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The Ontological Significance of Consciousness

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The Ontological Significance of Consciousness

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Acknowledgements:

In true philosophical fashion, it would be improper to begin a senior thesis without a critical examination of what a “senior thesis” is. One might expect a helpful place to look would be the Claremont Mckenna website: “a serious exercise in the organization and presentation of written material related to your major.” While undoubtedly accurate, I’m not sure that’s the best definition for the 50-odd pages ahead of you. What a thesis is--or at least a philosophy thesis--is not about its practical application to satisfy a graduation requirement. After spending the last six months of my life heavily involved in this process, for me, thesis has really been the culmination of two years spent fascinated by the intersection of metaphysics and consciousness, and having the opportunity to allow others to glimpse the ideas which I so often think about. But nothing about this thesis would have been possible if we were not for the incredible people who have shaped my life and my intellectual career. So,

- To my family: Thank you for always encouraging my learning, in every way possible.
- To my friends: Thank you for endless conversations, I could not live without them.
- To my professors: Thank you for instilling a love and passion for knowledge and reason.
- And most of all to Professor Kreines: Thank you for inspiring two years of philosophical thought and for your eternal commitment to creating the most fascinating arguments.

Table of Contents:

Section (0.0): Introduction

Welcome to my thesis! The ideas within this thesis are inspired by four years of grappling with two seemingly incompatible philosophical intuitions, both of which are independently compelling and intuitively strong. But despite their seemingly incompatible nature, the more I've explored each intuition, the more I've become convinced of their independent validities. The first intuition is that consciousness is a unique process in reality, with subjective experience irreducible to only physical phenomena. The second is the near opposite, as it also seems that consciousness is always dependent on the physical world in significant ways. Under this view, the first intuition is only an illusion, and thus there is nothing beyond the physical.

I've often heard that the actions people regret most in their life are not actions at all, but rather inactions. I couldn't agree more. Maybe this is just my experience with philosophy, but sometimes an argument is too interesting not to explore. And these ideas have stuck with me in various forms for so long, I cannot pass up the opportunity to explore these arguments in a formal and academic setting. So to the reader: regardless of what you think of arguments presented here, I hope this thesis will spark some insight in you as these ideas have done for me.

Section (1.1): Chapter Introduction

Consciousness is a most extraordinary and elusive phenomenon. So much so that it often seems distinct within reality, existing as something "above" or "beyond" the physical. This intuition is suggested by our epistemic experience, reinforced by contemporary philosophical debate over what consciousness is, and is a core feature of nearly every religious tradition on earth. In a philosophical conversation, this position could be categorized as *dualist,* as it maintains a two-part distinction between mental and physical phenomena. This position is also intuitively supported as it seems both consciousness and our individual subjective experiences are unique in reality, and we feel that this quality warrants consciousness a greater metaphysical status.

In contrast, a *materialist* position holds that there is no distinction between the mental and physical states--what are perceived as mental phenomena are nothing more than the physical. In a materialist conception of reality, consciousness is nothing more than another physical process, even if it might appear like something more.

The first chapter of this thesis will present arguments for and against materialist views of consciousness, through the argument of one of materialism's chief adversaries--David Chalmers. His arguments against reductionary views in "Consciousness and its Place in Nature" provides both the necessary context and a useful framework for evaluating consciousness. After evaluating the sum of his arguments, this chapter will argue that Chalmers does not provide convincing reasons to deny materialism. Despite the pull of the dualist intuition from the previous paragraph Chalmers cannot escape the *physical problem*--while it may intuitively seem

like our experience is ontologically distinct from reality, it also seems like we cannot ever have consciousness without physical reality. And there are many intuitively sound reasons why this intuition has teeth in a dualist argument. For one, it seems like there must always be some physical existence in order to give rise to anything capable of experiencing.[1] Likewise, the particulars of any experience always seem to be influenced by the particulars of physical reality in a very direct sense, acknowledging the priority of the physical. Thus we should not prioritize dualism for its intuitive force as there are alternative and competing intuitive arguments. Instead, we should evaluate both types of theories as trying to answer the physical problem, as it is core to both of them—the materialist believing the problem valid, the dualist denying it.

Chalmers opens his paper with an appeal to intuition, noting that "consciousness fits uneasily into our conception of the natural world."[2] This is true, it does; but we should consider the wide variety of philosophical positions available to us, and choose the best based on its logical merits, rather than from our epistemic intuitions.

Finally, this chapter will argue for a specific form of materialism where consciousness is valued for a unique-in-reality ontological capability: its ability to affect reality in causally-potent ways through arbitrary information. In this materialism, consciousness itself is not distinct from physical reality, but its components are inaccessibly related to physical reality, creating a unique and hidden epistemic gap within reality.

[1] A humean everything-is-minds picture would not satisfy this requirement, but for the purposes of this paper, let the assumption hold.
[2] David Chalmers, "Consciousness and its Place in Nature," in *Blackwell Guide to Philosophy of Mind* (Hoboken: Wiley-Blackwell, 2003), [Accessed from http://consc.net/papers/nature.pdf], 1.

Section (1.2): The Easy and Hard Problems

Chalmers famously divides the "problem" of consciousness into two. The "easy problems" of consciousness are the various ways in which consciousness interacts with the physical world, such as the abilities to "discriminate stimuli, or to report information, or to monitor internal states."[3] While these abilities are interesting, there does not appear to be a problem in considering how the physical world gives rise to these capabilities. In fact, we humans design systems that perform these functions all the time, and given a more complete understanding of our biology, we could conceivably answer how these processes come from the physical aspects of our existence. To explain the easy problems, we just need to identify the physical system producing the behavior we are interested in.[4]

On the other hand, the "hard problem" of consciousness asks how physical states can give rise to subjective experience--when something is conscious in the sense that "there is something it is like to be that being."[5] The hard problem is distinct from the easy ones because even if the physical process we are interested in can be identified, there still exists a further question of why those physical systems cause *phenomenal experiences*.[6]

A *reductive explanation* for consciousness would be one which explained consciousness solely through "physical principles" which do not relate back to consciousness, limiting

[3] Ibid., 2.
[4] Ibid., 3.
[5] Ibid.
[6] Ibid.

consciousness entirely to the physical world.[7] Thus the materialist position as described above would likely hold a reductive explanation. The dualist position, however, would likely have a *nonreductive explanation* or one where consciousness is "admitted as a basic part of the explanation."[8]

Section (1.3): The Experience Gap

Chalmers provides three general arguments against materialist positions; the explanatory argument, the conceivability argument and the knowledge argument. The following section will present arguments and counterarguments for each, eventually concluding that it is in fact the materialist view which comes out on top of each argument.

The *explanatory argument* links physical processes to both structure and function, similar to how we saw the easy problems could be solved by examining the physical system causing the behavior.[9] If we take the distinction between the hard and easy problems to be true, then a physical account would not be sufficient to explain the phenomena of consciousness because, as we saw with the hard problem, structure and function alone cannot explain phenomenal experience.[10]

The second argument is the *conceivability argument*, which posits philosophical zombies, or beings physically identical to humans but without phenomenal experience. Even if zombies do

[7] Ibid., 4. Akin enough for our purposes here.
[8] Ibid., 5.
[9] Ibid.
[10] Ibid.

not exist, they are at least conceivable; and if something is conceivable, then it is metaphysically possible. Thus we can consider a possible *zombie world,* a "universe physically identical to ours, but in which there is no consciousness."[11] If we have a metaphysically possible universe where no consciousness exists, yet everything physical is exactly the same, then consciousness is a nonphysical existence in our reality and materialism is false.[12]

The final argument Chalmers presents is the knowledge argument, which distinguishes between physical facts and conscious experience. If there are facts that can only be deduced from conscious experience, even with a complete knowledge of all the possible "physical" facts, then consciousness exists beyond the physical and materialism is false.[13] Chalmers uses Frank Jackson's famous Mary example to make this argument--Mary is a brilliant scientist who has complete physical knowledge about the color red, but she is colorblind. While Mary knows all the physical facts, she can never know the phenomenal experience of seeing red, and thus all the physical facts are not all the facts.[14]

All three arguments work by creating an epistemic gap between what is physical and what is phenomenal, specifically by bringing out situations where that epistemic (experiencial) gap can be broadened into an ontological gap. If materialism requires that physical processes necessitate *all truths,* then if there are any truths that the physical world does not necessitate (those across the ontological gap), then materialism is false.[15] Thus materialists have their work cut out for them: they must defend against the explanatory, conceivability and knowledge arguments.

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[11] Ibid.
[12] Ibid., 6.
[13] Ibid., 7.
[14] Ibid., 6
[15] Ibid., 8.

But as cutting as these arguments may seem, they are not without their faults. Most problematically, they all rely on assumptions that are assumed more than argued. One such assumption present in all three arguments is what Paul Churchland defines as *argument from introspection.* The introspection intuition is that we do not seem to experience our physical bodies as material--we don't perceive experience as a collection of particles held together by electromagnetic forces, we experience thoughts and feelings and sensations.[16] Thus, upon introspection, we can conclude that conscious reality is vastly different from physical reality.[17]

But as Churchland argues, we have no reason to believe that our capacity for introspection is in any way a viable method for determining valid truths.[18] For one, as with all of our senses, we have no reason to believe introspection is infallible. And two, the fact that something doesn't feel like it should is no evidence for it not being what it is.[19] For an apt metaphor, my professor may feel like rice krispie treats are great for him, but that feeling does not relate to the truth of the matter.

The explanatory argument gains much of its intuitive force from the introspective belief that experience is somehow non-physical because it does not resemble anything else in reality. However, it is perfectly conceivable that we do not yet know the proper structures and functions that give rise to consciousness, suggesting that something like the introspective conclusion is motivating our desire to distinguish between the easy and hard problems.

A similar form of argument Churland identifies is the *argument from irreducibility.* This line of argument directly corresponds to Chalmers's knowledge argument: there exist some

[16] Paul Churchland, *Matter and Consciousness*, (Cambridge: The MIT Press, 1988), 13.
[17] Ibid.
[18] Ibid., 15
[19] Ibid.

mental phenomena, such as the experience of seeing red or the experience of the scent of a rose, which do not seem to be reducible to only physical phenomena.[20]

Most importantly, arguments from irreducibility assume a historiographical conclusion. They rely on the premise that all of our existing knowledge is representative of the relevant knowledge we could possibly know about the functions which give rise to mental phenomena. As Churchland himself acknowledges, it's not as if there is a complete materialist explanation which can explain these mental phenomena yet, but we have reason to believe that it is not impossible to come to one. It might just not be currently explainable due to the limitations of our science, or, because of the extent to which we've researched the subject.[21] Thus the knowledge argument is not very compelling on its own, and this same explanation takes some of the wind out of the sails in regards to the insolvability of the hard problem.

With the knowledge argument relegated, the conceivability argument also relies on an assumption that we have reason to question--that we can properly "conceive" of zombies in a relevant metaphysical sense. This will be argued against under the discussion of complete conceivability in section (1.6), so I will save the discussion until then. However, the conclusion of that argument is useful now to get an idea of why we should shy away from the conceivability argument. Most importantly, the conceivability argument assumes that our faculties for reason and conception have the capability to provide valid metaphysical models of the world. But conceiving, *by necessity,* only produces imperfect images of reality, and thus should not be taken as metaphysical fact--and in the case of the zombies posited by the conceivability argument, we

[20] Ibid., 13.
[21] Ibid., 16.

have particular reason to distrust the metaphysical accuracy of our model, as there are alternative and more convincing possibilities.

Beyond the problems the explanatory, conceivability and knowledge arguments face, Chalmers's arguments against various types of materialism also face problems of their own. In particular, his argument against type-A materialism misappropriates the location of an epistemic gap, opening up room for a similar and compatible materialist position. In order to set up this position, the next section will present Chalmers's arguments against types-A and C materialism, eventually concluding that both positions are logically flawed or are better served as an internal materialist position.

Section (1.4): Type-A and Type-C Materialism

Chalmers identifies three types of possible materialist arguments for consciousness, each with its own way of addressing the arguments presented in Section (1.3). As the anti-materialist arguments all rely on establishing an epistemic gap, type-A materialism straight up denies the existence of a "relevant epistemic gap."[22] For example, a type-A materialist would deny the distinction between the easy and hard problems, and hold that consciousness can be explained solely through physical function and structure--and nothing more. While it might be a very difficult and intensive process, with enough science and knowledge, the relevant functions in reality will be able to explain everything physically, and thus there are no phenomenal states of experience.

[22] Chalmers., 7

One intuitive reason Chalmers suggests to push back against type-A materialism is the intuition driving the hard problem in the first place--it seems like phenomenal experience cannot be explained by biological functions. Type-A materialism ignores something essential to the way we experience reality, placing the onus on type-A materialists to either directly deny any further explanandum from consciousness, or, provide convincing arguments against it. But as seen above, this type of argument is not very effective without some other reason to believe that we could never discover the structure and function of consciousness.

The appeal of type-A materialism comes from a very direct expression of the physical problem--so much so that it denies the existence of the epistemic gap. But we have reason to believe that there are epistemic gaps, and compatably still hold a materialist position. Consider the anti-materialist arguments given in the previous section--all three worked by identifying an epistemic gap, but denying that the gap was relevant in any meaningful sense. One way of arguing for this position is what Chalmers defines as type-C materialism. Type-C materialism holds that an epistemic gap exists now, but not in the ideal. Zombies, for instance, may seem conceivable, but if we had a complete rational understanding of reality and the way it functioned, we could realize that zombies are in fact inconceivable. It is only due to our imperfect capability for reason that we consider them as conceivable in the first place.[23] This is a promising method, as we currently do not have a complete understanding of reality, nor do we know of a definite path to achieve this understanding. However, if we did, we have simply uncovered a new form of type-A materialism, but one where we simply lack the relevant information to close the epistemic gap we currently misperceive.[24] Thus I will leave type-C materialism as either leading

[23] Ibid., 23.
[24] Ibid.

into Type-A materialism, or as leading into a type-B materialism if the gap ends up existing in the ideal, but is ultimately metaphysically irrelevant.

Another method would be to accept the existence of an epistemic gap, but deny that any epistemic accessibility leads to a relevant ontological gap. This is precisely the position of the type-B materialist mentioned in the previous paragraph: there exists an epistemic gap between the physical and phenomenal world, but that gap does not lead to an ontological gap. Zombies are conceivable, but are not metaphysically possible.[25] This view will be refuted in the upcoming section, so I will save discussion of this type-B materialism until then.

But there is still another way to acknowledge the existence of an epistemic gap if the gap is not taken to describe anything *beyond* physical reality. This view, which I define as internal materialism, is similar to type-A materialism in that it denies the existence of the hard problem, but it allows for an epistemic gap hidden *within* reality. While the full argument for this position will be argued for in context in section (1.6), it is important to differentiate between type-A, type-B, and internal materialism now.

As mentioned before, Chalmers seems to believe denying the existence of the hard problem leaves no room for an epistemic gap. But if consciousness is an entirely physical process, one of the physical functions that must be present for consciousness to exist as we humans experience it is the ability to create and assign meaning to ideas. As the argument in section (1.5) will show, we have reason to believe that this physical process, and the meanings this process assigns to reality, are arbitrarily what-it-is being dependent to reality, and thus only understood by subjects of consciousness. For example, the knowledge argument states that there

[25] Ibid.

exist phenomenal truths which can only be understood through consciousness. But this is compatible with a materialist definition that places the phenomenal truths as *inaccessible* from the rest of physical reality. And just because something is inaccessible within physical reality does not mean that it is necessarily distinct from physical reality.

For an analogous example, think of the epistemic gap as a locked safe: while somebody on the outside might not be able to access the contents of the safe, the contents still exist. Consciousness is the key to that safe. If it can be argued that consciousness creates *information* (the meaning encoded in conscious experiences), and the particular meanings associated with information can be shown to be not directly dependent on anything meaningful within reality except through conscious perception, we have an epistemic gap between non-perceiving reality and the contents of conscious experience. Consciousness under this definition is no more than a function of physical states, which dissolves the distinction between the easy and hard problems, essentially denying that the hard problem exists. However, in this view, the "function" of consciousness is a very non-traditional one.

But before we come to the main argument, we must see that which internal materialism is not. Importantly, internal materialism is not type-A materialism nor type-B materialism, and the distinctions are important. While internal materialism has already been shown to be unique from both type-A materialism, it is necessary to further distinguish it from type-B materialism, as both are materialist forms which acknowledge the existence of some form of epistemic gap. But the reasons we should avoid type-B materialism are irrelevant to internal materialism, giving us reason to prioritize my view over the flaws of type-B.

Section (1.5): Type-B Materialism

Chalmers defines type-B materialism as the claim that "there is an epistemic gap between the physical and phenomenal domains, but there is no ontological gap," denying the link assumed between conceivability and metaphysical possibility.[26] It's a have your cake and eat it too view--it recognizes the intuition underlying phenomenal consciousness while not having to deny materialism.

But it is important to recognize the problems that type-B materialism can run into. One such problem has already been suggested through the knowledge argument, as there appears to be a certain uniqueness about consciousness. Mary might be able to know all the relevant truths about a situation (seeing red, for instance), but still not know some phenomenal truths.[27] This acknowledges the epistemic gap, but if type-B materialism wants to simultaneously hold materialism as true, it must reconcile distinct phenomenal truths with a "complete physical truth about the world." If Mary tries to conceive of a new reality, identical to our own, it could not be as complete as ours because of her lack of phenomenal knowledge--the knowledge of what it might be like to see red.[28] But other types of functional physical knowledge, such as the relationship between genes and DNA seem to be completely explainable by Mary, and she could therefore conceive of them in her imagined reality.[29] There is no further explanandum created by

[26] Ibid.
[27] Ibid.
[28] Ibid.
[29] Ibid., 14.

the functional relationship between genes and DNA, unlike the future requirements generated by consciousness. Thus we have two categories of *identities,* each with distinct properties: *epistemic identities* can be explained from within the complete physical world (not including phenomenal truths) whereas *epistemically primitive identities* are the result of conscious phenomenal truths.[30] As seen through the Mary example, if this distinction is true, then epistemically primitive identities will "be a sort of primitive principle in one's theory of the world" if one wants to hold a type-B materialism.[31]

Unfortunately for the type-B materialist, this position is incoherent because it illegally tries to have the work of a fundamental law done by an identity, as "identifications are grounded in explanations, and primitive principles are acknowledged as fundamental laws."[32] Other fundamental laws are always the causal relationships between distinct properties, which is exactly the consciousness/physical relation. Identities on the other hand are relational properties, and non-causal. But on a type-B materialist definition, consciousness is only an identity. This places a type-B materialist in a bind. If they hold the consciousness/physical relationship as epistemically primitive (which they must, as seen before), then it must be a fundamental law, which makes their theory nonreductive and thus not type-B materialism. Reductive theories, remember, are theories which reduce conscious experience to wholly physical phenomenon. Otherwise, they must try to explain "primitive identities" to replace what primitive principles could not give them.[33]

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[30] Primitive in the sense that the principle cannot be reached by appealing to lower level principles--it is the base.
[31] Ibid.
[32] Ibid., 15.
[33] Ibid.

But just because this standard form of type-B materialism is flawed does not mean there are not other avenues a type-B materialist could take. Just as a type-B materialist would claim that the fact that Mary does not know some phenomenal truths does not necessarily mean that she couldn't conceive of a complete physical reality, the type-B materialist holds that zombie worlds (from the conceivability argument) are conceivable, but not metaphysically possible.[34] But Chalmers claims that this position opens the type-B materialist up to what he calls the "two-dimensional argument."[35]

Chalmers's criticism relies on the hotly contested issue of the relationship between conceivability and possibility. Consider the following argument:

Metaphysical possibility (1) argument (MP1):

(P1) X is conceivable

(P2) If X is conceivable, X is metaphysically possible

(C) X is metaphysically possible

Proponents of this argument (like Chalmers) will hold that conceivability leads to metaphysical possibility, but a type-B materialist can deny this claim, arguing that P2 is incorrect.[36] One could argue that Kripkean *a posteriori* necessities, like the relationship between water and H2O, suggests that conceivability does not lead to metaphysical possibility. For example, if "water is H2O" is an *a posteriori* necessity (it can be deduced from the empirical world, and it is necessarily true), it would stand to reason that it is possible to conceive of a

[34] Ibid., 13.
[35] Ibid., 17.
[36] Ibid.

world (worldXYZ) where water is *not* H2O, and instead is XYZ.[37] In worldXYZ, the oceans are filled with XYZ, the clouds rain XYZ, and when humans boil XYZ for their pasta, it turns to steam at 212 degrees. If we hold the relationship between water and H2O to be an *a posteriori* necessity, then it would follow that water is not XYZ. But there is also a *relevant* sense in which, for worldXYZ, the sentence "water is XYZ" is true.[38]

The key word above is relevant, for "if we hypothesize that the XYZ-world is actual, we should rationally conclude on that basis that water is not H2O," as it would be XYZ instead.[39] By treating worldXYZ as actual, we are treating "water is not H2O" as an epistemic possibility. And more importantly, by treating (considering) something as actual, it allows us to establish a truth value to something relevant to that world's actuality. If our "actual" world is worldXYZ, then it is not true that water is H2O, and it is true that water is XYZ.

Alternatively, as many of you may be thinking, this argument seems to afford a heavy ontological status to worlds which we know are non actual. But Chalmers wants to draw apart two distinct ways of evaluating possible worlds. Chalmers defines the method of considering worldXYZ as actual as an *epistemic evaluation*, as opposed to a *counterfactual evaluation*, where we prioritize our actuality as fixed, and consider worlds like worldXYZ as "a counterfactual way things might have been but are not."[40] The point is not that these two evaluations are opposites, but rather two distinct ways of considering information.

Thus Chalmers leaves us with two ways of evaluating and characterizing possible worlds. If we consider a possible world (W) as actual, then we can say that a statement (S) made true by

[37] Ibid.
[38] Ibid., 18.
[39] Ibid.
[40] Ibid.

W's actuality is *verified* by W. Likewise, if W is considered as a counterfactual, then we can say that a sentence made true by W's counterfactuality is *satisfied* by W.[41] The terms are semantic, to illustrate a difference. Using this method of thinking about possible worlds, Chalmer's presents the following argument, where P represents "the complete physical truth about the world," and Q represents a phenomenal truth.[42] Notice that their combination as (P & ~Q) is a zombie world:

(1) (P & ~Q) is conceivable

(2) If (P & ~Q) is conceivable, then a world verifies (P & ~Q).

(3) If a world verifies (P & ~Q), then a world satisfies (P & ~Q) or type-F monism is true.

(4) If a world satisfies (P& ~Q), materialism is false.

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(5) Materialism is false or type-F monism is true.[43]

The type-B materialist is required by definition to hold (1), as denying this premise would lead either to type-A materialism or to my alternative theory.[44] Remember, the type-A materialist would deny that zombies are conceivable. Premise (2) follows from premise (1) because of the verification relationship--if some S (from above) is conceivable, then if we consider as actual a conceivable world (W) where statement S applies, we can conclude that

[41] Ibid.
[42] Ibid., 19.
[43] Ibid., 20.
[44] Ibid.

there is a W that verifies S. Premise (2) is therefore "an instance of the general principle" of verifiability.[45]

Premise (3) is easiest to explain by considering what the opposite claim would be, as it is likely someone advocating type-B materialism would deny that a world verifying P from (P & ~Q) leads to a world satisfying P.[46] But as Chalmers observes, there is only one possible outcome where this works--the position which he defines as type-F monism, hence its inclusion in the argument. Type-F monism will be discussed in greater detail later on, for now, all that is relevant is the argument leading to it. Chalmers introduces the idea of *primary* and *secondary intensions* to help see this idea. A primary intension of S "is a function that is true at a world W [if and only if] W verifies S," whereas a secondary intension "is a function that is true at a world W if W satisfies S."[47] Using these terms, we can see that a W verifying P (the complete physical truth) must resemble the physical world, "at least in the structure."[48] Consider the H2O and XYZ case: the physical structure of worldXYZ is the same, with only one physical feature (H2O) changed. In order for W to not satisfy the complete physical truth about reality, W must lack "the intrinsic properties underlying this structure in the actual world."[49] Therefore, if the type-B materialist wants to claim that W verifying P does not lead W satisfying P, they will actually be arguing for type-F monism, which is a very different position from where the type-B materialist started. This is because the "the primary intension of a physical concept picks out whatever property plays a certain role in a given world, and the secondary intension picks out the actual intrinsic property

[45] Ibid.
[46] Chalmer's does note that we cannot usually move from verification to satisfiability, but this argument in particular allows us to.
[47] Ibid., 19.
[48] Ibid., 20.
[49] Ibid.

across all worlds."[50] It then follows that the lack of consciousness present in W means that the consciousness in the physical is intrinsic, and not the result of anything structural.

Thus the type-B materialists must either revise their central claim, or accept Chalmers's type-F monism, which is something they would be unlikely to do, seeing as it is a very different position than their original stance. This is reflected in the conclusion (5).

Let's refer back to the original MP1 argument:

(P1) X is conceivable

(P2) If X is conceivable, X is metaphysically possible

(C) X is metaphysically possible

This entire line of reasoning stems from the type-B materialists denial of (P2)--that X's conceivability leads to X's metaphysical possibility--essentially relying on the same assumption gleaned from the conceivability argument. But as referenced in section (1.4), we have reason to doubt that the zombies posited by the conceivability argument are conceivable, for if the relevant epistemic gap exists within reality, there are no non-physical phenomenal truths. Thus the following section will argue against the conceivability of zombies, eventually concluding that the conceivability argument cannot make a stronger case against materialism than materialism can make against dualism. Treated as such, my materialist position is more plausible and convincing than alternative positions because it satisfies the physical problem, accounts for an epistemic gap

[50] Ibid., 19.

(while also providing an explanation for it) and as will be seen in the second chapter, still affords a unique ontological status to consciousness, underlying the dualist intuition.

Section (1.6): Argument from Complete Conceivability

Usually conceivability only requires that something is not *a priori* ruled out, but the argument in this section breaks down whether something's conceivability requires its *complete conceivability*. On an extremely strong (the strongest) interpretation of complete conceivability, something would only be conceivable iff it could be conceived of perfectly: if every single feature of the conceived object was identical to the actual object. Presumably, the only relevant difference between a completely conceived object and its real counterpart would be the real one's existence as actuality rather than as possibility--if it were in fact completely conceivable, then it must be metaphysically possible. Under this interpretation, we can rephrase the MP1 argument:

Metaphysical possibility (2) argument (MP2):

(P1) X is completely conceivable

(P2) If X is completely conceivable, X is metaphysically possible

(C) X is metaphysically possible

But if we take MP2 over MP1, an impossible burden is placed on (P1), as it does not seem possible that anything can ever be completely conceivable by a human. And it is not relevant whether complete conceivability is itself possible, only that for a human it is impossible. Thus the obvious move for a conceivability-theorist who wants to hold MP1 would be to deny that complete conceivability is needed for metaphysical possibility. This is an important concession however, because denying the need for complete conceivability establishes a spectrum for what is entailed in a proper conception of something. At the top of this spectrum is complete conceivability, a situation where it seems impossible for metaphysical possibly not to follow from conceivability. After all, if complete conception exists in every possible way except actual existence, there could be nothing relevantly incoherent about its existence.

But the admission that complete conceivability is not humanly possible is admission of a gap between a perfect conception of something and a human conception of it--a "conceivability gap." And so a conceivability theorist advocating for MP1 must explain a rather confused position. They must simultaneously hold that complete conceivability is not necessary for metaphysical possibility, which implies that there is position less than complete conceivability, which explains *at which point or threshold* we can reliably say that something is conceivable. And thus the onus is then on the conceivability theorist to explain *why* it becomes relevant at that point--a much harder task, if not impossible--as it seems unlikely that we can ever confidently know what might be missing, relevant or otherwise, from within a conceivability gap.

Now the conceivability theorist has a seemingly easy way out, by denying that the conceivability gap contains anything relevant to metaphysical possibility. One method would be to claim that a human's conceptual abilities are only capable of conceptualizing valid

metaphysical ideas; we cannot conceive of something metaphysically impossible, as its metaphysical impossibility eliminates any relevant sense in which we "conceive" of it. This would solve the problem of the conceivability gap, as metaphysical possibility is already proven by our ability to conceive and thus there can be nothing metaphysically relevant within the gap. For instance, take the concept of a square circle. As a metaphysically impossible shape, when we "conceive" of a square circle, we are not engaging in proper conceivability, instead we are thinking of a square, then a circle, or something else which is not relevantly what it is to be a square circle. But this approach is not supported for two reasons. First, the scenario of the square circle helps broaden the "spectrum" of conceivability from before. While the metaphysical existence of a square circle is of course *a priori* ruled out, a flat out denial of the relevance of the conceivability gap seems to ignore the conceptual force we often assign to paradigmatically inconceivable ideas. Obviously, when we "think" of square circles, we are experiencing a conceivability gap. But in this extreme situation, everything "within" the conceivability gap is everything which *is* relevant to the square circle's metaphysical possibility (or lack thereof). The point here is not a proof of the existence of square circles, but rather to show the importance of what can live within the conceivability gap. And what can live in that gap is information which proves false any belief initially thought to be *a priori* conceivable. Therefore in order for something to be conceivable, it must first stand not being *a priori* ruled out, but also must give reason to believe that there is nothing else metaphysically relevant within the gap.

This introduces the second and more convincing of the arguments against the conceivability theorist's position in the previous paragraph. The theorist's assumption was that they could prove conceivability leads to metaphysical possibility by claiming that metaphysical

possibility is necessary for conceivability. But beyond the reductive circularity of this argument, this argument makes a crucial misassumption, as it further assumes that the human capacity for conceivability can create an ontologically equivalent replica of something's metaphysical existence in reality. While this assumption works with square circles--their impossible status leads to impossible conception--it fails in other circumstances because we do not have a perfect ability to link concepts to physical reality.

Consider the intuition underlying the impossibility of complete conceivability--there is something about human rationality which allows it to create conceptual models of phenomena in reality, but that ability is imperfect. This intuition is supported by one of the most fascinating features accessible to consciousness: the ability to be wrong. The empirical evidence of this ability is overwhelming, simply look at human history and the vast number of models we have held about any makeup within reality. While many consider this faculty a hinderance, I posit that our capacity for being wrong is proof of a unique in reality dependence relationship between consciousness and the rest of physical reality. If this imperfect dependence can be proven, we have serious reason to doubt a perfect causal relationship between conceivability and metaphysical possibility, in either direction.

This argument relies on establishing the existence of imperfect dependence relations, which begs the question: what is a perfect dependence relationship? One such relationship can be seen by examining the types of dependence an atomic entity, such as a hydrogen atom, has on its subatomic parts. In a very real sense, the particular makeup of subatomic entities within a hydrogen atom directly cause what it is to be a hydrogen atom. Perfectly. Every single time. All hydrogen atoms gain the quality of what-it-is-to-be-hydrogen from an exact physical makeup of

their subatomic particles. In this sense, reality is composed of direct dependence relationships, with no room for error. Already, consciousness does not seem to fit into this mold. While the what-it-is-dependence between subatomic particles and atomic entities is necessary, the what-it-is-dependence between *ideas* and the rest of the physical world cannot claim this same perfect, necessary status.

It doesn't take much thinking about language to see that the words and ideas we use are unfixed, with fluid and changing definitions. From here, it's intuitively easy to realize that this means that there is nothing inherent to a word's definition, and conclude the ideas they represent only have meaning insofar as we assign meanings to them. Beyond intuition, the fact that every subjective experience necessarily creates its own interpretation of a meaning is further proof that there is nothing inherent about the meaning itself--it only exists through our relationship with it.

But it is also impossible to deny *any* dependence relationship between ideas and physical reality. The linguistic example of onomatopoeia emphasizes this point well, as it is certainly true that the meaning of an onomatopoeic word is what-it-is-dependent on reality in some non-insignificant way. However, while there might be some form of dependence, there is also no perfect causality between the natural-sound and the linguistic-sound as we saw between subatomic and atomic entities. The same holds true for ideas beyond words and definitions, such as geometric or spatial representations of reality. For instance, if I asked you to consider a circle, it seems like there is a reasonable dependence of the content your mental image on circular physical objects. But once again, any particular conception of a circle is not necessarily dependent on what it is to be a circle. There may be imperfectly circular things recognizable as circular in reality, but there are no imperfectly composed hydrogen atoms.

Thus the contents of ideas are arbitrarily related to reality *qua* their use by conscious beings. Ideas are like blurry images of what they are intended to represent: while to a conscious body there is something discenable about the image, even to the point where we might be able to understand what it represents, it's simultaneously fuzzy, allowing for ambiguities and deceptions. There is no reason to believe ideas are perfect and metaphysically accurate models of what they represent. This conclusion can be expanded to deny the original claim of the conceivability theorist, as it shows that the contents of our conceptions, our ideas, are not perfectly representative of the actual metaphysical world around us. If they were, then all human conceivability would be complete conceivability, and therefore prove metaphysically possible. Thus the conceivability theorist cannot appeal to complete conceivability, as humans cannot access it. They cannot claim that everything we conceive is already metaphysically possible by the proof of us conceiving of it, as the content of what we conceive is arbitrarily related and an imperfect picture of the world. Thus the only option left open is a middle position which can confirm that there is no relevant metaphysical knowledge within the conceivability gap, claiming that the sum of human information includes all relevant metaphysical knowledge, and thus we can rely on our conceivability if nothing metaphysically incompatible is deduced about a conception. As we have already included *a priori* truths into our definition of conceivability, the only other reliable evidence for something's metaphysical possibility is metaphysical actuality--existence in physical reality.

In the particular case of zombies, Chalmer's assets that "it is conceivable that there be a system that is physically identical to a human being, but that lacks at least some of that being's

conscious states."[51] But this relies on the assumption that when we are conceiving of this zombie, we are conceiving of the relevant underlying metaphysical structure of the zombie as well. First off, this assumption can be matched by its opposite: it is also conceivable that there cannot be a system that is physically identical to a human being without that being's conscious states. But in light of the argument above, for both of these assumptions, we cannot prove that what we are "conceiving" of is in fact any metaphysical structure. Thus if we need to choose between these two alternatives, we should aim for the one that has the smallest conceivability gap, or the one which otherwise is most metaphysically compatible. And ignorant of any dualist or materialist intuitions leading us to prioritize one assumption over the other, the physical existence of conscious beings in physical reality should give us reason to assume that the conceivability gap for the second assumption is smaller, and thus more possible. Therefore, it is more likely that zombies are not conceivable than conceivable, supporting a materialist position. Thus, contrary to Chalmers's arguments, materialism is a more plausible doctrine because not only have all three general types of argument failed (the knowledge, experience and conceivability arguments), but we have better reason to hold materialism as a view over its dualist alternatives.

But as well, among the various forms of materialism presented in this paper, we have reason to believe that internal materialism is the best theory for a number of reasons. First and foremost, by process of elimination, a number of potential problems have been identified with other conceptions of materialism, with internal materialism remaining unscathed from the objections which brought the others down. Second, and yet to be explained, internal materialism

[51] Ibid., 5.

satisfies the physical problem by being a materialist theory, while simultaneously accounting for an epistemic gap.

However, this does raise the question: what is the epistemic gap in internal materialism? Most importantly, the gap can be observed as the process of creating meanings with an imperfect dependence on reality. Unlike the epistemic gap identified by Chalmers, as we have already proven a materialist definition of consciousness, we know that there must be some physical feature of consciousness which creates this imperfect dependence, even if it is consciousness itself. And as this function is a physical process, it is an easy problem--and thus an easy problem gives rise to an epistemic gap which can *only* be understood by conscious beings. If all conscious beings are physical, and they create meanings which are inaccessible to the rest of reality because of their imperfect dependence, this is a satisfactory epistemic gap which never leaves physical reality.

But we have a further reason to believe internal materialism, as it also establishes a unique ontological status to consciousness, providing a materialist explanation for the dualist intuition. Although an almost paradoxical conclusion, the following chapter of this thesis will use the debate between fundametnalist and infinitely descending metaphysical theories of reality in order to show that consciousness still warrants a special place in reality due to its capability to create imperfect dependence.

Section (2.1): How is reality composed?

It is a deeply human condition to go about life believing that one's understanding of reality is founded on a true metaphysical picture. But most people spend their lives without critically examining their assumptions about reality, leading to a number of held conceptions for why reality is the way it is. While not an exhaustive list, most people generally hold their particular assumptions because they are scientifically minded, religiously minded, or philosophically minded.

If pressed, many scientifically minded people would likely describe reality as having a hierarchical structure, with higher-order objects depending on lower-order objects for their existence. This parallels well with most of our undoubtable scientific knowledge, which describes the world around us as being composed of particles, interacting according to fixed laws. Atoms, for instance, upwardly create molecules, planets, trees and humans. Downwardly, atoms are caused by a particular arrangement of subatomic particles, which in turn are composed from a particular arrangement of quarks, and so on and so on until the smallest, or "fundamental" level is reached. This hierarchical structure would likely be causally one-directional, or asymmetric, as well. For instance, the particular features of atoms cause the particular features of molecules, and not the other way around.

A religiously minded person would presumably provide a different conception of reality, one where the individual features of reality as we know them are all secondary. The hierarchical picture presented by the scientifically minded individual might be accurate, but everything, including the fundamental level, is ultimately derivable back to a godlike being or beings.

A philosophically minded person is interested in the best arguments for the structure of reality, regardless of whether those arguments lead to something akin to a traditionally religious explanation or a traditionally scientific explanation, or to something else entirely. While it is entirely possible one could begin from a scientific indication or a religious assumption and logically conclude a valid metaphysical theory, it makes more sense to begin with what we must know about reality and argue from there. As you have likely surmised, this thesis invites you to become a philosophically minded person for the following arguments. While there will be actual arguments against holding scientific or religious mindsets (as I have described them), I find the philosophical mindset most rewarding, as it provides the most certain certainty about what must be true.

With that said, there are a number of competitive philosophical pictures of reality, each with their own strengths and flaws. Sections (2.2) and (2.3) of this chapter will present arguments for fundamentalist and infinitely descending theories of the internal structure of reality. But coming from the previous chapter, we have reason to believe that the non-perfect dependence created by consciousness provides a unique joint in reality through the argument for arbitrariness, running contra to theories of infinite descent. Section (2.4) will explore this possibility, eventually concluding that consciousness is sufficiently ontologically unique to warrant infinite descent inconceivable. After rejecting infinite descent, section (2.5) will provide closing remarks, but not before elaborating on the relationship between the dualist intuition and consciousness's ontological significance.

Section (2.2): Fundamentality

Theories like the one ascribed above to a scientifically minded individual can broadly be considered as *fundamentalist,* but in truth that term hides more than it reveals. There are many classes of fundamentalist theories, each with their own distinct elements. But in general, fundamentalist theories have similar qualities which place them under the fundamentalist label, even if they disagree over the particulars. One idea common to fundamentality is the shared claim that reality exists upon some foundational level, which in turn, relies on nothing else for its being.[52] However, this claim can be further separated by two broad descriptions of what this fundamental level might look like. A *pluralist* would argue for the position I have thus far ascribed to the scientifically minded person; parts are metaphysically prior to a whole, and thus the parts are more fundamental.[53] But a *monist* position would hold that the whole is prior to its parts and reach the exact opposite conclusion. On a cosmic scale, the monist position would give the entire universe a fundamental quality, with metaphysical dependence "dangling downward" from the whole.[54]

Section (2.2.1): Pluralist Views of Fundamentality

[52] Thomas E. Tahko, "Fundamentality," *The Stanford Encyclopaedia of Philosophy*, 2018, https://plato.stanford.edu/entries/fundamentality/, par. 4.
[53] Jonathan Schaffer, "Monism: The Priority of the Whole," *Philosophical Review,* 2010, 31.
[54] Ibid.

A pluralist view generally requires that all the entities within a *fundamental base* are *independent*, meaning they cannot rely on anything outside of themselves for their existence, not even their own parts. If an entity did rely on something external to itself, or on its parts, it would then have an *asymmetric* dependence relationship like that between atoms and subatomic particles; what it is to be an atom depends on what the subatomic particles are, and not vice versa. The parts are metaphysically prior to the whole, and thus subatomic particles are more fundamental than atoms because they cause an atomic entity's being. Therefore, any fundamental entity must be an indivisible mereological atom, as the existence of any parts will cause the parts to be metaphysically prior.[55]

But in what respects are fundamental entities independent? A strong version of independence would state that X can be considered fundamental for Y if and only if Y's ontological existence depends solely on X. For X to be ultimately fundamental, X must not rely on any other existence for its own existence. In other words, X is *absolutely independent* if and only if X does not depend *in any respect* on any Y.[56] The existence of *any* relationship like part-whole dependence, as mentioned above, would prohibit an entity from being absolutely independent, as our fundamental entities now rely on something else for their being. While this might seem an appropriate description for mereological atoms on a fundamental level, absolute independence has major problems within a fundamentalist theory as it ends up being more restrictive than it is useful.

[55] Tahko., 1. par 4.
[56] Ibid., 1.1, par. 1.

For example, some relations like transitivity or necessary relations we generally consider metaphysically benign, and thus compatible with entities on a fundamental level. But in a fully committed theory of absolute independence, these otherwise compatible entities would be excluded because these relationships would exclude the possibility of multiple entities within a fundamental base.[57] Thus it is useful to comprehend the requirements for something to exist absolutely independently, but likewise realize that absolute independence conflates all relations with direct causal relations, the only ones relevant to fundamentality. Transitivity (sharing of properties among entities) certainly *depends* on the features between objects, and does bind the objects in a sense, but it does not cause the objects or their properties. Therefore, pluralist views require a notion of *restricted independence* in order to acknowledge the exclusion of metaphysically irrelevant dependence relations within a fundamental level.

Section (2.2.2): Monist Views of Fundamentality

A monist position holds that the whole is prior to its parts, with metaphysical dependence stemming from the whole. But monism is often overlooked because of frequent misconceptions people tend to have of it. Most commonly, monism is often misinterpreted as the claim that there is only one thing, and that thing has no parts. This is inaccurate: monism is "not that the whole

[57] Ibid., 1.1 par. 6, 7. Stanford uses quarks relationships as an example necessary relation. Quarks do not exist independently of other quarks; they come in groupings of two or three, and are "shaped" such that their structure is determined by their relationship with other quarks. Therefore there is some existential dependence between quarks.

has no parts, but rather that the whole is *prior* to its parts."[58] Therefore, as before, the debate of monism versus pluralism is a debate over the proper direction of metaphysical priority. Schaffer (2010) explicitly assumes that there must be some variant of metaphysical foundationalism in order for a monist theory to work. In other words, an infinite chain of metaphysical dependence (such as infinite descent) is incompatible with a monist position, as everything must ultimately be metaphysically dependent on the whole. As section (2.4) will argue against infinite descent, arguments for this assumption will be put aside until then.

Schaffer provides multiple arguments he sees as the main evidence for a monist theory. The first argument, unsurprisingly, is an argument over intuitions. While it may seem intuitively obvious that part-whole dependence stems upward, as seen with the subatomic-atomic case, there are also intuitive situations where dependence stems downward. For example, Schaffer identifies circles as prior to semicircles--intuitively we want to say it is the being of a full circle which causes the being of half of a circle.[59] Likewise, Schaffer cites Aristotle's example of the body (the whole) being prior to a hand or a heart.[60] But in further support of monism, Schaffer notes that that there is a distinction between *mere aggregates* and *integrated wholes*. Entities which are mere aggregates (such as grains of sand in a sandpile) are non-essential components of the whole. But integrated wholes are things which cannot exist or are indecipherable without understanding the whole, like the semicircle example.[61] So while a pluralist view might be more intuitive in cases of mere aggregates, in cases of integrated wholes, monism is more supported.[62]

[58] Schaffer, 33.
[59] Ibid., 47.
[60] Ibid.
[61] Ibid.
[62] Ibid.

And we have reason to think that the cosmos are in fact an integrated whole, which would support monism as the more intuitive theory.

A second argument for monism attacks the assumption that a pluralist theory might hold about what entities exist on a fundamental level. While it has been argued thus far that a pluralist theory would posit independent mereological entities on the fundamental level, there is an ongoing debate as to if these entities will be particles. While fundamental particles are one possibility, some accounts of quantum entanglement give us reason to support monism, as it is conceivable that the universe may be "one vast entangled system."[63] For a full technical discussion, see Schaffer (2010), but the basic idea can be easily communicated. In the quantum state of a simple entangled system of two electrons, there cannot be complete information about the system from *only* an analysis of the system's parts. Because the spin of the electrons is anticorrelated, the quantum state of a paired system cannot be derived from "the state vectors of its two electrons."[64] Thus, a complete and accurate description, a "pure spin state" can be "attributed to the electron pairs only collectively, as a system."[65] Entangled particles therefore "act as a unit," and thus "'the physical state of a complex whole cannot always be reduced to those of its parts.'"[66] And we have evidence to suggest that the cosmos is in fact one massive entangled system, as it is likely everything in existence interacted with everything else during the Big Bang. Likewise, the same models (Schrodinger dynamics) also "preserve" existing entanglement, so we have reason to believe cosmic entanglement exists now.[67] And importantly,

[63] Ibid., 52.
[64] Ibid., 51.
[65] Ibid.
[66] Ibid., 52.
[67] Ibid.

we should consider entangled systems as "fundamental wholes," because we can only ascribe spin properties to entangled systems, which is relevant when we have subsystems of entangled systems within an entangled system. If the subsystem was not an entangled whole, we would not have a fixed value for that system's spin property across systems, representing "a loss of empirically important unity."[68]

Section (2.3): Infinite Descent

But fundamentalist theories have rivals. While there are internal squabbles over pluralism vs monism, there are external challenges to fundamentalism as well. While the pluralist view assumes the eventual existence of a fundamental base, the alternative was never considered: what if there is no base? This section will present the arguments against fundamentalism and for infinite descent, with the following section conclusively arguing for fundamentalism over infinite descent.

It is worth noting on the side of infinite descent that arguing against fundamentality is an uphill battle in both philosophy and in non-philosophical disciplines. Schaffer (2003) specifically notes in his defence of infinite descent that many prominent metaphysicians posit the assumption of a fundamental level without feeling the need to defend their position.[69] And beyond the confined field of metaphysics, the natural sciences frequently advocate for fundamentalist

[68] Ibid., 54.
[69] Jonathan Schaffer, "Is There a Fundamental Level?," *Noûs,* 2003, 499.

hierarchical structures of nature, beginning with the assumption that the smallest discovered subatomic units are a prior causal level for the entities they compose. Indeed, the natural sciences always assume a somewhat pluralist view--remember the scientifically minded person. But this is an assumption, and we should consider the reasons to doubt it. While it does often seem that science indicates some sort of fundamentality, there is in fact little evidence that that our scientific model leads in that direction. Not only do we not currently know of a fundamental level, every level that we previously thought fundamental has turned out not to be.[70] Without proof of a fundamental level, or without infinite descent being inconceivable for some other reason, the "science indicates" fundamentality argument is weak.

Another argument for infinite descent is similar to one of the monist critiques of pluralist fundamentality, in that a pluralist position is built around a theory with a complete microphysical description. As seen before, this position will posit a structure of mereological particle entities--but there are assumptions within this position which can be challenged.[71]

To the assumption that there will be a complete microphysics, this may be an easy conclusion to accept if one already holds some sort of fundamentalist theory in mind. But the evidence for that conclusion is based on scientific understanding of a fundamental level that has yet to be identified. While the history of science is a constant discovery of smaller and smaller particles, it is a logical jump to assume that our current and incomplete understanding of microphysics will culminate in some complete understanding.[72] For instance, it was originally thought that macro-level entities were fundamental until the discovery of atoms. Eventually

[70] Ibid.
[71] Ibid., 502.
[72] Ibid.

atoms were found to contain subatomic particles, preventing the atomic level from being fundamental. Then even subatomic particles were discovered to contain quarks. So, in the absence of a concrete fact proving that the smallest known entities are non-divisible, there is room for a theory of infinite regress, unless it can be otherwise disproven. This is not to say that our understanding of microphysics has not become more developed, but rather that our development of it thus far has not yet reached a point where we can confirm whether the progress made proves a "finitely converging sequence" or otherwise.[73]

There is also the claim that a complete microphysics will eventually posit particles, which is certainly a matter of debate among scientists and philosophers alike. Particle theories are one possibility, but string theories are another, and field theories--which present a field of "infinitely divisible entities"--are a third.[74] But more importantly, even if a complete theory does posit particles, there exists a further assumption that those particles are the mereological atoms necessary for a fundamental base. While one might be able to "tell a complete story with particles as protagonists," it is equally as possible to do so with divisible protagonists, where "the characteristic properties of all the parts supervene on the characteristic properties of their wholes."[75]

Therefore, it seems we have reason to treat infinite descent as a valid metaphysical possibility. But unfortunately for infinite descent theories, the arguments for them rely on the assumption that the fundamental level, if it exists, is the derivative base to which causal powers are located. In absence of this "locus" of causal powers, Schaffer, for instance, concludes that

[73] Ibid., 504.
[74] Ibid.
[75] Ibid., 505.

"the most striking feature of an infinite descent is that *no level is special."*[76] Causal powers must exist somewhere, and if they are not at a fundamental level, then they exist everywhere. This is a strong conclusion in itself, but Schaffer extends it further to say that everything in the macroworld--which in infinite descent is everything--is "in every sense ontologically equal."[77]

This claim can be broken apart into two relevant pieces, and in light of my argument from chapter one, the following section will show that each piece is individually refutable. The first piece is the claim that no level is special, in the sense that there is nothing ontologically unique about any level to warrant it as anything causally distinct from any other level. The second piece is the claim that everything in the macroworld is ontologically equal. But the inaccessibility of the content of consciousness (due to arbitrariness) from other parts of the physical world gives us reason to doubt both these claims, and thus doubt infinite descent.

Section (2.4): Argument from Imperfect Dependence

Beginning with the first claim, all that is required to disprove this claim is to show that there are ontological capabilities which cannot be accessed by some levels within reality, for if those capabilities can only exist at certain levels, those parts are undeniably "special." However, in order to prove that consciousness satisfies this criteria, there must be some way to show that consciousness has an ontologically relevant relationship, and further show that this relationship does not exist anywhere else in reality. But such a capability has already been identified

[76] Ibid., 512.
[77] Ibid.

previously in this paper, as consciousness' reliance on imperfect dependence relations satisfies the requirements of being both ontologically significant and unique within reality.

In the initial argument for imperfect dependence relations, perfect dependence relations were identified as the directly causal way by which lower order entities seamlessly cause the what-it-is being of higher order entities. The what-it-is being of an atomic entity, for instance, is perfectly dependent on the particular arrangement of subatomic particles composing it. And this relationship seems to hold true for every aspect of reality, except in the case of consciousness. So unless another realm can be identified where imperfect dependence relationships exist, consciousness fits the uniqueness criteria.

As for establishing a relevant ontological significance, remember we are operating within a materialist conception of reality, with consciousness existing as a function of physical system. The result of that function is the what-it-is creation of ideas--representations of reality--which are themselves still physical. While the results of other physical systems also bring about what-it-is creation, only consciousness creates results with imperfect, arbitrary what-it-is being. For instance, the biophysical system of a chain of amino acids provides the what-it-is being for the particular protein it codes for, with the same perfect dependence as we saw with the subatomic/atomic relationship. It is inconceivable that the same system could be imperfect like we see with consciousness--there is no possible way anything but the exact what-it-is being of that protein could be generated from its amino acids.

The argument as presented thus far is significant enough to warrant that consciousness is unique in a relevant sense, but there is a further argument to be made if there exists levels above that of consciousness. If consciousness relies on imperfect dependence, then any level derivative

back to consciousness (and ultimately further) will also have a distinct ontological relationship apart from perfect dependence as well.

Thus we have reason to believe that consciousness does in fact satisfy a relevant specialness within reality, as we have established a joint in an otherwise seamless picture. Infinite descent is only conceivable when no level is more significant than another, for if a level is more significant, it is no longer ontologically equal with the levels below and above it. So while Schaffer is right to call into question the existence of a fundamental level, his alternative fails because infinite descent cannot reconcile that consciousness has unique causal powers, and is thus not ontologically equal with the rest of reality.

Section (2.5): Our New Picture of Reality

The beginning of this thesis presented two competing intuitions, each of which was individually compelling and seemining mutually opposed. The first intuition I identified with Chalmers and dualist positions in general: there is something about our conscious experience which is so unlike the rest of physical reality that it must be something non-physical, with phenomenal experiences irreducible to the physical world. The second intuition I called the physical problem, emphasizing the priority of the physical world and calling into question whether anything like consciousness could be "beyond" reality in a meaningful sense, especially considering that consciousness is grounded in the physical.

While the physical problem was already addressed at the end of chapter one--the proof of internal materialism defined the world as entirely physical--the dualist intuition has remained in the periphery of this argument without being properly addressed. But the argument against infinite descent has highlighted one way we might be able to give a materialist explanation for an intuition which seems inherently dualist. The ontological significance of consciousness identified in the previous section parallels exactly with this intuition, as phenomenal experiences are still within the physical world, but their what-it-is being is nonreducible in a relevant way. It is a stretch to say that this is the exact reason why many people believe something like the dualist intuition, however, the existence of this unique process likely influences the conviction with which they hold the intuition. But it is essential to see that there are alternative formulations of the dualist intuition which can deny the particular way we conceived of the intuition, while still acknowledging it as a truth.

Beyond the relevance this argument has in "solving" the intuitions presented in the beginning of this paper, there are also a number of interesting philosophical implications stemming from the idea of imperfect dependence. Even if you are not convinced by the argument as presented here, it is undeniable that consiousness's ability to create meaning is one of its most unique and interesting features. Most importantly, understanding that we imperfectly perceive things paradoxically provides a more accurate framework for viewing the world, as it by necessity acknowledges the limitations we have as humans. And this is especially the case when discussing extremely abstract subjects such as consciousness and metaphysics.

But I also think that our capacity for imperfect dependence is the most important feature of consciousness, if not consciousness itself. Without imperfect dependence, not only would

consciousness not exist as we know it, but it seems unlikely that experience would be possible. As was said before, one of the most fascinating capabilities of consciousness is its potential for being wrong. But this is an understatement, for the argument for imperfect dependence shows that *everything* that we experience is actually "wrong" in the sense that it is not actually a perfect model of what is. But this is a good thing! Without this capability, we would experience everything perfectly, and I'm not sure that any subjective qualities of experience would survive in a perfect model. For example, consider the process of imagination, something that fundamentally relies on our ability to create a different possible conception of reality. If the experience didn't involve imperfect dependence, we would not be able to imagine, as we would not be able to conceive of anything other than its perfect being, if we could conceive at all. Therefore, imperfect dependence is also the cause of the things which give our lives meaning: if we could not imagine, we could not imagine a better version of ourselves we strive to be, we could not step into another consciousness' shoes and picture the world from their perspective, and we could not find beauty and meaning in the constant imperfections that necessarily arise from what it means to live as a human being.

There are two major takeaways from this thesis. The first is everything in this section as I have presented it thus far, but with the understanding that there are still open questions to explore. I left open the question whether the type-B materialist has an escape through type-F monism, a position not explored in this thesis. But in kind, I've also left the melding of internal materialism with either a plural or a monist theory as an open question. Schaffer claimed that infinite descent was incompatible with monism, and with infinite descent relegated, perhaps we have better reason to support a monist theory.

The second takeaway is more abstract, as I intend for this thesis to be a framework for how to comprehend our place in nature as I often think we begin this process from the wrong starting points. I find it fascinating that as humans, we often desire to look outside ourselves for explanations of what it means to be human. And if you are a religiously minded person, or strongly believe in the original dualist intuition, it is logical to think that humanity is something special, beyond, or transcendent compared to the rest of reality. But why should we look outside ourselves to explain ourselves? Personally, I think it is because we are scared of imperfection, and we are deeply aware of our faults--and thus we are afraid that an entirely internal explanation of ourselves (or a materialist explanation of ourselves wholly within reality) would not match our expectations of humanity existing as something special. Or alternatively, if one is a scientifically minded person, a parallel worry is that an entirely internal or materialist conception of reality will expose us as nothing more than bundles of atoms interacting in an uncaring universe. But through the arguments presented in this thesis, I hope I have shown that we have reason to believe that it is possible to have a materialist conception of reality that *still allows* consciousness a privileged status in reality, and thus move us away from looking beyond ourselves for answers. Even if we do not exist beyond physical reality, we can acknowledge it for its ontological significance within.

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