

Pains and Brains. 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; heat example.) Really what was possible was that the properties by which x is picked out instead attach to some other thing x^* , and what was possible was for this other thing x^* to be distinct from y . It's not possible for *water* to be distinct from H_2O . But it is possible for *water**, a spitting image of water, to be distinct from H_2O .

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 e confused pain with pain^* , a different phenomenon that nevertheless presents to like pain. Anything that presents that way *is* pain. More generally, the tactic works only if x is picked out by an *insufficient* property, a property that that a thing could have without being x . And pain is *not* picked out by an insufficient property. Anything with these experiential properties is pain!

So the materialist faces a very strong challenge. If $\text{pain} = \text{c-fiber firing}$, 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?

So-called 2-dimensionalists try to generalize the Kripke account of modal error. They say that whenever there's the illusion that \underline{E} is possible, there's a related hypothesis \underline{F} that really is possible. For instance, it seems that Hesperus could have been distinct from Phosphorus because there really could have been two planets there, one responsible for Hesperus-appearances and the other for the appearances we enjoy of Phosphorus. Kripke himself explicitly refrains from giving a "general paradigm" for the construction of the proposition whose possibility fools us into thinking \underline{E} possible.

2-dimensionalists are bolder. They distinguish \underline{E} 's secondary intension $\underline{E} =$ the set of worlds w such that if w had obtained, it would have been that \underline{E} , from its primary intension $\underline{F} =$ the set of worlds w such that if w really *does* obtain, it *is* the case that \underline{E} . They say modal error occurs when we confuse these; we think the secondary intension is possible when it's really only the primary. There really aren't any worlds such that if they were to obtain, Hesperus would be distinct from Phosphorus. What there are are worlds such that if they really do (contrary to what we suppose) obtain, Hesperus really is distinct from Phosphorus.

They restate Kripke's argument like this: suppose it's an illusion that there's a world such that if it obtained, there would be c-fiber firings without pain (zombie worlds). The explanation would have to be that there is a world such that if it does obtain, our world is a zombie world. But, they claim, a world like that is already a counterexample to physicalism! For it has this world's physical properties without anyone feeling anything.

Note a key assumption: all modal illusions can be explained by pointing to a "counteractual" (not counterfactual) world where \underline{E} holds. I claim that not all illusions can be explained in this way. Ivory-billed woodpeckers had been thought extinct; recently, though, a man named David Kullivan reported spotting a pair of them. I happen to believe this report, but not everyone does. Knowing that his word would be doubted, Kullivan was tempted (let's say for purposes of the example) to shoot one of the pair

and bring its body back as proof. According to me, believing as I do that ivory-billed woodpeckers exist, had Kullivan shot one, there would have been fewer ivory-billed woodpeckers than there are. To me, then it seems possible for there to have been fewer ivory-billed woodpeckers than actually. Now suppose that I am wrong and there are no ivory-billed woodpeckers. Then I am under an illusion of possibility; a smaller number seems possible, but there can't be fewer than none. What explains my illusion? The story would have to be that this seems possible because there's a world such that if it is actual, then there are fewer ivory-billed woodpeckers than there actually are. And that makes no sense.

Again, it seems possible that Hesperus could have turned out to be distinct from Phosphorus. It seems, for example, that Phosphorus could have turned out to be Mars rather than Venus. Another thing that seems possible is for Phosphorus to have turned out to be *Xorg*, a solar planet over and above the planets that exist in fact. It seems possible, then, that there should have been *more planets than actually*: all the actual ones, including Hesperus, and then in addition Phosphorus = Xorg. How does this illusion arise? The story would have to be that this seems possible because if we are wrong and the morning-visible planet is "new," then there really *are* more planets than actually. Which is nuts. Again, it strikes us that gold could have turned out to have a different chemical makeup. The illusion that gold could have failed to be an element *can* be explained 2-dimensionally, notice. But I may not know that gold is an element; my thought is just that it didn't *have* to turn out with that chemical makeup, whatever its makeup in fact is. This illusion cannot be explained on the 2-D model, for we would need a world such that if it is actual, then gold has a different makeup than it actually does.

So a key premise of the 2-D argument for dualism, that all modal illusions are grounded in the same kind of counterfactual/counteractual confusion, seems wrong. Now bring this back to Kripke. Kripke holds to the *Psychoanalytic Standard*. Assuming the conceiver is not too self-deceived or resistant, $\diamond E$ explains E 's seeming possibility only if he/she does or would accept it as an explanation, and accept that his/her intuition testifies at best to E 's possibility, not $\diamond E$'s. Let me start with an example where a psychoanalytically acceptable explanation *can* be given. I will then argue that a crucial feature of the example goes missing in Kripke's treatment of certain other examples.

Kripke says, "...though we can imagine making a table out of another block of wood or even from ice, *identical in appearance to this*, and though we could have put it in this very position in the room, it seems to me that this is not to imagine this table as made of wood or ice, but rather it is to imagine another table, resembling this one in all external details, made of another block of wood, or even of ice." "Identical in appearance" suggests that the otherworldly table looks just like the real one *to us*: if both of them were sitting here side by side, we could not tell them apart. Suppose Kripke had offered a different explanation: we could have had different perceptual systems to that a regular old icy table looked brown and wooden to us. That would be silly. It doesn't meet the psychoanalytic standard. Obviously I'm not confusing myself with someone whose eyes work differently than my own!

Yet when it comes to the illusion that heat could have been, say, *low* molecular energy, Kripke in effect offers the silly explanation. He doesn't say there could have been HME that felt cold to us *as we are*, because that isn't true. He says: "the property by which we identify [heat] originally, that of producing such and such a sensation in us, is not a necessary property but a contingent one. This very phenomenon could have existed, but due to differences in our neural structures and so on, have failed to be felt as heat.' Obviously though my intuition that *this* cold-feeling thing could be HME is not due to my confusing myself with someone whose neural structures are different! So it holds of Kripke too that his explanation of illusions of contingency fails *even before we get to pains and brains*. One cannot argue as he does that there's always been a spitting image so far, so there ought to be in this case too.