

6-29-2008

Imagination and Phenomenal Experience

Blake Austin Myers

University of Missouri-St. Louis, bamyers2@wisc.edu

Follow this and additional works at: <https://irl.umsl.edu/thesis>

Recommended Citation

Myers, Blake Austin, "Imagination and Phenomenal Experience" (2008). *Theses*. 223.
<https://irl.umsl.edu/thesis/223>

This Thesis is brought to you for free and open access by the Graduate Works at IRL @ UMSL. It has been accepted for inclusion in Theses by an authorized administrator of IRL @ UMSL. For more information, please contact marvinh@umsl.edu.

IMAGINATION AND PHENOMENAL EXPERIENCE

by

Blake Austin Myers
B.A., Philosophy, Bethel University, 2006

A THESIS

Submitted to the Graduate School of the

UNIVERSITY OF MISSOURI – ST. LOUIS

In Partial Fulfillment of the Requirements for the Degree

MASTER OF ARTS

in

PHILOSOPHY

June, 2008

Advisory Committee

Gualtiero Piccinini, Ph.D.,
Committee Chair

Robert Northcott, Ph.D.

Berit Brogaard, Ph.D.

© Copyright 2008
by
Blake Austin Myers
All Rights Reserved

ABSTRACT

In this paper I argue that the zombie conceivability argument, as developed by David Chalmers, is unsound. My primary contribution in the paper is a critique of the claim that zombies are positively conceivable. I argue that phenomenal experience (that which zombies purportedly lack) is not something we can imagine; it is only something we can have. We can only imagine the *contents* of experience, and in doing so we have a *new* phenomenal experience of the imagined contents. Without being able to imagine phenomenal experience we have no way to determine whether a creature we imagine has or lacks phenomenal experience. Therefore, we have no justification for claiming that zombies are positively conceivable. Chalmers also argues, however, that the *negative* conceivability of zombies is sufficient for his argument. In response to this claim, I defer to an argument given by Keith Frankish that invokes the notion of *anti-zombies* (creatures that are physically identical to us, with *no* non-physical properties, and yet *have* phenomenal experience). Frankish argues that a parallel argument can be given that goes from the conceivability of an anti-zombie, to the possibility of an anti-zombie, to the truth of materialism. I argue that, without the positive conceivability of zombies, there is no reason to think that zombies (rather than anti-zombies) are negatively conceivable.

INTRODUCTION

In this paper I will argue that the zombie conceivability argument, as developed by David Chalmers, is unsound. Chalmers' argument can be roughly summarized as follows: P1) If orthodox materialism is true, then zombies (i.e., creatures that are physically identical to us yet lack phenomenal experience) are *not* metaphysically possible; P2) If zombies are *either* positively conceivable (i.e., can be clearly and distinctly imagined) *or* negatively conceivable (i.e., cannot be ruled out a priori), then zombies *are* metaphysically possible; P3) Zombies are positively conceivable *and* negatively conceivable; C) Orthodox materialism is false.¹

My primary contribution in this paper will be a critique of the claim that zombies are positively conceivable. I will argue that phenomenal experience (that which zombies purportedly lack) is not something we can imagine; it is only something we can have. We can only imagine the *contents* of experience, and in doing so we have a *new* phenomenal experience of the imagined contents. My position does not entail that it is impossible (or even difficult) to *attend* directly to phenomenal experience itself, but only that we cannot do so by *imagining* it. Without being able to imagine phenomenal experience we have no way of knowing whether a creature we imagine has or lacks phenomenal experience. Therefore, we have no justification for claiming that zombies are positively conceivable.

¹ See Chalmers 2005.

Regarding the negative conceivability of zombies, I will defer to an argument given by Keith Frankish that invokes the notion of *anti-zombies* (creatures that are physically identical to us, with *no* non-physical properties, and yet *have* phenomenal experience). Frankish argues that one can use the same method employed in the zombie argument and run a parallel argument that goes from the conceivability of an anti-zombie, to the possibility of an anti-zombie, to the truth of materialism. I will argue that, without the positive conceivability of zombies, we have no reason to think that zombies (rather than anti-zombies) are negatively conceivable.

Before moving into the details of my critique, it will be beneficial to examine how Chalmers frames his argument. First, I will summarize four notions of supervenience. Second, I will look at how these notions can be used to formalize the commitments of materialism. Third, I will summarize Chalmers' use of "conceivability" and how he thinks it can be used as a guide to metaphysical possibility. Fourth, I will move to examine the specific types of conceivability that Chalmers believes apply to zombies and why he thinks these types of conceivability are sufficient to raise problems for materialism. Finally, in sections V through VIII, I will respond to Chalmers by arguing that we have no basis for claiming that zombies are positively or negatively conceivable.

I: Four Types of Supervenience

To begin, consider how the notion of supervenience relates to the doctrine of materialism.

Supervenience can be broadly defined as follows: B supervenes on A if no two

circumstances are identical with respect to A and different with respect to B. Four notions of supervenience are relevant: local, global, metaphysical, and nomological.

The first two (local/global) indicate whether the supervenience relation in question concerns particular entities or whole worlds. *Local* supervenience is concerned with the supervenience relations between properties possessed by *particular entities*. We can say that B *locally* supervenes on A if no two *particular entities* are identical with respect to A and different with respect to B. Chalmers gives the example of shape and physical properties. Shape locally supervenes on physical properties because any two specific entities that are identical with respect to physical properties will also be identical with respect to shape. This is not true, however, of context-dependent properties, such as value.² A counterfeit coin and genuine coin may be identical with respect to their physical properties, but they will not have the same value. This is not to say that value fails to supervene on the *totality* of physical facts. It is only to say that two *particular entities* that are physically identical are not always of the same value.

Global supervenience, on the other hand, is concerned with the supervenience relations between all properties instantiated in *entire possible worlds*. We can say that B *globally* supervenes on A if no two *possible worlds* are identical with respect to A and different with respect to B.

If two sets of properties are related by *local* supervenience, they will also be related by *global* supervenience. That is, if it is true that any two *particular entities* identical with respect to A are identical with respect to B, then it will also be true that any

² Chalmers 1996, p. 34.

two *possible worlds* that are identical with respect to A are identical with respect to B. It does not work the other way around. Chalmers asks us to consider the example of biological and physical properties. He argues that it is likely that any world that is identical to ours with respect to physical properties will also be identical to ours with respect to biological properties. Thus, biological properties *globally* supervene on the physical properties. However, due to environmental factors, two organisms identical with respect to their physical properties may still be biologically distinct (perhaps with different evolutionary histories).³ Therefore, not all biological properties *locally* supervene on the physical properties.

The second two notions of supervenience (metaphysical/nomological) specify what is meant by a *possible* circumstance. B *metaphysically* supervenes on A if no two circumstances that are *metaphysically possible* are identical with respect to A and different with respect to B.

Nomological supervenience, on the other hand, concerns what is possible *within our laws of nature*. B *nomologically* supervenes on A if no two circumstances that could occur *within our laws of nature* are identical with respect to A and different with respect to B. Consider the difference between a cubic mile of gold and a cubic mile of uranium-235. Both of these are metaphysically possible. But given the laws of nature, as we understand them, a cubic mile of uranium-235 is not possible in our world.

The distinction between metaphysical and nomological supervenience can be seen to parallel the distinction between local and global supervenience. Just as local

³ Ibid.

supervenience entails global supervenience (but not vice versa), so too does metaphysical supervenience entail nomological supervenience (but not vice versa). Suppose, for example, that B *metaphysically* supervenes on A; that is, no two circumstances that are *metaphysically possible* are identical with respect to A and different with respect to B. Then it will also be true that B *nomologically* supervenes on A. The reason is that if something is not metaphysically possible, then it will not be something that could occur within our framework of natural laws. But it does not work the other way around. Two sets of properties that always coexist within our laws of nature might not coexist in every metaphysically possible world.

Chalmers uses Saul Kripke's image of God creating the world to further clarify this distinction between metaphysical and nomological supervenience. If B *metaphysically* supervenes on A, then when God created the A-properties nothing more needed to be done to ensure that there would also be B-properties. If, on the other hand, B *only* nomologically supervenes on A, then after God created the A-properties there was still more work to do to ensure that the B-properties would always coexist with the A-properties in our world.⁴

II. Materialism's Commitments

With these types of supervenience in mind (local, global, metaphysical, and nomological), let us now consider the doctrine of materialism. Materialism claims that everything in our world is physical, that all the positive facts pertaining to our world are

⁴ Ibid., p. 38.

physical facts. In terms of the creation analogy, once the physical properties of our world were created *everything* in our world was created; no further work needed to be done. God simply established the physical facts about our world, and in doing so *all* the facts about our world were established. So, materialism is committed to the claim that all the facts about our world *metaphysically* supervene on the physical facts.

A qualification needs to be given, however. Some may think that there are possible worlds that are physically identical to ours but have extra non-physical objects (e.g., tree gods), which are not found in our world. If this is the case, then there will be certain *negative* facts about our world (e.g., tree gods do not exist) that will not hold in every world that is physically identical to ours. But this raises no problem for materialism. Only worlds where the same negative facts obtain are pertinent to materialism's commitments. Precisely, materialism is committed to the claim that all the facts about our world hold in every physically identical world, so long as the *negative* facts obtaining in our world also obtain in this world. So from here on out, when I refer to worlds that are physically identical to ours, I will be referring to worlds where the negative facts obtaining in our world also obtain.

Secondly, since materialism is a claim about the world as a whole, it is also committed to holding that all the facts about our world *globally* supervene on the physical facts. It need not be the case, for instance, that all the facts about our world *locally* supervene on the physical facts for materialism to be true. Value does not locally supervene on the physical facts. As was mentioned above, two *specific entities* that are physically identical may differ with respect to value. But this does not raise problems for

materialism. Value might still turn out to supervene on the physical facts in their *entirety*. In this sense, value would *globally* supervene on the physical facts. And this is what materialism is committed to.

Therefore, materialism is committed to the claim that all the facts about our world *globally metaphysically* supervene on the physical facts; that is to say, there is no metaphysically possible world that is identical to ours with respect to the physical facts and different from ours with respect to some other fact.

III: Conceivability and Possibility

Chalmers contends that one can establish that a world is metaphysically possible by establishing that it is conceivable. In particular, he argues that conceivability *entails* metaphysical possibility. He uses his framework of two-dimensional semantics to respond to two types of purported counterexamples.

The first type concerns complex mathematical theorems. Some have suggested, for instance, that Goldbach's conjecture can be conceived to be both true and false, but it is certainly not possible for it to be both. Chalmers argues that the problem here comes from conflating two types of conceivability, *prima facie* and *ideal*. *Prima facie* conceivability applies to something that a "subject is unable to rule out ... by a priori reasoning, on initial consideration."⁵ *Ideal* conceivability applies to something that "cannot be ruled out a priori, even on ideal rational reflection."⁶ Chalmers argues that we have no reason to think that both the truth and falsity of Goldbach's conjecture can be

⁵ Chalmers 2005, sec. 2.

⁶ *Ibid.*

ideally conceived of; and it is ideal conceivability that Chalmers is primarily concerned with.

Chalmers further delineates the notions of negative and positive conceivability. Negative conceivability applies to something that cannot be ruled out by a priori reasoning. Both *prima facie* and ideal conceivability can therefore be used to distinguish two types of negative conceivability. Positive conceivability, on the other hand, applies to something that can be “coherently imagine[d]... [It] involves being able to form some sort of clear and distinct conception of a situation in which the hypothesis is true.”⁷ Thus, the example of there being a flounder the size of Canada is positively conceivable; I have no trouble coherently imaging a situation in which this is true. Accordingly, *prima facie* and ideal conceivability can also be seen as types of positive conceivability whenever they are applied to coherently imagined situations.

So, regarding the link between conceivability and possibility, all that the Goldbach example demonstrates is that *prima facie* conceivability does not entail possibility. This does nothing, however, to damage the link between ideal (positive or negative) conceivability and possibility. Thus, from here on out I will follow Chalmers’ example in using “conceivability” to mean “ideal conceivability,” unless otherwise indicated.

A second alleged counterexample to the link between conceivability and possibility comes from the notion of a posteriori necessity largely developed by Saul Kripke. With Kripke’s work it has become widely held that certain necessary truths can

⁷ Ibid.

only be known a posteriori. Consider, for instance, the identity relation between water and H₂O. Kripke argues that we first come to identify water “by its characteristic feel, appearance, and perhaps taste.”⁸ But once we discover by empirical investigation that water is H₂O, we accept this to be a truth that holds by necessity (i.e., across every possible world). Even if we found a substance that was like water in its feel, appearance, and taste, but had a different atomic structure, Kripke argues that we would not call this water. We would instead consider it a kind of “fool’s water; a substance which, though having the properties by which we originally identified water, would not in fact be water.”⁹ Kripke goes on to suggest that this “applies not only to the actual world but even when we talk about counterfactual situations.”¹⁰

If Kripke is correct, then there is no metaphysically possible world in which water is not H₂O. This may cast doubt on the claim that conceivability entails metaphysical possibility. For we can at least *conceive* of a world in which water is not H₂O. And if Kripke is right that such a world is not metaphysically possible, then this appears to be an example of something that is conceivable yet not metaphysically possible.

Chalmers argues, however, that when the details are examined such examples of a posteriori necessity do not in fact break the link between conceivability and metaphysical possibility but instead demonstrate that a notion can have a primary and secondary intension. Primary and secondary intensions are to be understood as functions.¹¹ The primary intension of a notion is a function that takes a *centered world* (i.e., a possible

⁸ Kripke 1980, p. 128.

⁹ Ibid.

¹⁰ Ibid.

¹¹ See Chalmers and Jackson 2001, Chalmers 2006a, Chalmers 2006b.

world that is centered on an individual and a time) and maps it onto the notion's extension. For example, let us take the notion "water." Consider a scenario in which an individual is centered at a world where the life-sustaining liquid found in rivers, oceans, and lakes has an atomic structure other than H₂O. When the term "water" is used by the individual centered at this world, its primary intension does not refer to H₂O but to whatever atomic structure the liquid at this world has. But given that you are centered at a world where the life-sustaining liquid found in rivers, oceans, and lakes *is* H₂O, it follows that the primary intension of your use of the term "water" *does* refer to H₂O. Thus, the primary intension of a notion can pick out different referents in different centered worlds.

The secondary intension of a notion, in turn, is a function from a *possible world* to the notion's extension. Here we should ask: Given that "water" refers to H₂O in *our* world, what does "water" refer to in other possible worlds? Now, supposing that we grant the Kripkean intuition, the answer is that "water" picks out, in *every* possible world, whatever water is in our world. And since water is H₂O in our world, the secondary intension of "water" picks out H₂O in every possible world.

With this distinction between primary and secondary intensions, Chalmers argues that the examples of a posteriori necessity pose no threat to the claim that conceivability entails metaphysical possibility. When we conceive of a world in which water is not H₂O we are only conceiving of a world in which the *primary intension* of "water" picks out something other than H₂O. Chalmers refers to this type of conceivability as 1-conceivability. In this sense it *is* possible that 'water is not H₂O'; that is, there are centered worlds where the life-sustaining liquid found in rivers, oceans, and lakes is not

H₂O. Chalmers labels this as 1-possibility. Therefore, the statement ‘water is not H₂O’ is both 1-conceivable and 1-possible.

What is not metaphysically possible is for the secondary intension of “water” to refer to something other than H₂O. Since water is H₂O in our world, the secondary intension of “water” will pick out H₂O in every possible world. This raises no problem for the conceivability-possibility link, however. Given the Kripkean intuition that ‘water is H₂O’ holds across every possible world, we cannot coherently conceive of a world in which the *secondary intension* of “water” picks out something other than H₂O. Along these lines of secondary intensions, ‘water is not H₂O’ is neither 2-possible nor 2-conceivable.

Therefore, according to Chalmers, examples of a posteriori necessity do not actually point to cases where something is conceivable yet not metaphysically possible. They merely point to cases where something is 1-conceivable and 1-possible, yet neither 2-conceivable nor 2-possible. And as Chalmers notes, “these cases are entirely compatible with a link between 2-conceivability and 2-possibility, and...with a link between 1-conceivability and 1-possibility.”¹²

So, the two proposals for counterexamples given here (complex mathematical theorems and a posteriori necessity) only break the link between *prima facie* conceivability and possibility, and between 1-conceivability and 2-possibility. But Chalmers argues that there has yet to be any counterexamples given that break the link between ideal (negative or positive) 1-conceivability and 1-possibility, or ideal positive

¹² Chalmers 2005, sec. 2.

2-conceivability and 2-possibility.¹³ Therefore, the relation between conceivability and possibility can still be formulated as such:

- a) Ideal (negative or positive) 1-conceivability entails 1-possibility.
- b) Ideal positive 2-conceivability entails 2-possibility.

The legitimacy of a) or b) would be undermined if a counterexample to either statement was given. But since this has not been done Chalmers argues that we have no available reason to doubt either statement.

IV: Materialism, Conceivability, and Zombies

Consider again the doctrine of materialism. At the very least, materialism must be committed to the claim that all the facts about our world *globally metaphysically* supervene on the physical facts. For, if there is a possible world physically identical to ours in which the negative facts obtaining in our world also obtain (see section II), and this world is different from ours with respect to some other fact, then this fact: 1) is not a physical fact (since this counterfactual world is physically identical to ours) and 2) holds in our world (since the all the negative facts obtaining in our world also obtain in this counterfactual world). If this were the case, it would entail that there is a non-physical fact about our world, and hence materialism would be false.

Furthermore, since materialism is concerned with the facts about our world as they actually are, then in Chalmers' two-dimensional terminology, materialism is committed to the claim that it is not *2-possible* for there to be a world that is identical to

¹³ Since ideal 2-conceivability depends on empirical knowledge about our world, and since negative conceivability is purely an a priori matter, ideal 2-conceivability is always a type of positive conceivability.

ours with respect to the physical facts and different from ours with respect to some other fact. If it can be demonstrated that such a world *is* 2-possible, then this will refute orthodox materialism.

Chalmers argues that the conceivability of zombies succeeds in demonstrating just this. To understand the details of the argument, consider two conceptions of the mind that Chalmers delineates: the psychological and the phenomenal. He writes,

On the phenomenal concept, mind is characterized by the way it *feels*; on the psychological concept, mind is characterized by what it *does*. There should be no question of competition between these two notions of mind. Neither of them is *the* correct analysis of mind. They cover different phenomena, both of which are quite real.¹⁴

Chalmers notes that, in making this distinction, he is not committing himself to any view about whether or not these notions might turn out to be the same thing. All he is doing is making a conceptual distinction that he finds plausible.

There is a strong correlation that can be seen between the psychological and the phenomenal. Many of our mental states, for instance, will likely have both aspects. And any time there is a phenomenal aspect to some mental state, there will also be an associated psychological aspect.¹⁵ For example, my desire for a cup of coffee has a phenomenal aspect to it in the sense that there is something it is like, or a certain way it feels, to desire a cup of coffee. It is these qualitative feels (or *qualia*) that constitute the phenomenal aspect of my desire. But my desire also has a psychological aspect to it in the sense that it can be understood to be the cause of certain actions (such as grinding coffee beans, retrieving water for my coffee maker, etcetera). Again, whether or not

¹⁴ Chalmers 1996, p. 11.

¹⁵ *Ibid.*, p. 22.

these two notions end up being the same thing is not crucial to Chalmers' point, it is only crucial that we are able to have this conceptual distinction.¹⁶

Now, what does Chalmers mean by the conceivability of a zombie? Consider an entity that is physically identical to me in every respect but lacks phenomenal experience. Following Chalmers, I will refer to this entity as my "zombie twin." This creature looks and acts just as I do; there is no sense in which it physically differs from me. It only differs in that it lacks phenomenal experience. It is molecularly and behaviorally identical to me, but it has no sense of what it is like to experience something; as Chalmers puts it, it is "all dark inside."¹⁷ With regards to the two notions of the mental, my zombie twin is psychologically identical to me but phenomenologically different; there is in fact *no* phenomenal aspect of my zombie twin's mental states.

To add vividness to the example, Chalmers gives the following illustration,

...We can imagine that right now I am gazing out the window, experiencing some nice green sensations from seeing the trees outside, having pleasant taste experiences through munching on a chocolate bar, and feeling a dull aching sensation in my right shoulder. What is going on in my zombie twin? ...He will be processing the same sort of information, reacting in a similar way to inputs, with his internal configurations being modified appropriately and with indistinguishable behavior resulting...It is just that none of this functioning will be accompanied by any real conscious experience. There will be no phenomenal feel.¹⁸

Chalmers maintains that such a creature is both *ideally negatively I-conceivable* and *ideally positively I-conceivable*; namely, that zombies cannot be ruled out a priori, and

¹⁶ One might reject the intelligibility of this distinction and embrace eliminativism. Eliminativism roughly holds that there are no aspects of our mental states that can be accurately defined as phenomenal. Chalmers finds this view to be untenable and has argued against it (see sec. 4, Type-A Materialism in Chalmers 2003a).

¹⁷ Chalmers 1996, p. 96.

¹⁸ *Ibid.*, pp. 94-95.

that one can coherently imagine zombies without any contradiction. Therefore, according to the framework of two-dimensional semantics, this entails that zombies are 1-possible.

Now, if a world with zombies is 2-possible, then this raises problems for materialism. For it entails that there is a world that is identical to ours with respect to the physical facts and different from ours with respect to some other facts (i.e., certain *phenomenal* facts about our world that would not be true in the physically identical zombie world). Given this, Chalmers argues that the 1-possibility of zombies is sufficient to place the materialist in a detrimental predicament.

To see this, suppose that the primary and secondary intensions of physical terms are the same, and also suppose that the primary and secondary intensions of phenomenal terms are the same. If this were true, then the 1-possibility of zombies (i.e., there being a world, which is evaluated in terms of primary intensions, that is physically identical to ours but where my twin lacks phenomenal experience) would entail the 2-possibility of zombies. Since the 2-possibility of zombies is problematic to materialism, the materialist will likely want to reject this identification of primary and secondary intensions. Chalmers argues, however, that the ways available to reject this identification will ultimately not help the materialist against his argument.

Consider, first, how one might separate the primary and secondary intensions of *physical* terms. Regarding the notion of ‘mass,’ Chalmers writes,

We might say that the primary intensions of ‘mass’ picks out whatever property plays the mass-role (e.g., resisting acceleration in certain ways, being subject to mutual attraction in a certain way, and so on)...[and] that the secondary intension...is tied to the property that actually plays the role.¹⁹

¹⁹ Chalmers 2005, sec. 3.

So here, the primary intensions pick out the structural properties of the physical world whereas the secondary intensions pick out the intrinsic properties of the physical world.

Given this distinction, we can see that there are possible worlds that are physically identical to ours with respect to their structural properties but physically different from ours with respect to their intrinsic properties. For instance, there is a possible world where there is no intrinsic property of mass but where some other intrinsic property still plays the mass-role. And since the primary intensions pick out the structural properties and the secondary intension pick out the intrinsic properties, this is a 1-possible world that is physically identical to ours, but it is not a 2-possible world that is physically identical to ours.

Along these lines, a materialist might want to claim that the 1-possibility of zombies does not entail that they are 2-possible. The 1-possibility of a zombie-world only establishes that there is a world that is physically identical to ours with respect to its structural properties but without phenomenal experience. This still leaves the question open as to whether there is a possible world that is physically identical to ours with respect to its *structural and intrinsic properties* and yet without phenomenal experience. The materialist might in fact hold that phenomenal experience is determined by both the structural and intrinsic physical properties; for, if this were the case, then zombies would not be 2-possible. Chalmers labels this type of view as “Russellian monism.” He writes,

On this view, consciousness is closely tied to the intrinsic properties that serve as the categorical bases of microphysical dispositions. Russell and others held that the nature of these properties is not revealed to us by perception (which reveals only their effects) or by science (which reveals only their relations). But it is

coherent to suppose that these properties have a special nature that is tied to consciousness.²⁰

He acknowledges that this view could suffice as a form of materialism, but he does not think that it will ultimately help to defend *orthodox* materialism. For, according to Chalmers, a view that postulates that the character of phenomenal properties somehow lies in a special nature had by the intrinsic properties, is a view that has more in common with property dualism than it does with orthodox materialism.

What then about differentiating the primary and secondary intentions of *phenomenal* terms? According to Chalmers, this too will fail to shield materialism from his argument. Since the *orthodox* materialist will want to reject Russellian monism, she will be committed to the claim that physical terms have the same primary and secondary intensions. Given this, differentiating the primary and secondary intensions of *phenomenal* terms will be of no help. For, even if only the primary intensions of the phenomenal terms applied to the conceivability of zombies, this would still indicate that there is a world identical to ours with respect to the physical facts and different from ours with respect to some other fact. For example, consider the above illustration in which Chalmers is looking out the window. Here, the primary intensions of the phenomenal terms (green sensation, pleasant taste, dull aching sensation) apply to Chalmers' mental states, but they do not apply to the mental states of Chalmers' zombie-twin. Now, supposing that the physical terms have the same primary and secondary intensions, there is a possible world that is identical to ours with respect to the physical facts and different

²⁰ Ibid., sec. 2.

from ours with respect to some other fact (the fact concerning whether or not a certain primary intension of a phenomenal term applies in a given case).

So, according to Chalmers, the 1-conceivability of zombies places the materialist in an uncomfortable dilemma. It forces the materialist to either give up materialism altogether by acknowledging that there is a possible world that is identical to ours with respect to the physical facts and different from ours with respect to some other fact, or to give up orthodox materialism and adopt some sort of Russellian monism.

V: Are Zombies Conceivable?

Now, Chalmers' argument can only succeed if zombies are indeed ideally positively 1-conceivable or ideally negatively 1-conceivable. If zombies do not fall under at least one of these types of conceivability, Chalmers' argument fails. Let us begin with the former conceivability type. Are zombies ideally positively 1-conceivable? That is, can we imagine a scenario with a zombie where no contradiction enters even after ideal rational reflection? I submit that we cannot. The problem is that phenomenal experience (i.e., the qualitative feel/what-it-is-likeness of experience) is not something we can imagine; it is only something we can have. All we ever imagine is the *pure representational content* (that is, the *object* represented in a mental state), and in doing so we have a *new* phenomenal experience of the imagined content.²¹

²¹ A note on terminology: Chalmers distinguishes *perceptual* imagination from *modal* imagination. The former involves forming a perceptual mental image of a situation (e.g., Santa flying in a sleigh), whereas the latter can involve a situation "beyond the scale of perception: e.g. molecules of H₂O, or Germany winning the Second World War" (Chalmers 2002a, p. 151). I follow Alex Byrne (2007) here and take this distinction to be

Consider the following scenario. Suppose that you are currently looking at a red cup that is sitting on a desk in front of you and are thereby having a phenomenal experience of this red cup. Now, suppose you grab the cup and fling it out of a window next to you, thereby ceasing to have any phenomenal experience of the red cup. What now are you able to imagine? You can certainly imagine *the red cup*, even though you are no longer seeing it; and you can imagine sitting in the same position you were in while looking at the red cup. You can also imagine certain objects and words that you happened to be thinking about while looking at the red cup. But you cannot imagine the past *phenomenal experience* of the red cup (the qualitative feel/what-it-is-likeness of the experience). The difficulty is that when you try to imagine the past *phenomenal experience* of the red cup you inevitably imagine *the red cup* itself. And in imagining the *red cup* you merely have a *new* phenomenal experience. Since this new phenomenal experience results from imagining the cup, rather than from previously perceiving the cup, it will be a different phenomenal experience. The past phenomenal experience is not something you can imagine now. You can only *have* a similar phenomenal experience by imagining the *representational content* (i.e., the red cup).

The same line of reasoning is applicable to any phenomenal experience. Suppose that you are in a state of excruciating pain (e.g., birth pangs, cancer pain, etcetera). Now suppose this pain eventually ceases. What now can you imagine regarding the pain? You can imagine what you were doing while the pain was occurring as well as any behavioral

a matter of degree, not of kind. When we imagine Germany's victory, for instance, we still form *some* sort of perceptual mental image; it is only that the image is vague or partial. Therefore, I will use "imagine" broadly to mean *form a perceptual mental image of (even if only vague or partial)*.

responses that the pain brought about. You can also imagine the thoughts you were having while in pain. But you cannot imagine the past *phenomenal experience* of the pain. When you attempt to imagine the past phenomenal experience of the pain, you inevitably imagine certain representational contents. These contents may include screaming, sweating, clenching your fists, thinking about how long the pain will last, etcetera. And as you imagine such contents, you will likely *have* vivid (and even disturbing) phenomenal experiences of the imagined contents. You might, for instance, feel a mixture of distressing emotions intertwined with a phenomenal awareness of the areas of your body in which you had the pain. Or you may even have a new phenomenal experience of pain itself. But just as in the red cup example, any such phenomenal experience will be distinct from the experience of the pain you had before. And the phenomenal experience of the prior pain is not in itself something you can imagine. You can only *have* a similar phenomenal experience as you imagine certain *representational contents*.²²

5.1 The Problem with the Positive Conceivability of Zombies

Let us now inquire into the impact my argument has on the positive conceivability of zombies. Suppose that there are two creatures physically identical to you, one lacks phenomenal experience (call this creature A) and one has phenomenal experience (call this creature B). What can you imagine regarding these creatures? Well given my argument you can only imagine certain *representational contents*; namely, the physical

²² As can be seen, the evidential basis for my argument comes primarily through introspection. In future work, I hope to more fully examine the relationship between imagination and introspective reports.

properties of A and B and the objects within their surroundings. You cannot, however, imagine A's or B's *phenomenal experience*. Hence, you cannot imagine any of the *phenomenal states* of A or B. But since the only difference between A and B is a difference in their phenomenal states, it follows that both A and B are identical in their imagined form. This leads us to my key point: In imagining one of your physically identical twins you have no way to determine whether you are imagining A (your zombie twin) or B (your phenomenally conscious twin). Thus you have no way to determine whether you are actually imagining a zombie.

This has significant consequences. In particular, it shows that your ability to imagine a creature that “lacks” phenomenal experience does not establish that you can imagine a zombie. *Any* creature you imagine will be imagined *without* imagining phenomenal experience. So imagining a creature that “lacks” phenomenal experience does not differentiate this creature from a *non-zombie*. This is problematic for the claim that zombies are ideally positively 1-conceivable. Without being able to differentiate zombies from non-zombies in imagined scenarios, you have no basis for claiming that “upon a priori reflection you can clearly and distinctly imagine a scenario with a zombie.” Therefore, you have no basis for claiming that zombies are ideally positively 1-conceivable.²³

²³ The question is still left open as to whether we might be able to imagine phenomenal experience sometime *in the future*. It might be asked, for instance, “Is it possible that certain scientific, philosophical, or conceptual developments will arise that would enable us to imagine phenomenal experience? And if such developments did arise, would that enable us to imagine zombies?” Presently, I am noncommittal with respect to these questions. But they are, indeed, important to consider. And I plan to address them in subsequent work.

VI. Potential Objections

Let us now turn to consider some potential objections to my argument.

1) First, it may be objected that, even if we cannot imagine *someone without phenomenal experience*, we can still imagine *that there is* someone without phenomenal experience.

This objection relates to a distinction between two different views about experiential content. First, experiential content might involve both an *object* that is experienced and the *properties* of the experienced object. On this view, experiential content is *object-involving content*. Second, experiential content might merely involve the content *that there is* some object that has such-and-such properties. On this view, experiential content is *existentially quantified content*.²⁴

Now, consider how this distinction might parallel a distinction between two types of imagination. Think, for instance, about imagining the red cup. When you imagine the red cup, you might, on the one hand, imagine the red cup as an *object-involving content*—that is, you might imagine the actual *object*, as well as the object's *properties* ('being red,' 'being a cup,' etcetera). On the other hand, you might merely imagine the red cup as an *existentially quantified content*—that is, you might only imagine *that there is* some object that has the properties 'being red,' 'being a cup,' and so forth.

Given these two types of imagination, the above objection could be put as follows: Even if we cannot imagine a zombie as an *object-involving content*, we can still

²⁴ For more on this distinction see Susanna Siegel 2006.

imagine a zombie as an *existentially quantified content*. And this may be enough to warrant the claim that zombies are positively conceivable.

I argue, however, that we have no basis to think that we can imagine such a scenario. My reason is similar to the argument given in the previous section. Given that you cannot imagine phenomenal experience, you cannot determine whether you are actually imagining your zombie twin (as opposed to your phenomenally conscious twin) as an *existentially quantified content*. To see the difficulty, consider one of the differences between imagining a *red cup* as an existentially quantified content and imagining a *phenomenally conscious creature* as an existentially quantified content. When you imagine *that there is* a red cup, you are able to imagine all of the object's *properties* (the only thing you cannot imagine is the *object* itself). So, if you wanted to determine that you are imagining *that there is* a red cup that also has the property 'shininess,' you could imagine a shiny finish in conjunction with the other properties. But unlike imagining a shiny finish, you *cannot* imagine phenomenal experience. Thus, in order to determine that you are imagining *that there is* a creature that *has* phenomenal properties, you *cannot* imagine phenomenal experience in conjunction with other properties.

So how *can* you determine that you are imagining *that there is* a phenomenally conscious creature? I see no way to answer this question. And the lack of an answer raises a problem that parallels the one mentioned in the previous section. In particular, if you cannot determine that you are imagining *that there is* a phenomenally conscious creature, then how can you distinguish imagining this from imagining *that there is* a

zombie? Unless you have a way to differentiate these imagined scenarios, you have no reason to think that you can ever actually imagine a zombie (as opposed to a phenomenally conscious creature) as an *existentially quantified content*.

2) Second, it might be objected that, given our ability to feel empathy for other creatures, it seems as if we *can* imagine phenomenal experience. I would respond, however, that these feelings of empathy should not be confused with actually imagining another creature's phenomenal experience. Suppose you see some creature that appears to be in pain. What is it that you imagine when feeling empathy for this creature? You likely imagine certain *representational contents* that you suppose the creature to be responding to. And by imagining these contents two things occur: 1) You *have* a phenomenal experience of the imagined contents; and 2) You begin to feel certain emotions being directed towards this other creature (excitement for it, gladness for it, sadness for it, etcetera). But nothing in this process indicates that you ever imagine the other creature's phenomenal experience. You merely imagine certain *contents* and thereby *have* certain phenomenal experiences within yourself (including your phenomenal experience of the contents, as well as your phenomenal experience of the emotions that are directed towards the other creature).

3) Third, one might object that we can at least imagine what a past experience felt like. And this may suggest that we are able to imagine certain phenomenal qualities. Strictly speaking, however, we *cannot* imagine what a past experience felt like. To see this let us consider the phrase, "what a past experience felt like." This phrase can be interpreted in

two ways. On the one hand, it might refer to some inner experience (e.g., pain, pleasure, excitement). Under this interpretation, the objection is dealt with in the third paragraph of section V where I talk about pain.

On the other hand, it might refer to the what-it-is-likeness of an experience. Given this interpretation, we can consider again the red cup example. When you attempt to imagine what the past experience of perceiving the red cup felt like two things occur: 1) You imagine the representational contents (the red cup, its surroundings, etcetera); and 2) You feel what it is like to experience the imagined contents. Thus, there is no *imagining* that pertains to what the past experience *felt* like. The *imagining* pertains to the *contents*, and the *feelings* pertain to the *current experience* of the imagined contents.

4) Fourth, one might object that there is a difference between imagining two different representational contents (e.g., a green fire hydrant and a red fire hydrant) and imagining that something that looks green to me looks red to someone else. This difference may be used to suggest that I imagine phenomenal experience in the latter case but not the former.²⁵ I would respond, however, that when the details are examined no appeal to imagining phenomenal experience is warranted.

I agree that imagining two different representational contents is different from imagining that something that looks green to me looks red to someone else; but this raises no problems for my argument. The difference can be accounted for in the following way:

1) Suppose I imagine two different representational contents (e.g., a green fire hydrant and a red fire hydrant). I might do so in one of the following manners:

²⁵ An objection along these lines was raised to me by David Chalmers (personal correspondence).

a) I imagine two separate objects, a green fire hydrant and a red fire hydrant. And by imagining these two objects I have certain phenomenal experiences of both imagined objects.

b) I imagine one green object (e.g., a green fire hydrant) and then I imagine this same object as red. By doing this I first have a phenomenal experience of the imagined green object, and then I have a phenomenal experience of the imagined object as red.

2) Now, suppose I imagine that something that looks green to me looks red to you. Here I first imagine a green object (and thereby *have* a phenomenal experience of this imagined green object). Then as I imagine you to be looking at this object I imagine the object to be red (and thereby *have* a phenomenal experience of both an imagined red object and of my imagined conception of you looking at the object). I do not, however, imagine your phenomenal experience of the object. I merely *have* my own phenomenal experience of the imagined contents, namely you and the object.

So, in 1a) I simultaneously imagine two different objects and thereby simultaneously have phenomenal experiences of both imagined objects. In 1b) I first imagine a green object (and thereby have a phenomenal experience of this imagined green object) and then I imagine the object as red (and thereby have a phenomenal experience of this imagined red object). In 2) I also begin by imagining a green object (and thereby having a phenomenal experience of this imagined green object). But then I proceed to imagine both the object as red as well as your visual relation to this object (and thereby have a phenomenal experience of both an imagined red object and my imagined conception of you looking at the object).

Thus, I agree that imagining two different representational contents is different from imagining that something that looks red to me looks green to someone else. But the difference need not be accounted for by appealing to the claim that I imagine phenomenal experience. Rather, the explanation can be given by appealing to the different *contents*

that I imagine and the different phenomenal experiences that I *have*, as well as the order and timing of imagining these contents and having these experiences. Therefore, this does not serve as an objection to my position.

5) Fifth, one might assume that my argument entails that we cannot *attend* to phenomenal experience itself. This position is known as *transparency*. Transparency is a controversial position; and if my argument entails it, one could object to my argument merely by objecting to transparency. Upon examination, however, I think it can be shown that my argument does not entail transparency. Let us consider the details.

Gilbert Harman, arguing for transparency, writes,

When you see a tree, you do not experience any features as intrinsic features of your experience. Look at a tree and try to turn your attention to intrinsic features of your visual experience. I predict you will find that the only features there to turn your attention to will be features of the presented tree, including relational features of the tree “from here.”²⁶

According to Harman we are unable to attend to the experience itself. We can attend only to the object that the experience presents. The experience itself is *transparent*.

Amy Kind makes a helpful distinction between weak and strong transparency. Weak transparency is the thesis that “it is *difficult* (but not impossible) to attend directly to our experience” whereas strong transparency is the thesis that “it is *impossible* to attend directly to our experience.”²⁷

Concerning the former, we can consider an argument put forth by Brian Loar (2002). Loar maintains that we are unaware of the intrinsic properties of our experience

²⁶ Harman 1990, p. 667.

²⁷ Kind 2003, p. 7.

on most occasions. He argues, however, that we can become aware of such properties by invoking certain thought experiments. He invites us to consider a hallucination of a lemon that is phenomenally identical to a veridical visual experience of a lemon. He asks how we would recognize the “phenomenal sameness” of these two experiences. We would do so, he answers, by attending to “*how* the two visual experiences *present* their apparent objects.”²⁸ The experiences are directed at different objects. The hallucination is directed at a “merely-intentional object,” which does not exist, whereas the veridical experience is directed at an actual object, the existing lemon. But the experiences *present* their objects in an identical manner. There is nothing in the presentations that could help us distinguish one from the other. And given that we realize that the *objects* of the two experiences differ from each other, Loar concludes that our awareness that the *presentations* are indistinguishable must be an awareness of the intrinsic properties of the experiences.

Strong transparency, on the other hand, states that we can *never* attend to features of experience itself. Michael Tye, for instance, argues that when we attend to any type of experience (visual, auditory, bodily, veridical, hallucinatory, etcetera) we attend only to the surface qualities of the *content*.²⁹ Experience is *always* transparent.

Given these distinctions, let us consider what differentiates my conclusion from such claims. I have argued that phenomenal experience is not something we can imagine. But I have not committed myself to the claim that we are unable to *attend* to the intrinsic properties of experience, or even that it is difficult to do so. All my argument entails is

²⁸ Loar 2002, p. 7.

²⁹ See Tye 2002.

that we cannot attend to such properties by *imagining* experience. One could accept my argument, however, and hold that we can attend to such properties *without* imagining experience. For instance, one might argue that we can attend to the intrinsic properties of an *occurrent* experience. In an *occurrent* experience all the experiential properties are present. Nothing needs to be *imagined* in order to attend to them. A position along these lines is compatible with my argument, and furthermore, it rules out transparency. This shows that my argument does *not* entail transparency. So objections to transparency will not serve as objections to my position.

VII: Clarifying Remarks

I would like to point out some differences between my argument and three prominent objections to the zombie conceivability argument.

1) Eric Marcus argues that zombies are not positively conceivable. He maintains that, to positively conceive of a zombie, one needs to imagine the absence of phenomenal experience. But this requires imagining *subjective* absence, the absence of what-it-is-like to be something. And Marcus argues that this is impossible. He writes,

Imagining subjective absence presents an insurmountable obstacle. On the one hand, it is something that we are to imagine from the first-person point of view...It is supposed to be a subjective fact about zombies that they lack consciousness. On the other hand, there is nothing that it's like to be subjectively absent. So there is no imagining of the what-it's-like variety that we can use to arrive at this possibility.³⁰

³⁰ Marcus 2004, p.10.

Chalmers directly objects to this line of thought. He writes, “There is no more problem with clearly and distinctly imagining a situation in which there is no consciousness than in imagining a world in which there are no angels.”³¹ So here we are left with opposing claims concerning whether or not we can imagine the *absence* of phenomenal experience.

Chalmers does, however, raise a second objection:

One should keep in mind that for the anti-materialist argument, one does not need to consider beings as remote from us as zombies, or even as remote as full-scale inverts. It suffices if we can conceive of a being whose conscious experience is for just a moment slightly different from that of an actual physical duplicate's: perhaps they experience a slightly different shade at a point in the background of their visual field. Any problems that are specific to zombies then will not apply.³²

Thus, even if it is not accepted that we can imagine the absence of phenomenal experience, Chalmers can still rephrase the argument so that we are imagining creatures with different phenomenal experiences rather than no phenomenal experiences. But since my argument deals with our inability to imagine phenomenal experience, this particular response will be of no help. For without the ability to imagine phenomenal experience, we will not be able to imagine two physically identical creatures that have differing phenomenal experiences. This indicates that my argument will also have implications for other conceivability arguments that appeal to phenomenal experience (e.g., inverted spectrum). To show this in detail would be a useful project for the future.

2) Robert Van Gulick (1999) contends that the conceivability of zombies is a result of the inadequacy of our current physical and phenomenal concepts. He suggests that, with

³¹ Chalmers 2005, sec. 4.6.

³² Ibid.

further advances in science, new conceptions may well develop that will render zombies inconceivable.

Chalmers responds,

To render zombies incoherent even on ideal reflection requires some sort of conceptual link between physical and phenomenal concepts. Given that physics and physical concepts are all structural-dynamical in character...phenomenal concepts must have a character that is linked to structural-dynamic concepts in an appropriate way. Upon examination, the only candidate that is remotely tenable is the hypothesis that phenomenal concepts are functional concepts. But [as seen in Chalmers 2003a] there is good reason to reject that view.³³

This debate seems prone to reach a stalemate, getting stuck in a cycle of affirmation and denial concerning whether phenomenal concepts could *ever* be understood as functional concepts. My argument, however, differs from van Gulick's. I argue that even under our current concepts we have no basis to claim that we are positively conceiving of a zombie. Without being able to imagine phenomenal experience, an imagined creature that is physically identical to us (with respect to an underdeveloped conception of the physical) and supposedly *lacks* phenomenal experience will be indistinguishable from an imagined creature that is physically identical to us (with respect to an underdeveloped conception of the physical) and supposedly *has* phenomenal experience. Thus we have no reason to think that the creature is a zombie.

3) Daniel Stoljar (2001) suggests that there are two ways to understand the physical. First, there is the "theory-based" conception of the physical. Under this conception, physical properties are understood to be the properties described in physical theory. Second, there is the "object-based" conception of the physical. Under this conception,

³³ Chalmers 2005, sec. 4.2.

physical properties are understood to be the *intrinsic* properties of physical objects.

Stoljar argues that when we conceive of a zombie we are only conceiving of a creature that is identical to us with respect to the properties in physical theory. But it may not be the case that such a creature is identical to us with respect to its *intrinsic* physical properties. So there is no guarantee that zombies are really physically identical to us.

According to my argument, however, we have no reason to think that we can positively conceive of a zombie under the theory-based conception of the physical. Given that we cannot imagine phenomenal experience, an imagined creature that is identical to us with respect to the properties in physical theory, and *lacks* phenomenal experience, will remain indistinguishable from an imagined creature that is identical to us with respect to the properties in physical theory, and *has* phenomenal experience. Therefore, we have no basis for claiming that we can ideally positively 1-conceive of a zombie.

VIII: The Negative Conceivability of Zombies

Thus far my argument has focused on our inability to imagine phenomenal experience and the problem this creates for claiming that we can positively conceive of a zombie.

Chalmers maintains, however, that the ideal *negative* 1-conceivability of zombies is sufficient for his argument. To examine this claim I would like to consider an argument put forth by Keith Frankish (2007) that invokes the notion of *anti-zombies*.

Anti-zombies are creatures that are physically identical to us, with *no* non-physical properties, and yet they *have* phenomenal experience. Frankish argues that one

can use the same method employed in the zombie argument and run a parallel argument that goes from the conceivability of an anti-zombie, to the possibility of an anti-zombie, to the truth of materialism. The argument is roughly as follows: P1) A purely physical creature with phenomenal experience is conceivable; P2) Conceivability entails possibility; P3) If a purely physical creature with phenomenal experience is possible, then phenomenal properties are physical properties; C1) Phenomenal properties are physical properties; C2) Every creature that is physically identical to us is also phenomenologically identical to us (i.e., there are no zombies in any world).³⁴

Given C2), zombies and anti-zombies cannot *both* be possible. And, given the conceivability-possibility thesis, zombies and anti-zombies cannot *both* be ideally conceivable. How then is one to decide which creature *is* ideally conceivable? The zombie advocate cannot simply rule out the ideal conceivability of anti-zombies by arguing that *zombies* are ideally conceivable. As Frankish aptly notes, “The problem with this tactic...is that it simply pits one conceivability intuition against another. The advocate of the anti-zombie argument can run an exactly parallel argument for the view that zombies are not ideally conceivable.”³⁵ The zombie advocate needs to give some *independent* reason as to why we should think that zombies (rather than anti-zombies) are ideally conceivable. Now, this might be done by arguing that anti-zombies resist imagination in a way that zombies do not. Frankish anticipates this response. He writes,

It is true that there is some imaginative resistance to the idea that consciousness might be physical. ‘How could *this*’, people sometimes ask, mentally indicating some experience, ‘be just a neurological state?’ Difficulty is irrelevant here,

³⁴ A similar argument has also been put forth by Gualtiero Piccinini (ms).

³⁵ Frankish 2007, p. 14.

however. Conceivability is all or nothing, and one state of affairs may be harder to imagine than another without being less conceivable.³⁶

I suspect, however, that this response will not satisfy the zombie advocate. A question such as, “How could *this* be just a neurological state?”, is not used to indicate that it is merely *difficult* to imagine phenomenal experience to be physical. Rather, it is used to suggest that we are currently *unable* to imagine phenomenal experience to be physical (e.g., Levine 1983, 1993, McGinn 1991). Given this, it will most likely be argued that we are *unable* to imagine (positively conceive of) *anti-zombies*. And if the positive conceivability of *zombies* is granted, then the zombie advocate will have an advantage over the anti-zombie argument.

For this reason, my argument is useful to the anti-zombie argument. Given that we cannot imagine phenomenal experience, we have no justification for claiming that *either* zombies or anti-zombies are positively conceivable. Thus, we are left only with the *negative* conceivability of zombies and anti-zombies. And, as mentioned above, one cannot rule out the ideal negative 1-conceivability of one creature by merely stating that the other creature is ideally negatively 1-conceivable. Some *independent* reason needs to be given as to why the ideal negative 1-conceivability of one creature is more plausible than that of the other creature. And until this is done, we have no basis for claiming that zombies (rather than anti-zombies) are ideally negatively 1-conceivable.

Without being able to use *either* the ideal positive 1-conceivability of zombies *or* the ideal negative 1-conceivability of zombies as a guide to possibility, Chalmers’ argument fails to refute orthodox materialism.

³⁶ Ibid., p. 11.

IX: Conclusion

To summarize, I have argued that we have no basis for claiming that zombies are ideally positively 1-conceivable or ideally negatively 1-conceivable. Regarding the former, I argued that phenomenal experience is not something we can imagine; it is only something we can have. We can only imagine the *contents* of an experience, and in doing so we have a *new* phenomenal experience of the imagined contents. My position does not entail that it is impossible (or even difficult) to *attend* directly to phenomenal experience itself, but only that we cannot do so by *imagining* it.

Next, I considered the impact my argument has on the positive conceivability of zombies. I argued that without being able to imagine phenomenal experience we have no way of knowing whether a creature that we imagine has or lacks phenomenal experience. Therefore, we have no basis for claiming that we can ideally positively 1-conceive of a zombie.

Regarding the ideal negative 1-conceivability of zombies, I deferred to an argument given by Keith Frankish that invokes the idea of *anti-zombies* (creatures that are physically identical to us, with *no* non-physical properties, and yet *have* phenomenal experience). Frankish argues that one can use the same method employed in the zombie argument and run a parallel argument that goes from the conceivability of an anti-zombie, to the possibility of an anti-zombie, to the truth of materialism. I argued that, without the positively conceivability of zombies, we have no basis for claiming that zombies (rather than anti-zombies) are ideally negatively 1-conceivable.

In conclusion, Chalmers has failed to demonstrate that zombies are ideally positively 1-conceivable *or* ideally negatively 1-conceivable. Therefore, his argument fails to refute orthodox materialism.

BIBLIOGRAPHY

- Byrne, A., 2007. 'Possibility and Imagination', *Philosophical Perspectives*, 82: 477-90.
- Chalmers, D. J., 1996. *The Conscious Mind: In Search of a Fundamental Theory*, New York and Oxford: Oxford University Press.
- Chalmers, D. J., and F. Jackson, 2001. 'Conceptual Analysis and Reductive Explanation', *Philosophical Review*, 110: 315-360.
- Chalmers, D. J., 2002a. 'Does conceivability entail possibility?', in T. Gendler & J. Hawthorne (eds.), *Conceivability and Possibility*, Oxford: Oxford University Press.
- Chalmers, D. J., 2002b. 'On Sense and Intension', *Philosophical Perspectives*, 16: 135-182.
- Chalmers, D. J., 2003a. 'Consciousness and its place in nature', in S. Stich & F. Warfield (eds.), *The Blackwell Guide to the Philosophy of Mind*. Blackwell.
- Chalmers, D. J., 2003b. 'The Content and Epistemology of Phenomenal Belief', in Q. Smith & A. Jokic (eds.), *Consciousness: New Philosophical Perspectives*, Oxford: Oxford University Press: 220-272.
- Chalmers, D. J., 2005. 'The Two-Dimensional Argument Against Materialism' <http://consc.net/papers/2dargument.html> (19 May 2007).
- Chalmers, D. J., 2006a. 'Two-Dimensional Semantics', in E. Lepore & B. Smith (eds.),

Oxford Handbook of the Philosophy of Language, Oxford: Oxford University Press.

Chalmers, D. J., 2006b. 'The Foundations of Two-Dimensional Semantics', in M. Garcia-Carpintero & J. Macia (eds.), *Two-Dimensional Semantics: Foundations and Applications*, Oxford: Oxford University Press.

Frankish, K., 2007. 'The Anti-Zombie Argument', *Philosophical Quarterly*, 57: 650-666.

Gendler, T., and J. Hawthorne (eds.) 2002. *Conceivability and Possibility*, Oxford: Oxford University Press.

Harman, G., 1990. 'The Intrinsic Quality of Experience', in *The Nature of Consciousness*, Ned Block et al (eds.), Cambridge, Mass.: The MIT Press (1997), 663-75.

Kind, A., 2003. 'What's So Transparent about Transparency?', *Philosophical Studies*, 115: 225-44.

Kripke, S. A., 1980. *Naming and Necessity*, Cambridge, Mass.: Harvard University Press.

Levine, J., 1983. 'Materialism and qualia: the explanatory gap', *Pacific Philosophical Quarterly*, 64: 354-361.

Levine, J., 1993. 'On leaving out what it's like', in M. Davies and G. Humphreys (eds.), *Consciousness: Psychological and Philosophical Essays*, Oxford: Blackwell.

Loar, B., 2002. 'Transparent Experience and the Availability of Qualia', <http://humanities.ucsc.edu/NEH/loar2.htm> (02 Aug 2007).

Marcus, E., 2004. 'Why Zombies are Inconceivable', *Australasian Journal of Philosophy*, 82: 477-90.

McGinn, C., 1991. *The Problem of Consciousness*, Oxford: Blackwell.

Piccinini, G., (ms). 'Access Denied to Zombies'. http://www.umsl.edu/~piccininig/Access_Denied_to_Zombies.htm (05 Jun 2008).

Piccinini, G., 2003. 'Epistemic Divergence and the Publicity of Scientific Methods', *Studies in the History and Philosophy of Science*, 34: 597-612.

Siegel, S., 2006. 'Subject and Object in the Contents of Visual Experience', *Philosophical Review* (115:3), 355-388.

Stoljar, D., 2001. 'The Conceivability Argument and Two Conceptions of the Physical', in James E. Tomberlin (ed.), *Philosophical Perspectives 15*, Blackwell: Boston MA and Oxford, 393-413.

Tye, M., 1995. *Ten Problems of Consciousness*, Cambridge, Mass.: The MIT Press.

Tye, M., 2002. 'Representationalism and the Transparency of Experience', *Noûs*, 36: 137-151.

van Gulick, R., 1999. 'Conceiving beyond our means: The limits of thought experiments', in S. Hameroff, A. Kaszniak, & D. Chalmers (eds.), *Toward a Science of Consciousness III*, Cambridge, Mass.: The MIT Press.