

The Two-Dimensional Argument Against Dualism

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At this point in time the two-dimensional (2D) argument against physicalism is well known (Chalmers 2009; 2010), as are the many responses to it. However there has been a recent development that has yet to be widely discussed. Some philosophers have argued that we have equally compelling reasons to think that dualism is false based on the conceivability of mere physical duplicates which enjoy conscious experience in just the way we do (Martin 1998; Sturgeon 2000; Piccinini 2006; Frankish 2007; Brown 2010; Balog MS). This argument has not yet been properly understood and in this paper I aim to correct the most common misunderstandings.

Before starting let us first note that we will be accepting the 2D framework as argued for in Chalmers (2009). My aims do not so much depend on whether you (or I) actually accept this framework since I merely want to show how the parody argument works and it is best put in the same terms as the argument against physicalism.

Since we are accepting the 2D framework we are accepting the formulation of physicalism according to which it must be necessarily true if true at all. This amounts to the conditional $P \rightarrow Q$ being a priori and necessary (where P is a "conjunction of all microphysical truths about the universe, specifying the fundamental features of every fundamental microphysical entity in the language of microphysics," (Chalmers 2009) and Q is a qualitative truth like that I (or someone) feels pain or sees red. It is because physicalism is committed to this that the conceivability of zombies poses a problem. If $P \& \sim Q$ is truly (conceivable and so) possible then $\sim \Box(P \rightarrow Q)$ is true, but that is just the claim that physicalism is false.

What is often unnoticed, and what the 2D argument against dualism trades on, is that the dualist is committed to a modal claim as well. Following Chalmers let us use 'T' as a 'that's all' claim so that 'PT' is the conjunction of P from above with a nothing else clause. This will rule out ghosts and other non-physical entities (like non-physical qualia) at any world where PT is true. Given this the dualist is committed to NP.

NP: $\Box(Q \rightarrow \sim PT)$

NP says that if there is consciousness at a world then it is not the case that all there is at that world is our physics. There must be something more according to the dualist. Given this the 2D argument against NP proceeds by invoking the conceivability of $Q \& PT$, which is supposed to show that NP is false (not that physicalism is true).

To do this we begin by conceiving of a mere microphysical duplicate of me (or you) that we stipulate has conscious experience in just the way that I (or you) do. I have

called these creatures 'shombies' (Brown 2010).¹ Shombies are in every physical way indistinguishable from you and have conscious experience in just the very same way that you or I do. There is nothing obviously contradictory about consciousness being physical and many people seem to find it plausible that consciousness could be physical. We have evidence from as far back as Democritus and as recently as Ned Block that some people have found nothing obviously contradictory in the idea that the conscious mind is physical. Surely if someone is trying to give an account of how consciousness could be physical that person finds it conceivable that consciousness is physical! We would seem to have evidence that many philosophers should find shombies to be conceivable.

From there the argument has the same kind of structure as the original zombie argument in that we conceive of shombies and infer their possibility and from that we conclude that non-materialism is false.

- (1) (PT & Q) is conceivable
- (2) If (PT & Q) is conceivable then (PT&Q) is 1-possible
- (3) If (PT & Q) is 1-possible then (PT&Q) is 2-possible
- (4) If (PT & Q) is 2-possible then dualism is false

Premise one says that shombies are conceivable. By conceivable I mean ideal negative conceivability. I do think a case can be made for the positive conceivability of shombies but we don't need that for the present purposes. Something is 1-possible when there is a possible world where the primary intension of a statement is true and something is 2-possible when there is a possible world where the secondary intension of a statement is true.

It is important to note that the argument as formulated so far does not have a problem with Chalmers' objections based on the conceivability of physicalism (Chalmers 2010 p 180). One of these is to what he calls the metamodal strategy of those like Yablo who argue that $\Box(P \rightarrow Q)$ and $\sim \Box(P \rightarrow Q)$ are both conceivable. That would require that we somehow conceive of modal rationalism itself being false. The argument as presented so far does not require this. We already accepted that the 2D framework and we are not objecting to modal rationalism. Here I only aim to emphasize that PT&Q is conceivable and do not in any way rely on the conceivability of $\Box(P \rightarrow Q)$.

This resolves the other problem that Chalmers has with the shombie argument. He formulates the argument as using the questionable S5 axiom $\Box P \rightarrow \Box \Box P$ in the following way

¹ Frankish uses the term 'anti-zombie'. I prefer shombie since it is not clear that Frankish and I mean the same thing when we say that PT&Q is conceivable. He has argued (Frankish 2012) that we do not have a neutral conception of consciousness and so must be employing a functionalist notion when we conceive of PT&Q. I deny that and insist that we have a neutral pre-theoretic notion of consciousness and it is that neutral epistemic notion that shombies have.

- 1 $\Box(P \rightarrow Q)$ is conceivable
- 2 $\Box(P \rightarrow Q)$ is possible
- 3 Since in S5 $\langle \Box P \rightarrow \Box P \rangle$ it follows $\Box(P \rightarrow Q)$ is true
- 4 So Physicalism is true

Interpreted this way the argument requires that we conceive of a necessary truth being possible true. This argument resembles the ontological argument for the existence of God and is equally implausible for the same reason. It is certainly true that if $\Box(P \rightarrow Q)$ is true at some possible world then it is true at ours, but that is exactly what is at issue. But the 2D argument presented here does not have this form. One is required merely to conceive of $PT \& Q$ being true. Doing this requires merely that one conceive of a world where consciousness is physical. One is not thereby conceiving that this is true in all possible worlds.

Importantly we can do this even if we do not know how consciousness could be physical. To give that story would be to give an account of how it is positively conceivable that consciousness be physical. As I said I am hopeful for such a story but one does not need it here. All we need here is the claim that there is nothing contradictory in our finding out that consciousness really is just physical or that there were nothing more than our physics in our world. Just as we can conceive of an unknowable truth without knowing what the truth is so too we can conceive of consciousness being physical without knowing what makes it true.

One may object that there is a hidden modal operator in PT and so one is really required to conceive of a necessary truth being possibly true. There are different ways to think about "T" (see Chalmers 2012 p 151-152 for a helpful discussion of totality clauses). One way is as the claim that P entails all (positive) truths. If so then we could expand (1) to say that $PT_R \& Q$ is conceivable, where PT_R is defined as,

$$PT_R: P \& (r)(r \rightarrow \Box(P \rightarrow r))$$

Here 'r' ranges over (positive) propositions and is read as 'for all positive propositions r, if r is true then it is necessary that the completed microphysics in question entails that it is true'. Interpreted this way we are required to conceive of a necessary truth being true in the shombie argument.

Alternatively we could say that P includes all of the fundamental truths but then we would have to say what that means and we would likely run into the same problem. I think there is a better way to avoid this.

When we say that all there is in the shombie world is our physics what we mean is that everything that exists there is identical to some physical property (or conjunction of properties). The resulting physical property may be very large and complex, but there is some physical property that just is the thing in question. Combining this with P we can formalize this as PT_E as follows.

$$PT_E: P \ \& \ (y) [Ex(x=y) \rightarrow Ep(p=y)]$$

In English PT_E says, 'for all y , if y exists then there is some physical property p which is identical to y '.² Interpreted this way the first premise of the shombie argument says that at that one possible world there is our physics and that everything that exists in that world it is identical to some physical property or other (where these can be complex conjunctions of simpler properties), and since we know that consciousness exists (Q is true) we know that there is some physical property which it is identical to.

Finally one may at this point object that talk of identity already smuggles in necessity and so we still are asked to conceive of a necessary truth. However I do not think that this is correct. What Kripke showed was that if an identity statement is true then it is necessarily true. We can see that this is the case from the following argument (Kripke 1971).

1. $(x)(y)(x=y) \rightarrow (Fx \rightarrow Fy)$
2. $(x)\Box(x=x)$
3. $(x)(y) (x=y) \rightarrow (\Box(x=x) \rightarrow \Box(x=y))$
4. $(x)(y) (x=y) \rightarrow \Box(x=y)$

Here the first premise says that if any two things are identical then if one has the property so does the other. The second premise says that all objects are necessarily self-identical and the third premise is a substitution instance of the first where the property is being self-identical. From that we can conclude that it is necessary that they are identical if they really are.

The point of this is that the necessity of identities is a substantial philosophical thesis that could be contested. Those who want to deny the conclusion usually deny the second premise. They could, for instance, deny that we have any real understanding of what trans-world identity is, which we would need for the second premise to be true. But even so this is no bar from accepting that the first premise is true, and that gives us a perfectly good handle on what it means to say that $x=y$ is true at a world without invoking necessity.

So far we have been solely focused on showing that dualism is false. That is, the point of conceiving that $PT \ \& \ Q$ is true at just one possible world is solely to show that $\Box(Q \rightarrow \sim PT)$ is false. It is another thing to show that physicalism is true, or that $\Box(P \rightarrow Q)$ true.

But given what we have so far this is easy to do. Since we know that (1) (i.e. $PT \ \& \ Q$) is true in the shombie world we can derive that there is some physical property that

² Here I follow Kripke (1963) in introducing an existence predicate as ' $Ex(x=y)$ ' which we read as ' y exists'. The traditional objections to identity as a predicate do not apply to the formulation.

is identical to the qualitative property that my shombie twin is experiencing. That is, we know that at the shombie world ($p=q$) is true where 'p' is some physical property or other and 'q' is the qualitative property expressed by Q above. One could stop there and deny that identities are necessary, but if we accept 4. (i.e. that identities of this kind are necessary when true) above we can derive $\Box(p=q)$. But then we know that physicalism is true. That is, we know that any world that is micro-physically identical to the shombie world is one where Q is true. If it is microphysically identical to ours then it will have p and p just is identical to q so Q will be true. And since we know that our world is microphysically identical to the shombie world we know that consciousness is physical at our world.

By this chain of reasoning, or something like it, we can come to see that conceiving of a shombie entails that physicalism is true (assuming one accepts, as I do, the argument for the necessity of identities), but it does not depend on it. That is, we imagine that we come to find out that consciousness is physical at our world, without thinking about necessity and possibility, and then we imagine becoming convinced that this has to be necessarily true. The important point is that in the initial act of conceiving shombies we do not have to conceive of it being necessarily so. We are then led to see that it would be true in all worlds which are microphysically identical to the shombie world, and the actual world was stipulated to be microphysically identical so conscious must be physical at our world and by the same chain of reasoning we are led to see that this is necessary here as well. Now given all of this we can see why it is the case (3) is true, but in a way that doesn't require that we conceive of the truth of something that has a modal operator.

I have been concerned with clarifying the structure of the shombie argument rather than drawing lessons from it and officially I think that the argument could be developed in many ways from this point. I will close by briefly sketching the way that I am inclined to develop it. If one accepts the 2D framework then either shombies or zombies must be inconceivable, but which is it and how do we know? In so far as I am inclined to accept the 2D framework I find shombies conceivable and zombie inconceivable, others find the opposite; still others find them all to be equally conceivable. This suggests that, for us at least, we are revealing more about our own theoretical presuppositions than we are about the nature of consciousness.³

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