

The Paradox of Consciousness and the Realism/Anti-Realism Debate

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Abstract

Beginning with the paradoxes of zombie twins, we present an argument that dualism is both true and false. We show that avoiding this contradiction is impossible. Our diagnosis is that consciousness itself engenders this contradiction by producing contradictory points of view. This result has a large effect on the realism/anti-realism debate, namely, it suggests that this debate is intractable, and furthermore, it explains why this debate is intractable. We close with some comments on what our results mean for metaphysics and philosophy, in general.

Keywords: Consciousness, supervenience, dualism, materialism, physicalism, realism, anti-realism, zombies, zombie twins, dialetheism, true contradictions, metaphysics

1. Introduction

It is not often noted how paradoxical consciousness is. Even when philosophers explicitly discuss some paradoxical aspect of it, they usually view that aspect as a solvable problem rather than as something intrinsic to consciousness (e.g., Chalmers', "The paradox of phenomenal judgment"

¹ There is no first author; the authors' names are alphabetized. Also, we thank Graham Priest for comments on an earlier draft of this paper.

(1996, ch. 5)). This paper is about consciousness's paradoxical nature and its role in the realism/anti-realism debate. Since zombies are a natural and easy introduction to this paradoxical nature, we begin with them, using them to argue that dualism is both true and false. Then we widen our scope, locating the source of this paradox in the contradictory combination of points of view created by consciousness itself. We then argue that the paradoxical nature of consciousness is in turn responsible for one important strand of debate between realists and anti-realists. We close with some comments on what our conclusions mean for that debate, for metaphysics, and for philosophy, in general.

Two preliminary matters. First, we use a notion of supervenience to define dualism and materialism. But standard supervenience won't do the job required (see Horgan, 1993). We therefore use a version of Horgan's notion of *superdupervenience* which is defined as "ontological supervenience that is robustly explainable in a materialistically explainable way" (Horgan, 1993). We define superdupervenience thusly:

A facts *superdupervene* on *B* facts iff any two possible situations identical in their *B* facts are *eo ipso* identical in their *A* facts, and the *A* facts are robustly explainable in terms of the *B* facts because of the "*eo ipso*" condition.

This definition differs from ordinary supervenience (*A* facts *supervene* on *B* facts iff any two possible situations identical in their *B* facts are identical in their *A* facts) in 1) the "*eo ipso*" condition, and 2) the epistemic contact between the two levels (which is from Horgan).² Superdupervenience guarantees that if X logically superdupervenes on the physical, then X is itself physical and explainable as such. Supervenience alone, even logical supervenience, doesn't secure this tight connection. Hence, superdupervenience implies supervenience, but not vice versa. Now, we define "dualism" as the thesis that consciousness doesn't logically

² Our notion of superdupervenience appears to be somewhat stronger than Horgan's.

superdupervene on the physical (see the appendix). Briefly, fixing all the physical states of the universe is not sufficient to fix (or guarantee) the phenomenal states in the universe. Materialism (or physicalism, we shan't distinguish the two), then, is the thesis that consciousness *does* logically superdupervene on the physical.

Secondly, we take dialetheism seriously. Dialetheism is the claim that some contradictions are true (they're false, as well, but also true). Not all contradictions are true, of course, and *a fortiori* not all statements are true. That is, *ex contradictione sequitur quodlibet* ("from contradiction, everything follows") is false. Dialetheism is well-defended by Priest (2006). It is used to great advantage in Priest (2003). Dietrich (2008) presents an intuitive, easy to follow way to see that a certain contradiction is true.

Paper map: In section 2, we introduce the central problem with zombie twins when used to argue for dualism. In section 3, we present an argument based on this problem showing that dualism is both true and false. The best way out of this contradiction is to reject zombie twins as impossible, a move which has a lot to recommend it. However, in section 4, we show that zombie twins are possible if dualism is true, and we argue that there are good reasons, independent of zombie twins, to think that dualism is, in fact, true. In section 5, we show how our analysis of the zombie issue extends to the realism/anti-realism debate. Specifically, we show that this debate is unresolvable, and that there are good reasons for thinking that both anti-realism and realism are true. We then close with a comment about what our results mean for philosophy in general.

2. Do Zombies Dream of Zombie Twins

Besides being undead, unconscious, and unnerving, zombies also create logical problems. If it weren't for this last property, the first three would probably be tolerable. That zombies, specifically, zombie twins, cause logical problems is well-known (see, e.g. Chalmers, 1996, Dennett, 1995, Moody, 1994). What is less appreciated, at least by some (e.g., Flanagan and Polger, 1995) is how deep these problems run.

The difficulties with mere zombies (unconscious creatures merely resembling humans in one way or another, e.g., functionally or

behaviorally) versus those with zombie twins (unconscious creatures physically identical to us) are not equal in virulence; zombie twins are far more problematic. We focus on zombie twins.

The logical problem with zombie twins we will focus on has been called *conscious inessentialism* (Flanagan, 1992³). A central intuition had by those of us who are conscious (and have thought about it) is that being conscious is why we make the experiential judgments that we do. We believe "that looks red," "that tastes salty," "that hurts," "that feels good" because we consciously experience a red color, a salty taste, a pain, or a pleasure. We call this *conscious essentialism*: consciousness is essential to our mental lives having the contents they do (and not just phenomenal contents, but semantic contents as well).⁴

Conscious essentialism appears not only true, but obviously true. Yet, when using zombie twins to argue for dualism, this intuition has to go (Chalmers famously uses such an argument, 1996). The argument requires zombie twins to make the very same judgments we do. So, being conscious cannot be the source of such judgments. Instead, we are left with the unpalatable position that we who are conscious judge that an apple is red not because we experience its red color (i.e., not because it looks red to us), but solely because of the physical processes of our cognitive and perceptual systems. Zombie twins might establish dualism, but the cost appears to be rendering consciousness useless in our mental lives. Hence, the specific form of dualism established is something akin to epiphenomenalism or parallelism, neither of which are plausible.

This problem is good news to materialists (or physicalists) of various stripes, that is, those materialists for whom giving up the intuition that our conscious experiences *inform* us is completely out of the question. Such philosophers then follow this to the conclusion that zombie twins are not

3 The term should probably be "consciousness inessentialism" since it is a thesis about consciousness, but "conscious inessentialism" is already established, so we will use it and its related variants.

4 For us here, *conscious essentialism* is equivalent to *not (conscious inessentialism)*.

possible while admitting that they are conceivable in a rough or superficial sense. Other materialists insist that zombie twins aren't even conceivable, provided that the term "conceivable" picks out any sort of psychologically plausible type of conceiving (Dennett, 1995). Finally, this problem is also good news to some interactionists – dualists who think that the phenomenal realm crucially interacts with the physical realm to produce the conscious thoughts and concepts that we have on a daily basis. These interactionists embrace conscious essentialism. (It's because of this kind of dualism that we need superdupervenience: it prevents this kind of dualism from turning into materialism.)

One can view the work of philosophers who have been prepared to use zombie twins in arguments for dualism in terms of a cost-benefit ratio. Yes, zombie twins are expensive, but they are worth it, for they give us that which is most sought after by theorists of all stripes: a true, but shocking theory that upsets the apple cart of science.⁵ In chapter five of his book, *The Conscious Mind*, Chalmers argues that paying the cost of using zombie twins yields unexpected epistemological and metaphysical rewards that will deeply inform a science of dualistic consciousness, that is, a science that takes dualism seriously.

But zombie twins are not merely problematic. In the next section, we analyze an argument that shows that dualism is both true and false. This argument rests on premises that are all arguably plausible, so it isn't obvious which of them should be abandoned, assuming any should. It is, though, obvious which ones various disputants in the zombie debates will abandon; the problem is, their arguments run afoul of either conscious inessentialism

⁵ In an argument for dualism relying on zombies, zombie twins are required; mere zombies won't do. This is because dualism is the claim that consciousness is not a material property of minds *in our world* -- the actual world. To prove this requires producing a world physically identical ours but without consciousness. A world physically identical to ours would have to have physical replicas of *us* in it. Those creatures are our zombie twins. Of course, producing such a world is question-begging in this context, since such a move assumes that consciousness can be sundered from the physical, which is precisely what is at issue.

or they make claims that are obviously false.⁶ The paradoxical nature of our zombie twin argument runs deep, for even if, like us, one takes conscious essentialism to be non-negotiable and therefore concludes that zombie twins are impossible, one can still, on very plausible premises, conclude that zombie twins *have to be* possible. This we show in section 4. Then in section 5, we argue that the real problem traces through the conscious essentialism/inessentialism debate, back to consciousness itself, which in turn funds a central and intractable version of the realism/anti-realism debate.

3. The Contradictory Argument

Here is the argument that dualism is contradictory. Where not controversial, the justification is placed in square brackets. The controversial premises are: 1, 3, 4, and 7. We discuss them in section 3.1.

1. If some conscious agent conceives of its zombie twin then dualism is true.
2. If humans in the actual world conceive of their zombie twins then so do their zombie twins (i.e., our zombie twins conceive of their zombie twins). [*Definition of "twins".*]
3. For all X , if X conceives of its zombie twin then X is conscious.
4. Humans in the actual world conceive of their zombie twins.
5. Zombie twins conceive of their zombie twins. [*4, 2 and modus ponens*]
6. So zombie twins are conscious. [*5, 3, the relevant instantiation, and MP*]
7. If zombie twins are conscious, dualism is false. {*Because consciousness is revealed as a physical property. This means we've misconceived zombie twins, see below.*}

⁶ Chalmers, for example, has to embrace conscious inessentialism, at least in some form. Dennett, for example, denies that we have qualia, i.e., conscious experiences (1988).

8. Dualism is false. [6, 7, *MP*]
9. Dualism is true [4, 1, *the relevant instantiation, and MP; note: 4 and 3 give that humans are conscious*].

3.1. Two Paths Through the Contradictory Argument

There are two paths through this argument. One path – steps 4, 1, and 9 – assumes conscious inessentialism and the other – steps 4, 2, 5, 3, 7, 8 – assumes conscious essentialism. Both essentialism and inessentialism have strong pulls on almost all philosophers' thoughts about consciousness. The pull of essentialism is obvious: How could a person blind from birth know what it is like to see red? How could such a person have the appropriate phenomenal concept of red? The answers to both are "She couldn't." The pull of inessentialism can be seen via noting that you, the reader, might be the only conscious being in the universe. For all you know (in a very strong sense of "know"), everyone else in the universe might be a zombie, doing what they are doing totally bereft of consciousness. They talk about seeing red and the like simply because they picked up such locutions from you, not because they actually see red – they're zombies after all. The zombies that surround you are much like parrots who mimic human speech patterns but who don't actually know what they are talking about.⁷ In sum, the pull of essentialism is strongest when we think about ourselves, and the pull of inessentialism is strongest when we think about other people.

What funds the Contradictory Argument is, therefore, contradictory assumptions about the role of consciousness in our mental lives. The argument is ambiguous between embracing essentialism and embracing inessentialism. In turn, this ambiguity reveals itself in the kinds of conceiving relevant to conceiving of zombie twins. The two paths differ

⁷ See Valdman, 1997, for an excellent analogy between zombies and parrots who happen to live on a certain island that was home to a couple of castaway quantum physicists. The parrots talk all day about quantum mechanics and even stumble over new theorems, but of course don't know what they are talking about. See Moody, 1994, who argues that zombies could "talk" about red only if they were among conscious beings who also talked about red – zombies couldn't originate talk of red things. And for some cool stuff on parrots, see Pepperberg, 2000.

also in the strength of their commitment to zombie twins. The conscious inessentialism path is strongly committed to the notion of zombie twins; the conscious essentialism path is only weakly committed, and in fact concludes that the notion is flawed in crucial ways.

3.2. The Contradictory Argument in Detail

Here are the justifications for premises 1, 3, 4, and 7.

Premise 1. If some conscious agent conceives of its zombie twin then dualism is true.

According to Chalmers, there are three requirements for this premise: 1) we must be able to conceive of zombie twins in the right way, 2) conceivability must imply possibility, and 3) the possibility of zombie twins must entail dualism (1996, 2002). The third requirement is guaranteed, according to Chalmers, by introducing the notion of *logical supervenience* (1996; we think logical superdupervenience is required, this change is easy to make). Chalmers claims that the first two can be achieved using his notions of *ideal, primary, positive conceivability*, and *primary possibility*, because the primary possibility of a given proposition (statement) is entailed by that proposition's ideal primary positive conceivability (Chalmers, 2002). The development of 1), 2), and 3) is in the appendix (which can be skipped, if the reader is content to just grant premise 1 or is already familiar with Chalmers's theories); here, we assume that these three requirements are met (the appendix demonstrates the reasonableness of this assumption). But there's an untoward consequence that one also must embrace if one is to accept premise 1: If zombie twins are possible, which premise 1 purports to show, then conscious inessentialism is true. For, our zombie twins think, do, and say exactly what we do. Since they aren't conscious, consciousness must be inessential to what *we* think, do, and say.

Premise 3. For all X, if X conceives of its zombie twin then X is conscious.

The argument for premise 3 is simply that our being conscious seems necessary for conceiving of our zombie twins. Conceiving of doing

without something – anything – requires first having that thing, or at least conceiving having it. Consciousness, however, is such that it seems quite unlikely that we'd conceive having it if we didn't (i.e., if we weren't conscious); we actually have to have it to conceive of not having it. So, zombie twins can't conceive of their zombie twins, as such. So if something does so conceive of its twin, it must be conscious and its twin not. The etiology of our zombie twin intuition (the intuition that we each have one) remains far from clear, but zombie twins only make sense in a world with conscious beings in it to begin with, indeed, the very beings conceiving of their zombie twins have to be conscious.

Denying premise 3 is very expensive. (Chalmers denies this premise, see below. He asserts that zombie twins conceive of their zombie twins yet are not conscious (1996, ch. 5)). To deny this premise requires embracing conscious inessentialism. This in turn means that our zombie twins will produce arguments for dualism even though they are not conscious at all. There is nothing it is like to be a zombie twin, yet there they are arguing about inverted spectra and whether or not consciousness is a nonphysical property of the universe. And all this even though everything about zombies is physical – in the zombie world, everything logically supervenes on the physical. So being conscious is irrelevant to theorizing about consciousness, indeed, it is irrelevant to even having the intuition that we each have zombie twins (and clearly, some humans have this intuition, so their zombie twins must, too). All this is stunningly implausible (see section 4.1 below). But it must be embraced to deny premise 3.

There is a further complication with premise 3. Steps 5 and 3 together entail that zombie twins are conscious (step 6). But this seems to contradict the definition of zombie twins. One might think, therefore, that step 6 is contradictory: zombie twins can't be conscious. Hence, any argument that zombie twins are conscious must be fatally flawed. This is an important point. As we discussed above, premise 1 is only used in one path through the Contradictory Argument – the conscious inessentialist path. This path doesn't use step 6 at all, which is part of the separate, essentialist path through the Contradictory Argument. At root, what the essentialist

path does is recognize that the concept of a zombie twin must be redefined (or, that the notion is incoherent). Thus: zombies are either not conscious and hence behaviorally different from us (since consciousness is essential to our behavior), and hence they are *not twins*, or they are conscious and behaviorally the same as us, hence they are *not zombies*. Of course, a conscious essentialist could just assert that zombie twins are impossible because the notion is incoherent. Such a conscious essentialist would *not* have to be a materialist, she could be a dualistic interactionist of a certain sort.

Premise 4. Humans in the actual world conceive of their zombie twins.

This premise is clearly true, for a standard, superficial notion of conceiving, which is just bringing before the mind some appropriate referring expression. Anyone following this paper so far has conceived of her or his zombie twin in this sense. The question is, however, can humans conceive of their zombie twins in the *right way*, which uses ideal, primary, positive conceivability (see the appendix)? That this can be done is far less clear. The right kind of conceiving can be achieved, however, if one explicitly embraces conscious inessentialism. This can be accomplished by embracing, say, *parallelism*, the view that the physical realm and the phenomenal realm don't interact at all, but merely parallel one another (parallelism is also known as "pre-established harmony," which is the view of the situation touted by Leibniz). Once this is done, robustly conceiving of zombie twins using ideal, primary, positive conceivability is readily accomplished.

Premise 7. If zombie twins are conscious, dualism is false.

Since zombies are entirely physical (i.e., everything about their minds logically supervenes on their token physical properties), if they are conscious, consciousness must be physical. Of course, this means that we've mistakenly conceived of zombie twins: they aren't lacking consciousness at all. One might object here that the very definition of "zombie twins" means they can't be conscious. But as we have already

seen, the conscious essentialist path through the Contradictory Argument requires changing the definition of "zombie twins." Something has to give. What gives is the notion that zombies are not conscious. What remains is the idea that zombies are physical twins. This shouldn't be too surprising, since conscious essentialism is assumed in this part of the Contradictory Argument.

Another way to view the situation with premise 7 is to note that Premise 7 has a dual:

7D: "If zombie twins are conscious, zombies aren't entirely physical."

The difference between premise 7 and 7D is this. Ultimately, each path through the Contradictory Argument is designed to *teach* us something about *consciousness*, not zombie twins. 7D teaches us something about zombie twins. But since we are assuming conscious essentialism for this path, we don't need to be taught anything about zombie twins, we already know that there can't really be zombies twins. Hence, if they are conscious, dualism must be false -- they aren't zombies.

This completes our justifications of the premises. The justifications, no doubt, raise further issues, but they are sufficiently strong to make the premises plausible, at least for the nonce. But now we are saddled with the conclusion that dualism is both true and false. Even if one accepts that there are true contradictions (Priest, 2003, 2006), trying to avoid a contradiction here is eminently reasonable. Unfortunately, reasonable though it is, avoiding contradiction is not possible here. This is the matter to which we now turn.

4. Conscious Essentialism and the Impossibility of Zombie Twins . . . and the Return of the Zombies

In this section, we argue for conscious essentialism and embrace its conclusion that zombie twins are impossible. Then we show that zombie twins still have to be possible, if dualism is true, which we also argue is a serious possibility.

4.1. Impossibility of Zombie Twins⁸

Frankly, to us, premise 3 seems obviously true. But Chalmers flatly denies it. He has to deny it because he uses zombie twins to argue for dualism (1996), and by definition, they have to behave exactly like we do – this is captured in the definition that is premise 2. For Chalmers, then, *X* can conceive of its zombie twin and yet not be conscious. So, our zombie twin thinks that it is *not* the zombie twin, but instead, considers *its* zombie twin, for this is precisely what we do. How could our zombie twin think that it's not a zombie? Apparently, it thinks it's conscious, even though it's not.

In chapter 5 of his 1996, Chalmers goes to great lengths to point out and then wrestle with the problem that, on his theory, zombie twins will judge that they are conscious (and judge that they are seeing red, hearing music, etc. etc.). Chalmers's zombie twin will spend large quantities of time working feverishly on a book on consciousness, which requires contemplating his (the twin's) zombie twin (the twin's twin) (1996, p. 180). This seems to be an unhappy conclusion. But it is a conclusion: We judge that we are conscious, so our zombie twins have to, too. Call these *phenomenal judgments*. Our phenomenal judgments flow from our beliefs about our phenomenal experiences: "that is red," "that is the sound of a trumpet," etc. Call these *phenomenal beliefs*. Phenomenal judgments are what you get when you take a phenomenal belief and remove any phenomenal quality (the qualia) (see, Chalmers, 1996, 174). Zombie twins can make phenomenal judgments (according to Chalmers), but cannot have phenomenal beliefs. But now we have an obvious problem: how can our zombie twins make phenomenal judgments about their "experiences" (scare quotes required) when they don't have any – when they aren't even conscious?

Chalmers calls this problem the *paradox of phenomenal judgment* (1996, ch. 5, see, esp., p. 177). Little noted is that this paradox is

⁸ Much of the basic material for this section is taken from Rose (2009).

ambiguous between a positive version involving us and a photo-negative version involving our zombie twins. The positive version of the paradox is this:

Given that dualism is true, how can physical beings such as we humans have phenomenal beliefs and make phenomenal judgments when the information we need for such mental states is not physical at all?

The negative version of the paradox is:

Given that dualism is true because zombie twins are possible, how can they ever make a judgment involving phenomenal experience when, in their world, there are no phenomenal experiences (or phenomenal information) at all?

The positive version asks how can non-physical, non-material experience affect our judgments, which are physical (being the result of brain processes) – How does the physical/nonphysical handshake occur? The negative version asks how can purely physical beings make phenomenal judgments when, in their world, the information needed is simply not present – How can there be a one-handed handshake? (a Zen "answer" is inappropriate here, of course).

Chalmers tackles the positive version (1996, ch. 5; and see esp., 2003).⁹

He also attempts to provide a solution to the negative version (1996, ch. 5, section 3). He argues that phenomenal judgments flow solely from cognition (which is completely physical), and that real consciousness is not needed at all. He says: ". . . consciousness is surprising, but claims about consciousness are not" (p. 186). His argument assumes the existence of a

⁹ In tackling the positive version, he produces an interesting proposal for how the physical/nonphysical handshake occurs. He also surveys in detail the consequences of this theory for minds, their mental states, concepts, representations, and epistemology. For this, see Chalmers, 2003.

computational autonomous agent. However, the argument shifts disconcertingly. When we ask the computational agent how it knows it sees a red tricycle, the agent says "I just see it" (p. 185). So, it seems as if either Chalmers just asserts that the computational agent would make phenomenal judgments without consciousness, or Chalmers implicitly assumes that the agent is conscious at the beginning of the argument, and then jettisons consciousness for the conclusion of the argument. Either way, the argument fails. If consciousness is surprising, then so must be claims about consciousness.

The real problem is that embracing conscious inessentialism is not a solution, it's a consequence of what should be a solution. One cannot just say that our zombie twins (or other unconscious agents) make phenomenal judgments; one has to provide an account of *how* they will make their judgments without consciousness. This is because the strong belief to the contrary must be overcome. It is very hard to believe that phenomenal judgments don't require phenomenal experiences, i.e., conscious *essentialism* is very easy to believe, indeed, it is the natural, default belief. But worse, phenomenal judgments connect smoothly with the rest of our mental lives – to phenomenal beliefs, specifically. Much of our mental lives is profoundly informed by our conscious experiences. We talk about consciousness because we are conscious – what could be more obvious? It is completely baffling how zombie twins could talk about consciousness. So, how could zombie twins have anything like the mental lives we have?

To get a sense of how strange this is, note that Chalmers's zombie twin produced an argument for dualism and published it. In fact, getting all agitated over the nature of consciousness doesn't even require consciousness to exist! Suppose that consciousness never existed in the first place; the universe only had zombies in it (what would have been our zombie twins had we existed). Then those zombies would still be able to prove that dualism is true. Dualism might well be true, but is bizarre to think that it could be proved true in a universe devoid of consciousness. One cannot just label all these cases of conscious inessentialism and move on; this problem cries out for a substantive solution for how our zombie twins could think, say, and do exactly what we do. But there is no solution. There's no way to

explain how zombies can talk about consciousness, or the color red, or the sound of a trumpet, etc. if they aren't conscious.

At this point, one can conclude that zombie twins won't have any mental states at all similar to ours, since their states are not remotely connected to conscious experiences. Plausibly, they neither judge nor believe that they are conscious. Fish don't dream of climbing Mount Everest. It is not that zombie twins judge *incorrectly* that they are conscious, rather, zombie twins don't think about consciousness in any way at all. But then zombie twins aren't much like us. This is just another way of saying that zombie twins are *impossible*: they aren't our *twins*. Which in turn is conscious essentialism. We can conceive of zombie twins, but only in a rough, crude, or superficial way, similar to the way we conceive of round squares.¹⁰

We conclude that the notion of zombie twins is unworkable, and probably incoherent. Any such "being" would either be not a twin or not a zombie. So there are no zombie twins. The conscious inessentialism path through the Contradictory Argument is not a viable path at all. So the Contradictory Argument is defused.

4.2. The Return of the Zombie Twins

Yet, zombie twins are possible. So, the Contradictory Argument is reinstated. Here's how this comes about.

Even setting zombie twins aside, we have other, very good reasons to believe that dualism is true. Inverted spectra are one such reason. Though zombie twins are impossible to conceive in any useful detail, it is far easier to imagine inverted twins. One's inverted twin perceives an inverted color spectrum relative to you. One's inverted twin sees yellow

¹⁰ Using Kripkean modal definitions and arguments, Dietrich and Gillies (2001) argue that zombie twins cannot be conceived in the way required for Chalmers' dualism argument. The only way to pick out a twin of some conscious being in another world, without begging the dualism/materialism question in favor of dualism, is to use essences (haecceities), and consciousness is the only essence in the vicinity. So there is no possible world where, e.g., David Chalmers is not consciousness – such a being wouldn't be David Chalmers.

where you see blue, and vice versa. In this case, most of the conceptual and logical problems that plagued zombie twins vanish: inverted twins *are* conscious, they see color, it is just that their experiences are systematically different. All the physical facts about you are true of your inverted twin, but the phenomenal facts are different. This difference is sufficient to guarantee that phenomenal facts don't superdupervene on the physical. Hence, dualism is true. But if dualism is true, then zombie twins are logically possible -- i.e., there exists a possible world with the same physical facts as the actual world, but no phenomenal facts at all, for to insist otherwise seems to tie the phenomenal to the physical in a way that requires superdupervenience, which would mean that dualism is false. So if dualism is true, zombie twins are possible, and dualism seems true. Hence, the conscious inessentialism path through the Contradictory Argument returns, alive and well.¹¹

This result is exceedingly disconcerting. Conscious essentialism seems not just true, but obviously true; zombie twins are right out; they are impossible. Yet, dualism appears true for other, non-zombie reasons. And if dualism is true, then since this entails that consciousness doesn't superdupervene on the physical, zombie twins are apparently possible after all. It seems as if the only conclusion has to be both that zombie twins are not conceivable, but possible (conscious inessentialism), and also not possible (conscious essentialism). We locate the source of this problem not in zombies, nor in inverted twins (or conceptions of them), but in consciousness itself. When thinking about oneself, one's experiences, and one's *knowledge* of such experiences, consciousness is revealed as essential. But when thinking about others and their knowledge and experiences, consciousness emerges as inessential (or at least conceivably inessential) because others' knowledge and experiences are accessible only via overt behavior, and this behavior apparently can remain invariant under wildly

¹¹ With some extra work, this same result could be established with Jackson's Mary argument, which is an epistemological argument showing that knowing all the relevant physical facts does not entail knowing any phenomenal facts at all. See Jackson, 1982.

differing conscious experiences. It is, it seems, a small leap from wildly differing conscious experiences (e.g., inverted twins) to no experiences at all (zombie twins). The big, and crucial, leap is from focusing on one's self (an inner focus) to focusing on others (an outer focus). This shift between inner and outer infects another long-standing and important debate in metaphysics: the realism/anti-realism debate. We will argue that this debate has the same structure as the zombie twin debate, with identical consequences: realism and anti-realism are both true, just from different points of view, both of which enjoy equal status as the correct point of view. And again, consciousness is the culprit.

5. Realism versus Anti-Realism: It's All Points of View in the Void

We define *realism* as the thesis that there is a mind-independent world. *Anti-realism* is the denial of this: there is no mind-independent world. (Here, we ignore further restrictions that can be placed on these definitions.) Realism and anti-realism are equally true. By this, we mean that realism is true from one point of view and anti-realism from another, and both points of view have equal and legitimate claims to being the preferred point of view. This situation is due to consciousness's property of engendering points of view. We argue for all this, in this section.

Rather than beginning with realism and anti-realism, we begin with the two points of view we are interested in.¹² We dub these: the *view of no one*, and *solipsism* (the view of exactly one).¹³

Solipsism is the view that everything is mind-dependent. All that really exists is the mind of the solipsist, *S*. Everything else exists only as the experiences of *S*, including *S*'s body. All people, things, processes have their being only as conscious experiences of *S*. Solipsism is an ontological

¹² The way of couching the material of this section is derived from Hannah Rice's paper "You simply cannot think solipsism is true" (2009).

¹³ See Dietrich, 2008, for details on the view of no one. Also, there, the view of no one is used to construct a true contradiction – a dialetheia.

thesis, based on an epistemological foundation: we only have experiences, and only their phenomenological character is epistemically certain, and only what is certain is knowable. Solipsism is profoundly anti-realistic.

The view from solipsism is easy to adopt. Almost everyone has wondered if it is true. All the available evidence is compatible with its truth. (Viewing the movie *The Matrix* is a good introduction to a pre-solipsistic, reality-equals-just-what-we-experience point of view. From there, solipsism is easily attained.)

From the view of no one, there is no mind-independent world because there are no minds – no one has a mind at all. Everything is entirely *world-dependent*, as it were. What really exists are physical beings, things, and processes. Minds are only an illusion (a delusion, actually). *A fortiori*, consciousness is a delusion. No one ever has qualitative experiences; no one ever has had qualitative experiences.

The view of no one is somewhat hard to adopt. Interestingly, it is the basis of a branch of Buddhism. The best introduction to the view of no one is Douglas Harding's *On having no head* (1972):

The best day of my life -- my rebirthday, so to speak -- was when I found I had no head. This is not a literary gambit, a witticism designed to arouse interest at any cost. I mean it in all seriousness: I have no head.

It was eighteen years ago, when I was thirty-three, that I made the discovery. Though it certainly came out of the blue, it did so in response to an urgent enquiry; I had for several months been absorbed in the question: what am I? The fact that I happened to be walking in the Himalayas at the time probably had little to do with it; though in that country unusual states of mind are said to come more easily. However that may be, a very still clear day, and a view from the ridge where I stood, over misty blue valleys to the highest mountain range in the world, with Kangchenjunga and Everest unprominent among its snow-peaks, made a setting worthy of the grandest vision.

What actually happened was something absurdly simple and unspectacular: I stopped thinking. [. . .] There existed only the Now . . . To look was enough. And what I found was khaki trouserlegs

terminating downwards in a pair of brown shoes, khaki sleeves terminating sideways in a pair of pink hands, and a khaki shirtfront terminating upwards in -- absolutely nothing whatever! Certainly not in a head.

It took me no time at all to notice that this nothing, this hole where a head should have been, was no ordinary vacancy, no mere nothing. On the contrary, it was very much occupied. It was a vast emptiness vastly filled, a nothing that found room for everything -- room for grass, trees, shadowy distant hills, and far above them snow-peaks like a row of angular clouds riding the blue sky. I had lost a head and gained a world.

Clearly, from the view of no one (the view of having no head), there is only the world. There is no individual experience of it at all. As we mentioned, the view of no one is somewhat difficult to adopt, but it can be adopted for very short intervals of time rather easily. Like the solipsism view, the view of no one is an ontological thesis, based on epistemology: what we really know is the world; it is the world that ultimately exists, not spectators of that world. The view from no one is profoundly realistic: there's definitely a mind-independent world because there is a world, but no minds.

It is possible to sit in one's study and move between solipsism and the view of no one. After a short amount of time practicing, sliding between these two points of view becomes as easy as walking back and forth in a room (if only for short intervals of time). But moving between these two points of view is moving between anti-realism and realism. From the solipsistic point of view, there is no mind-independent world; from the view of no one (no-head), there is *only* a mind-independent world; what doesn't exist are minds. Back and forth we can go. Realism is just a point of view, and so is anti-realism. And both points of view have equal claims on our assent; neither can declare victory. All the evidence available – sensory information, introspected information, and information derived via logical reasoning – is compatible with either point of view. Arguments for either point of view also are equally persuasive.

Solipsism and the view of no one are not the only points of view operative here. We admit that the default point of view for most readers is another kind of realism, roughly in the middle of the between the other two: there is a mind-independent world perceived by beings with minds. This is a very natural and common point of view, but it, too, is just a point of view along the way between solipsism and the view of no one, and no argument for it trumps either solipsism or the view of no one. It's the default for pragmatic reasons only. We call this point of view *quotidian realism*. There is, also, a fourth point of view from which the first three are viewed; the reader is occupying this viewpoint now. This is a *meta* point of view: from it, points of view are viewed. Primarily, it this meta point of view that makes realism and anti-realism points of view and not rivals for truth, for from the meta point of view it is apodictic that realism and anti-realism are just two different ways of being conscious. More importantly, from this meta view, the contradiction resulting from solipsism and the view of no one is perceived; that is, the contradiction between anti-realism and realism is perceived. Indeed, all three -- anti-realism, realism, and quotidian realism -- are mutually contradictory, and all these contradictions can be seen from the meta point of view.

The fourth, meta point of view shows that points of view are not *interpretations*, if that term is understood to mean a gloss on some point-of-viewless, objective reality, or on some raw, point-of-viewless experience. Furthermore, in the present context, assuming a strong version of the claim that points of view are interpretations would introduce a contradiction into our analysis (a bad contradiction of the only-false variety), since it would be assuming realism or anti-realism; or such assuming would beg the question against us in a challenge to our analysis. Happily, introducing points of view, on the other hand, does not beg any questions in our favor, since they are compatible with either realism as well as with anti-realism, as we will now see.

Points of view are contexts occupied by conscious minds. Two crucial properties of points of view and conscious minds are:

Necessarily, all conscious minds occupy some point of view or other. (Independently of a point of view, there is no information to be conscious of. This can be construed as being either a property of mind-independent information (the realistic construal) or as a property of conscious minds (the anti-realistic construal).)

Necessarily, a point of view exists only if it is occupiable by a conscious mind. (These and other aspects of points of view are discussed at length in Julian and Dietrich, 2008.)

Being from a point of view is an essential property of consciousness, just as being even is an essential property of 6. Philosophers and others productively talk about consciousness without mentioning points of view, just as one can discuss 6 without mentioning its evenness (one can, for example, point out that it is one bigger than 5 and one smaller than 7, or that it is the smallest perfect number, a number which is the sum of its proper factors). But philosophers get into no end of trouble when they vie with each other over what are, at root, just ways of being conscious. The only truth in the vicinity is that all the relevant ontological positions are true, just from a point of view. So, realism and anti-realism are both true, just from different points of view.

Realism and anti-realism, as we have analyzed them, are contradictory. This is because the two relevant points of view, solipsism and the view of no one, are contradictory. We can get a better handle on this matter if we consider an analogy.¹⁴ Consider Figure 1, a Necker Cube.

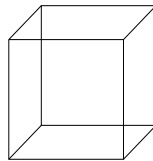


Figure 1. A Necker Cube.

¹⁴ We adapted this analogy from a good objection that Graham Priest made to an earlier version of this paper.

Does it face down and to the left or up and to the right or is it just twelve lines on a flat page?

There are three points of view (at least) on the Necker Cube; the first two are the most common. One can see it as a three dimensional rectangular box facing down and to the left or as a box facing up and to the right, or one can see it as a planar figure comprising twelve lines at various angles with one another. (One could also see it as 16 lines a page, or as two triangles and five quadrilaterals all sharing some sides, or as a combination of these two. We'll stick with the first three.) Call the first point of view (down and to the left) DL; call the second point of view (up and to the right) UR; call the third point of view (twelve lines on a flat page) 12L. From these points of view, the specific versions of the Necker Cube are perceived.

12L functions in this analogy just like quotidian realism. We call it *quotidian Necker*. Quotidian Necker, like quotidian realism, is considered by most to be the fundamental truth of the situation. Quotidian Necker is: "There are some lines on a page and the human visual system interprets those lines as a three dimensional box. But given the way the lines are drawn (i.e., there's no indication of occluding), the lines on the page are *ambiguous*: they are interpreted by the human visual system as being a box pointing down and to the left or up and to the right, and the interpretation vacillates between the two." But again, Quotidian Necker is just a point of view; it is not the fundamental truth -- there isn't a fundamental truth, here. To see this, note that there is a fourth point of view from which DL, UR, and 12L are viewed, and from which one can see that these three are points of view and are also mutually contradictory. We call this fourth view, 4V. From 4V, a contradiction is perceived, a three-way contradiction, in fact. And from 4V, the truths perceived from DL, UR, and 12L are all equally plausible; no point of view trumps the others. Hence, from 4V, the contradiction between DL, UR, and 12L is genuine.

What we'd like to do at this juncture is conclude that consciousness itself is contradictory, and that it is this that explains the contradictions between realism and anti-realism and between conscious inessentialism and

essentialism. Unfortunately, this conclusion is unwarranted at this time.¹⁵ We know only that consciousness admits of contradictory viewpoints and that these viewpoints are necessarily tied to consciousness. From this, we cannot conclude that consciousness itself is inherently contradictory.

But we can get close. Consider the Necker Cube again. By themselves, neither DL, UR, nor 12L are contradictory. They are only contradictory in pairs. One naturally seeks an explanation of this situation, and when one does that, there is a strong tendency to deny that all three are just points of view, equal in status, and instead to claim that the fundamental object here is 12L, and it is inherently ambiguous, but not contradictory. Just so, one might dig in one's heels and claim that the same is true of realism, anti-realism, and quotidian realism. Quotidian realism is the fundamental truth, it is just that reality with conscious minds in it is ambiguous between realism and anti-realism. But which is it? Is it reality that is ambiguous or do conscious minds produce the ambiguity? The background assumption here doing all the work is that some *one thing* needs to be responsible for the contradictory nature of realism and anti-realism. If it is reality that is ambiguous, that is hardly in keeping with what we might call the "spirit of realism," for in this case, there really isn't a mind-independent world -- there is, rather, some "mind-independent" ambiguous stuff (perhaps it is noumenal). If it is the conscious mind that is ambiguous (or if it is consciousness itself), that is hardly in keeping with what we might call the "spirit of anti-realism," for in this case, there really isn't a mind-dependent world -- there is, rather, some ambiguous "thinking" stuff which sometimes reveals solipsism to be true and sometimes produces a "mind-independent" world (which could be contradictory, depending on what "thinking" turns out to be in this context). Neither option is acceptable -- neither reality nor the conscious mind can be ambiguous while preserving the basic character of either realism or anti-realism. Given this, concluding that consciousness is inherently contradictory gains some credibility.

¹⁵ Graham Priest pointed this out.

But perhaps we should throw out the background assumption that one thing needs to be responsible for the contradictory nature of realism and anti-realism. Perhaps what is ambiguous is the world with conscious minds in it. We could even legislate this to be one thing by adding hyphens: the ambiguous thing is the world-with-conscious-minds-in-it. But does this mean that before there were minds in the world, the world wasn't ambiguous? Unfortunately, this question is illegitimate here since it presupposes realism.

But even granting that the world-with-conscious-minds-in-it is ambiguous doesn't help much. The *ambiguity thesis* is that what explains the unresolvable contradiction between realism and anti-realism (between what's perceivable from the view of no one and from solipsism) is that something is inherently ambiguous. The essential problem with this thesis is that it appears to require an ultimate reality: the thing that is ambiguous. This is question-begging in the present context, for though it violates the "spirit of realism," the ambiguity thesis is nevertheless enough of a realism to beg the question, here. Furthermore, there is a good argument against the ambiguity thesis. This is the argument we presented when we introduced the fourth points of view: meta and 4V. From these points of view, that everything is a point of view is readily perceived, along with their ineluctable contradictions. So, it appears, the ambiguity thesis is out. But ambiguity and contradictory consciousness seem to be the only candidates on offer. If so, then it is plausible that consciousness is inherently contradictory.¹⁶

Here is what we've got. Either consciousness is inherently contradictory or the world with minds in it is inherently ambiguous. A good case can be made that it is consciousness that is inherently contradictory. In any case, both realism and anti-realism are here to stay. And so are conscious essentialism and inessentialism. And either way, consciousness is heavily implicated. Consciousness, whatever it is, is the sort of thing that

16 In dialethic contexts, and in paraconsistent logic in general, the argument form *disjunctive syllogism* is not in general valid. We aren't using disjunctive syllogism here, for we aren't making a deductive argument, but, rather, an inductive one.

allows . . . encourages . . . *causes* (?) . . . contradictory points of view. And perhaps this explains not just why ontology and metaphysics are so perplexing, but why all of philosophy is.

Appendix

A proposition, P , is *conceivable* if it can be brought before the mind. This is often (but not always) done by bringing before the mind some situation in which P is true. Another way is looking for but not finding any contradiction in, or entailed by, P . P is *ideally* conceivable when the conceiving of P *can't* be undone by better reasoning. For example, suppose that, someone, say Girolamo Saccheri conceives that Euclid's fifth postulate (the parallel postulate) is derivable from the other four. A better reasoner comes along, say, Riemann, and demonstrates that the parallel postulate is independent of the other four. This shows that though one can conceive of proving the parallel postulate from the other four, one cannot ideally conceive this. P is *positively* conceivable when one can bring before one's mind a situation in which P is true. This definition rules out one type of basic conceivability: negative conceivability. P is *negatively* conceivable when it is not ruled out, *a priori*. Positive conceivability, by contrast, actively rules something in. Finally, P is *primarily* conceivable when it is conceivable that P might *actually be* the case. This contrasts with *secondary* conceivability, which is conceiving of P subjunctively, i.e., as what *might have been* the case. (All of these definitions come from Chalmers, 2002. See also, Chalmers, 1996, ch. 2.)

So now we have defined ideal, primary, positive conceivability. In sum, it is conceiving a situation in which P is actually the case, and where such conceiving cannot be undone by better, more thorough conceiving.

As with conceiving, there are varieties of possibility (Chalmers, 2006). The only one we will need is *primary possibility*. First, the kinds of possible worlds we will use (following Chalmers) are *centered* possible worlds (1996, 2002). Centered worlds have a central point of view or focus within them. The point of view is that of a specified or privileged agent in that world. Centered worlds are required to handle issues involving indexicals, which clearly arise when the topic is consciousness, for consciousness is indexical: each of us knows only his or her consciousness. Next, and again following Chalmers, the *primary intension* of a proposition P is a function that takes P and a world W as input and returns the truth

value of P at W , where W is considered as actual, rather than counterfactual (2002). Another way to run the definition is to use the notion of *a priori* entailment. This gives: the primary intension of P is true at W if the material conditional "if W is actual, then P " is *a priori* true (2002). Consider the well-known proposition "Water is XYZ." (XYZ is an alternate chemical nature of water -- that is, the clear, drinkable, life-sustaining stuff in rain, streams, oceans, etc. -- in the XYZ possible world; XYZ is not H₂O.) If the XYZ world is considered as actual, then the primary intension of this proposition is *true*. "Water is H₂O" is also true in any H₂O-world, using the primary intension. Kripke's famous insight that it is a necessary *a posteriori* truth that water is H₂O obtains only for the *secondary intension* of "Water is H₂O." The secondary intension of P takes P and W , *considered as counterfactual*, and returns the truth value of P at W . So, given that water is H₂O, i.e., that science has revealed this fact, then it's false that water is XYZ in the XYZ world (or, if one likes, in any XYZ world), since H₂O is not XYZ. Yes, there's some sort of clear, drinkable stuff in the streams of the XYZ world, but it is not water (2002).¹⁷ As mentioned, primary intensions are known *a priori*; secondary intensions are *a posteriori*. Now, to complete the definition of primary possibility: P is primarily possible when its primary intension is true in some possible world considered as actual.

The tight connection between ideal primary positive conceivability and primary possibility should start to be apparent. The secondary intension of "Water is XYZ" is true in no possible world. Considered

17 This analysis relies on the more basic notions of the primary and secondary intensions of a concept. The primary intension of a concept does not depend on the world science reveals to us (Chalmers, 1996, 2002). Rather, it depends on how reference is fixed in the actual world from the point of view of the subject. So, the primary intension of the concept "water" is (roughly) the clear, drinkable stuff which is required for life and is found in our lakes, streams and oceans (Chalmers, 1996, ch. 2). Given that water is revealed to be H₂O, the *secondary intension* of the concept "water" is H₂O. Hence, the secondary intension of "water" picks out the water (the H₂O) in all counterfactual worlds. This all forms part of Chalmers's *two-dimensional model* of modal semantics (see, esp., 2006, and also 1996, 2002).

counterfactually -- that is, where water is in fact H₂O -- then whatever XYZ is, it's not water. But we do conceive of water being XYZ (we've have done so several times, here). This conceiving is of a different sort; it relies on conceiving what might actually be the case. It therefore relies on primary intensions. The primary intension of "Water is XYZ" is true in those XYZ centered worlds considered as actual. Translated, this proposition says "The clear, drinkable, life sustaining stuff found in oceans and streams is XYZ." Clearly, this is conceivable (primarily), and so conceived, there is a possible world where it is true, namely, the XYZ world (2002).

Now, we have:

Ideal primary positive conceivability entails primary possibility (2002).

Or, to paraphrase Chalmers: If a proposition *P*, is ideally, primarily, positively conceivable, then there is a metaphysically possible centered world, considered as actual, where *P*'s primary intension is true (2002). This seems quite plausible given the discussion above: both the relevant conceivability and possibility are based on the fundamental notion of a primary intension (of conceiving for the antecedent, of possibility (or the truth in a possible world of a proposition) for the consequent). This ties the two together so closely that the truth of the former entails the truth of the latter.

Conceivability might imply possibility using other forms of conceivability and possibility (Chalmers, 2002). But be that as it may, this is the only case we need for premise 1. For, if some conscious agent, *A*, ideally, primarily, and positively conceives of its zombie twin, then it is conceiving, in a way that cannot be undone, of a situation where the physical facts of the actual world obtain without consciousness thereby obtaining.¹⁸ In short, *A* conceives of the zombie world as actual. But in that

¹⁸ Technically, this is saying that consciousness doesn't logically supervene (using Chalmers's notion) on the physical facts of our universe. Which in turn means that consciousness is a further, extra fact about our world. Which in turn means that

possible world, *A*'s crucial proposition, "I have a zombie twin," is true, *a priori*, as required.

Here's another angle on this using the first-person indexical (the reader is requested to put him/herself in for all the first-person terms). Given that I ideally, primarily, and positively conceive of my zombie twin, the question becomes "Is 'I have a zombie twin' primarily possible?" This latter, in turn, is the question "Is the primary intension of 'I have a zombie twin' true when evaluated at the zombie world, when that world is considered as actual?" The answer is clearly, Yes. (Remember, we are assuming, because we have to here, that conscious inessentialism is true. The conscious essentialist will deny that anyone can positively conceive of his or her zombie twin. Or the essentialist will deny that ideally conceiving of one's zombie twin is impossible. Or both.)

Primary intensions dominate the situation, here, because secondary intensions are useless: we don't know what consciousness could be counterfactually, since we lack an analysis of it (scientific or otherwise). So, conceiving that "I have a zombie twin" might actually be the case guarantees that there is a possible world where "I have a zombie twin" is true. One might put the matter this way: The positive situation conceived when conceiving of one's zombie twin *just is* the relevant zombie world; the very zombie world that is conceived in the antecedent is accessed in the consequent. So, of course, (ideal . . .) conceivability implies (primary) possibility.

Now to establishing dualism. We begin with the definition of logical supervenience:

A facts logically supervene on B facts iff any two logically possible worlds identical in their B facts are *eo ipso* identical in their A facts, and the A facts are robustly explainable in terms of the B facts because of the "*eo ipso*" condition.

materialism is false and some sort of dualism (at least) is true. We turn to this shortly. See, Chalmers, 1996.

Everything in the world logically superdupervenies on the level below it. Fix the low-level physical facts of our world, the behaviors and trajectories of every particle -- every quark, electron, proton and neutron -- and you automatically fix all the other facts in our world -- the chemical facts, the biological facts, the psychological facts, and the social and cultural facts. In other words, it is logically impossible to for there to be a world just like ours at the lowest level, that has exactly the same detailed, low-level physical facts as our actual world has, but which differs from our world in its high-level facts. Hence, it is impossible to ideally, primarily, positively conceive of such a world.

Here's an example using a glass of water. Conceive of a glass filled with hot water. The atoms in the glass are caroming all over the place in a very agitated way. Now, try to conceive of another glass of water where the atoms are behaving in *exactly* the same way as in the first glass, but where the water in the second glass is cold. You can't do it. Or, if you think you can, you are mistaken (c.f., Chalmers, 1996, p. 109). For, all we *mean* by "hot" is that the atoms are caroming all over the place in a very agitated way. Fix the behavior of the water atoms in the glass and you automatically fix the water's temperature. This example exhibits just what is going on at the level of our entire universe. It is simply inconceivable that the low-level facts about our world could be what they are and yet there be no stardust, no suns, no galaxies, no planets, no continents, no minerals, no life, no US Constitution, no penguins in Antarctica, and no MTV (the Music Television Channel). In short, and though it may sound strange, MTV logically superdupervenies on the low-level physical facts of our world. There is no possible world with the same low-level facts as ours that isn't blessed with MTV. This superdupervenience hierarchy subsumes everything¹⁹; everything in our world superdupervenies *logically* on the level below it and ultimately on the lowest level -- everything, that is, but consciousness,

¹⁹ There are some technical tweaks that have to be made to make this statement true. We will skip those. Chalmers handles them fully in chapter 2 of his 1996.

which we know doesn't *logically* supervene since there is a possible world, the zombie world, where the physical facts of our world obtain, yet there is no consciousness. So consciousness is revealed as an *extra* fact in our world, a fact that is not guaranteed by the physical facts. Hence, dualism is true.

This completes our defense of premise 1.

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