

AN ANALYSIS OF KRIPKE'S ARGUMENT AGAINST THE IDENTITY THESIS

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Abstract: In this paper, I provide a critical analysis of Kripke's claim that „pain = C-fiber firings“ is not necessary. Kripke's claim depends on accepting the plausibility of a possible world in which either pain or C-fiber firings can occur without the other. Against Kripke, I argue that we do not have a good reason to accept the plausibility of such a world. On my view, the tendency to accept the plausibility of such a world is likely motivated by certain intuitions and experiences which can misleadingly shape our discourse about possible worlds. From this, I conclude that it is not obvious that „pain = C-fiber firings“ cannot be necessary.

Keywords: identity thesis, „pain = C-fiber firings“, possible worlds, rigid designation, necessity.

I. INTRODUCTION

In *Naming and Necessity*, Kripke challenges the thesis that pain just is the stimulation of C-fibers. He calls this the „identity thesis.“ His argument is that if pain is identical to some set of C-fiber firings, then that identity relation must be necessary. But since it cannot be necessary, pain cannot be identical to C-fiber firings.

In this paper, I challenge Kripke's basis for the claim that „pain = C-fiber firings“ is not necessary. I will proceed as follows. In §2, I lay out the relevant Kripkean terminology. This entails a discussion of possible worlds, rigid designation, and necessity. In §3, I present Kripke's full argument against the identity thesis. Finally, in §4, I argue that accepting the claim that „pain = C-fiber firings“ is not necessary depends on first accepting the plausibility of a possible world in which either pain or C-fiber firings can occur without

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the other. As I see it, however, this is not a plausibility that should be accepted. While I recognize that there is a strong tendency to accept it, I suspect that this tendency is motivated by some common intuitions and experiences which may misleadingly shape our views about what is possible.

II. SOME KRIPKEAN TERMINOLOGY

Before taking up Kripke's treatment of the identity thesis, I must briefly review his conceptions of possible worlds, rigid designation, and necessity. What Kripke means by a possible world is world which represents how things *could* have been. For example, while it is the case that Barack Obama is the 44th President of the United States, it might have been the case that he was not the 44th President. Because our concerns about what might have been are often narrow in scope, we can think of possible worlds as possible counterfactual situations. This notion of possible worlds is foundational to understanding Kripke's notions of rigid designation and necessity.

Kripke says that a term (a word or expression) is a rigid designator „if in every possible world it designates the same object... wherever the object exists.“¹ While this condition is accurate, it does not, by itself, fully capture what it is to be a rigid designator. For I do not think that Kripke would want to call a term a rigid designator if it designates the target object² in all possible worlds in which it exists, but designates something else in a world in which the target object does not exist. To remedy this, we might say that a term is a rigid designator if it designates the same object in all possible worlds in which it designates anything at all. But this is also incomplete. A term may designate the same object in every world in which it designates something at all, but still fail to designate the target object in a world in which it does exist.³ Again, I think this does not fully capture what Kripke meant by rigid designator. Given these concerns, it may be better to say that a term is a rigid designator *if and only if* it designates the same object in every possible world in which the object exists and designates nothing at all in every possible world in which the object does not exist.⁴

¹ Kripke, Saul, *Naming and Necessity*; Cambridge, MA: Harvard University Press, 1980, pp. 48-49.

² By „target object,“ I mean the object that a speaker intends to pick out by their use of a term. I am setting aside cases in which a speaker's intentions may not be clear even to the speaker.

³ It is hard to say what sort of term may be a good example here. One possibility is raised by Soames. The designator „President Obama,“ in which the referent is the *man* Obama, picks out Obama in every possible world in which he is a President, but fails to pick out Obama in any world in which he exists, but is not a President. Soames refers to such designators as partially descriptive names. As he says, „though not, strictly speaking, rigid designators... they always designate the same object when they designate anything at all.“ Soames, Scott, *Beyond Rigidity*; Oxford: Oxford University Press, 2002, p. vi.

⁴ I am setting aside certain difficult cases, such as that of fictional names, which may further complicate the matter.

Kripke argues that proper names qualify as rigid designators. Consider the name Barack Obama. In this world, I may fix the referent of Barack Obama by telling you that I am talking about that guy who is the current President of the U.S. In this world, then, the referent is the *man* that is named Barack Obama and is the current President of the U.S. Once the referent is fixed, we can then begin to talk about that man with respect to possible worlds. In some possible world – call it PW_1 – it is plausible that Barack Obama never went into politics. It is equally plausible that, in PW_2 , the man never went into politics *and* was not even named Barack Obama. Despite this, identification of the man across this world and the two possible worlds is feasible. This can be confusing, for it is difficult to see how we could identify Barack Obama in a world in which he never went into politics and was never even named Barack Obama. The key understanding this lies in the following passage:

[W]e do not begin with worlds [both actual and possible]... and then ask about the criteria of transworld identification; on the contrary, we begin with the objects, which we *have*, and can identify, in the actual world. We can then ask whether certain things might have been true of the objects.¹

So, it is because I fixed the referent of Barack Obama in *this* world that transworld identification becomes possible. In other words, once the referent is fixed, we are to focus on the object – in this case, the man – that constitutes the referent. Only then does it become clear how the name Barack Obama can pick out the same man in this world as well as PW_1 and PW_2 . Given this understanding of transworld identification, it does seem that the name Barack Obama will designate the same man in all possible worlds in which he exists. If it turns out that Barack Obama did not exist in some possible world, then it simply means that the name does not designate anything in that world. Because Kripke thinks the same will hold true of any other proper name I might fix in this world, he maintains that proper names are rigid designators.

The only task left in this section is to introduce Kripke's conception of necessity into the picture that has been introduced thus far. It is important to first note that rigid designation should not be confused with necessity. While it is true that the name Barack Obama must, as a rigid designator, pick out the same man in all possible worlds in which he exists, it is not necessary that Barack Obama exists. For Kripke, discourse about possible worlds is discourse about what is *logically* possible. Meanwhile, necessity is a *metaphysical* concept.² As he puts it, something is necessary if it is not possible that „the

¹ Kripke [1980] p. 53.

² Kripke [1980] pp. 35-36.

world should have been different from the way it is...“¹ We can recast this as follows: for something to be necessary, it must be true of *all* possible worlds.

One way to flesh out Kripke’s conception of necessity is through his discussion of the statement „Hesperus is Phosphorus.“ The name Hesperus refers to a celestial body that is visible in the evening sky while the name Phosphorus refers to a celestial body that is visible in the morning sky.² As proper names, Kripke considers both Hesperus and Phosphorus to be rigid designators. But we now know that Hesperus and Phosphorus designate the same object, Venus. This fact was an empirical discovery and, as such, is known only *a posteriori*. Still, it is an open question as to whether the statement „Hesperus is Phosphorus“ is necessary or contingent. This turns on the following question: is there a possible world in which the object that is fixed by Hesperus *in this world* is not identical to the object that is fixed by Phosphorus *in this world*? If yes, then the identity statement is contingent. If no, then the identity statement is necessary. Kripke’s conclusion is that the answer is no: „using the names as we do right now, [we] can say in advance, that if Hesperus and Phosphorus are one and the same, then in no other possible world can they be different.“³ Because Hesperus and Phosphorus are rigid designators, they designate the same object in every world in which the object exists (and designate nothing at all in worlds in which the object does not exist). But if Hesperus and Phosphorus are designating the exact same object, then Hesperus must be identical to Phosphorus just as Barack Obama is identical to Barack Obama. The only difference is that we know *a priori* that Barack Obama is Barack Obama, but this is not possible in the case of Hesperus is Phosphorus. The statement „Hesperus is Phosphorus,“ then, is both *a posteriori* and necessary.⁴ The general point that can be drawn from this example is that if two rigid designators, say R_1 and R_2 , pick out the same object in all possible worlds, then it is *necessary* that $R_1=R_2$. That it is necessary follows from the fact that if R_1 and R_2 designate the same object, then it is necessary that *that* object is identical with itself.

III. KRIPKE’S ARGUMENT AGAINST THE IDENTITY THESIS

Generally speaking, the identity-thesis holds that mental states are identical to brain states. However, Kripke is concerned with the particular claim that

¹ Ibidem, p. 36.

² To reiterate, according to Kripke, I can use non-rigid designators (my descriptions of Hesperus and Phosphorus) to fix the referents in this world. See ibidem, pp. 143-144.

³ Ibidem, p. 104.

⁴ It is not necessary that the object designated by Hesperus and Phosphorus exist in all possible worlds. It is only necessary that *if* the object exists, then Hesperus is identical to Phosphorus, as the names are used in this world.

pain is nothing over and above the „stimulation of C-fibers.“¹ Furthermore, his focus is directed primarily at type-type materialism.² According to this theory, a mental state of a specific *type* is identical to a brain state of a specific *type*. There are of course other materialist theories that attempt to defend the identity thesis, but since Kripke is mostly concerned with type-type materialism, I will restrict my discussion to this theory.

Let us call the mental state that is pain MS_4 and the brain state BS_4 . Let us also say that BS_4 represents the firing of a particular set of C-fibers. The claim of the type-type materialist, then, is that $MS_4=BS_4$ (*i.e.*, pain is identical to the C-fiber firings that we refer to as BS_4). What Kripke points out is that type-type materialists intend for their identity statements (such as $MS_4=BS_4$) to be analogous to other „scientific type-type identifications.“³ One example of such an identification is „heat = molecular motion.“ Type-type materialists rely on this analogy because the statement „heat = molecular motion“ is *thought* to be an example of contingent identity. But as it turns out, it is not contingent at all – it is necessary in just the same way that „Hesperus is Phosphorus“ is necessary. After all, since heat and molecular motion both designate the same thing in this world (molecular motion), then wherever that thing exists, it will be necessary that heat = molecular motion. It will be just as necessary as the statement „molecular motion = molecular motion.“ Consequently, if the type-type materialist wishes to hold on to the analogy, then he or she must commit to the following premise: if $BS_4=MS_4$ is true, then it is *necessarily* true. As Kripke puts it, „the identity theorist is committed to the view that there could not be a C-fiber stimulation [an instance of BS_4] which was not a pain [an instances of MS_4] nor a pain which was not a C-fiber stimulation.“⁴

Kripke goes on to argue, however, that $BS_4=MS_4$ cannot be necessarily true. He starts with a threefold distinction regarding the case of „heat = molecular motion.“ We should distinguish between (a) the motion of molecules; (b) heat; and (c) the sensation of heat. As I noted above, the identity between the motion of molecules and heat is necessary. But what should we say about the statement „heat = the sensation of heat“?⁵ Kripke argues that there may be a possible world that is inhabited by creatures that do not experience the *sensation* of heat (as we know it) when in the presence of heat (the motion of molecules). Furthermore, it might be the case that such creatures experience the sensation of heat (as we know it) when in the presence of something besides heat. Therefore, the statement „heat = the sensation of heat“ must be *contingently* true if true at all.

¹ Ibidem, p. 98.

² Ibidem, p. 144.

³ Ibidem, p. 148.

⁴ Ibidem, p. 149.

⁵ Since (a)=(b), I could also ask about the status of (a)=(c).

A similar threefold distinction can be made regarding the case of $BS_4=MS_4$. We should distinguish between (x) [a particular set of] C-fiber firings; (y) BS_4 ; and (z) MS_4 (pain). I have said that BS_4 is nothing more than a set of C-fiber firings. It does not matter what particular set it is at this time. Now, in agreement with Kripke, I take the terms „C-fiber firings“ and „ BS_4 “ to be rigid designators just as the terms „motion of molecules“ and „heat“ are rigid designators. Further, because „C-fiber firings“ and „ BS_4 “ designate the same thing (a particular set of C-fiber firings), the statement „C-fiber firings = BS_4 “ if true, is necessarily true. But what should we say about the statement „ $BS_4=MS_4$ “? According to Kripke, the case turns out to be the same as that between heat and the sensation of heat. There may be a possible world that is inhabited by creatures that do not experience pain (MS_4) even when in brain state BS_4 . Further, it may be the case that such creatures experience pain when in some other brain state. Therefore, the statement „ $BS_4=MS_4$ “ must be *contingent*.

As Kripke construes it, the type-type materialist has failed to meet his or her commitment. To repeat, the commitment is this: there cannot be an instance of BS_4 in which there is not also an instance of MS_4 ; nor can there be an instance of MS_4 in which there is not also an instance of BS_4 . To complete Kripke's argument, we may say that because $BS_4=MS_4$ cannot be necessarily true, then it is not true at all that BS_4 is *identical* to MS_4 . I will turn now to an evaluation of Kripke's argument.

IV. REPLY

As explicated in the previous section, Kripke's argument against type-type materialism takes the following form:

1. BS_4 and MS_4 are rigid designators.
2. If $BS_4=MS_4$ is true, then it is *necessarily* true.
3. It is not the case that $BS_4=MS_4$ is necessarily true.
4. Therefore, it is not the case that $BS_4=MS_4$.

While some have rejected the truth of (1), I will grant it here.¹ What motivates (2) is the notion that identity is a relation that must hold necessarily. As Kripke puts it, „the correspondence between a brain state and a mental state seems to have a certain obvious element of contingency. [But] we have seen that identity is not a relation which can hold contingently between objects.“² Therefore, to challenge the second premise, one would need to argue that identity does not have to be a relation that holds necessarily. Of course, this is what type-type materialists thought they were arguing when they compared

¹ Feldman, for example, argues that the mental state, „my being in pain at t “, is non-rigid. See Feldman, Fred, *Kripke's Argument Against Materialism*; in „Philosophical Studies“, 24, 1973, pp. 416-419.

² Kripke [1980] p. 154.

their case to that of heat and molecular motion. But as Kripke pointed out, that so-called case of contingent identity was an illusion. Another option is to dispute (3) by arguing that it really is the case that $BS_4=MS_4$ is necessarily true. In responding to Kripke's argument against type-type materialism, I take up a position that is similar to this second option.

I argue that it is not obvious that the statement $BS_4=MS_4$ cannot be necessary.¹ I hope to inject some doubt into the matter by challenging the plausibility of a possible world in which BS_4 exists without MS_4 or *vice versa*. Since I am challenging (3) in the above argument, I will briefly review Kripke's argument for that premise. Assuming again that BS_4 and MS_4 are rigid designators, his argument for (3) runs as follows:

- i. If $BS_4=MS_4$ is necessarily true (if true at all), then BS_4 and MS_4 must occur together in all possible worlds.
- ii. There is at least one possible world in which either BS_4 or MS_4 can occur without the other.
- iii. Therefore, $BS_4=MS_4$ cannot be necessarily true.

I take issue with (ii). Kripke asks us to imagine a possible world that is inhabited by creatures that do not experience pain (MS_4) even when in brain state BS_4 (and/or *vice versa*). Call this world Kripkuto. At first glance, this appears easy to accept, but I am not convinced that it should be accepted. It seems to me that at least three issues may be clouding our judgment regarding the plausibility of Kripkuto. While some of these issues may obscure our judgment more or less than others, any one of them can significantly influence our views regarding the plausibility of Kripkuto. Once these issues are brought out into the open, I believe that (ii) becomes questionable.

The first issue is that of *actual-world* cases. Such cases, I think, can incline us to accept the plausibility of Kripkuto. Consider first cases of persons who suffer from congenital insensitivity to pain (CIP). Such persons can sustain a broken bone, for example, without experiencing any pain at all. Also consider those who appear to derive pleasure from self-mutilation. Both sorts of cases reflect actual-world scenarios and, as it turns out, they sound a lot like something we might expect on Kripkuto. So the inclination may be to quickly grant (ii) to Kripke (assuming one has such cases in mind). The problem is that while such cases certainly entail abnormal circumstances, they do not demonstrate that particular brain states are not identical to particular mental states (despite the idea that they might, at first glance, imply it). To see this, we must distinguish between „pain“-inducing acts, the C-fiber firings that are BS_4 , and the mental state of pain that is MS_4 . In CIP cases, genetic

¹ The wording here is confusing. I could say that it is not obvious that $BS_4=MS_4$ must be contingently true if true at all. But this wording is problematic given that identity relations, for Kripke, cannot be contingently true at all. Thus, such wording could make it look as though I mean to reject premise (2), which I do not.

mutations¹ prevent a „pain“-inducing act, such as the breaking of a bone, from bringing about the C-fiber firings that are BS_4 . As such, *neither* BS_4 nor MS_4 are present. Thus, cases of CIP are not applicable to the identity thesis and, as such, should not be seen as implying the plausibility of Kripkuto.

I do not want to say much about masochism cases, given that masochism is generally thought to be a psychological rather than genetic condition. All I want to point out is that masochism cases, like CIP cases, may misleadingly lend themselves to our considerations about what is possible when talking about concepts like pain. For example, given our awareness of CIP cases, it is quite easy to imagine a „genetically-mutated masochist“ who experiences some act that is typically thought to be pain-inducing, but who experiences some form of pleasure instead of pain. This scenario is plausible because it could be the case that a „pain“-inducing act brought about – due to one or more genetic mutations – some particular brain state that is thought to be identical with some particular mental state that is pleasure. But, once again, this does not imply the plausibility of Kripkuto since the „pain“-inducing act failed to bring about either BS_4 or MS_4 .

I want to make just one last point regarding the present issue. It seems to me that possible world discourse often involves talk of creatures that are said to enjoy a physiological construction that is different from our own. Consequently, these creatures may respond to environmental conditions in unique ways. What I want to point out is that physiological differences should not be a consideration in the case of Kripkuto. After all, if BS_4 does in fact exist in another world, then it means that a portion of *our* neurological construction exists in another world. This has to be so on the grounds that the *thing* which BS_4 designates was picked out *in this world*.

The second issue concerns the human tendency to see the world as a bunch of cause-effect relationships. There is good reason for this. Cause-effect relationships dominate our picture of the world and, as such, seeing the world as a cluster of cause-effect relationships helps us to function in the world. The worry here is that when Kripke says that a creature on Kripkuto can be in BS_4 without the experience of pain, the image we are naturally inclined to create is that of BS_4 failing to *cause* the experience of pain. But this image carries with it the assumption that the perceived cause-effect relationship in this world is *in fact* a cause-effect relationship. Yet, two things involved in a cause-effect relationship cannot be identical. Thus, to adopt such an image of BS_4 and MS_4 , without having a good reason to do so, is to prematurely concede the very point that is in question.

The third issue concerns the notion of what I refer to here as „epistemic duality.“ The phenomenological aspect attached to MS_4 brings a certain complexity to the case of $BS_4=MS_4$ that is not present in the case of heat =

¹ Nagasako, E.M., Oaklander, A. L., Dworkin, R. H., *Congenital Insensitivity to Pain: An Update*; in „Pain“, Vol. 101, No. 3, 2003, pp. 213-219.

molecular motion. I can learn about BS_4 by studying a particular set of C-fiber firings just as I can learn about molecular motion by studying molecular motion. However, while I can learn about heat while also studying molecular motion, I can only learn about MS_4 by *reflecting* on the pain. Now, if it is true that $BS_4=MS_4$, then it is true that I have two ways to *come to know* the same object. But if epistemic duality does not guarantee metaphysical distinctness, then we should not let the mere notion of epistemic duality persuade us to accept the plausibility of Kripkuto.

It is important to remember that when we fix the referent of MS_4 in *this world*, we cannot allow the intuition that we are fixing something mental to infect how we view the relationships of *that* thing in other possible worlds. After all, we do not yet know whether we are fixing something that is actually mental, even if our knowledge of that thing is primarily gained from the phenomenological point of view. In other words, the *appearance* of distinctness in this world should not influence our ideas about what is possible in another world.

In conclusion, I want to re-emphasize the idea that it may well be the case that BS_4 and MS_4 are distinct. Hopefully, the issues I have discussed reflect this as they do not entail assumptions about the truth of $BS_4=MS_4$. Once more, I have only tried to point out that it is not obvious that $BS_4=MS_4$ cannot be necessary. It seems to me that the willingness to accept the plausibility of Kripkuto is motivated by a set of issues that, if not sorted out, may invite us to take as possible a world which is not possible. Part of the problem is that discourse about what is possible may be tainted by either confusions or by deeply-ingrained intuitions and experiences.

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