

# IN THE HANDS OF ZOMBIES

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A ZOMBIE IS quite simply a physical and functional duplicate of you or me, who differs from us only in that she does not possess consciousness or phenomenological experience.<sup>1</sup> In other words, we know what it is to *feel* pain, happiness, and anger; a zombie does not: she completely lacks such experience.

Many philosophers have recently befriended zombies. That is to say, these philosophers believe in the metaphysical possibility of the existence of a zombie, *zombie-possibility* for short. *Prima facie*, zombie-possibility seems to refute materialism as a solution to the Mind-Body Problem.

Materialism is the view that mental states are identical to physical states, i.e. any phenomenological experience is nothing but some physical state.<sup>2</sup> This view entails a so-called *logical supervenience*: mental states supervene on physical states. Assuming zombie-possibility, an argument against materialism might roughly go like this: by definition, a zombie is in exactly the same physical state as we are, but lacks our mental states. Hence, our mental states must be something “above and beyond” our physical states. Thus mental states do not supervene on physical states, *contra* materialism.

In this paper I will argue that a materialist can deny zombie-possibility, and hence resist anti-materialist arguments based on this premise. In §2 I show where and how this allows a materialist to object to Saul Kripke’s famous modal arguments. §3 considers David Chalmers’s version of anti-materialism; again I explain where this argument fails. In §4 I discuss the issue of whether a materialist is in fact faced with burden of proof, something that the literature often seems to assume. I then present an explanation in §5 that is intended to satisfy Kripkean questions of apparent contingency in materialism. Finally, §6 contains a concluding summary and final remarks.

Two points before I begin: first, I assume that the reader has a basic understanding of modal metaphysics. This includes notions of *a prioricity*, *necessity*, *modality de re*, and *modality de dicto*. Second, throughout §2-§5 I will most often just discuss the identity of pain and C-fiber stimulation as opposed to a general thesis of materialism. This is simply for ease of exposition; it is clear that there is no loss of generality in restricting ourselves to this single identity thesis. In this restricted form, a zombie is simply one who has C-fiber stimulation but no pain, and zombie-possibility is the metaphysical possibility of such a zombie.

## §1. Kripke's Argument

We begin with an analysis of Kripke's argument against materialism. The structure is:

- (P1) If ' \_ ' and ' \_ ' are rigid designators, and if ' \_ = \_ ' is true then ' \_ = \_ ' is necessarily true.
- (P2) 'Pain' is a rigid designator.
- (P3) 'C-fiber stimulation' is a rigid designator.
- (P4) 'Pain = C-fiber stimulation' is not necessarily true.
- (C) 'Pain = C-fiber stimulation' is not true.

This argument is valid, its conclusion follows logically from the premises. As I am utterly convinced by Kripke's theory of rigid designators and necessity, I will not debate (P1). Nor will I question (P2) or (P3), since a materialist admits that mental states and physical states are rigid designators. Therefore, in order to block the conclusion, (P4) must be denied.

Kripke justifies (P4) initially with the remark, "*prima facie*, it would seem that it is at least *logically possible* [italics mine] that ... Jones's brain could have been in exactly the same state at the time in question without Jones feeling any pain at all" (146). There is no doubt in my mind that this statement, as is, is correct. Surely it seems at least *logically possible* that there is a world W that is physically identical to ours where our physical twins feel no qualitative experience whatsoever; in particular, they feel no pain. Such a W is simply a zombie-world. The crux of the issue, however, is whether such a W is metaphysically possible. In other words, is that which is logically possible metaphysically possible?<sup>3</sup>

Kripke correctly identifies that these two concepts are not coextensive. He notes that they come apart when discussing *a posteriori* necessities such as the identity of heat and molecular motion. While it is logically possible that heat is not molecular motion, it is not metaphysically possible. In other words, given the way the world (our world) actually turned out to be, there is no possible world where heat is not molecular motion.<sup>4</sup> Kripke says that the reason why there is an "*illusion of contingency*" is because:

...in the case of the apparent possibility that molecular motion might have existed in the absence of heat, what seemed really possible is that molecular motion should have existed without being *felt as heat*, that is, it might have existed without producing... the sensation of heat (151).

However, he believes that such an analogy is impossible in the

case of pain and C-fiber stimulation.

Is it analogously possible that a stimulation of C-fibers should have existed without being felt as pain? If this is possible then the stimulation of C-fibers can itself exist without pain, since for it to exist without being *felt as pain* is for it to exist without there *being any pain* (151).

So the point for Kripke would seem to be that since we can conceive of a world where there is C-fiber stimulation but no feeling of pain (i.e. it is logically possible that C-fiber stimulation exists without the feeling of pain), it follows that it is metaphysically possible that C-fiber stimulation exist without pain, because the feeling of pain is an *essential* property of pain. As he says, “pain, unlike heat, is not only rigidly designated by ‘pain’ but the reference of the designator is determined by an essential property of the referent” (Kripke 152-3). He believes this contrasts with the case of heat, since the property of producing the sensation of heat is only an *accidental* property of heat.

I think Kripke has it wrong. Kripke’s thesis is that materialism is untenable because its ramifications contradict the metaphysical possibility of there existing C-fiber stimulation without the feeling of pain, and *a fortiori*, the existence of C-fiber stimulation without pain. However, I contend that conceivability of C-fiber stimulation without pain (or the feeling of pain) does not *per se* imply metaphysical possibility of C-fiber stimulation without pain (or the feeling of pain). As cited above, Kripke’s only remarks on this issue are that the materialist cannot deny the metaphysical possibility of the existence of C-fiber stimulation without pain since to have the *feeling* of pain is to *be in pain*. I grant this, but Kripke presupposes, without justification, that it is a metaphysical possibility for there be C-fiber stimulation without the feeling of pain. This is what I think the materialist can deny while remaining coherent and consistent with her beliefs. She can grant that it is logically possible that C-fiber stimulation exists without the feeling of pain, and yet deny that this is a metaphysical possibility (given her view that in the actual world pain is C-fiber stimulation).

At this point, I want to distinguish my position from two others that may be confused with it. First off, I am not saying that Kripke’s argument fails on the semantics of what we call ‘pain’ in another world, i.e. I am not saying that once we identify pain with C-fiber stimulation in our world, then it is a simple matter of *calling* C-fiber stimulation in any other possible world ‘pain.’<sup>5</sup> The rigidity of the designator ‘pain’ demands that we use it in any possible world to refer

to whatever it refers to in the actual world.<sup>6</sup> Secondly, I am not alleging that Kripke makes the following simple *de dicto* vs. *de re* error: it is necessary that if something is a pain, then that thing has the property of being a pain; but if something is a pain, then the property of being a pain is not a necessary property of that thing.<sup>7</sup> On the contrary, I agree with Kripke on ascribing *de re* modality here, i.e. pain has the property of necessarily being a pain. If C-fiber stimulation is pain, then in any metaphysically possible world, C-fiber stimulation has the property of being a pain.

So to reiterate: my position is that materialism is defensible against modal arguments by denying the metaphysical possibility of C-fiber stimulation existing without the feeling of pain (though conceding the logical possibility of this). Contra Kripke, the materialist can hold that this is not intuitively obvious. Before I explore why this denial is sound, I want to first discuss how this would tie into David Chalmers' 2-D framework.

## §2. Chalmers' Argument

In his book, *The Conscious Mind*, Chalmers presents a canonical analysis that he calls 2-Dimensionalism. To summarize, he identifies that terms or concepts have distinct *primary and secondary intensions*, where an intension is something like the meaning or reference of a concept in a certain mode of presentation. The *primary intension* of a concept is what the concept picks out in a possible world when that world is treated as the actual world. The *secondary intension* of a concept is what the concept picks out in a possible world when the world is treated as counterfactual to our [actual] world. So, for example, the primary intension of water may be roughly put as 'the local watery stuff' or 'the local predominantly clear, tasteless, drinkable stuff.' In other words, the primary intension of a concept is known *a priori*. On the other hand, the secondary intension of a concept is only known *a posteriori*, and we get it by applying the primary intension of the concept to our world. Hence the secondary intension of water picks out H<sub>2</sub>O. We can then apply this reference across all possible worlds, i.e. since the secondary intension of water is H<sub>2</sub>O (because that is what water turned out to be in our world), the term 'water' still picks out H<sub>2</sub>O even in a world where the 'local watery stuff' is XYZ.

It follows that necessity or contingency of an identity statement can depend upon which intension it is evaluated by. According to terminology in Yablo (1998), given a sentence S and a world W, we say that W *verifies* S if it makes S true when evaluated by the primary intension, and W *satisfies* S if it makes S true when evaluated by the secondary intension. For example, 'water = H<sub>2</sub>O' is verified by our

world, but not by some world where the local watery stuff is made of XYZ. On the other hand, any possible world satisfies the identity. Hence, the identity is only contingently true according to its primary intension, but necessarily true according to its secondary intension.

How does all this so-called '2-Dimensionalism' relate to Kripke's analysis? In short, the two kinds of intension relate to the two kinds of possibility: logical possibility is the possible truth of a statement when evaluated by its primary intension; metaphysical possibility is the possible truth of a statement according to its secondary intension. It is now clear why we say that 'water  $\neq$  H<sub>2</sub>O' is logically possible (because the identity of water and H<sub>2</sub>O is only contingently true according to primary intension), but not metaphysically possible (because the identity is necessarily true according to secondary intension). So for Chalmers, *a posteriori* necessities are statements or identities that are necessary according to secondary intension and contingent according to primary intension.<sup>8</sup>

Having laid this framework, I now present Chalmers' argument against materialism.<sup>9</sup>

(P1) The physical truths don't *a priori* entail the phenomenal truths.

(P2) When S is *a posteriori*, S has a contingent primary intension.

(P3) If materialism is true, the physical facts necessitate all true propositions.

(4) P  $\dashv$  Q is *a posteriori*. [P = physical truths, Q = a phenomenal truth] (from P1)

(5) P  $\dashv$  Q has a contingent primary intension. (from P2, 4)

(6) Exists W: P' is true in W, Q' is false in W. [X' = Primary intension of X] (from 5)

(7) Exists W: P is true in W, Q' is false in W. (from 6)

(C) Materialism is false. (from P3, 7)

In this argument, it is clear that premises P1-P3 are justified, as are steps 4 and 5. Where the argument breaks down is step 6. Translated to the C-fiber stimulation and pain case we have been considering, Chalmers' claim in step 6 is that there exists a world W where the primary intension of C-fiber stimulation is true but the primary intension of pain is false. He believes this follows from step 5, which asserts that 'C-fiber stimulation = pain' has contingent primary intension. I contend that this is a mistake. What step 5 does logically necessitate is that we can conceive of a world where the primary intension of C-fiber stimulation is true but the primary intension of pain is false. In other words, there is a world that verifies "pain  $\neq$  C-fiber

stimulation.” But the key here is that what is meant by “there is a world” above is *only* that we can *conceive* of such a world – nothing about metaphysical possibility of this world is implied.<sup>10</sup> Indeed, this is precisely the point of primary intension analysis.<sup>11</sup> However, when Chalmers says “Exists W” in step 6 (and step 7) he means metaphysically possible. It is this jump from the logical possibility entailed in step 5 to the metaphysical possibility claimed in step 6 that is erroneous.

Put another way, step 5 entails *de dicto* possibility:

[6'] It is conceptually possible that there is a world W where the primary intension of C-fiber stimulation is true but the primary intension of pain is false.

However, step 6 claims *de re* possibility:

[6''] There is a conceptually possible world W where the primary intension of C-fiber stimulation is true but the primary intension of pain is false.

Looked at it in this form, Chalmers makes precisely the *de dicto-de re* error that we are trying to avoid.<sup>12</sup>

Since step 6, and hence step 7, do not follow in Chalmers' argument, the only other route that Chalmers can take to still reach his conclusion is to claim that the primary and secondary intension of pain coincide.<sup>13</sup> To see why, first observe that the primary and secondary intension of C-fiber stimulation (or any physical state) is the same. Regardless of whether a world W is considered actual or counterfactual, 'C-fiber stimulation' has the same reference in that world.<sup>14</sup> If we also assume that this is true for 'pain', then the following argument can be made: that pain and C-fiber stimulation have different primary intensions entails that there is a conceivable world W in which the primary intension of C-fiber stimulation is true but the primary intension of pain is not. But since the primary intension of both C-fiber stimulation and pain are the same as their secondary intensions, it follows that in W the secondary intension of C-fiber stimulation is true but the secondary intension of pain is not. Hence W satisfies 'Pain  $\neq$  C-fiber stimulation', which amounts to saying that W is metaphysically possible. W is then a counterexample to premise 3 in Chalmers' argument, and his conclusion can still be arrived at.

If I have been making my point clear, however, the reader would have guessed my position on this: the materialist can simply deny that pain has the same primary and secondary intension. In fact, this position is a necessary consequence of materialism, since the materialist holds that physical-mental identities are *a posteriori* necessities, which in 2-D analysis translates to saying that the identities

have necessary secondary intension but contingent primary intension. Of course, since we agree that physical states, such as C-fiber stimulation, have the same primary and secondary intension, it then must be that mental states, such as pain, have different primary and secondary intension. Looked at from another angle, what justification can the anti-materialist give for believing that pain has the same primary and secondary intension? After all, the secondary intension of a concept is what the concept turns out to refer to in the actual world when evaluated by its primary intension. In saying that the primary and secondary intensions of pain are the same, one is implicitly denying materialism, and need say no more! But if the only justification one has for this belief is intuition, then it boils down to differing intuitions between the anti-materialist and the materialist. Without independent arguments—and none have been presented nor does it seem to me that there are any—this line of dialectic is not telling against the materialist.

### §3. Burden of Proof

Let me recapitulate where we are. I have claimed that the materialist can resist both Kripke and Chalmers by denying the metaphysical possibility of a world in which there is C-fiber stimulation and no pain, or feeling of pain. The formal argument of Chalmers breaks down on the *de re-de dicto* error he makes. The alternative approach he can take is to claim that the primary and secondary intensions of pain are the same, but this is simply the intuition that the materialist does not share. Similarly, while Kripke defends his claim that there is a possible world *W* with C-fiber stimulation and no pain against those who will admit that it is metaphysically possible for a world *W\** to have C-fiber stimulation but no *feeling* of pain,<sup>15</sup> his only defense against my position that a materialist even denies the possibility of *W\** is to fall back on straight intuition. I intend to now show that the materialist can simply counter intuition with intuition.

I follow the model of modal error suggested by Yablo (1993). Suppose I find *p* conceivable, when in fact it is metaphysically impossible. Then there is a proposition *q* such that

- (a) *q*;
- (b) if *q*, then necessarily  $\sim p$ ; and
- (c) that I find *p* possible is explained by my denial or unawareness of (a) and/or my denial or unawareness of (b).

Furthermore, Yablo says:

Whatever you find conceivable, you are *prima facie* entitled to regard as metaphysically possible. The question is whether

this *prima facie* entitlement can be defeated along the lines just indicated. Of course, if someone can *prove* that the model applies, then since (a) and (b) entail that *p* is impossible, your conclusion is refuted. But to raise legitimate *doubts* about the conclusion, reason to think the model *may* apply ought to be enough. Thus we call proposition *q* a *defeater* ... The objector's challenge, in any particular case, is to find a defeater *q* of the conceiver's modal intuition (1993, 34).

So in our case, *p* is the proposition that C-fiber stimulation exists without the feeling of pain. Both the materialist and anti-materialist alike find *p* conceivable, though the materialist believes that *p* is not metaphysically possible. According to Yablo, at least one way in which the materialist can support her view is to propose a proposition *q* that fits the model above. I suggest the following natural formulation:

[*q*] C-fiber stimulation = pain (and hence if there is C-fiber stimulation there is the feeling of pain).

Clearly this *q* fits the model. The materialist would then say that in accordance with (c), the anti-materialist only finds *p* possible [wrongly] because she denies or is unaware of *q* (since the anti-materialist accepts that if *q* then necessarily  $\sim p$ ). But given that the anti-materialist denies *q*, how is the materialist to proceed? For, as Yablo says,

[When an] explanation is provided, it carries little dialectic force if it depends on the prior concession that my intuition has a significant chance of being false. ... Only if there is *independent* reason to suspect that my refusal of some relevant proposition does put me out of touch with the facts, does that refusal call my intuition into question. (1993, 36)

After all, the materialist cannot defend *q* above with any *independent* reason. So it might seem that the materialist cannot shake the anti-materialist intuition that *p* is possible, i.e. that there is a metaphysically possible world where C-fiber stimulation exists but there is no feeling of pain. However, this result is hardly a triumph for the anti-materialist. In fact, the materialist can view this as support for her as well. To see why, all we need to do is redefine our perspective and replace propositions *p* and *q* with *p\** and *q\**.

Let *p\** be the proposition that the pain is C-fiber stimulation (and hence if there is C-fiber stimulation there is the feeling of pain). Both materialist and anti-materialist alike accept that *p\** is conceivable (logically possible), but the anti-materialist denies that this is metaphysically possible.<sup>16,17</sup> Then in order to explain why *p\** is not possible, the anti-materialist must come up with a *q\** that fits Yablo's model. Such a *q\** would have to be something like:

[*q\**] It is possible that the feeling of pain exists without C-fiber

stimulation.

The anti-materialist says that in accordance with (c), the materialist only finds  $p^*$  possible [wrongly] because she denies or is unaware of  $q^*$  (since the materialist accepts that is  $q^*$  then necessarily  $\sim p^*$ ). But given that the materialist denies  $q^*$ , what *independent* reason could the anti-materialist give in support of this defeater? It seems that the anti-materialist has her hands tied, in exactly the same way the materialist found herself with regard to  $q$ . In fact, this is straightforwardly seen when we notice that my formulation of  $q^*$  is precisely  $p$ , and  $p^*$  is  $q$ !

So we find that the anti-materialist cannot defend the proposition that there is a metaphysically possible world where C-fiber stimulation exists without the feeling of pain anymore than the materialist can defend the proposition that pain is C-fiber stimulation. One way of formulating this conclusion is with a biconditional: there is a possible world where C-fiber stimulation exists without pain *if and only if* pain is not C-fiber stimulation.<sup>18</sup> But this is a trivial conclusion.

The point in this section has not been to show directly that the materialist is right; it has only been to remove the *de facto* burden of proof from the materialist. In other words, the anti-materialist cannot just say that *prima facie* conceivability is a guide to possibility and charge the materialist with finding a refutation. If this is the standard the anti-materialist chooses, the materialist can turn the tables and force the anti-materialist into the role of the objector.

#### §4. A Positive Argument

In spite of all that has been said thus far, an anti-materialist may still resist my position by demanding an answer to the Kripkean question: if ‘pain = C-fiber stimulation’ is an *a posteriori* necessity, then how can we explain the *apparent* contingency? In other words, how can we explain that the logical possibility does not turn out to be a metaphysical possibility in this case? The reader will note that in asking such a question, an anti-materialist is still challenging the materialist to produce a perspicacious explanation against her intuition, despite my showing in §4 that the burden of proof is no longer on the materialist. Some may clearly deem this unreasonable. Nonetheless, I tentatively suggest that the materialist may in fact be able to provide the very sort of explanation the anti-materialist wants.

Recall that Kripke’s strategy for explaining away the illusion of contingency in *a posteriori* necessities such as ‘heat = molecular motion’ and ‘water = H<sub>2</sub>O’ is to say that what is true is that there could have been the *sensation of heat* without molecular motion, or the *watery stuff* without H<sub>2</sub>O. In other words, the contingency exists when the identities are evaluated according to their primary intension. Yablo

(1998) says that we can explain the illusion of contingency in a statement of identity E if we find a statement E\* that is really possible and whose possibility is misread as that of E. E\* may be thought of as a *presentation* of E in thought and it is often easily derived by replacing the rigid designators in E with their *reference-fixing description*. Kripke's point against materialism is that because the feeling of pain is an essential property of pain, such a strategy does not work with pain and C-fiber stimulation.

So this is the problem the materialist is faced with:

- (1) let E be 'pain = C-fiber stimulation'
- (2) if E is conceivable but not possible, there is an illusion of contingency
- (3) Can we find an E\* that is in fact possible, thus explaining away the illusion of contingency?

In trying to find such an E\*, the most striking feature of the case we are considering ('pain = C-fiber stimulation') is that it differs from all the other standard examples in that pain is *a priori* a first person experience.<sup>19</sup> Moreover, even the *feeling* of pain is also *a priori* a first person experience. Observe how this differs from the case of heat: even though the *sensation* of heat is *a priori* a first person experience, heat itself is *a priori* a third person phenomenon.<sup>20,21</sup> This is true for all the typical examples in the literature: water (=H<sub>2</sub>O), Phosphorus (=Hesperus), Oedipus (could not exist if Jocasta had not existed<sup>22</sup>), sound (=wave disturbance), light (=electromagnetic radiation), etc.

What are we to make of this? At the very least, we should be open to some differences in the analysis of the [proposed] theoretical identification of pain and C-fiber stimulation when compared to other theoretical identifications that are *a posteriori* necessary. Kripke is correct in saying that with most rigid designators, we fix their references through *accidental* properties, such as 'the predominantly clear, tasteless, drinkable local stuff' for water, 'the thing that causes the sensation of heat in us' for heat, and 'the King who gorged his eyes out' for Oedipus. He also claims that for pain, we fix the reference as 'the thing that causes the feeling of pain in us,' and correctly points out that this is an *essential* property of pain.

It seems to me that what may be confused here is the analogy between heat and 'the thing that causes the sensation of heat in us' with pain and 'the thing that causes the feeling of pain in us.' Though the analogy seems structurally sound, I think it breaks down when we consider that *a priori*, heat is a third person phenomenon while pain is first person. So the correct analogy may be with a mode of

presentation of pain that is in fact a third person experience, or external: the appearance of pain, or *pain-appearance* for short. By ‘appearance’ here I do not just mean behavior; it *rigidly* may be whatever we take to be typical pain-effects. But if this is what we are thinking about, pain-appearance, then the so-called “illusion of contingency” is unraveled: there is no illusion—the contingency is real! For, surely materialist and anti-materialist alike will admit that it is metaphysically possible for there to be C-fiber stimulation and yet no pain-appearance in some world, precisely because pain-appearance is a contingent property of pain. It is easy to get my point muddled. I am not suggesting that ‘pain-appearance’ is a reference-fixing description for pain; only that ‘pain-appearance’ is a *determining description* for pain *in a third person mode of presentation*. That is to say, if we are to determine whether there is pain in someone or something else, we do so via pain-appearance.<sup>23,24</sup>

So it seems we have the requisite E\*: there is C-fiber stimulation and no pain-appearance. As Yablo intended, this is a *presentation* of E (there is C-fiber stimulation and no pain) that is metaphysically possible. Granted, the relationship between this E\* and E is not the same as that of ‘molecular motion without sensation of heat’ and ‘molecular motion without heat,’ nor that of ‘watery stuff without H<sub>2</sub>O’ and ‘water without H<sub>2</sub>O’; but I have already observed that the first person experience of pain as opposed to the third person experiences of heat and water must make us open to some difference in their respective analyses.

The anti-materialist may still try to resist along three lines. First, she might contend, “*What are you talking about? ‘Pain-appearance’ is not a reference fixing description of pain!*” It would seem my point has not sunk in yet. I am not claiming that ‘pain-appearance’ fixes the reference of pain, only that we use it to determine existence of pain in a third person, thereby making it a mode of presentation of pain for us. Once again, this mode of presentation is not the same as ‘sensation of heat’ is to heat, but I do not require that it is.

Alternatively, the anti-materialist may try to turn the tables against this approach and say, “*By this standard, as sensation of heat is also a first-person experience, sensation of heat should be identical with molecular motion, since we can come up with the requisite E\* of the form ‘molecular motion but no sensation-of-heat-appearance.’*” I hope it is clear that this is either a desperate attempt or an utter misunderstanding of what I have been saying. The E\* I proposed for E: ‘pain = C-fiber stimulation’ does not *prove* that E is conceivable but not possible; it only provides an explanation of the apparent contingency. It is the materialist intuition of E that prompted the search

for E\*, not the other way around!

Finally, the third line of defense for the anti-materialist may be, “When I say I find it possible that there is C-fiber stimulation without pain, I mean precisely that – without pain (or the feeling of pain), not simply without pain-appearance.” My response to this is analogous to the response we give when faced with someone who says, “When I say I find it possible that there is molecular motion but no heat, I mean precisely that—heat, not simply the sensation of heat.” We assert that this person is wrong, and that what she really means is “molecular motion but no sensation of heat.” Likewise, I would maintain to the anti-materialist that upon closer examination (including all the arguments given in §2-§4), her imagination really picks out a world in which there is C-fiber stimulation and no pain-appearance.

## §5. Conclusion

I have contended that by conceding the logical possibility of zombies, yet denying their metaphysical possibility, the materialist can soundly object to modal arguments against materialism, in particular those of both Kripke and Chalmers. Furthermore, I have shown that there is no independent reason to take the anti-materialist intuition of zombie-possibility more strongly than the materialist intuition of materialism, whence I reject the purported burden of proof on the materialist. Notwithstanding, I still suggested a formulation that may explain the illusion of contingency in zombie-possibility.

I would like to conclude with some brief remarks. I believe that modal arguments of the kind contained in the literature are not conclusive against materialism. Yet, this obviously does not mean that materialism is correct. Indeed, I myself am ultimately an anti-materialist. My instinct is that the sort of arguments that will prove decisive against materialism are those that stem from the *sui generis* nature of phenomena like qualia, though it is hard to formulate a definitive anti-materialist argument that can avoid the very pitfalls I have argued against in this paper. Notwithstanding, the anti-materialist is always in a position of advantage because she “can offer an easily comprehensible and appealing idea (and we all like simple but powerful ideas) and the only thing the materialist can do is—as it seems—to hover on the details” (Marton). But this clearly should not count against the materialist. So long as the anti-materialist is unable to produce a conclusive argument that contains independent reasons against the materialist, the verdict is not in.

## NOTES

<sup>1</sup> Throughout this paper, I assume that we, in the actual world, possess

- phenomenological experience. I do not consider eliminative materialist positions.
- <sup>2</sup> Throughout, my use of the term *materialism* is limited to what is sometimes called *type-type materialism*, as opposed to *token-token materialism*.
- <sup>3</sup> Hereon, for ease of exposition, when I use the word ‘possible’ without qualification, I mean ‘metaphysically possible’, and I will use ‘conceivable’ to mean ‘logically possible’. This agrees with the standard usage in literature, cf. Yablo (1998).
- <sup>4</sup> For this reason, Kripke often calls *logical possibility epistemic possibility*.
- <sup>5</sup> cf. Raymore’s article in *The Dualist*.
- <sup>6</sup> Of course, if it turns out that ‘pain’ refers to C-fiber stimulation in the actual world, then we would be referring to C-fiber stimulation in every possible world when we say ‘pain’, but this is clearly not the same as simply deciding to *call* C-fiber stimulation ‘pain’.
- <sup>7</sup> This seems to be Fred Feldman’s position. See for example Feldman (1973).
- <sup>8</sup> *A priori* necessities are necessary according to both primary and secondary intension.
- <sup>9</sup> This is taken almost verbatim from Chalmers [1].
- <sup>10</sup> If it helps to make the point more vivid, the reader may think of conceivability as *possibility at first sight* and metaphysical possibility as *actual possibility*.
- <sup>11</sup> The case where primary and secondary intension are the same will be dealt with shortly.
- <sup>12</sup> See Yablo (1998) for more discussion on how one may attempt to justify the move from [6'] to [6''] via the so-called “conceivability possibility premise” and why this turns out to be unfounded.
- <sup>13</sup> As Chalmers (1996) says: “with consciousness, the primary and secondary intensions coincide....if something feels like a conscious experience, even in some counterfactual world, it is a conscious experience”. (133)
- <sup>14</sup> This analogously holds for ‘H<sub>2</sub>O’ in the water-H<sub>2</sub>O example.
- <sup>15</sup> Recall that this is done by saying that the feeling of pain is an essential property of pain—a proposition I agree with.
- <sup>16</sup> I do not find it plausible that an anti-materialist could hold that *p\** is not even logically possible: surely, even if materialism is false, it is at least conceivable!
- <sup>17</sup> An anti-materialist must hold that there is no metaphysically possible world where the pain is C-fiber stimulation, for if there is even one possible world where the identity holds, then since both terms are rigid designators, the identity holds necessarily (in particular, in the actual world).
- <sup>18</sup> cf. Marton (1998).
- <sup>19</sup> Note that classifying pain as a first person experience does not in any way contradict materialism. The materialist simply holds that this first person experience is the stimulation of one’s own C-fibers. *Seeing* one’s own C-fibers stimulated is not the same as *having* those C-fibers stimulated.
- <sup>20</sup> My usage of ‘first person’ and ‘third person’ is not intended to be technical or particularly precise here. I am just interested in the intuitive ideas they

convey: ‘first person’ meaning that only *I*—and no one else—can tell if I am in pain. I suppose one may substitute ‘internal’ and ‘external’ respectively if these are preferred.

- <sup>21</sup> If one needs justification for saying that heat is *a priori* a third person phenomenon, consider the following: is it conceivable (logically possible) that there is world where if there were no living things then we would say that the world had no heat? I think not. As Kripke himself says, “[w]hen I refer to heat, I refer not to an internal sensation that someone may have, but to an external phenomenon ...” (129).
- <sup>22</sup> I assume with Kripke that ancestry is essential.
- <sup>23</sup> Of course, assuming that the person or thing is not capable of or allowed to inform us of its pain or lack thereof.
- <sup>24</sup> Analogous to ‘heat is that which produces the sensation of heat’, we may loosely say, ‘third person pain is that which typically produces pain-appearance in a typical third person’. Of course, I am not suggesting that we can ever know when there is or isn’t pain in a third party (if the party is unable or not allowed to report for itself), only that typical pain-behavior is an [accidental] property of pain that we use to determine pain or lack thereof in a third party. Furthermore, this is not to be confused with a functional description of pain since functionalists do not allow for the contingent relationship I insist on here.

## REFERENCES

- Block, N. “Are Absent Qualia Impossible?” *The Philosophical Review* 89 (1980): 257-274.
- Carney, J. “Kripke and Materialism.” *Philosophical Studies* 27 (1975): 279-282.
- Chalmers, D. J. *The Conscious Mind*. Oxford: Oxford University Press, 1996.
- . “Mind and Modality.” *Notes from lecture given at Princeton University between October 12-16, 1998*. 30 April 1999 <<http://ling.ucsc.edu/~chalmers/papers/princeton.html>>.
- . “Materialism and the Metaphysics of Modality.” *Responses to critiques of The Conscious Mind*. 30 April 1999 <<http://ling.ucsc.edu/~chalmers/papers/modality.html>>.
- Elga, A. “A Conceivability Argument.” 30 April 1999 <<http://web.mit.edu/adam/www/papers/pub/aca/yabchalm.html>>.
- Feldman, F. “Kripke’s Argument Against Materialism.” *Philosophical Studies* 24 (1973): 416-419.
- . “Kripke on the Identity Theory.” *Journal of Philosophy* 71 (1974): 665-676.
- Hill, C. S. “Chalmers on the A Priority of Modal Knowledge.” *Analysis* 58 (1998): 20-26.
- Kirk, R. “Sentience and Behavior.” *Mind* 83 (1974): 43-60.
- . “Reply to Don Locke on Zombies and Materialism.” *Mind* 86 (1977): 262-264.
- Kripke, S. *Naming and Necessity*. Cambridge, MA: Harvard University

Press, 1972.

- Levine, J. "Conceivability and the Metaphysics of Mind." *Noûs* 32 (1998): 449-480.
- Locke, D. "Zombies, Schizophrenics, and Purely Physical Objects." *Mind* 85 (1976): 97-99.
- Marton, P. "Zombies versus Materialists: The Battle for Conceivability." *Southwest Philosophy Review* 14 (1998): 131-138.
- Raymore, P. "A Materialist Response to David Chalmers' *A Conscious Mind*." *The Dualist* 4 (1998).
- Yablo, S. "Is Conceivability a Guide to Possibility?" *Philosophy and Phenomenological Research* 53 (1993): 1-42.
- . "Concepts and Consciousness." *Philosophy and Phenomenological Research* 58 (1998).

