

Qualia in Possible Worlds

Yixin Sun (ys3kz)

Saul Kripke's "Identity and Necessity" paper introduces the idea of rigid versus nonrigid designators to the contingent identity problem. At the end of his paper, he relates the contingent identity statement to the mind-body problem, where he argues that in the psychophysical identity statement, both the qualitative experience (i.e. pain) and the brain states are rigid designators. In this paper, I will first analyze the Kripke's argument on the mind-body problem, and then what the potential objections to his argument might be. Finally, I will focus more on the objection using the counterpart theory from Lewis's view of possible worlds.

1. Rigid Designator vs. Nonrigid Designator in Identity Statements

Kripke raises the idea of rigid and nonrigid designators in his paper. The rigid designator allows us to refer to an object and make a statement to that object without adding anything descriptive to the object. In other words, a rigid designator just "picks out" an object without describing it. For example, if we use the term "Mary" as a rigid designator to refer to a person, then all we do is just picking out that person without adding any properties, such as "having the name Mary", to that person.

On the other hand, nonrigid designator adds descriptive features to the object. Still using the same example as above, if we use the term "Mary" as a nonrigid designator instead, then in addition to picking out the person, we are also saying that the person should also have the property of "having the name Mary".

How does the rigid or nonrigid designator relate to the necessity of an identity statement? Kripke claims that an identity statement is necessary if and only if we use the identity terms rigidly. He illustrates this point with an example of identity statement,

Heat is the motion of molecules.

Kripke states that the above statement is necessarily true, because we use both “heat” and “the motion of molecules” as rigid designators, referring to a certain natural phenomenon.

Thus, using the above conclusion from Kripke’s paper, we have the first premise of Kripke’s argument on the mind-body problem:

(1) Given that both the qualitative experience (i.e. pain) and the brain state are rigid designators, so if pain is identical with a certain brain state, then pain is necessarily identical with that brain state.

2. Kripke’s Argument on the Mind-Body Problem

Let’s first define qualitative experiences (or qualia) as opposed to physical experiences. Qualia generally refer to the “what it is like” experience for me to undergo some events or some physical brain states (which are physical experiences). For example, when someone hits me, I will undergo certain physical reactions, which may include being in some brain states, etc., and also I will feel *pain*, which is my subjective “what it is like” experience. Debates have been there for a long time about whether qualia can be reduced to physical experiences and how these two are connected.

With the idea of qualia on hand, we can now go back to statement (1) and give a closer look at it.

First, Kripke claims that both the qualia and the brain states are rigid designators, “The experience itself has to be this experience, and I cannot say that it is a contingent property of the pain I now have that it is a pain. [...], whenever anything is such and such a pain, it is essentially that very object, namely, such and such a pain, and wherever anything is such and such a brain state, it is essentially that very object, namely, such and such a brain state.”

Thus, when I say that I am in pain, I use the term “pain” rigidly referring to *the experience* that I am undergoing. It is impossible that it could be anything else. And it is the same case for the brain state, which is used rigidly referring to *the brain state*.

Thus, based on Kripke’s conclusion from his paper, that an identity statement is necessary if and only if we use the identity terms rigidly, we can have the claim that if pain is identical with a certain brain state, then pain is necessarily identical with that brain state, since we are using both terms rigidly.

Then, Kripke argues that it is possible to have pain without being in certain brain state. Imagine that in some possible worlds, there are creatures which have very different physical structures from us. When they feel the same thing as we feel as pain, they are undergoing different brain states from us when we are in pain. Thus, since it is possible that there can be pain without being in some certain brain state, we can have the premise that,

(2) Pain is not necessarily identical with a certain brain state.

Together with premise (1) we have discussed above, that if pain is identical with a certain brain state, then pain is necessarily identical with that brain state, we finally reached the conclusion that,

(3) Pain is not identical with a certain brain state.

3. Possible Objections to Kripke's Argument

i) Deny that pain is a rigid designator.

Kripke claims that the experience of "pain" is the essential part as being in pain, instead of being some contingent property of pain that pain may have some other different properties other than *this experience*. However, this may sound absurd.

From the definition of a rigid designator (referring to an object and make a statement to that object without adding anything descriptive to it), we can see that it requires that there should be no "descriptive features" in the designator when referring to things. Although Kripke argues that the pain experience is not some contingent property, he still cannot avoid it that the experience itself is some descriptive feature or property that is defined by its superficial features.

The reason why sometimes we can safely use terms as rigid designators to refer to things is that, the terms could be defined by its intrinsic scientific property other than superficial features. For example, still using the "Heat is the motion of molecules" example, the reason that we use "heat" as the rigid designator is because heat is defined as some natural phenomenon that refers to the same thing as "the motion of molecules" refers to, but not because heat is defined as how we feel about it.

Another example will be "Water is H₂O", where we use "water" as the rigid

designator referring to the chemical substance as “H₂O” because water is defined in such way, instead of being something as transparent and tasteless liquid, which is just the superficial features of water, but not the intrinsic scientific property it has. Thus, we can see that “pain” is really something different from “heat” or “water”, for which we can safely claim that it is a rigid designator. Pain (as one of the qualitative experiences) is by itself defined by its superficial features, namely, how I subjectively feel about it. Since it is totally depending on my subjective experience, so just like other superficial and descriptive features, the experience of pain could change overtime. If so, then is it still pain? If I feel “more” or “less” pain, can it still be counted as *the experience* that pain should be rigidly referring to? This is the danger of trying to use a descriptive and superficial feature to rigidly refer to something. It is not clear what exactly *the thing* is which it is pointing to without describing it. Therefore, if pain could not be used as a rigid designator, then premise (1) is invalid, and thus we cannot reach the final conclusion that pain is not identical with a certain brain state without premise (1).

ii) Deny premise (1) by claiming that even if it is possible that pain is not identical with a certain brain state, it could still be that pain is contingently identical with that brain state (in our world).

This objection requires Lewis’s or Gibbard’s view of possible worlds and its counterpart theory. According to Lewis, the *de re* identity statement is reduced to counterparts in possible worlds. The counterpart theory requires that each individual can only exist in one world, and there is the similarity relation that makes different individuals across possible worlds as counterparts of each other. Thus,

when claiming that some identity statement is necessary, it just means that this object's counterparts are identical to the other object's counterparts in all possible worlds. Or putting into other words, when we say "X is identical to Y", what we are actually saying is that the counterpart of X is identical to the counterpart of Y in this world. It is genuinely possible that their counterparts are not identical in some other possible worlds.

We can apply the above idea of counterparts to the mind-body problem. Truly, we can imagine that in some other possible worlds, there are creatures which have the experience of pain but without the certain brain state that we have, which mean, there are counterparts of pain that are not identical to the counterpart of the certain brain state. This possible scenario proves that the psychological identity statement is not necessarily true, but it does not prove that the psychological identity statement is necessarily false. The statement could be contingently true – that in some possible worlds (i.e. our world), there is counterpart of pain that is identical to counterpart of the certain brain state.

Thus, unless we can give the proof that none of the counterparts of pain is identical to the counterparts of the brain state in all possible worlds, then we can deny the statement that "pain is not identical to a certain brain state".

iii) Other possible objections

Another possible way to object the argument may be denying premise (2), that such alien creature scenario is conceivable. But this involves more ideas and arguments from the field of philosophy of mind, so this possible objection will not be discussed into details here.

4. More on the Objection from Lewis's View of Possible Worlds and Counterpart Theory

I find the objection using the counterpart theory from Lewis's view of possible worlds interesting. The counterpart theory involves the similarity relation, specifically for the thing as "pain", what kind of similarity relation can make something as the counterpart as pain?

Levine points out something interesting in his paper "The Explanatory Gap", "[...] What measure of functional similarity/dissimilarity do we use in judging whether or not some alien creature shares our qualitative states? Now, the more inclusive we make this measure, the more pressure we feel about questions of inverted qualia, and therefore the more reason we have to adopt a physicalist-reductionist position concerning particular kinds of qualia. "

If we restrict "being in pain" really narrow (i.e., it must be exactly such and such feeling that I am experiencing right now, no more and no less), or in other words use a high degree of similarity relation, then all the counterparts may just all have the same brain states, since there are not really many variations regarding being in pain among the counterparts. More specifically, the high degree of similarity relation we use may have just restricted the experience of pain in our world the only pain – it has no counterpart in other possible worlds since the "potential" pain experience in other worlds are not "similar" enough to be the counterparts of our pain. Thus, if *this pain* is the only pain in all possible worlds, then the brain state it corresponds to in *this world* is definitely the only possible brain state that a pain can be identical to.

This is a really strong claim. It not only blocks Kripke's argument as discussed in section 3, but also claims that by using this high-degree similarity relation, we can have that pain is necessarily identical to a certain brain state.

However, on the other extreme side, if we use a really low degree similarity relation and count all feelings that result from "being touched, no matter harder or not" as being in pain, then it will be far more likely that all the counterparts of pain will end up in different brain states.

Thus, as pointed out by Levine, the higher degree of similarity relation that we use, the more we are in favor of the physicalist-reductionist position concerning qualia, which in this case is that pain is identical to a certain brain state in all possible worlds.

So why not pick the similarity relation that makes all counterparts of the same qualia fall into the same brain state to support the physicalist-reductionists? Well, from my point of view, although this may make the psychophysical identity statement necessary, it uses a really useless way to prove it by just picking the high-degree similarity relation. It does not say anything about what exactly the similarity relation besides that it is "high-degree", and does not offer anything helpful on how the qualitative experiences (i.e. pain) are connected to certain physical experiences (i.e. some brain states).

5. Comparison of the Two Views on the Mind-Body Problem

As discussed in the above sections, we can see that the main difference of the mind-body problem between Kripke's view and Lewis's view of possible worlds is that,

the former requires only one instance of “pain without certain brain state” to validate the claim that pain is not identical to the certain brain state in all possible worlds, while this one instance for the later view only indicates that pain is contingently identical to certain brain state, but not necessarily not identical to certain brain state.

In my view, I think the claim by Kripke is too strong. It is legitimate and appropriate to analyze the problem using Kripke’s view of possible worlds, but as I pointed out in the first possible objection, I don’t think it is appropriate to use pain as a rigid designator to refer to *the* specific experience. If we use it as a rigid designator, then we will get into the trouble of referring to some descriptive features (experience of pain) without describing it (required by the rigid designator). So if we cannot use “pain” rigidly, then Kripke’s argument fails.

Lewis’s view of possible worlds (the second objection) also blocks Kripke’s argument. However, as discussed in section 4, if we adopt the counterpart theory in Lewis’s possible worlds, there can be problems as well. We can just proceed and pick the similarity relation that supports the reductionists’ view on the mind-body problem by using a trivial solution, which does not help with the problem really much.

Therefore, I think Kripke’s view of possible worlds is more appropriate than Lewis’s view of possible worlds in order to analyze the mind-body problem. However, we should not use the qualitative experiences as rigid designators.

Reference:

Joseph Levine, "Materialism and Qualia: the Explanatory Gap", in *Pacific Philosophical Quarterly*, 1983.

Saul Kripke, "Identity and Necessity", originally presented orally at the *New York University*, 1972.