

# Conceivability, rigidity and counterpossibles

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Received: 19 February 2008 / Accepted: 19 February 2008 / Published online: 11 March 2008  
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**Abstract** Wright (In Gendler and Hawthorne (Eds.), *Conceivability and possibility*, 2002) rejects some dominant responses to Kripke's modal argument against the mind-body identity theory, and instead he proposes a new response that draws on a certain understanding of counterpossibles. This paper offers some defensive remarks on behalf of Lewis' objection to that argument, and it argues that Wright's proposal fails to fully accommodate the conceivability intuitions, and that it is dialectically ineffective.

**Keywords** The identity theory · Conceivability · Rigidity · Counterpossibles · Kripke

## 1 Kripke on pain and water

In *Naming and Necessity*, Kripke famously argued against type-type psychophysical identities. According to this version of the identity theory, mental properties such as pain are identical to physical properties such as C-fiber stimulation (Cfs)<sup>1</sup>. Indeed many identity theorists have assumed that we can model such identities on scientific reductions. In order to see the force of Kripke's modal argument, we need to appreciate why this analogy breaks down. Here's the gist of Kripke's reasoning.

(Pain)

- (1) Suppose for *reductio* that pain is Cfs
- (2) If pain is Cfs, then necessarily pain is Cfs

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<sup>1</sup> I shall take Cfs to be a place-holder for any physical reduction of pain.

- (3) It appears contingent that pain is Cfs
- (4) Whatever appears contingent is contingent
- (5) So, pain isn't Cfs

The *rationale* for the premises is roughly as follows. (2) is an instance of the schema: if *a* and *b* are rigid designators, then  $a = b$  is necessary if true. And there is reason to accept the rigidity of both phenomenal and microphysical terms. Thus 'Cfs' picks out the same kind of firing of C-fibers at all worlds in which it exists, and 'pain' is arguably rigid with respect to the characteristic phenomenal feel associated with experiences of pain. (3) is independently plausible. Nothing in the concepts expressed by 'pain' and 'Cfs' rules out the possibility of someone instantiating, say, Cfs but not pain. We shall take 'p appears contingent' to mean that  $\neg p$  is seemingly conceivable. And (4) encapsulates *modal rationalism*: the view that—suitably idealised—conceivability is a reliable guide to real world modalities. If this view were false, we would arguably be cognitively screened off from the realm of such modalities. In fact, Kripke arguably took the genuine conceivability of *p* to entail the possibility of *p*.

But now it looks as if we can run a corresponding modal argument to the effect that water isn't H<sub>2</sub>O. And surely if Kripke's reasoning overreaches in this manner, then something better be amiss with (Pain). Consider the following:

(Water)

- (6) Suppose for *reductio* that water is H<sub>2</sub>O
- (7) If water is H<sub>2</sub>O, then necessarily water is H<sub>2</sub>O
- (8) It appears contingent that water is H<sub>2</sub>O
- (9) Whatever appears contingent is contingent
- (10) So, water isn't H<sub>2</sub>O

Suppose 'water' is a natural kind term, which rigidly refers to the underlying kind that at least in part explains the causal powers of the manifest watery properties: we say that being watery fixes the reference of 'water'. And it does so contingently: there are worlds in which H<sub>2</sub>O lacks that property. Thus what's genuinely conceivable isn't that water is distinct from H<sub>2</sub>O, but rather that what the *reference-fixing description* 'the watery stuff' picks out isn't H<sub>2</sub>O. The reference of microphysical terms, however, is fixed by the very properties that they pick out; or so we assume. Alternatively, the same point can be expressed using Kripke's notion (1980, p. 152) of a *qualitatively identical epistemic situation*. Thus what's genuinely conceivable is that we are in an epistemic situation qualitatively identical to our actual situation yet we experience no water at all. This suggest the following principle linking appearance of contingency with contingency:

(Conceivability) For all (non-empty) rigid designators *a* and *b*, and their corresponding reference-fixing descriptions *Da* and *Db*, if  $a = b$  seems contingent, then  $a = b$  is contingent, unless  $Da \neq Db$  is genuinely conceivable and  $Da \neq Db$  doesn't entail  $a \neq b$ .

If the unless-clause is met, the appearance of contingency is explained away by another distinct genuine conceivability—if not, the appearance can be taken at face

value. The former happens in many cases of the necessary a posteriori. Let's bracket exegetical issues, and simply stipulate the *Kripkean Model*:

(KM) All a posteriori necessities  $a = b$  entail a posteriori contingencies  $Da = Db$ , where  $Da$  and  $Db$  are the corresponding reference-fixing descriptions, such that the seeming contingency  $a = b$  is explained away by the genuine distinct conceivability  $Da \neq Db$ .

So, the good news is that whenever a putative a posteriori necessary identity seems conceivably false, something is genuinely conceivable, but the bad news is that what genuinely is conceivable isn't always what seems conceivable. Conceivability evidence is, so to speak, immune to modal error except through misidentification. To borrow Yablo's phrase (2000, p. 98), we say there are illusions but no outright hallucinations of conceivability.

But the question is why we can't explain away the appearance of contingency in (3) in the very same way we can explain away the appearance of contingency in (8). This is where the disanalogy between 'pain' and 'water' kicks in. Both are rigid designators, but while the referent of 'water' is picked out by a contingent property, the referent of 'pain' is picked out by that very referent, or by its essential property—being painful, that is, by its immediate phenomenological quality. So, in the case of 'pain' there is no space for mistaking the reference-fixing property for the property picked out. Again we can put the same point in terms of epistemic counterparts: if it seems in every way as if one has a pain, one has a pain, but if it doesn't seem in any way as if one has a pain, one has no pain. In short, when it comes to pain, there isn't the kind of appearance-reality distinction we find in the case of water.<sup>2</sup>

## 2 Rigidity versus flexibility

At this stage there are several ways for the identity theorist to dig in her heels. Wright discusses three.<sup>3</sup> I shall only comment on one of them. But let's first pause on an obvious response that he bypasses. Wright (pp. 410–411) takes the upshot of the argument to be that the concept of pain isn't a natural kind concept. According to him (403):

“... a concept is a natural kind concept if, roughly, its extension is standardly explained by reference to indicators whose status as such is viewed as contingent, and if we conceive of the real determinant of the extension as a natural property, presumed to be explanatorily associated with the indicators, of whose character we may have—and anyway need—no clear idea in ordinary commerce with the concept.”

Wright's “indicators” correspond to my reference-fixing properties, and in the case of 'pain' he follows Kripke in assuming there's just one: (411): “the distinctive form

<sup>2</sup> Kripke (1980, p. 152).

<sup>3</sup> All page references are to Wright's excellent and extremely rich (2002).

of discomfort”, i.e. “hurting”. Moreover, also mirroring Kripke, he takes as a matter of necessity a sensation to be pain iff it gives the indication of pain.

But then it looks like there is no need for conceivability considerations in the first place since we can establish on the last assumption alone that the concept of pain isn’t a natural kind concept. There are two reasons for this. If necessarily something is pain iff it indicates pain, then, firstly, the indication of pain is neither a contingent property of the referent of ‘pain’, nor, secondly, can the extension of ‘pain’ explain the indicators of pain since nothing is self-explanatory. But these considerations cut both ways. We better not regiment Kripke’s reasoning in such a way as to beg the question against the identity theorist. If we were to assume for *reductio* that the concept of pain is a Wright-style natural kind concept, and then in the course of the modal argument bring those assumptions into play, then we couldn’t conclude that the concept of pain isn’t a natural kind concept unless we at least implicitly already assumed that it’s no such concept.

Suppose instead we take ‘pain’ to be a natural kind term in much the same robust way that ‘water’ is: ‘pain’ rigidly refers to the underlying kind that at least partially explains the causal powers of the manifest, contingent properties associated with pain, e.g. being prompted by tissue damage and resulting in withdrawal behavior. Call this the *role property* in contrast with Cfs, which we call a *filler property*. Now it seems the analogy between ‘water’ and ‘pain’ has been restored. Both are rigid designators whose reference is fixed by contingent properties. So, in the case of ‘pain’ there’s now space for confusion between the reference-fixing property and the property picked out. The thought would then be that the apparent conceivability of someone instantiating Cfs without pain is explained away by the genuine conceivability of someone instantiating Cfs without the role property. And nothing said so far is in breach of either (Conceivability) or (KM).

A worry about the current view pertains to its implausible metaphysical commitments. It’s contingent which physical property fills the pain-role. Had the laws of physics been different, a different physical property—D-fiber stimulation (Dfs)—would have filled that very role. So, there are worlds in which Dfs fills the pain-role. But if ‘pain’ is rigid with respect to a particular filler property, Dfs isn’t pain in those worlds. Why say that only what fills the role in the actual world counts as pain? After all, the difference between a subject who instantiates Cfs in the actual world, and a functional duplicate who instantiates Dfs in one of those worlds isn’t one that shows up in any intentional or behavioral states. It looks like *modal chauvinism* to refuse to classify worlds in which Dfs fills the pain-role as pain-worlds.<sup>4</sup>

Consider instead the view Wright calls *Australian Rules Physicalism* (ARP). On this view, ‘pain’ expresses, according to Wright (412), a *criterially governed concept*. For such a concept, the indicator properties determine the extension, irrespective of any underlying properties, and so the expression for such a concept will function as a flexible designator with respect to underlying properties. To wit, if the concept of pain is criterially governed, the expression for the concept flexibly designates amongst

<sup>4</sup> See also Lewis (1999, p. 304).

various kinds whatever property satisfies the pain-indicators. This means that (2) is false as psychophysical identities are contingent if true.

As highlighted by Kripke's argument, the problem with this view is that pain simply is the property of having the phenomenological symptoms of pain, irrespective of which physical properties are instantiated, in the sense that pain couldn't occur without the corresponding symptoms, and they not without pain. Wright advances the following argument (pp. 412–413)<sup>5</sup>:

(Rigidity)

- (11) Since the criteria for a criterially governed concept are essential to it, the property of satisfying the criteria is modally invariant.
- (12) So, the description 'the property of satisfying the criteria for being pain' is rigid.
- (13) But since the single criterion for being in pain is the distinctive discomfort, there's no distinction between the property of being in pain and the property of satisfying the criteria for being in pain.
- (14) So, the identity 'pain is the property of satisfying the criteria for being in pain' is necessary.
- (15) But given that an identity statement containing one rigid designator is necessary only if the other term flanking the identity sign is also rigid, 'pain' is a rigid designator.

Now one might think that a proponent of (ARP) would want to resist the claim that the single criterion for being in pain is the distinctive phenomenal feel that is the way pains hurt. Instead there is a whole bunch of behavioral-cum-intentional criteria—encapsulated by the role property. But Lewis (1991, p. 234) is adamant that "the friend of qualia. . . beneath his tendentious jargon, . . . is just talking about pain and various aspects of its functional role." Lewis unquestionably accepts there is something phenomenologically it is like to undergo an experience of pain.

There are two points to make about (Rigidity). Firstly, the definite description 'the property of satisfying the criteria for being in pain' seems conceptually equivalent to 'the property of playing the causal role for being in pain'. As the latter picks out a property of a physical property—in Humans Cfs plays the causal role for being in pain—so must the former. But being in pain is a property of individuals, not of physical properties. So, (13) seems false since there's a clear distinction between the property of being in pain and the property of satisfying the criteria for being in pain. Instead 'the property of satisfying the criteria for being in pain' must be understood in such a way that individuals can instantiate the property picked out: someone possesses that property just in case she exhibits withdrawal behaviour when her tissue is damaged, etc.

But, secondly, even if (13) is true thus understood, (14) doesn't follow. On Lewis's view (1991, p. 231; 1999, pp. 304, 307), 'pain' is a flexible designator that picks out the property that plays the pain-role, but 'being in pain'<sup>6</sup> is a rigid designator that picks out the property of having a property that plays the pain-role. Here's an instructive

<sup>5</sup> In Wright's terminology, pain is a state and water is a stuff. I prefer talk of properties to talk of states, but nothing substantially hangs on this.

<sup>6</sup> Or 'having pain'.

analogy from Jackson et al. (1982, p. 213): ‘the height of trees’ has no unique reference in our world, but it does in a world  $w_{20}$  in which all trees are 20m. But even in  $w_{20}$  having the height of trees is different from having a height of 20m. For consider a world  $w_{30}$  in which all trees are 30m. Then having the height of trees is the same property in  $w_{20}$  and  $w_{30}$ , but being 20m and being 30m are different properties. So, it doesn’t follow from the fact that ‘the height of trees is 20m’ is true at  $w_{20}$  that ‘having the height of trees is 20m’ is also true at  $w_{20}$ .

Similarly, from the fact that ‘pain is Cfs’ is true at our world, it doesn’t follow that ‘being in pain is (having) Cfs’ is true at our world. The reason is that ‘pain’ and ‘being in pain’ are not even co-referential at our world. ‘Pain’ flexibly picks out first-order, filler properties, while ‘being in pain’ rigidly picks out the second-order, role property. To repeat, pain is the property that plays the pain-role, while being in pain is the property of having a property that plays the pain-role. And no first-order property is identical to a second-order property. So, returning to Wright, even if there is a way of making ‘the property of being in pain is the property of satisfying the criteria for being in pain’ true, it doesn’t follow on Lewis’ view that ‘the property pain is the property of satisfying the criteria for being in pain’ is also true.

### 3 Counterpossibles

Instead of rejecting (2), Wright proposes that, after all, the conceivability principle in (4) is unemployable in (Pain). He (pp. 435–436) submits that there is independent reason to call for a second way of explaining away appearances of contingency. Here’s why. Kripke taught us that we have our biological origin essentially. Thus if I have biological origin B, I have B essentially. So (16):

(16) I am the individual with B

is necessary if true, since both ‘I’ and ‘the individual with B’ are rigid designators. But (16) seems contingent: it looks as if I can coherently conceive of me having had biological origin B\* instead. The problem is now that neither (Conceivability) nor (KM) applies in this case to prevent the inference to genuine contingency. The reference of ‘I’ may be fixed by the property of being the utterer of this token of ‘I’, but that’s not how I identify myself. In fact, I don’t identify myself via any descriptive properties at all. To use Wright’s example, when I conceive of my now being in Grand Canyon I don’t imagine someone’s being there who is an epistemic counterpart of me. I simply imagine my having the relevant kind of experiences from my point of view. Wright’s alternative (pp. 437–438) is that when I supposedly conceive my not having B, I’m really conceiving of what it would be like if, *per impossibile*, I were found to have B\*. Similarly in the case of our putative psychophysical dissociations. The conceivability intuition pertaining to instances of Cfs without pain can be explained away by the fact that if, *per impossibile*, Cfs were not pain, then our experiences would be thus-and-so. I am modally imagining what it would be like if, *per impossibile*, Cfs, but not pain, were instantiated, thus feeling no discomfort, exhibiting no withdrawal behavior when exposed to tissue damage, etc. Bear in mind that since the relevant necessities are

metaphysical in nature, the objects of these imaginings are metaphysically impossible worlds.<sup>7</sup> Accordingly, we need qualifications:

(Conceivability\*) For all (non-empty) rigid designators  $a$  and  $b$ , and their corresponding reference-fixing descriptions  $Da$  and  $Db$ , if  $a = b$  seems contingent, then  $a = b$  is contingent, unless either  $Da \neq Db$  is genuinely conceivable and  $Da \neq Db$  doesn't entail  $a \neq b$ , or else  $a \neq b$  is genuinely conceivable albeit impossible.

(KM\*) All a posteriori necessities  $a = b$  entail a posteriori contingencies  $Da = Db$ , where  $Da$  and  $Db$  are the corresponding reference-fixing descriptions, such that the seeming contingency  $a = b$  is explained away either by the genuine distinct conceivability  $Da \neq Db$ , or else by the genuine conceivability of the counterpossibility  $a \neq b$ .

Wright's novel proposal is ingenious, but it fails on two counts: it falls short of accommodating the conceivability intuitions, and it is dialectically ineffective. According to the Lewis-semantics (1973, pp. 24–26), subjunctive conditionals with impossible antecedents are all vacuously true. In contrast, Wright (438) professes that such conditionals occasionally come out false. So, while (17):

(17) If I had instantiated pain but not Cfs, then I would have experienced no distinctive discomfort

is false as, assuming an impossible worlds account of counterpossibles, the closest impossible yet coherent worlds in which the antecedent is true are ones in which the consequent is false, (18):

(18) If I had instantiated pain but not pain, then I would have experienced no distinctive discomfort

is presumably vacuously true. When I conceive of instantiating pain without Cfs, I modally envisage what things would be like if an *a posteriori necessity* were false, but that is distinct from modally envisaging what things would be like if a *logical truth* were false. But (18) follows from (17) by mere intersubstitution of co-referential rigid designators. And it should be commonplace that intersubstitution of rigid designators in counterfactual contexts preserves truth.<sup>8</sup>

So, Wright must deny in some non-ad hoc way that intersubstitution holds in all such contexts, or else he must maintain that, despite appearances to the contrary, (18) is false. To my mind, both horns of this dilemma are unassailable. As regards the latter, the consequent would have to be false in the closest impossible yet coherent worlds in which the antecedent is true. But worlds in which fundamental laws of logic fail seem less than fully coherent. Unless we are told in what substantial sense the antecedent in

<sup>7</sup> Or consider Soames' paperweight (2005, pp. 198–207), which, unbeknownst to you, is made out of wood, and so is necessarily made out of wood. It certainly seems as if you can imagine this paperweight being made out of plastic, but if there is only one space of metaphysically possible worlds, there is no world in which this very weight is made out of plastic. So, what you are really imagining is a world containing a different but very similar paperweight.

<sup>8</sup> The present point owes much to an argument in Williamson (forthcoming, pp. 209–214).

(18) is entertainable, why not adopt Lewis's shrug-response (1973, p. 24) "If that were so, anything you like would be true"? In short, whatever is coherent in worlds in which laws of metaphysics fail might not be so in worlds in which fundamental laws of logic fail, but from many *countermetaphysicals* such as (17), corresponding *counterlogicals* can be derived by intersubstitution.<sup>9</sup> Moreover, even if sufficient coherency could be made of the antecedent in (18), it's hard to see what kind of specified similarity metric would help to secure that the consequent is false rather than true in that world. For instance, even if, as Nolan (1997, p. 544) suggests, impossible worlds are ordered relative to how similar they are in relevant respects (e.g. violation of actual laws, number of logical contradictions) to the actual world, this would hardly help settle the truth-value of (18). To be sure, if entertaining the antecedent in (18) involves the negation of identity  $a \rightarrow a$ , then (18) ought to be rendered vacuous. Denying identity logically implies contradiction, and contradiction logically implies anything, including the consequent in (18).<sup>10</sup>

The former might be achieved by appeal to other cases of the necessary a posteriori. Thus from the supposedly false (19):

(19) If I had not been the individual with B, everything would seem to me as if I had B  
we can infer by intersubstitution the presumably vacuously true (20):

(20) If I had not been me, everything would seem to me as if I had B

So, the thought goes, since intersubstitution isn't truth-preserving in these *independent* cases, it's not *ad hoc* to reject the inference from (17) to (18) on just those grounds. But I believe there's a better way of explaining away the appearance of contingency in (16). If (16) is true, (16) is true at all counterfactual worlds. There is thus no way of conceiving of a world as counterfactual in which (16) is false. But there may certainly be a way of conceiving of a world as actual—considering a world as a candidate for actuality—in which (16) is false. This is to modally imagine what things would be like if it had turned out that I have B\*. And to allow that our world could have turned out such that I have B\* is compatible with the necessity of (16) given the way our world has turned out. So, the apparent conceivability that (16) is false is explained away by the genuine conceivability that the actual world turns out such that I have B\*.<sup>11</sup>

<sup>9</sup> Soames (2005, pp. 196–209) endorses the existence of epistemically possible but metaphysically impossible worlds. But note that merely invoking two such distinct kinds of worlds in a non-vacuum account of counterpossibles isn't going to help with the current problem, because for all one knows a priori instantiating pain but not pain isn't a way our world could genuinely be.

<sup>10</sup> Thus Lewis (1973, p. 24) seems to hold that counterfactual implication is entailed by corresponding strict implication. Note that even if the principle of explosion fails, the consequent in (18) would still follow by conjunction elimination. One might then say that (18) isn't vacuously true but rather trivially true. Thanks to Sven Rosenkranz.

<sup>11</sup> Let me clarify. My only concern is with those cases where the intuition about falsity or non-vacuous truth of a countermetaphysical seems to evaporate once converted by intersubstitution into a counterlogical. Brogaard and Salerno (forthcoming) defend non-vacuumism on this point by maintaining that non-trivial counterpossible contexts, and only such contexts, are hyperintensional, and so intersubstitution fails to preserve truth. But this move raises two problems. First, we need a principled account of why only some counterfactuals create opaque contexts. As Williamson remarks (forthcoming, p. 214), "the transparency of the counterfactual conditional construction concerns its general logical form, not the specific content of



Let me finally express some misgivings about the dialectical import of Wright's preferred way of explaining away appearances of contingency. But note first a *prima facie* good-making feature of his strategy. The Kripkean way of explaining away modal appearances, as captured by (Conceivability) and (KM), always attributes some error about the objects of acts of conceiving, but never any outright hallucinations. When it conceivably seems as if water could come apart from H<sub>2</sub>O, we are guaranteed to be really conceiving of something else, namely that the watery stuff isn't H<sub>2</sub>O. Wright's strategy, however, assigns no illusions about objects, but only about which type of world our acts of conceiving are engaged with. When it conceivably seems as if water could be distinct from H<sub>2</sub>O, we safely conceive of the stuff water not being H<sub>2</sub>O. We just muddle up a possible world for an impossible one.

Now consider the following consequence of Wright's strategy (438):

“... if P is a proposition that is known to be necessary if true (and correspondingly, impossible if false), then in order to determine whether we have constructed a genuine counter-conception to P, as opposed merely to a lucid scenario of how in certain respects things would be if, *per impossibile*, P did not obtain, we need first to know whether P is true.”

So, if P is true, then the seeming conceivability of P's falsity can amount to at most a conception of how things would be if, *per impossibile*, P were false, but if P is false, nothing stops the seeming conceivability of P's falsity from constituting a genuine conceivability. The key point is that we need to know the actual truth-value of P before we can decide which way things are going to go. And so, if P is an empirical proposition, we need a posteriori knowledge before we are in a position to judge whether the seeming conceivability that P is false is genuine or not. Now, there's nothing inherently wrong with the idea of an a posteriori conceivability. Chalmers' notion of *secondary conceivability* (2002, p. 159), for instance, is a posteriori. The problem arises when the kind of a posteriori knowledge called for is set in the context of (Pain). That argument, as advanced by the dualist, aims to refute the identity theory. Wright's proposal is then that the appearance of contingency of pain being Cfs is misleading since it can be explained away by enough spelling out of what things would be like if, *per impossibile*, pain were not Cfs. So, (Pain) is supposedly blocked because we can't then establish that pain is contingently Cfs, hence via the necessity of identity that (5) pain isn't Cfs. But before initiating this way of explaining away the appearance of contingency, we need *prior knowledge* of whether pain actually is Cfs. For in the absence of such knowledge we should instead infer that it's genuinely conceivable that pain be dissociated from Cfs, and that would in a few steps secure the untoward dualist conclusion. So, in order to determine whether this explaining-away strategy applies for the purpose of rejecting premise (4) in (Pain), we need antecedent knowledge of the negation of its conclusion. The problem isn't that the identity theorist can't avail herself of that knowledge, but that *appealing* to it in the course of rejecting a premise assumes exactly what that argument

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Footnote 11 continued

the antecedent.” Second, how do we account for the intuitively valid inference from, say, ‘if Superman had my parents, then I would have a brother’ to ‘if Clark Kent had my parents, then I would have a brother’?

sets out to prove false. And since Wright's strategy succeeds only if we are allowed to call upon such knowledge, implementation of it will cut no dialectical ice with the dualist.

**Acknowledgements** Many thanks to Berit Brogaard, Jakob Hohwy, Duncan Prichard and Sven Rosenkranz for correspondence and comments on an earlier version of this paper.

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