adequate concept of the Up-Down entity: I cannot conceive of it moving left or right because I’m aware of the fact that it can only move up or down. So, what is inconceivable coincides with what is impossible. When I operate with an adequate concept of the Up-Down entity, it’s conceivable for the Up-Down entity to move up or down. This coincides with what is possible. Strong (in)conceivability implies (im)possibility when we have an adequate concept of the thing we are conceiving of. We should now see that having an adequate concept is key to conceivability implying possibility. Thus, to address his problem all Chalmers needs to do is take a version of conceivability that operates with adequate

\(^{10}\) As Arnauld terms it Descartes 2006, 56.
concepts. This is strong conceivability and it does imply possibility.

One objection comes to mind straight away: there is a hidden circularity within my notion of adequate conceivability. Obviously if a concept's adequacy is defined as the conceiver knowing all the facts he needs to know in order to avoid mistakes, then there will be circularity. However, we may reach adequate knowledge of concepts in various ways independently of the notion of adequacy. For example, Descartes believed that a "clear and distinct" idea would always be adequate. Admittedly this did not turn out very well. But the challenge for philosophers is to discover on what grounds we might rest our knowledge, be it rational intuition or empirical evidence. This is a highly fraught question that cannot be answered here.¹¹

For now we can say this much: given the failures of weak conceivability, we do need strong conceivability to ensure that we do not make the same mistakes. How we come to have adequate knowledge of a concept is a distinct issue from my claim that we desperately need adequate knowledge of a concept in order for conceivability to imply possibility. We now proceed to investigating whether or not Chalmers has an adequate concept of a P-zombie. I argue that he does not.

§2.3- The Concept of a P-Zombie

The concept of a p-zombie is a curious one. As we've noted, it is the amalgamation of two more fundamental concepts: the physical and consciousness. Specifically, it is the idea of a complete account of the physical and a complete account of consciousness. So, we can now ask ourselves: Do we have a complete concept of the physical and of consciousness? I will argue that we do not have a complete concept of a p-zombie because we do not have a

¹¹I am indebted to the audience at OpenMindsXII Conference for helpful comments which led to the formulation of this objection and my reply.
complete concept of either the physical (§2.3) or consciousness (§2.4).

§2.3- The Concept of the Physical

What is the physical? Some seem to think that this is a simple question but when we delve a little deeper, we find that it is an issue fraught with problems.

Carl Hempel posed a dilemma: either (1) we define the physical according to what current physics says there is or (2) we define physics according to what a future complete physics says there is.\(^\text{12}\) There are serious issues on both horns of the dilemma. I think the difficulties are currently insurmountable.

Take the first horn: that the physical just consists of what contemporary physicists say there is. It is common knowledge that contemporary physics is not complete. There are still physics departments in universities. Presumably they are doing work in those departments and presumably that work will be in contemporary physics. To say we have an adequate concept of physics is to suggest that those physics departments are, at best, not doing physics but some other physics-like work and, at worst, that they are not doing anything of value at all. Clearly, this is absurd. They are doing physics. They are developing our incomplete concept of physics. When Newton developed the idea of forces he developed the field of physics; he developed our concept of physics. Certainly, there are more advancements to come. Therefore, the first horn of the dilemma is not a viable option because it leads us to hold the obviously false claim that contemporary physics can give us a complete account of the physical, and not even the most arrogant of physicists would claim that.

The second horn, that the physical just consists of whatever a future and complete physics says there is, is hopelessly vague and empty. We don’t

\(^{12}\) Montero 1999, 188-189.
know what a future physics would consist of. We don’t have access to information about the future state of physics. For all we know, in the future, physics will give an account of consciousness in physical terms. So, the second horn can never give us a complete concept of the physical.

I have shown how both horns of Hempel’s dilemma lead us into trouble and this illustrates the fact that we really don’t have an adequate concept of the physical. One way out of this dilemma might be to define the physical as the non-conscious. But, as I will now show, we have no idea of what consciousness is either.

§2.4- The Concept of Consciousness

It is even more obvious that we don’t have an adequate concept of consciousness. If we did, then there would be no need for the p-zombie argument. If we really understood consciousness we would know whether or not it supervenes on the physical.

There seems to be a lurking paradox in our use of conceivability arguments. Their purpose is to tell us something substantial about the things they are conceiving of. But they need adequate concepts in order to work as guides to a logical possibility. If we had adequate concepts of the things we are conceiving of, then there would be nothing substantial that an argument from conceivability could tell us that we did not already know.

For example, let us go back to the Up-Down entity. If we have an adequate concept of it – and all that means is that we know that it can only go up or down – then the situations we conceive of cannot tell us anything substantial about it. At the most, we will be able to use a priori demonstration\(^\text{13}\) to deduce tautologies such as, “The Up-Down entity can only go up or down. Therefore, it

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\(^{13}\) a priori demonstration is the process of taking some claims that are known to be true and deducing further true claims from them using valid inferences.
cannot go left or right." But this is to be expected as deductive arguments go from premises to conclusions via valid inferences. Chalmers' conceivability argument is deductive. Therefore we should not expect anything more from it than bringing out entailments from its premises.

§2.5- Objection and Conclusion

Chalmers might respond that all he's doing is "following out the lines of logical implication" to bring to light the fact that consciousness does not supervene on the physical. He might say that we really do have an adequate concept of consciousness. However this response is not acceptable. Since if we really did have an adequate concept of consciousness, then we would not only know that consciousness does not supervene on the physical, we would know what it actually supervenes on. That is, if it supervenes at all. But of course, we don't have this information.

Another way of putting the point is as follows. Chalmers talks of the "hard problem". This is the idea that finding out what consciousness supervenes on is one of the hardest questions we are faced with as human beings. This hard problem remains even after the zombie argument. But why would it, if Chalmers really knew all there was to know about consciousness? This demonstrates the fact that he does not really have an adequate concept of consciousness, and he knows that he doesn't.

In conclusion, whether Chalmers takes a weak notion of conceivability or a strong one his argument fails. This is due to the fact that the former notion does not imply possibility and the latter requires an adequate concept. If premise one is taken to be appealing to the strong notion of conceivability it fails because Chalmers does not have an adequate concept of a P-zombie. If Chalmers did have an adequate concept then it seems strange for him to even propose the

conceivability argument as we would already know everything substantial about the physical and consciousness. Or, at least, we could come to know it via valid inferences. But this does not seem to be the case.

In the end, Chalmers’ p-zombie argument does not demonstrate that consciousness does not supervene on the physical. The very positing of it shows that we do not have an adequate idea of what either of those things are. So we are left with the harder problem: what is the nature of consciousness and the physical?

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