

Time was when something called "contingent identity" was a staple of analytic metaphysics. The idea was that you could have an entity  $y$  and an entity  $z$  that were identical in fact, but not necessarily. This was the relation obtaining between

- (a) Nixon and the US President, nine and the number of planets, etc
- (b) statue and clay, ship and planks, etc.
- (c) water and H<sub>2</sub>O, electrical current and the flow of electrons, etc.
- (d) pain and c-fiber firings, itchiness and d-nerve palpitations, etc.

Start with examples of type (a), which grew out of Quine's critique of de re modality. Quine as you may know said that whether a condition  $\phi(x)$  holds necessarily of  $x$  depends on how  $x$  is denoted or picked out. A good example is the condition that  $x$  is identical to so and so:  $x = \text{the number of planets}$ . This holds necessarily of the number of planets, but contingently of the number 9. The number of planets is necessarily the number of planets, but the number 9 is only contingently the number of planets.

Something has gone wrong here, Kripke thinks. One can *prove* after all that the objects are necessarily identical if identical at all. The proof goes like this: Suppose  $y = z$ . Then by Leibniz's Law,  $y$  and  $z$  have the same properties.  $z$  has the property of being necessarily identical to  $z$ . So  $y$  has the property of being necessarily identical to  $z$ . So it holds necessarily that  $y = z$ . Here then is a philosophical puzzle: on the one hand, you've got the appearance of contingent identity, and on the other, you've got a proof that contingent identity is impossible.

Solution proposed by Kripke is simple. *It's the proof that's correct.* Objects are nec. identical if identical at all; contingent identity is impossible. But what are we imagining when we seem to imagine  $y = 9$  and  $z =$  the number of planets coming apart? The answer in this case seems pretty clear. We do not imagine de re of  $y$  and  $z$  that the one comes apart from the other; we imagine de dicto that the 9 should fail to be the number of planets. A certain identity-stating *dictum* strikes us as possibly false. But this isn't enough for contingent identity! What is contingent is that a certain *statement*, which relative to *this* world expresses an identity between 9 and 9, is true. That's not to say that the *identity it actually expresses* is contingent.

So, distinguish two ways an identity statement can be contingent: first, *the identity it actually expresses fails in other possible worlds*; second, *the identity it expresses w.r.t. some other world fails in that world*. The first would be contingent identity. The second, the contingent truth of an identity statement, is so far all we've got. **Kripke's Hypothesis:** *all so-called contingent identity is really just contingently true identity statements.*

Now, if we have a contingently true identity statement, then it would seem that in the worlds where it is false at least one of the terms involved must refer to a *different* object than it refers to in this world. Rigid vs. nonrigid. Unless you use rigid designators, that the statement is only contingently true signifies nothing about the nature of the *identity*. For contingent identity you'd need a contingent identity statement involving *rigid* designators.

Are there any? First we have to ask, which designators are rigid? Definite descriptions typically aren't. But according to Russell and others, names are disguised def. descriptions. So they ought to be nonrigid too! Kripke has two main arguments that they're not. Spouse "Einstein" is a disguised form of "the discoverer of relativity." (i) Necessity objection. Possible that Einstein didn't do it. (ii) A priority objection. Should be a priori that Einstein discovered it. But what if it turns out that the discoverer was Smith. Then Smith is Einstein! For it's apriori that Einstein was the guy who did the job.

So, "Einstein" is not a definite description but a tag: its whole meaning is that it stands for *that* guy. Question now becomes, are there true contingent identity statements between *names*? Again, it would seem like we have an argument that there can't be. Names are *rigid*, so if they refer to the same thing in any world, they do in every.

So far so good. But now Kripke notices that *it is not just identity statements between descriptions that can look contingent*. Identity statements between *names* can also seem this way. Hesperus = Phosphorus. Certainly took experience to discover. And we want to say, it *might* have come out otherwise. Other examples: Everest = Gaurisanker. Water = H<sub>2</sub>O

Time to regroup. Contingent identity statements between descriptions *don't* give us contingently identical objects. But contingent identity statements between names *do*, or rather *would*. Explaining these away will not be so easy. But let's try. The argument that these statements, e.g., "water = H<sub>2</sub>O", are contingent, remember, is that (i) it took experience to confirm them, and (ii) things could have come out the other way.

Take the first formulation first: they are not *a priori*. But, must all necessary truths be knowable a priori? Terms often used equivalently but the concepts different, one from epistemology, other from metaphysics. So it's a substantive claim, not a trivial one. Mathematical examples (Goldbach) already give grounds for doubt. Essentialist examples clinch it. This lectern was first made of wood. This is a cat. This is gold.

Second formulation trickier: *it could have turned out otherwise*. One is tempted to say that it could *not* have turned out otherwise: given that water is H<sub>2</sub>O, it could not have been anything else. This suggests that "it might have turned out that P" -- in the sense in which it might indeed have turned out that water wasn't H<sub>2</sub>O -- is *not* to be understood as claiming that the identity actually expressed by "P" could have failed to obtain. Need to look for another interpretation.

How do names get their meanings, if as Kripke maintains their meanings are just the objects? One can separate out two questions here: where did the meaning originally come from? and how is it passed along? Initial baptism plus historical chain (Homer, Cicero, Tully); or reference-fixing description plus historical chain (Neptune, Hesperus, Phosphorus). What could have been otherwise is not Hesperus's relations with Phosphorus; rather the way we pick out these objects could have been a way of picking out *distinct* objects.. Same applies to scientific examples: it's not that heat could have been other than mean kinetic energy, but *the thing responsible for this sensation* could have been other than mean kinetic energy.

In general: "it might have turned out that x was P" is true iff in some world, an epistemic counterpart x\* of x -- a thing that "presents" the same way as x does in actuality -- is P. No reason then to see contingent identity between x and y in the fact that it might have turned out that x wasn't y; the possibility here is really that x\* isn't y. And now we've got it: no contingent identity statements between descriptions *or* names, so no reason to resist the proof above that objects are necessarily identical if identical at all.

All identities hold necessarily. It follows that if it's possible for x and y to come apart, x is not identical to y. Now, sometimes we *feel* this is possible but the appearances are explained away. (Hesperus example; water example.) Really what was possible was that the properties by which x is picked out instead attach to some other thing x\*, and this other thing x\* is distinct from y.

Now, what about the pain/c-fiber case? Materialists say these are identical; and it would follow that they are necessarily identical. Here too we have the intuition that there could be pain without c-fiber firings. Difference is, the approved explanation no longer works: for it makes no sense to suppose that something pain\* other than pain was the thing with these experiential properties. More generally, the tactic works only if x is picked out by an experiential property such that a thing could have that property without being x. And pain is *not* picked out by a property like that. Anything with these experiential properties is pain!

So the materialist faces a very strong challenge. If pain=c-fiber firing, then this holds necessarily. But it doesn't *seem* to hold necessarily, and the only way we know of explaining the appearance away doesn't work. Why then do we find it so clearly imaginable that we could have pain without c-fiber firing? Until this is answered we have reason to suspect that the claimed identity doesn't hold.