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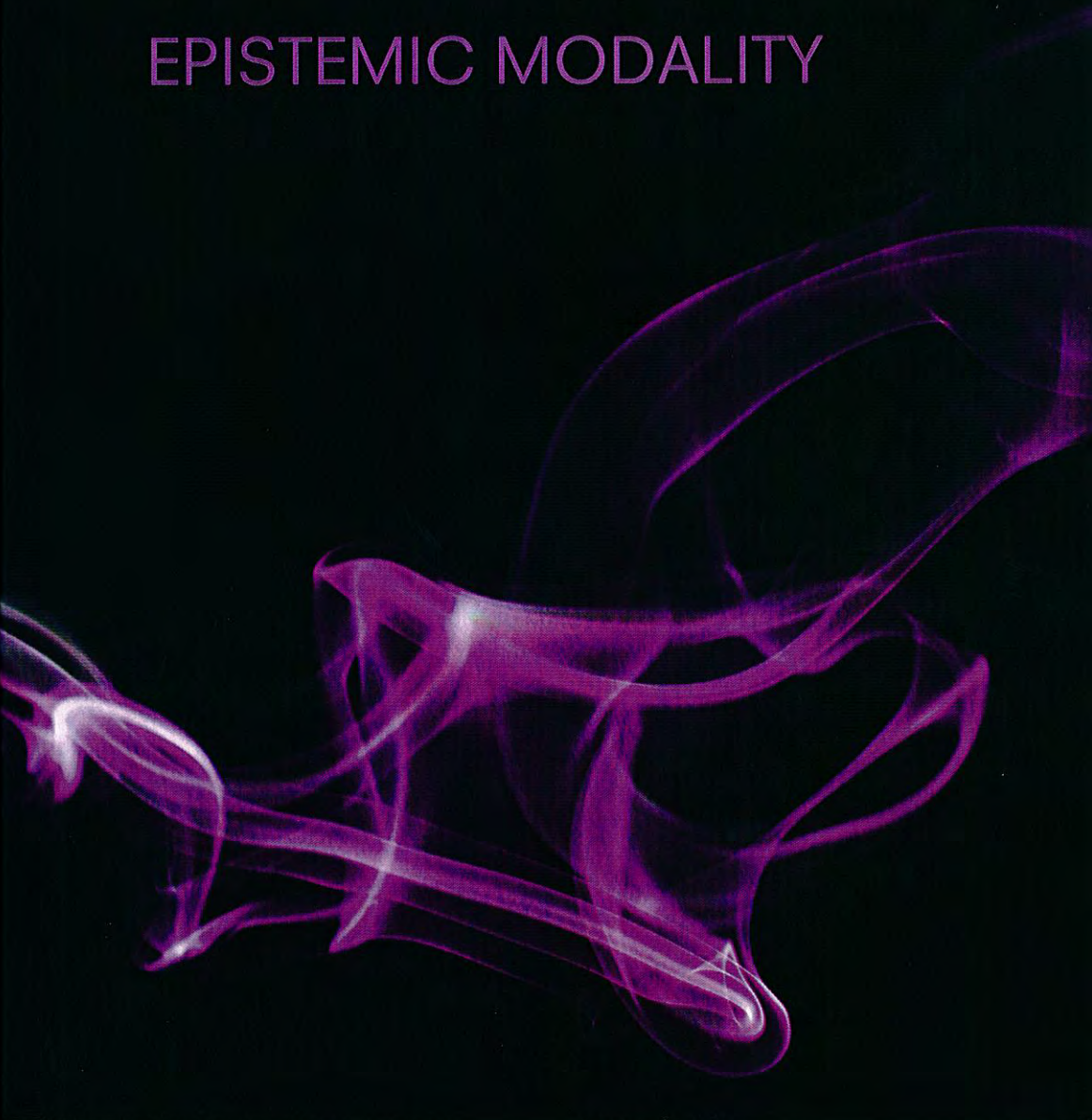
& Brian Weatherson

EPISTEMIC MODALITY



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Notes on Contributors

Kent Bach Department of Philosophy, San Francisco State University.

David Chalmers Research School of Social Sciences, Australian National University and Department of Philosophy, New York University.

Andy Egan Department of Philosophy, Rutgers University and Arché Philosophical Research Centre, University of St Andrews.

Kai von Fintel Department of Linguistics and Philosophy, Massachusetts Institute of Technology.

Anthony S. Gillies Department of Philosophy, Rutgers University.

Frank Jackson Research School of Social Sciences, Australian National University and Department of Philosophy, Princeton University.

John MacFarlane Department of Philosophy, University of California, Berkeley.

Jonathan Schaffer Philosophy Programme, Australian National University; Department of Philosophy, Rutgers University; and Arché Philosophical Research Centre, University of St Andrews.

Robert Stalnaker Department of Linguistics and Philosophy, Massachusetts Institute of Technology.

Eric Swanson Department of Philosophy, University of Michigan.

Brian Weatherson Department of Philosophy, Rutgers University and Arché Philosophical Research Centre, University of St Andrews.

Stephen Yablo Department of Linguistics and Philosophy, Massachusetts Institute of Technology.

Seth Yalcin Department of Philosophy, University of California, Berkeley.

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Possibilities for Representation and Credence: Two Space-ism versus One Space-ism

Frank Jackson

1.

There is a coin on the table in front of me. I can see that it lies heads up. You can't. One way I can give you the information I have but you lack is by my producing the sentence 'The coin lies heads up', or at least it is if we both understand English.

This little story highlights the compelling nature of the representational picture of language, the picture that sees language as providing putative information via the way sentences divide possibilities. There are two ways for the coin to be: heads up and tails up. The sentence 'The coin lies heads up' selects the first possibility—it represents that the first possibility obtains—and anyone who understands the sentence knows this, and this is how the sentence provides the putative information that the coin lies heads up.[1] To generalize, sentences—or at least a great many, for not all sentences represent that things are a certain way—divide the possibilities, the ways things might be, into those in accord with how the sentences represent things to be and those not in accord with how the sentences represent things to be (setting vagueness aside, as nothing here turns on how to handle it). And a sentence provides putative information about how things are by virtue of this fact. If you come across the sentence and are confident, for whatever reason, that things are as the sentence represents them to be—it was produced by someone reliable who has no reason to dissemble, or perhaps it appears in a reputable encyclopedia—then you are in a position to infer that the way things are is in accord with how the sentence represents things to be. If, further, you know what that way is, if in that sense you understand the sentence, the information becomes available to you.

[1] There is a use of the term 'representation' in the philosophy of colour that holds that an opaque thing's looking red represents that it has so and so a surface reflectance property (if that is how the colour science turns out). This is not our use. An opaque thing's looking red does not provide putative information that that thing has so and so surface reflectance in the way that a map, say, provides putative information about where the train comes in. For more on this issue, see Jackson (2007a).

Although this picture of language, or of much of language, is compelling, it raises many questions. This essay is concerned with the question of what to say about three kinds of sentences, where how they represent things to be appears to differ markedly from the set of possibilities at which the sentences are true. Or, more particularly, it is concerned with what *not* to say about the problem raised by these sentences. Our negative message will be, Don't try and solve our problem by appeal to the distinction between metaphysical and conceptual possibility. I'll close, however, with a *very* short comment of a more positive kind. It concerns an ambiguity in what it is to be true at a possibility, but for now please read this notion in the currently dominant way that I'll be presuming until near the very end.

The three kinds of sentences we will look at are: sentences that employ personal pronouns to say how things are, those that employ proper names, and sentences using natural kind terms to say how things are. An example of the first is 'I am happy'. Similar issues arise for 'You are happy', 'He was alive for many years', and so on, but we will focus on present tense, first person examples. An example of the second kind is 'Clark Kent is in the room', under the usual philosophers' pretence in these contexts that the Superman comics are history; another is 'Frank Jackson is giving this talk'. An example of the third kind is 'Water is in the glass'. Similar issues arise for 'That ring is made of gold', 'Jade is uncommon', and so on, but we will frame our discussion mainly in terms of the case of water.

I'll start by noting how these kinds of sentences make trouble for the representational-cum-division of possibilities picture of language. I will then explain why it might be tempting to appeal to the distinction between conceptual versus metaphysical possibility and possibilities to solve the problem before I give the case for resistance. I will be covering some ground I've covered before but discussions with those who take the opposite position have convinced me that I need to say more and, especially, that I need to connect the discussion of representation with the issue of credence and show how the key points apply to sentences containing proper names as well as to sentences containing names of kinds and pronouns. (I should have talked about credence and proper names from the very beginning.[2])

I will mainly talk in terms of possibilities to allow vagueness about whether we should be thinking in terms of possible worlds or centred possible worlds, but when it matters I will distinguish. Mostly it won't matter.

2.

I come out of a coma in a state of dreadful confusion and suffering serious memory loss. I have no idea of who I am or when it is, though in fact I am Frank Jackson and

[2] Thanks here in particular to Scott Sturgeon and Scott Soames for opposition, with thanks to David Chalmers and David Braddon-Mitchell for helping me understand where the opposition is coming from, and thanks more generally to the discussions at the Australian National University and Brown University where earlier versions of some of the ideas here were presented. The previous occasions are the discussions in Jackson (1998, 70 f; 2007c: sect. vi; 2004).

it is 0800 on 2 January 2008. I feel thirsty and report this in the sentence 'I am thirsty (now)'. How am I representing things to be? I am not representing that Frank Jackson is thirsty at 0800 on 2 January 2008. I don't know and have no opinion concerning who I am, and I don't know or have any opinion about the time that I am thirsty. But the worlds where the sentence is true are the worlds where Frank Jackson is thirsty at 0800 on 2 January 2008.

The point just made shows that the set of worlds where the sentence is true gives too much content to 'I am thirsty'. It excludes worlds that should not be excluded, worlds where someone other than myself is thirsty and where the time of thirst is not 0800, 2 January 2008. The set is also too weak. A division—any division, not only the one just rejected—among possible worlds cannot capture the content of the sentence because possible worlds do not cut the possibilities finely enough. To capture the *representational content*—how the sentence represents things to be—of 'I am thirsty', we need a division among centred worlds. Worlds are too coarse-grained. Although I am making a claim about the kind of world I am in when I say that I am thirsty, for I am saying in part that I am in a world with at least one thirsty person, I am in addition making a claim about the kind of thing I am in this world, and this extra claim requires that the representational content of 'I am thirsty' makes a division among centred worlds—in this case, in a way that includes those with thirsty centres in the content—not worlds simpliciter.

This point is an old one but it is still sometimes treated as if it revealed some kind of mystery about the nature of our world, something that outruns science with its perspective-free account of our world, something irreducibly indexical in the sense of being an 'indexical fact' additional to those inventoried in science, whereas there is, in my view, instead an important lesson about representation. We do not learn something about how things are but something about how we represent things to be.[3]

Here is a way to see this. Imagine that God is looking down on a possible world and has the ability to find out everything there is to find out about what that world is like. In that world someone says 'I am thirsty'. How would God tell whether or not the person had spoken truly? God would check to see if the person who had produced the sentence token was or was not thirsty at the time of speaking. God would not need to investigate indexical facts or anything like that. All that would be required would be to ascertain whether or not a certain causal origin of the token sentence was thirsty. What is irreducible is the need for centred worlds to capture how things are being represented to be, not indexicality *qua* feature of a world.

Let's now look at sentences using proper names.

[3] As David Lewis said (Lewis 1979). The literature on the issue is a large one but see Perry (1979), and the discussion and references in Jackson (1998).

3.

The set of worlds at which 'Frank Jackson is giving this talk' is true is the set where that very person is giving this talk. But what unites those worlds is the presence of the person with my essential properties and that's not part of how a user of that sentence represents things to be. Most users of that sentence will have no idea of my essential properties.

Here is a way to bring the point out. The (rational) credence profile of 'Frank Jackson is giving this talk' does not line up with the distribution of credences over the worlds where the sentence is true. We know the kind of evidence that justifies us in using the sentence 'Frank Jackson is giving this talk' to represent how things are. It is the kind of evidence that you, the audience, have here and now (I first used this example at a lecture): the speaker was introduced by the chair using the words 'our speaker is Frank Jackson'; the poster advertising this talk contained the words 'Frank Jackson' in the spot where the name of the speaker is typically placed; if you ask the person next to you for the name of the speaker, the words 'Frank Jackson' come from their mouth; the name on the passport of the person giving the talk is 'Frank Jackson'; and so on. We know that this kind of evidence confers a very high probability that things are as we use the sentence 'Frank Jackson is giving this talk' to represent them to be. It had better, because it is precisely the kind of evidence we typically have. The alternative is the highly unpalatable one of holding that the claims we make using sentences like 'Frank Jackson is giving this talk' are largely unjustified. This point stands independently of the debate over the right semantic treatment of proper names. We don't have to adjudicate that debate to know when we are justified in using sentences of the form '*A* is *F*' to make claims about how things are.[4] But this kind of evidence does not confer a very high probability that the set of worlds where Frank Jackson, that very person, is giving the talk includes the actual world. The trouble is that the contingently possessed properties you use to identify me—call them Jackson-as-presented-to-us, if you like—do not select from among the very many essential properties that might, for all you know, be my essential properties, and it is my essential properties that determine the set of worlds where 'Frank Jackson is giving this talk' is true.

Let $FJ_1, FJ_2, FJ_3, \ldots$ be the persons who might, for all you, know be me. Suppose that FJ_{17} *is* me. The trouble is that your evidence does not favour the actual world belonging to the set of worlds where 'FJ_{17} is giving this talk' is true over the actual world belonging to the set of worlds where 'FJ_x is giving this talk' for some $x \neq 17$, where FJ_x presents to you in the very way I do. There is nothing to make the difference between giving a high rational credence to the actual world belonging to one set over another.

I should confess that I think we could have made our key point very quickly using the Superman example. I think it is obvious that how Lois Lane represents things to be using 'Clark Kent is before me' differs markedly from how she represents things

[4] Which is not to say that points about the epistemology do not support some treatments over others, see Jackson (2007b).

to be using 'Superman is before me', and that the two sentences have very different credence profiles for her. For instance, when she is at the *Daily Planet* and looking at the apparently mild-mannered man wearing slightly nerdish glasses, she often gives a very high credence to 'Clark Kent is before me' being true but not to 'Superman is before me' being true, despite the fact that the two sentences are true at the very same worlds. But I have laboured the point as so many have, in what seems to me to be a triumph of tenuous theory over common sense, persuaded themselves that the two sentences represent alike and consequently have the same credence profiles.

I suppose that someone might object to the link I am making between credence and representation. Why suppose that how Lois Lane represents things to be using one or another sentence has anything particular to do with the credence she gives things being as the sentence represents things to be? But the credence one gives to a sentence is simply the credence one gives to things being as the sentence represents them to be. One isn't giving credence to the sentence *per se*. (More on this below.)

Let's now look at 'water' sentences.

4.

Consider competent English speakers in 1730, well before it was established that water is H_2O, saying, as it might be, 'There is water in the glass'. They were representing that things were a certain way, and, surely, they knew what that way was. This is how they knew on occasion that what they were saying was very likely true, was a matter of some importance, was something supported by so and so bodies of evidence, was a very useful thing to say, and so on. If they didn't know what they were saying, they could not have known any of these things.

Some have objected to me that this is to fail to understand the environmental nature of content. According to them, speakers in 1730 did *not* know what they were saying precisely because they did not know the key environmental fact that water is H_2O. But notice how implausible this claim is. It means that the philosophers around in 1730 should have warned English speakers that they do not know what they are saying when they use the word 'water' in sentences like 'There is water in the glass', perhaps adding as reassurance that scientists are working hard to find out what water is, and as soon as they have found the answer, we will know what we are saying when we use the word 'water'![5]

I think we must allow that people in 1730 did know what they were representing about how things are when they said 'There is water in the glass'. But they weren't representing that there is H_2O in the glass. They had no idea that water is H_2O and maybe didn't even have the concept of H_2O. What's more, they were very often entitled to believe that things are as they were representing them to be, but they were not entitled to believe that there was H_2O in the glass. They hadn't done the experiments; no one had. And think of those who subsequently did do the key

[5] For more on this, see Jackson (2007c).

experiments later on. At one point in time the experimenters were entitled to say something like 'There is water in the glass'. A little later, after obtaining two parts of hydrogen and one of oxygen on passing a current through the stuff in the glass, they were entitled to say 'There is H_2O in the glass' and accordingly to conclude that water is H_2O. We don't want to find ourselves in the position of having to charge these experimenters with arguing in a circle. But of course the worlds where 'There is water in the glass' and the worlds where 'There is H_2O in the glass' are one and the same. It follows that we have another case where the representational content of a sentence differs from the set of worlds where a sentence is true.

The implausibility of giving 'There is water in the glass' and 'There is H_2O in the glass' the same representational content also comes out when we think of the credences we give the two sentences. As we said above, when we attach a credence to a sentence, we are not attaching it to the sentence *per se*. We are attaching it to things being the way the sentence represents them to be. This is the sense in which language is diaphanous, to borrow a term from the philosophy of sensory experience; language points out into the world. To ask how much credence one should give 'The coin will land heads' is nothing over and above to ask how much credence one should give to the coin's landing heads. But this means that if the representational content of 'There is water in the glass' is one and the same as that of 'There is H_2O in the glass', the sentences must always have the same credence, including for those ignorant or in doubt about the identity of water with H_2O. This is very hard to believe. Indeed one might claim the possibility that there is a difference in credence is close to common ground. For it is close to common ground that it is *epistemically* possible that water is not H_2O, and that implies that 'water' and 'H_2O' sentences may differ in credence. What is more—and this is a point I owe to discussion with David Braddon-Mitchell—suppose a critic insisted, against appearances, that the two sentences had the same credence in 1730, what was that single credence? Suppose scientists of the time gave a very small credence of, say, 0.5 to water being H_2O, and suppose our speaker is 99.9% certain that there is water in some glass in front of her and knows that current science gives a chance of 0.5 to water being H_2O. She thinks, in consequence, that 'There is water in the glass' has 99.9% likelihood of being true, and that 'There is H_2O in the glass' has about 0.5% likelihood of being true. Our critic is insisting that in fact the two sentences have the very same credence—at least one of her opinions about the credence of the sentences in her mouth is false. But which credence—99.9% or 0.5%—is the wrong one? Or should we average, so both are wrong? It is impossible to give a principled answer.

One might be tempted to respond to the case for 'There is water in the glass' and 'There is H_2O in the glass' differing in content by arguing that what we have, rather, is the same (representational) content differently presented. Hearing where the mouse is and seeing where it is may represent the same location for the mouse but under different modes of presentation. But the case for differentiating the contents turned on differences in how things were represented to be by the two sentences, not differences in modes of presentation. The case turned on the fact that how 'There is water in the glass' represents things to be was known in 1730, and that what was known was something often reasonably believed, whereas neither is the case for how 'There is H_2O in the glass' represents things to be.

5.

There is an initially appealing way out of the problem posed by the above examples and although I will be rejecting it—indeed, doing that is the main business of this essay—we should note its attractions first.

Take the problem posed by the fact that 'There is water in the glass' and 'There is H_2O in the glass' are true at the very same possibilities. This is a consequence of the fact that 'Any water is H_2O' is necessarily true (I use the 'any' construction to avoid issues raised by worlds that lack water which are by the way here). However, that sentence is not *a priori*; it is *a posteriori*. As it is often put, the sentence is metaphysically necessary but not conceptually necessary. It is then tempting to express this by distinguishing the space of metaphysical possibilities from the space of conceptual possibilities, saying that 'Any water is H_2O' is true at every metaphysical possibility but not at every conceptual possibility. The space of conceptual possibilities is the space of possibilities that cannot be ruled out *a priori*, it might be urged, and the idea is that the lesson of Saul Kripke's convincing examples of the necessary *a posteriori* is that, as Scott Soames puts it, there are 'world states' that cannot be ruled out on conceptual grounds but which are, all the same, impossible: they are metaphysically impossible but conceptually possible.[6] Or consider how William G. Lycan expresses it:

> Consider the standard picture of logical space, featuring ever-larger concentric circles. We can start with the usual three grades of possibility, nomic, metaphysical, and conceptual; the nomically possible worlds are a proper subset of the metaphysically possible, which in turn are a proper subset of the conceptually possible.[7]

But now, runs the line of thought,[8] we can make the representational content of 'There is water in the glass' different from that of 'There is H_2O in the glass' by identifying representational content with the set of conceptual possibilities at which a sentence is true instead of with the set of metaphysical possibilities at which a sentence is true. The fact that there are conceptually possible worlds where water is not H_2O then makes the content of the two sentences different—as desired. Also, we would seem to have a neat account of how their credence profiles can differ. For example, we can say that in 1730 people confronted with our glass gave 'There is water in the glass' a much higher credence than they gave to 'There is H_2O in the glass' because

[6] Soames (2005: *passim*, e.g. the beginning of ch. 5, p. 84 f.).
[7] Lycan (2009: 78).
[8] A line of thought opened up by Soames, Lycan, and Sturgeon (in discussion); I am not saying that they would endorse it although I am sure many would.

they gave lots of credence to their being in one of the conceptually possible worlds where water is not H_2O but is the stuff in the glass.[9]

Similar remarks might be made for other examples. Take the fact that I may be much more certain that 'I am thirsty' is true than that 'Frank Jackson is thirsty' is true. The idea would be to put this down to the substantial credence I give the conceptual possibility that I am not Frank Jackson. Or take the case where Lois Lane is much more confident of the truth of 'Clark Kent is before me' than she is of 'Superman is before me'. The idea is to put this down to the considerable credence she gives to her being in one of the conceptually possible worlds where Clark Kent is not Superman but is before her.

In sum, the idea is that we get the representational content of a sentence, *S*, right by identifying it with the set of conceptual possibilities where *S* is true, and we get the intimately related topic of credence right by distributing the credences over the space of conceptual possibilities. Our troubles have all been the product of asking the space of metaphysical possibilities to do the job of the space of conceptual possibilities. Indeed, the supporters of this idea might well add that the point was obvious from the beginning. Using the space of the metaphysically possible to model representation content would make metaphysics too much a part of semantics; it would allow metaphysics to intrude unduly into our representational capacities.

Why then do I reject the two logical spaces strategy? It is certainly initially appealing. (But note that the strategy implies that, on arguably the central sense of 'reference', it is false that 'water' refers to H_2O. For arguably the central sense of 'reference' is tied to what happens in the possibilities right for representation. This result doesn't worry me but will worry some.)

6.

My original reason was the conviction that the famous examples of the necessary *a posteriori*, while being good examples of *sentences* that were necessary *a posteriori*, did not show that we need to admit *world states* or *possibilities* or *possible worlds* that are metaphysically impossible while being conceptually possible.[10] True, one might naturally have thought that granting that the sentence 'Any water is H_2O' is necessarily true, while also granting that its being so is only *a posteriori* discoverable, commits one to possibilities that are metaphysically impossible and yet conceptually possible in the sense that their impossibility is not *a priori* available. For a natural thought is that

[9] Conceptual possibilities are often called epistemic possibilities. I think this is potentially confusing when discussing 'two spaces of possibilities' views. The obvious way to think of epistemic possibilities is as possibilities consistent with such and such an epistemic state; that says nothing about whether or not there are two spaces of possibilities, only that among the perhaps single space we can distinguish ones consistent from ones not consistent with such and such an epistemic state. I'm *not* suggesting that those who call conceptual possibilities epistemic possibilities are confused. They are thinking of conceptual possibilities as those that are in some sense believ*able*, those that cannot be ruled out *a priori*.

[10] See, e.g., Jackson (1992; 1994; 1998). The conviction came from reading supporters of two-dimensional treatments of the necessary *a posteriori*, especially Tichý (1983).

water's failing to be H_2O is precisely an example of something that is conceptually possible while being metaphysically impossible. But reflection on the origin of our conviction that the sentence 'Any water is H_2O' is necessarily true strongly suggests otherwise.

The conviction comes from a combination of three facts. One is that the word 'water' is a descriptive name for the typically potable, odourless substance that is a fluid at room temperature and is found in lakes, etc. This is what we use the word for—or something like that, with the usual caveats about cluster terms, vagueness and variation between users of the word, and about context. The second is that if something is H_2O in any possible world, then it is H_2O in every possible world in which it appears. Finally, there is the fact that the typically potable, odourless substance that is a fluid at room temperature and is found in lakes, etc. is H_2O. The first is a fact about words; the second is *a priori* (the argument is that our concept of being the same kind precludes sameness in kind surviving a change from being H_2O to not being H_2O); and the third is an *a posteriori* contingent fact. That is to say, the facts that tell us that the sentence 'Any water is H_2O' is necessary *a posteriori* are none of them something which is itself necessary *a posteriori*. Armed with the space of conceptual possibilities and a plausible view about how what the word 'water' picks out at a possibility is a function of how things actually are, we have an attractive account of why the sentence 'Any water is H_2O' is a necessary *a posteriori* truth. There is no need to add into the mix possibilities that are metaphysically impossible while being conceptually possible. Occam's Razor tells us to dispense with conceptual possibilities that are metaphysical impossibilities.[11]

I stand by this argument but I now think it gave an unnecessary hostage to fortune in its reliance on kind terms being descriptive names. The key issue is whether or not we should acknowledge two spaces of possibility: the space of metaphysical possibilities as a proper subset of the space of conceptual possibilities, with the second space being the right one for representation according to the view under examination; and we can argue against this position without taking an inevitably controversial stand on kind terms being descriptive names.[12]

7.

There are two problems for the two space view which we can press without recourse to the issue about the semantics of kind terms. The first concerns the identity of the possibilities that are claimed to be conceptually possible while being metaphysically impossible.

If any water's being H_2O (the possibility) is metaphysically necessary but not conceptually necessary, whereas any water's being water (the possibility) is both

[11] For replies to some objections some have to this argument, see Jackson (2003).

[12] For a different argument against the two spaces position but one that also steers clear of whether or not 'water' is a descriptive name, see Stalnaker (2003: §1).

metaphysically and conceptually necessary, any water's being H_2O is a different possibility from any water's being water, by Leibniz's Law. But then what makes the difference between the two possibilities? The only possible answer would seem to be that water differs from H_2O, but to hold that would be to take the necessity of water's being H_2O as a necessary connection between distinct properties—water and H_2O—and that seems exactly the wrong way to look at what is going on. Perhaps—*pace* Hume—there are necessary connections between distinct properties, but water and H_2O is not an example. Look as hard as you like at a glass of water and you won't discern two properties: water and H_2O, that somehow necessarily track one another. There are in fact only two live options for the type *water*: it is the type H_2O, in which case there is a single property, or it is the type *the typically potable, odourless substance that is a fluid at room temperature and is found in lakes, etc.*, in which case there are indeed two properties but they are not necessarily connected.

Here's another way of making essentially the same point. We should all agree that water's being H_2O is both conceptually and metaphysically possible, for the best of all possible reasons: water's being H_2O is actual. Now consider the relationship between that possibility and water's not being H_2O, the possibility that is allegedly conceptually possible while being metaphysically impossible—call them the first and second possibility, respectively. What makes the water in the second possibility the water in the first possibility? There are three answers one might give. First answer: its being H_2O. But H_2O's not being H_2O is conceptually impossible. Second answer: what makes the water in the second possibility the water in the first possibility is its being a kind that is typically potable, odourless, liquid at room temperature, and all that. But H_2O's not being such a kind is metaphysically possible. Third answer: what makes the water in the second possibility the water in the first possibility is its having some *sui generis* 'water-making' feature. But that's the extra property view we noted above is to be rejected. On no credible answer to our question do we have a possibility that is conceptually possible without being metaphysically possible.

A similar problem can be raised for other examples of possibilities claimed to be conceptually possible but metaphysically impossible. Many hold that some particular table's not being made of wood, in the case where it is in fact made of wood, is metaphysically impossible. But now we have: the possibility of that table's being made of wood is both conceptually and metaphysically possible, whereas the possibility of that table's not being made of wood is conceptually possible but not metaphysically possible. What makes the table in the second possibility that very table? If a table's constitution is an essential property of it (and if it isn't, we don't have an example of metaphysical impossibility to start with), part of the answer must be its being made of wood. But then the second possibility is that of a table made of wood not being made of wood, and that is *conceptually* impossible. That is, the second possibility isn't an example of something metaphysically impossible while being conceptually possible.

As one might expect, a similar problem also arises for cases involving proper names. Here's an example that points up the issue in an especially sharp form, or so it seems to me.

Fred knows a bit about American literature but not much. He opens a book that has on its title page: '*The Adventures of Huckleberry Finn* by MARK TWAIN'. In consequence, he gives the sentence 'Mark Twain is the author of *The Adventures of Huckleberry Finn*' a very high credence; he knows that most title pages are to be trusted. Fred also knows that it is unusual for one person to have two names. Putting the two points together, he gives the sentence 'Samuel Clemens is the author of *The Adventures of Huckleberry Finn*' a very low credence. This is exactly the right thing for him to do. But how can this be the right thing to do if the sentences are true at the very same worlds, bearing in mind our earlier point that the credence we give sentences isn't to words *per se* but to how they represent things to be? The two spaces position we are examining responds, first, that the worlds at which the sentences are true coincide through metaphysically possible space but not through conceptually possible space. The set of conceptually possible worlds where 'Mark Twain is the author of *The Adventures of Huckleberry Finn*' differs from the set of conceptually possible worlds where 'Samuel Clemens is the author of *The Adventures of Huckleberry Finn*'. Secondly, the two space position says that conceptually possible space is the right space for modelling representation and credence. It follows that there is no puzzle about the two sentences having different credences for Fred.

This response requires there to be conceptually possible but metaphysically impossible worlds where Mark Twain $\neq$ Samuel Clemens. But our world, the actual world, is conceptually possible as well as metaphysically possible, and it has Mark Twain being one and the same person as Samuel Clemens. Are the Mark Twain and Samuel Clemens of the conceptually possible worlds where Mark Twain doesn't equal Samuel Clemens, the very same people as *our* Mark Twain and Samuel Clemens? They cannot be. Two people can't be one person. At most, what is conceptually possible is that persons who present in the Mark Twain way (whatever precisely that way is, but presumably it will be in part to do with the connection between the person and the name) and who present in the Samuel Clemens way are distinct in those worlds, but that's metaphysically possible. It is metaphysically possible for persons who present in the Mark Twain way and the Samuel Clemens way to be different people. What's metaphysically impossible is for our very own Mark Twain and Samuel Clemens to be distinct persons. As before, we don't have a possibility that is conceptually possible while being metaphysically impossible.

Now for the second problem.

8.

The key idea behind the two spaces approach is that we get the representational content of language right by focussing on the space of conceptual possibilities, and ditto for credence. Metaphysical possibilities are by the way when representation and credence are our concern. The second problem is that the problems generated by personal pronoun sentences and by sentences containing proper names can

be raised without moving outside the space of the conceptually possible, as we'll now see.

If conceptual possibilities are right to capture the representational properties of words and sentences, we better be able to use words to talk about conceptual possibilities and about objects and properties at conceptual possibilities. If we can't, we can be sure that conceptual possibilities are the wrong possibilities to capture the representational content of language. But in that case I can use 'I' and 'now' to name myself and a time of speaking across the space of conceptual possibilities. But in that case 'I am thirsty (now)' said by me at 0800 on 2 January 2008 is true at the conceptually possible worlds where Frank Jackson is thirsty at 0800 on 2 January 2008. We are back with the problems of too much content and too little content! Too much content because I am not saying who I am and when it is when I produce 'I am thirsty now' at 0800 on 2 January 2008; too little content because as we saw earlier we need centred possible worlds to capture the content, and divisions among centred worlds carry more information than divisions among worlds.

Similar points apply to the Mark Twain and Samuel Clemens example.

It had better be the case that we can name people rigidly across conceptual possibilities. Otherwise conceptual possibilities cannot be right for representation. That is, it had better be the case that we can give the very same person in conceptual space two different names. How else could we address a question like, What is conceptually possible for *Plato*? But our naming practices are not always transparent in the sense of revealing when we've named the same thing twice over, or thrice over or... In consequence, our non-expert on American literature will (rightly by his lights) give the sentence 'Mark Twain is the author of *The Adventures of Huckleberry Finn*' a very high credence, and the sentence 'Samuel Clemens is the author of *The Adventures of Huckleberry Finn*' a very low credence. But the sentences will be true at exactly the same conceptually possible worlds, for we are naming across the conceptually possible; *mutatis mutandis* for Lois Lane, Hesperus, and all the other examples of that ilk.

9.

I hope I have convinced you that the two logical spaces approach—two space-ism—to solving our problem is a mistake (but I'll take giving you serious pause). I promised something very brief of a positive kind on what to say about our problem.

Instead of two logical spaces, I think we need to think in terms of one space carved out in two different ways. One way of carving gives us *A*-intensions or primary intensions; the other gives us *C*-intensions or secondary intensions. *C*-intensions are the possibilities at which sentences are true in the sense operative in the discussions above. *A*-intensions are what we need for representation and credence. That's the idea I have defended in a number of places on other occasions.[13] I have said nothing here

[13] Jackson (2007c; 1998; 2004).

in defence of this idea except to the extent that one way of defending an idea is to raise objections to an initially promising alternative to it. But I should note in closing, as promised near the beginning, that there is an ambiguity in the notion of truth at a possibility. Suppose that, for some sentences, their truth at a possibility is a non-trivial function of both the possibility and of which possibility is actual. Then there would be a non-trivial distinction between truth at a possibility and truth at a possibility if that possibility is actual. But truth is a matter of being true the way things actually are. 'Snow is white' is true at the worlds where snow is white, but it is true simpliciter because it is true at the actual world. It follows that to be true at a possibility under the supposition that that possibility is actual is a perfectly kosher reading of truth at a possibility, and of course a sentence's *A*-intension is the set of possibilities where a sentence is true under the supposition that they are actual.

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