The two-dimensionalist argument against type B materialism

Jeff Speaks
PHIL 30304

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The Type B materialist grants that

> P $\wedge$ $\neg$Q is conceivable

but denies that

> P $\wedge$ $\neg$Q is possible

The most common form of type B materialist defends this view on the basis of Kripkean a posteriori identities. After all, the type B materialist says, the following claims are all conceivable but not possible:

> Water is not H2O.
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> Heat is not molecular motion.
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> Lightning is not electricity.

So what's the big deal about saying the same thing about

> If P then Q ?

The two-dimensional argument is Chalmers' reply to this move. He explains it using some technical vocabulary, but the basic point can be explained without this.

A first step is to distinguish between two ways of thinking about a possible world. To fix ideas, let's consider a world in which the clear liquid in the lakes and rivers is some substance other than H2O — say, XYZ. Let's call this XYZ-world.

First, let us hold fixed the fact that water is actually H2O. Then, from this vantage point, we can ask whether 'Water is not H2O' is true at XYZ world. Kripke says (and Chalmers agrees): No. The stuff in the lakes and rivers in XYZ world is not water, so the fact that that stuff is not H2O does not show that water is not H2O.

Here we are, in Chalmers' terms, considering the XYZ world *as counterfactual*.

Second, let's imagine that current chemistry has turned out to be mistaken. In actual fact, the stuff flowing through our lakes and rivers in XYZ. Here, XYZ-world is the actual world. In this scenario, is 'Water is not H2O' true? Chalmers says: Yes.

In this second case we are, in Chalmers' terms, considering the XYZ world *as actual*.

So, Chalmers concludes, 'Water is not H2O' is true at some worlds considered as actual, but not true at any worlds considered as counterfactual. Moreover, Chalmers says, this is true of all of the examples of the Kripkean a posteriori listed above.

Now: how could this be? Why would this sentence be true at a world when considered as actual but not as counterfactual?

Chalmers' answer: what 'water' picks out depends on what world is actual. If we consider the XYZ-world as actual, then 'water' picks out the stuff in the lakes and rivers. If we consider it as counterfactual, then it does not.

Chalmers further holds that this explains all of Kripke's examples of the necessary a posteriori.

But now consider the crucial claim

> If P then Q

If it is necessary a posteriori, it would have to be true at some world considered as actual but at no world considered as counterfactual. But it is hard to see how this could be so. For it to be so either 'P' or 'Q' would have to pick out different stuff depending on which world is actual.

So let's consider the conceivable world in which P is true but Q is false. (All of the physical facts are the same, but at least one phenomenal fact is absent.) Call this zombie-world.

Could 'Q' pick out a different property in zombie-world (considered as actual) than it actually picks out? Chalmers says no, for Kripke's reasons: any state which feels like a conscious state of a certain sort just is that state.

How about 'P'? It seems not. It seems as though, for example, when I imagine a world in which there are certain negatively charged particles playing the theoretical role of electrons, I am genuinely imagining a world in which there are electrons.

So it looks as though if it is really true that $P \wedge \neg Q$ is true at zombie-world considered as actual, then it must also be true at zombie-world considered as counterfactual.

But that would mean that $P \wedge \neg Q$ is possible — which the type B materialist denies.

So the type B materialist has to say that 'If P then Q' has the following features:

- It is a posteriori.
- It is necessary.
- It is not true at any world considered as actual.

This is what Chalmers calls a *strong necessity*. He claims — based on the Kripkean cases — that there are no strong necessities. So type B materialism should be rejected.