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The Philosophical Significance of The Kripkean Necessary *Aposteriori*

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In a recent paper, I discussed Saul Kripke's two routes to the necessary *aposteriori* – one correct and far-reaching, the other incorrect and misleading.¹ In this essay, I will show how each connects with broader issues and agendas in philosophy. I will argue that Kripke's first route has led to a distinction between metaphysical and epistemic possibility that is an important advance in analytic philosophy, while his second route has led to an attempted revival pre-Kripkean orthodoxy which both threatens that advance, and leads to philosophically suspect results. I begin with a broad-brush sketch of the impact of Naming and Necessity, and other seminal works, on the conventional wisdom of the golden age of mid-twentieth-century philosophy.²

The Anti-Descriptivist Revolution

The anti-descriptivist revolution led by Saul Kripke, Hilary Putnam, and David Kaplan challenged the following central tenets of the dominant philosophy of their time.

- (i) The meaning of a term is never its referent. Instead, it is a descriptive sense that encodes conditions necessary and sufficient for determining reference.
- (ii) Since the meaning of a word, as used by a speaker s, is the descriptive sense that s mentally associates with it, meaning is transparent. If two words mean the same thing, then anyone who understands both should be able to figure that out by consulting the sense that he or she associates with them. Word meanings and mental contents are entirely dependent on factors internal to speakers.
- (iii) Apriori and necessary truth amount to the same thing. Both are grounded in meaning.

1

¹ Scott Soames, "Kripke on Epistemic and Metaphysical Possibility: Two Routes to the Necessary Aposteriori," in Alan Berger, ed., <u>Saul Kripke</u> (Cambridge: Cambridge University Press), forthcoming.

² Saul Kripke, Naming and Necessity, (Cambridge, MA: Harvard), 1980.

- (iv) Metaphysical claims about objects having or lacking properties essentially -- independently of how they are described -- make no sense. Even if a term t designates o and \[\text{Necessarily} \] t is F (if t exists) \[\] is true, there will always be another term t* designating o for which \[\text{Necessarily t* is F (if t* exists)} \[\] is false. Since it would be arbitrary to give either sentence priority in determining the essential properties of o, the idea that objects have, or lack, such properties must be relativized to how they are described.
- (v) Since the job of philosophy is not to come up with new empirical truths, its central task is conceptual clarification, which proceeds by the analysis of meaning.

These doctrines and their corollaries provided the framework for the golden age of mid-twentieth-century analytic philosophy, when the necessary, the *apriori*, and the analytic were one, when all possibility was linguistic possibility, and when proponents of the linguistic turn had made philosophy palatable to the modern mind by giving it a respectable subject matter – language – and rendering it, if not exactly scientific, at least precise and rigorous. This analytic vision had survived family quarrels among the logical positivists, and adapted to the change from logical atomism to the ordinary language school of philosophy. It had even survived Quine's criticism of the linguistic *apriori*, and his attack on the analytic-synthetic distinction – the former, mostly by ignoring it, and the latter by infecting it with the presupposition that the necessary, the *apriori*, and the analytic were one.³ Since it was surely too much to give up all three, Quine's attack – which indiscriminately lumped them together – didn't convince.

All that changed with the introduction of rigid designation, direct reference, and nondescriptionality in the early 70s. Kripke's argument that names and natural kind terms are *rigid*

³ See chapters 12, 16, and 17 of my <u>Philosophical Analysis in the Twentieth Century</u>, Vol. 1 (Princeton: Princeton University Press), 2003.

designators, and so not equivalent to descriptions associated with them by speakers, was the entering wedge. He next used rigid designation to rebut Quine's famous objection to essentialism, enshrined in (iv). A rigid designator t of an object o is one that picks out o in all possible circumstances in which o exists. This means that when t is rigid, the question of whether o has the property expressed by F essentially – which here means, simply, whether o has that property in all circumstances in which o exists -- is equivalent to the question of whether the sentence [Necessarily t is F (if t exists)] is true. The truth values of other sentences containing non-rigid designators are irrelevant. Once this was seen, Quine's objection to the intelligibility of essentialism collapsed.

With both a nondescriptive semantics and a rehabilitated conception of essentialism in place, Kripke next showed how to generate instances of the necessary *aposteriori*. If n is a name or indexical that rigidly designates o, F expresses an essential property of o, and knowledge that o has this property requires empirical evidence, then the proposition expressed by If n exists, then n is F is both necessary and knowable only *aposteriori*. All of a sudden, the necessary and the *apriori* were no longer the same, and the idea that one, or both, might arise from something beyond the linguistic became credible.

With this essentialist route to the necessary *aposteriori* came a sharp distinction between *conceivability* and *genuine possibility* — between ways things could *conceivably* be vs. ways things could *really* be (or have been). It is natural to draw this distinction in terms of *possible worlds*, or better, *possible world-states*. For the Kripkean, possible states of the world are *not* alternate concrete universes, but abstract objects. *Metaphysically possible world-states* are maximally complete ways the real concrete universe could have been — maximally complete properties that the universe could have instantiated. *Epistemically possible world-states* are maximally complete ways the universe can coherently be conceived to be — maximally complete properties that the universe

can be conceived of as instantiating, and that one cannot know *apriori* that it doesn't instantiate. These two sets of properties are different. Just as there are properties that ordinary objects could have had and other properties they couldn't have had, so there are certain maximally complete properties the universe could have had – metaphysically possible world-states – and other maximally complete properties the universe couldn't have had – metaphysically impossible world-states. Just as some of the properties that objects couldn't have had are properties that one can conceive them as having, and that one cannot know *apriori* that they don't have, so some maximally complete properties that the universe couldn't have had are properties that one can conceive it as having, and that one cannot know *apriori* that it doesn't have. These states of the world are *epistemically*, but not *metaphysically*, possible. On this picture – which Kripke himself didn't make explicit, but could have — the reason empirical evidence is required for knowledge of necessary truths that are knowable only *aposteriori* is to rule out metaphysically impossible, but epistemically possible, world-states in which they are false.

This is the heart of the philosophical revolution led by Kripke and his allies. By the time the dust had settled, all five of the central theses of the golden age of mid-twentieth-century analytic philosophy had been either decisively rejected, or called into question. As I have stressed, the Kripkean necessary *aposteriori* played a central role in this. However, his treatment of this topic was not as simple as my broad sketch suggests. As I indicated at the outset, Kripke's work contains *two* routes to the necessary *aposteriori*. In addition to the essentialist route just noted, there is a second route, both extensionally and philosophically quite different from the first. It is to this distinction that I now turn.⁴

⁴ The next three sections summarize the more extensive discussion in "Kripke on Epistemic and Metaphysical Possibility."

Kripke's First, Essentialist, Route to the Necessary Aposteriori

- 1. Greg Soames \neq Brian Soames
- 2. If Saul Kripke exists, the Saul Kripke is a human being.
- 3. This desk (pointing at the one in my office) was not made out of metal.
- 4. If this desk exists, then it consists of molecules.

Since the propositions expressed by these sentences are true, they are, according to Kripke, necessarily true. However, they are also knowable only *aposteriori*. How can this be? How can a proposition that is necessary, and known to be so, also be knowable only *aposteriori*? Kripke's answer appeals to our knowledge of essential properties and relations. We know *apriori* that being human, being a desk that was not made out of metal, and being a desk consisting of molecules are essential properties of anything that has them. We also know *apriori* that being non-identical is a relation that holds essentially of any pair it relates. So, we know *apriori* that if any objects have these properties, or stand in this relation, then they have, or stand in, them in any genuinely possible circumstance in which they exist. Hence, we know *apriori* that propositions (1-4) are necessary, if true. Still, discovering that they are true requires empirical investigation. Thus, in order to discover what could and could not be, one sometimes must first discover what is.

As indicated above, this route to the necessary *aposteriori* implicitly contains a sharp distinction between epistemic and metaphysical possibility – between ways that the universe could *conceivably* be (epistemically possible world-states), and ways that the universe could *really* be (metaphysically possible world-states). On this picture, some things that are coherently conceivable are not genuinely possible. How, then, are conceivability and possibility related? Kripke's answer

⁵ When speaking of (Kripkean) "essential" properties and relations, I mean simply *properties and relations that hold* necessarily of objects (in all genuinely possible world-states in which the objects exist).

is based on the fact that when p is an instance of the necessary *aposteriori* of the sort just discussed, then although p is knowable only *aposteriori*, it is knowable *apriori* that if p is true, then p is necessary. The fact one cannot know p *apriori* means that one cannot know *apriori* that a world-state in which p is false is not instantiated. Such states are coherently conceivable, and so epistemically possible. The fact that one knows *apriori* that if p is true, then p is necessary means that one knows *apriori* that if a world state in which p is true is instantiated, then no world-state in which p is false could have been instantiated. Thus, when one finds, empirically, that p is true, one learns *aposteriori* that epistemically possible world-states in which p is false are metaphysically impossible.

On this picture, the things we conceive when trying to determine what is metaphysically possible include not only individual world-states, but entire *systems* of metaphysical possibility, each with a designated "actual" world-state and a space of related states. Someone seeing my desk for the first time who doesn't know what it was (originally) made of can conceive of a world-state in which it was made of mahogany, a world state in which it was made of oak, and perhaps even a world-state in which it was made of metal. One can conceive of each of these states being instantiated. Accompanying each state, one can conceive of related states that will be genuine metaphysical possibilities, if the initial, designated state is instantiated. So accompanying the designated (actual) state in which the desk was made of reddish-brown mahogany, one can conceive of related world-states in which it was made of mahogany stained another color. But given the supposition that the original state is instantiated, one can conceive of *no* state possible relative to it in which that very desk was (originally) made of some other material – e.g. oak or metal. A similar point holds for

⁶ Saul Kripke, Identity and Necessity," Milton Munitz, ed., <u>Identity and Individuation</u>, (New York: NYU Press), 1971, 152-3.

other epistemically possible world-states in which the desk *was* made of those things. When they play the role of the designated "actual" world-state – i.e. when one considers them as instantiated and asks which states are possible relative to them – one regards world-states in which the desk was made of mahogany as impossible *relative to those states*.

So we have a set of epistemically possible world-states, each of which can coherently be conceived as being instantiated. Along with each such state w_1 , we have (epistemically possible) world-states w_2 which we recognize to be metaphysically possible, if the initial, designated "actual" state w_1 is instantiated – i.e. we recognize that if w_1 were instantiated, then w_2 would be a property that the universe could have had. Moreover, for each such state w_2 there are (epistemically possible) world-states w_3 which we recognize to be metaphysically possible, if w_2 is instantiated – i.e., we recognize that if w_1 were instantiated, then w_3 would be (metaphysically) possibly possible. Repeating this process indefinitely, we generate a coherently conceivable system of metaphysical possibility. Collecting all such systems together, we have a set of epistemically possible systems of metaphysical possibility. For a world-state to be genuinely metaphysically possible (or possibly possible) is for it to be a metaphysically possible (or possibly possible) member of some epistemically possible system of metaphysical possiblity the designated world-state of which is the state that the world really is in.

Though not a definition of metaphysical possibility in non-modal terms, this is, I believe, an illuminating way of thinking about the relationship between conceivability and possibility. On this picture, conceivability is a fallible, but useful guide to metaphysical possibility. It is fallible because before we know much about what is actual, there are many epistemically possible world-states that appear to be genuinely possible, and so remain candidates for being metaphysically possible. The more we learn about the world, the more we whittle down this field of candidates,

and the better able we are to identify the scope of genuine metaphysical possibility. In short, our guide to metaphysical possibility is conceivability plus knowledge of actuality.

This relationship between the epistemological and the metaphysical is implicit in the following statement of Kripke's essentialist route to the necessary *aposteriori*.

ERNA

Let p be a true proposition that attributes a property (or relation) F to an object o (or series of objects), conditional on the object (or objects) existing (while not attributing any further properties or relations to anything). Then, p will be an instance of the necessary *aposteriori* if (a) it is knowable *apriori* that F is an essential property of o, if F is a property of o at all (or a relation that holds essentially of the objects, if F holds of them at all), (b) knowledge of o that it has F, if it exists (or of the objects that they are related by F, if they exist) can only be had *aposteriori*, and (c) knowing p involves knowing of o (or of the objects) that it (they) have F, if it (they) exist at all. (o can be an individual or a kind.)

The scope of the necessary *aposteriori* established by this route is determined by which properties and relations can play the role of F in ERNA. With the exception of one significant class of cases, Kripke's own putative examples of the necessary *aposteriori* can all be derived by this route, using either his own explicit doctrines about essential properties and relations, or plausible extensions of them. The examples that *cannot* be so derived are propositions expressed by identity sentences containing variables, names or demonstratives, plus propositions expressed by corresponding sentences containing simple natural kind terms. Although such examples are standardly taken to be instances of the Kripkean necessary *aposteriori*, in fact, their status is doubtful. Let o and o* be objects to which the identity relation actually applies, and p be a proposition that (merely) attributes identity to the pair. Then, although conditions (a) and (c) of ERNA are satisfied, condition (b) is

not, since knowledge of the pair – i.e. of <0,0> – that identity truly applies to it can surely be had *apriori*. Thus, p is an example of the necessary *apriori*, not the necessary *aposteriori*.

This point is illustrated by (5).

5. $[\exists x: x = \text{Hesperus}] [\exists y: y = \text{Phosphorus}] \text{ it is a necessary truth that } x = y.$

Since (5) is true, the proposition expressed by 'x = y', relative to an assignment of Venus to 'x' and 'y', is a necessary truth. However, since this proposition (merely) predicates identity of Venus and itself, it is knowable *apriori*, if anything is. Other problematic cases include those expressed by sentences of the form (6a), where m and n are simple, coreferential names, and those expressed by sentences of the form (7a), where K and K* are simple natural kind terms (rigidly) designating the same kind k, and \lceil is a K \rceil and \lceil is a K \rceil are predicates applying to all and only instances of k.

- 6a. n = m
- b. Hesperus is Phosphorus
- 7a. $\forall x [x \text{ is a } K \leftrightarrow x \text{ is a } K^*]$
- b. Woodchucks are groundhogs (and conversely)

Since, according to Kripke, names don't have descriptive senses, it is natural to take a sentence consisting of names plus a relational predicate R to semantically express a proposition which predicates the relation expressed by R of the referents of the names, without any further predication. On this model, the proposition expressed by (6b) merely predicates identity of Venus and itself. Although this proposition is necessary, it seems to be knowable *apriori*. One could, of course, avoid this conclusion by adopting the assumption (foreign to Kripke) that -- in addition to predicating identity of Venus and itself -- the proposition expressed by (6b) also predicates the properties of being visible in the evening and being visible in the morning of Venus. But then, the

proposition will be *contingent*.⁷ Thus, although Kripke gives (6b), and other instances of (6a), as paradigmatic examples of the necessary *aposteriori*, one cannot arrive at this result by his standard essentialist route. Analogous remarks apply to instances of (7a).

Kripke's Second (Attempted) Route to the Necessary Aposteriori

The argument for the *aposteriority* of (6b) given in the last few pages of lecture 2 of Naming and Necessity is based on the observation that the evidence available to a speaker who understands 'Hesperus' and 'Phosphorus' is insufficient to determine that they are coreferential. Kripke illustrates this by noting that there are possible world-states w in which competent users of 'Hesperus' and 'Phosphorus' are in evidentiary situations qualitatively identical to ours (prior to the astronomical discovery), and yet, in w, the names refer to different things. This indicates that the evidence available to us, simply by being competent speakers, doesn't establish (6c) or (6d), and, hence, that these propositions are not knowable *apriori*.

- 6c. 'Hesperus' and 'Phosphorus' are coreferential.
 - d. 'Hesperus is Phosphorus' expresses a truth.

However, the lesson Kripke explicitly draws is that the proposition expressed by (6b) is not knowable *apriori*.

So two things are true: first, that we do not know *apriori* that Hesperus is Phosphorus, and are in no position to find out the answer except empirically. Second, this is so because we could have evidence qualitatively indistinguishable from the evidence we

10

⁷ Including these properties in the contents of 'Hesperus' and 'Phosphorus', and rigidifying using the actuality operator, would preserve the necessity of (6b) (or near enough). However, such an analysis fails on independent grounds. See chapter 2 of my Beyond Rigidity (New York: Oxford University Press), 2002.

have and determine the reference of the two names by the positions of the two planets in the sky, without the planets being the same. (104)

In deriving this conclusion, Kripke seems to implicitly rely on a line of reasoning connecting speakers' understanding and acceptance of sentences with our ability to use those sentences to report what they believe. On this line of reasoning, before the astronomical discovery speakers understood but didn't accept sentence (6b), and so didn't believe that Hesperus was Phosphorus. Since they wouldn't have been *justified* in accepting (6b), based on the evidence then, they wouldn't have been justified in believing that Hesperus was Phosphorus. But then, the proposition that Hesperus is Phosphorus must require empirical justification, in which case it must not be knowable only *apriori*.

Here is the argument:

- (i) One who understands 'Hesperus is Phosphorus' (a) accepts it and believes it to be true iff one believes that Hesperus is Phosphorus, and (b) would be justified accepting it and believing it to be true iff one would be justified in believing that Hesperus is Phosphorus.
- (ii) In order to be justified in accepting 'Hesperus is Phosphorus' and believing it to be true, one needs empirical evidence that the two names refer to the same thing. Given that one knows that 'Hesperus' designates the heavenly body visible in the evening and that 'Phosphorus' designates the heavenly body visible in the morning, one needs evidence that these are the same.
- (iii) Since one needs empirical evidence in order to be justified in believing that Hesperus is Phosphorus, it is knowable only *aposteriori*.

When stated in terms of the propositions expressed by sentences, this argument presupposes SDJ.

Strong Disquotation and Justification (SDJ)

If x understands S, uses S to express p, and knows that S expresses p, then (a) x believes p iff x accepts S (and believes S to be true), and (b) x would be justified in believing p on the basis of evidence e iff x would be justified in accepting S (and believing S to be true) on the basis of e.

One who understands 'Hesperus is Phosphorus', while associating the names with 'the heavenly body visible in the evening', and 'the heavenly body visible in the morning', will justifiably accept the sentence and believe it to be true only if one justifiably believes that the heavenly body visible in the evening is the heavenly body visible in the morning. Since justification for this descriptive belief requires empirical evidence, justification for accepting 'Hesperus is Phosphorus' does too. SDJ transfers this requirement to one's belief in the proposition one uses the sentence to express – presumably, the proposition that Hesperus is Phosphorus. Hence, knowledge of this proposition can only be *aposteriori*.

In lecture 3, Kripke generalizes this explanation to all cases of the necessary *aposteriori*. After summarizing his analysis of natural kind terms, and illustrating their role in expressing instances of the necessary *aposteriori*, he takes up a challenge. Up to now, when describing these instances, he emphasizes that although they are necessary, for all we knew prior to empirically discovering their truth, *they could have turned out otherwise*. Realizing that this may sound puzzling, he tries to defuse a natural objection. Let p be any instance of the necessary *aposteriori*. Since p is *aposteriori*, its falsity must be conceivable, and so, it would seem, knowledge of p must require empirical evidence ruling out possibilities in which p is false. Without such evidence, *it could turn out that p is false*. But, the objector maintains, if p is necessary, there are no such possibilities to rule out, since no matter what possible state the world is in, it is a state in which p is true. Thus, if p is necessary, we *don't* require empirical

evidence to know p after all, and if p is *aposteriori*, then p *isn't* necessary. Either way, the objector concludes, the necessary *aposteriori* is an illusion.

Kripke's reply invokes his account of (6b). According to that account, the function of empirical evidence needed for knowledge that Hesperus is Phosphorus is *not* to rule out possible world-states in which the proposition is false. There are no such states. Rather, evidence is needed to rule out possible states in which we use the *sentence* (6b) to express something false. Ruling this out involves putting aside our *de re* beliefs about Venus, and determining whether our justified *descriptive* beliefs are up to the task. If they fail to rule out the possibility of an epistemic state *qualitatively identical* to ours in which the names refer to different things, then we can't rule out the falsity of the sentence we accept, and so, the thought goes, we can't justify the belief we use the sentence to express.

Kripke's reply to the objection extends this explanation to all instances of the necessary aposteriori. He illustrates this extension with an example in which he encounters a table, and comes to know, on the basis of empirical examination, that it is made of wood, not ice. For all he knew prior to the examination, it could have turned out that the table was made of ice. Kripke tells us that this intuition -- that it could have turned out that the table was made of ice -- is simply the recognition that it is genuinely possible for an agent to be in a situation qualitatively identical to his, prior to the examination, and be facing a table that is made of ice. In pointing at the table and saying 'This table is not made of ice', he expresses a necessary truth – since that very table t could not have been made of ice. However, he would not accept, and would not be justified in accepting, the sentence uttered, unless he also believed, and was justified in believing, the descriptive proposition DP that a unique table over there is not made of ice. It is his justified

Namina and Nasasa

⁸ Naming and Necessity, 141-3.

belief in DP (shared by agents in qualitatively identical states) that rules out possible situations in which his utterance fails to express a truth. DP is, of course, contingent rather than necessary, and hence not to be confused with the (singular) proposition -- that t is not made of ice -- expressed by the indexical sentence uttered. Still, since Kripke is justified in believing DP only on the basis of empirical evidence, and, since this evidence is required for his utterance to be justified, his justification for accepting the sentence uttered requires empirical evidence. From SDJ, it follows that although it is a necessary truth that t is not made of ice, his knowledge of this truth requires empirical justification, and so is aposteriori.

This is Kripke's second route to the necessary *aposteriori*. It applies to all his examples – which contain names, natural kind terms, or demonstratives, and semantically express propositions knowledge of which involves *de re* knowledge of the individuals or kinds those terms designate. The *necessity* of these propositions is explained by their attribution of essential properties and relations to those individuals or kinds. Their *aposteriority* is explained -- in his *first* route to the necessary *aposteriori* – by the fact that the properties and relations can be known to apply to particular individuals and kinds only *aposteriori*. This explanation, though general, excludes simple identities of the sort (6) and (7). Kripke's *second* (attempted) explanation is meant to apply not only to these stragglers, but to the other cases as well. In the second route, knowledge of a necessary proposition p is linked to acceptance of a sentence S used to express p – which in turn is linked to knowledge of a descriptive proposition DP for which empirical evidence is needed. Since justification for accepting S, and believing DP, requires empirical evidence, this evidence is deemed necessary for knowledge of p.

The two routes to the necessary *aposteriori* differ as follows:

(i) The first route applies to a proper subset of cases to which the second is meant to apply.

- (ii) Only the first leads to the recognition of epistemically possible world-states over and above metaphysically possible world-states.
- (iii) Only the first takes the empirical evidence needed for *aposteriori* knowledge of p to rule out epistemic possibilities in which p is false.

There is also another important difference. The first route is, as I have indicated, sound. The second is not.

The Unsoundness of Kripke's Second Route to the Necessary Aposteriori

The problem with Kripke's second route to the necessary *aposteriori* is that the principle, SDJ, on which it rests, requires an unrealistic degree of transparency in the relationship between sentences and the propositions they express. S₁ and S₂ may mean the same thing, or express the same proposition p, even though a competent speaker who understands both, and knows of each that it expresses p, does *not* realize that they express the same proposition. Such an agent may accept S₁, and believe it to be true, while refusing to accept S₂, or believe it to be true, thereby falsifying SDJ. One such agent is Kripke's Pierre. Although he understands both 'Londres est jolie' and 'London is pretty', he does not realize that they mean the same thing, and so accepts one while rejecting the other. Since SDJ yields the contradictory result that Pierre both believes and does not believe that London is pretty, it must be rejected, thereby undermining the second route to the necessary *aposteriori*. ¹⁰

⁹ Saul Kripke, "A Puzzle About Belief," <u>Meaning and Use</u>, A. Margalit, ed. (Dordrecht: Reidel), 1979.

¹⁰ The failure of SDJ illustrated by Kripke's examples is a special instance of a more general point – namely, the failure of *A knows that R(a,c)* and *A knows that R(b,c)* to entail *A knows that \exists x (Ra, x \& Rb, x)* discussed in Soames, "Direct Reference, Propositional Attitudes, and Semantic Content," <u>Philosophical Topics</u>, 15, (1987), 47-87. In the case of SDJ, 'a' and 'b' name sentences, 'c' stands for a proposition, and 'R' relates sentences to what they mean or express.

When applied to Kripke's examples, SDJ links belief in singular propositions (about individuals or kinds) to acceptance of specific sentences that express them – which, in turn, are linked to belief in certain descriptive propositions related to the original singular propositions. This suggests the possibility of dropping the problematic SDJ, and linking the singular propositions directly to their descriptive counterparts. In the case of (6b) one's belief that Hesperus is Phosphorus might be linked to (something like) one's belief that the heavenly body visible in the evening is the heavenly body visible in the morning, while in the case of Kripke's example about the table, one's belief that it is not made of ice might be linked to (something like) one's belief that a unique table over there is not made of ice. The idea, in each case, is that the linked beliefs are related in two ways: (i) one's coming to have the descriptive belief, in the circumstances in question, is necessary and sufficient for one's believing the singular proposition, and (ii) one's justification for believing the singular proposition rests on one's justification for the descriptive belief. Since in each case, justification of the descriptive belief requires empirical evidence, one's belief in the putative instance of the necessary aposteriori is taken to require the same evidence.

The resulting nonmetalinguistic substitute for SDJ is, roughly, the following.

The Strong Descriptive Origin and Justification of *De Re* Belief (SDOJ)

If an agent x in a circumstance C is capable of believing a singular proposition p by virtue of believing a certain related descriptive proposition DP, then (a) x believes p in C iff x believes DP in C, and (b) x would be justified in believing p in C on the basis of e iff x

would be justified in believing DP in C on the basis of e.

Although SDOJ can be used in Kripke's second route to the necessary *aposteriori* in essentially the same way as SDJ, it cannot be used to save this route -- since the same counterexamples falsify both. In the case of Pierre, a proponent of the idea that belief in singular propositions

always arises from belief in associated descriptive propositions must admit that there are several ways that Pierre can come to believe singular propositions about London. He may, for example, come to believe that London is pretty either by believing that the city he lives in is pretty, or by believing that the city on the picture postcards brought from Paris is pretty. SDOJ will then give the results that he believes that London is pretty (i) iff he believes that the city he lives in is pretty and (ii) iff he believes that the city on the picture postcards brought from Paris is pretty. Since, in fact, he believes that the city in the pictures is pretty while failing to believe that the city he lives in is pretty, SDOJ leads to the contradictory conclusion that Pierre both believes and does not believe that London is pretty. Thus, SDJ, SDOJ and Kripke's second route to the necessary *aposteriori* must all be rejected. Fortunately, this rejection does not diminish the correctness of his first route to the necessary *aposteriori*. The only thing cast into doubt is the *aposteriority* of (6) and (7).

Mind-Body Identity and the Necessary Aposteriori

I now turn to a case study of the philosophical import of a proper understanding of Kripke's two routes to the necessary *aposteriori*. The issue is the mind-body problem, which Kripke discusses at the end of Naming and Necessity, where he compares (8) and (9).

- 8. Heat is mean molecular kinetic energy.
- 9. Pain is C-fiber stimulation.

For simplicity, we treat the nouns as designating kinds (rather than their instances) and 'is' as expressing identity. Both sentences are *aposteriori*, and so may appear contingent. It was an empirical discovery that how hot something is depends on how fast its molecules are moving. The function of evidence used to show this was to rule out conceivable possibilities in which heat was something else. Thus, if one failed to distinguish epistemic from metaphysical

possibility, it might seem that there must be ways that the world genuinely could be in which (8) was false – and, hence that (8) is contingent. Something similar might be said about (9).

Kripke argues that the seeming contingency of (8) is an illusion. He takes 'heat' and 'mean molecular kinetic energy' to be rigid designators, in which case (8) must be necessary, given that it is true. The illusion of contingency is attributed to the fact that we identify heat by the sensations it causes in us. Thus, he thinks, 'heat' is associated with "the reference-fixing-description," 'the cause of sensation S'. The illusion that (8) is contingent comes from confusing this description with a synonym for 'heat', and thereby confusing (8) with (8*).

8*. The cause of sensation S = mean molecular kinetic energy.

Of course, 'heat' is *not* really synonymous with 'the cause of sensation S' -- since a world-state in which there are no sentient beings, and hence no cause of sensations, may still be one in which some things are hot. Once the nonequivalence of (8) and (8*) is recognized, the contingency of the latter no longer masks the necessity of the former.

Kripke assumes that, like the terms in (8), those in (9) are rigid, and hence that (9) must be necessary, if true. This time, however, he sees no way of dismissing the impression of contingency as an illusion. Unlike 'heat', which we use to designate *the cause* of a certain noticeable sensation, 'pain' is used to designate the very sensation we notice. We don't say to ourselves: "What a horrible sensation! Let's use 'pain' to designate whatever causes it." Instead, 'pain' designates the sensation itself, which we identify directly, without appeal to properties that anything else could have. Because there is no descriptive reference-fixer to confuse with a synonym for 'pain', there is no contingent claim to confuse with (9). Since the intuition that (9) is contingent can't be dismissed as an illusion, Kripke suggests that (9) isn't necessary, and so isn't true.

Kripke gives this argument as a straightforward application of his second route to the necessary *aposteriori*.

I want to argue that at least the case [of the apparent contingency of (9)] cannot be interpreted as analogous to that of scientific identification of the usual sort, as exemplified by heat and molecular motion. What was the strategy used above to handle the apparent contingency of certain cases of the necessary *aposteriori*? The strategy was to argue that although the statement itself is necessary, someone could, *qualitatively* speaking, be in the same epistemic situation as the original, and in such a situation a *qualitatively* analogous statement could be false. In the case of identities between two rigid designators, the strategy can be approximated by a simpler one: Consider how the references of the designators are determined; if these coincide only contingently, it is this fact which gives the original statement its illusion of contingency. (150)

Over the next four pages, Kripke gives the argument involving (8) and (9) summarized above. Though he, cautiously, does not conclude that it *demonstrates* that (9) is false, he suggests that it constitutes a serious, perhaps insurmountable, obstacle to taking (9) to be true. However, he is wrong about this.

The crucial assumption on which the argument is based is that when p is an instance of the necessary *aposteriori*, any illusion of contingency – any sense that *p could have turned out false* – results from confusing p with a related, descriptive proposition q that really is contingent. In these cases, p will be expressed by a sentence containing a (rigid) name, demonstrative, or natural kind term, and q will be expressed by a related sentence containing a (nonrigid) description which, in a certain sense, *fixes the reference* of the rigid designator. The sense of reference-fixing involved here is *epistemic* rather than semantic. For Kripke, most names and natural kind terms do *not* have

their reference fixed, as a matter of linguistic convention, by descriptions associated with them by speakers, and understanding them does *not* require descriptive, reference-fixing knowledge. Often, however, speakers who use a name, demonstrative, or natural kind term identify the individual or kind designated (on a given occasion) by its possession of certain properties. In these cases, speakers *identify* the referent *by description*. For example, I might identify my desk as *the reddish desk in my office, supporting my computer*. If I do, it will be important to distinguish (10a) from (10b), so as not to allow the contingency of the latter to obscure the necessity of the former.

10a. This desk (pointing at it) is made of mahogany (if it exists).

b. The reddish desk in my office supporting my computer is made of mahogany (if it exists).

The point generalizes. Whenever one identifies the referent x of a rigid designator t using a nonrigid description D, there is potential for confusing a world-state in which x is so and so with a world-state in which the thing that satisfies D is so and so. In these cases, the conceivability of

will be a reliable guide to the possibility of x being so and so, only if the claim expressed by (11a) is clearly distinguished from the claim expressed by

11b. D is so and so (if D exists)

t is so and so (if t exists)

11a.

Applying this lesson to 'pain', Kripke observes that although it rigidly designates its referent, we don't identify the referent via a description that could have designated anything else. Thus, an important source of error in our judgments about the modal profile of 'heat' statements is absent from our judgments about 'pain' statements. Sometimes, when we take ourselves to be coherently conceiving of a situation in which heat is so and so, what we are in fact conceiving is a situation in which something else -- with the descriptive characteristics used to identify heat -- is so and so. When this happens, our intuitions of conceivability are inaccurate guides to genuine possibility. If

Kripke is right, this doesn't happen with 'pain'. Whenever we take ourselves to be conceiving of a situation involving pain, that is what we are conceiving. Presumably, the point extends to similar words for other mental states.

So far, so good. However, there is an error to be avoided lurking here which is expressed by the Coherent Conceivability Thesis (CCT).

CCT. Apart from confusion about *what we are conceiving*, coherent conceivability is a reliable guide to genuine (metaphysical) possibility. If we can coherently conceive – without confusion of the sort indicated by (11a.b) -- of a world-state in which p is true (false), then there are genuine (metaphysically) possible world-states in which p is true (false).

If CCT were true, our ability to coherently conceive of scenarios in which pains are not C-fiber stimulations, or *vice versa*, would demonstrate that the two kinds are different. However, CCT is inconsistent with Kripke's first, essentialist, route to the necessary *aposteriori*. As we have seen, that route is based on the idea that certain properties of objects that they can be known to have only *aposteriori*, may be known *apriori* to be essential properties of anything that has them. In any such case, coherent conceivability will *not* coincide with genuine possibility. If P is such a property of o, then world-states in which o exists without having P will be coherently conceivable, even though they are metaphysically impossible. Thus, Kripke cannot accept CCT.

Reasons for rejecting CCT are illustrated by (12).

12. I came from a sperm and egg (if I exist at all).

In uttering (12), I identify the referent of 'I' directly, without detour through nonrigid descriptions. Hence, no confusion of the sort indicated by (11) threatens. If CCT were correct, this should make for a close connection between conceivability and genuine possibility. But it doesn't. Though the proposition I use (12) to entertain and assert is (assuming Kripke's own essentiality of origin

thesis) necessary, it is knowable only *aposteriori*. Putting aside my knowledge of human reproduction, I can coherently conceive of a situation in which I exist without coming from a sperm and egg. Surely, this doesn't show that it *was* genuinely possible for me to come into being in some radically different way. For that matter, I can coherently conceive of existing forever, with or without a body, but that doesn't show that these things really are (metaphysically) possible.

Similar remarks apply to my use of (13) to express a necessary *aposteriori* truth.

13. I am the biological father of Brian Soames (if he exists).

Since (13) contains a proper name, a defender of CCT might maintain that -- because I use descriptive information to identify Brian -- whenever I take myself to be coherently conceiving of him as having a different father what I am really conceiving is not Brian himself having that property, but someone qualitatively similar to Brian. But surely that can't be right. If it were, it would be hard to see how anyone could ever conceive of anything about a specific individual, or how anyone could ever have de re attitudes. Thus, if a skeptic objects, "How can you be sure that it is Brian in the situation you are imagining, rather than a qualitatively identical duplicate?" the answer is the same as the one Kripke gives to the skeptic who demands criteria of transworld identification for individuals across metaphysically possible world-states.

Don't ask: how can I identify this table in another possible world, except by its properties? I have the table in my hands, I can point to it, and when I ask whether *it* might have been in another room, I am talking, by definition, about *it*. I don't have to identify it after seeing it through a telescope.¹¹

This point applies equally to epistemically possible world-states.

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¹¹ Naming and Necessity, pp. 52-3.

Thus CCT must be rejected. Once it is, Kripke's argument against (9), based on its supposedly unfavorable comparison with (8), collapses. If true, these identities are instances of the necessary *aposteriori* that fit Kripke's essentialist paradigm. In each case, a property P that can be known only *aposteriori* to be possessed by a kind k is claimed to be an essential property of k. In the case of heat, P is the property of having instances with characteristics, involving the motion of molecules, that explain (in the actual world-state) phenomena such as burning and boiling. In the case of pain, P is the property of having instances that are firings of certain neurons. In each case, *if* P *is* an essential property of k, then the identity is necessary, even though world-states in which k doesn't have P are coherently conceivable. This conceivability is *itself* a potential source of the illusion that the proposition expressed by (9) is contingent – apart from any confusion about identifying, or reference-fixing, descriptions. Since Kripke's argument does *nothing* to discredit this explanation of the impression of the contingency of (9), it fails to show that this impression poses *any* problem for its being necessarily true.

Fortunately for Kripke, (9) is likely to be false for independent reasons. If, as he contends, 'pain' is a rigid designator, then it designates a kind k_p of which any genuinely possible pain of any possible creature – including creatures with physiologies radically different from ours – is an instance. Since these possible pains are likely to outstrip occurrences of the neurological states associated with our actual pains, nothing as parochial as C-fiber stimulation is likely to be identical with k_p (though this objection doesn't rule out that *our* pain is nothing more than C-fiber stimulation). As for functionalist accounts of the sort offered by David Lewis in "Mad Pain and Martian Pain," Kripke has a forceful objection. According to Lewis, pain (for a given kind k of thing) = the internal physical state which (in normal members of k) plays a certain causal role

¹² In N. Block, ed., <u>Readings in the Philosophy of Psychology</u>: Vol. 1, (Cambridge, MA: Harvard University Press), 1980.

(which involves arising from, and prompting the avoidance of, injury-causing situations). Lewis is content to deny, on this basis, that 'pain' is a rigid designator, since he believes it may designate C-fiber stimulation in the actual world-state, while designating different physical states in other (metaphysically) possible world-states. Kripke's observation that being a pain is an essential property of individual pains puts pressure on this view. For if Lewis is right, it would seem that a particular C-fiber stimulation might, in the actual world-state, be the headache I had last night, while existing in another possible world-state, entirely disconnected from the functional role of pain, and so without being a pain in that world-state. Since this is inconsistent with Kripke's observation -- which does have a certain plausibility -- his essentialist doctrines do, in the end, generate a worrisome objection to a leading version of the mind-body identity theory. The objection, however, is not the one he belabors in his discussion of (8) and (9).

Transposing Kripke's Missteps into the Key of 2D

Kripke's second route to the necessary *aposteriori*, and his reliance on that route in his discussion of (8) and (9), are rare missteps in a work of monumental achievement. Unfortunately, these missteps have not been without influence. Nowhere has this influence been greater than in guiding the development of fundamentally anti-Kripkean, two-dimensionalist attempts to reinstate descriptivism about names and natural kind terms, to reconnect necessity and *apriority* to analyticity, and to return philosophy to analytic paradigms of its mid-twentieth-century "golden age." This influence is evident in David Chalmers' Kripke-style story of mind-body non-identity, and in the 2D transformation of Kripke's flawed, second route to the necessary *aposteriori* into a dubious semantic theory.

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¹³ "Naming and Necessity," pp. 148-9.

Chalmers' treatment of (8) and (9) is similar to Kripke's. Whereas Kripke observes that we identify heat as the thing denoted by the non-rigid description 'the cause of sensation S', Chalmers takes 'heat' to be synonymous with an indexical, rigidified description (which, to simplify the comparison, I will take to be 'dthat [the cause of sensation S]'). Since 'heat' is seen as indexical, (8) is associated with both a primary intension (proposition) – expressed by (8^*) -- stating the conditions a context must satisfy in order for (8) to express a truth, and a secondary intension (proposition) -- that k = k -- which S expresses in our present context. For Chalmers, as for Kripke, the illusion that (8) is contingent comes from confusing this necessary proposition, with the contingent proposition expressed by (8*). Kripke and Chalmers also agree that the referent of 'pain' is neither fixed nor identified by any description D, and hence that 'pain' is not synonymous with any rigidified description. For Kripke, this means that our intuition of contingency is not due to confusing (9) with any other proposition. For Chalmers it means that since the primary and secondary intensions of (9) are identical, the intuition that (9) is contingent doesn't result from confusing the two. Both men seem to agree that in the absence of this sort of confusion, the conceivability of the distinctness of pain and C-fiber stimulation is a reliable guide to the genuine possibility that they are distinct, and hence to their non-identity.

Since Chalmers' version of the argument involving 'pain' (and other sensation words) is a 2D-version of Kripke's, it is not surprising that it inherits all the difficulties of Kripke's argument and more. Putting these extra difficulties aside, I focus here on the rejection, by two-dimensionalists, of Kripke's sound, essentialist route to the necessary *aposteriori* in favor of his unsound, second route. The lesson of Kripke's essentialist route is that there is the gap between coherent conceivability and genuine possibility marked by the existence of epistemically possible world-states that are metaphysically impossible. The presumption that there is no such gap, and

there are no such world-states, is the unargued starting point for the 2D-systems of both Chalmers and Frank Jackson. ¹⁴ Given this starting point, they insist, quite understandably, that the necessary *aposteriori* is a feature of certain *sentences*, not propositions. On their view, there can't be any *proposition* p that is both necessary and knowable only *aposteriori*, since if there were, there would be an epistemically possible world-state – which could not be known apriori not to obtain – in which p was false, even though this world-state was metaphysically impossible. Since this is ruled out from the beginning, instances of the necessary *aposteriori* are taken to be sentences S that are associated with pairs of propositions – primary and secondary intensions – one of which is contingent and relevant to the epistemic status of S, the other of which is necessary and relevant to S's modal status. In this way, the Byzantine formal apparatus of contemporary two-dimensionalism gets its impetus from ignoring, or misunderstanding, Kripke's essentialist route to the necessary *aposteriori*. ¹⁵

In its place, a version of Kripke's secondary route is embraced. Since this version requires instances of the necessary *aposteriori* to be indexical (so that they may have different primary and secondary intensions), it requires names and natural kind terms to be semantically equivalent to rigidified descriptions (which do not themselves contain any such terms). As a result, the primary

¹⁴ David Chalmers, <u>The Conscious Mind</u>, (New York and Oxford: Oxford University Press), 1996, p.66-7; Frank Jackson <u>From Metaphysics to Ethics</u>, (Oxford: Clarendon Press), 1998, 69-70, 74. For exposition and criticism, see my <u>Reference and Description</u> (Princeton: Princeton University Press), 2005, pp. 152-75, 198-9.

¹⁵ The only place in Chalmers' and Jackson's two books that I know of which purports to give an argument for the claim that all epistemic world-states are metaphysically possible, rather than simply adopting it by fiat, is the section on "strong metaphysical necessity," pp. 136-8 of <u>The Conscious Mind</u>. Even there, the argument simply ignores, and is refuted by, the passage from "Identity and Necessity," cited above in note 6. For discussion, see <u>Reference and</u> Description, pp. 202-209.

intension of a Kripkean instance S of the necessary *aposteriori* will be a contingent, descriptive proposition the truth of which rules out metaphysically possible world-states in which (i) the speaker x, or a similar agent, is in an epistemic state qualitatively identical to the one x is actually in, but (ii) S (understood with the meaning it actually has) fails to express a truth. This is what Kripke's descriptive proposition DP, arising from SDJ or SDOJ, becomes when his second route to the necessary *aposteriori* is built into 2D semantics. The idea is that when S is used to state an instance of the necessary aposteriori, the (secondary) proposition p expressed by S is necessary, but empirical evidence is needed, not to rule out the possibility that p is false, but to rule out the possibility that the utterance expresses something false (because S's primary proposition is false).

The futility of this approach can be illustrated by elaborating our earlier discussion of the principle CCT, suggested by Kripke's treatment of (8) and (9). There, we considered examples of the form (14), where 'F' stands in for predicates expressing essential properties of mine.

I am F (if I exist at all).

(14)

Plausible substitution instances of 'F' include: 'a human being', 'a biological father of Brian Soames', 'an organism that came from the union of a sperm and egg', and 'a being with a body made of molecules'. Since these plausibly express essential properties, instances of (14) are plausibly taken to be necessary, if true. However, since knowing that I have these properties requires empirical knowledge, these instances are knowable only *aposteriori*. The question is, what is the best account of this?

According to Kripke's essentialist route to the necessary *aposteriori*, what makes an instance of (14) *aposteriori* is that the proposition it expresses -- which attributes to me the property of *being one who "is F" if one exists"* – requires empirical evidence to rule out coherently conceivable possibilities in which it is false. Since the world-states to be ruled out are

ones in which I exist while lacking certain essential properties, they are *metaphysically impossible*. This is precisely what Chalmers and Jackson deny. According to them, there are no such world-states, so no evidence is needed to rule them out. Rather, empirical evidence is needed to rule out the possibility that the context of my utterance is one in which the sentence is used to express something false. After all, instances of (14) *could* express falsehoods -- if they were uttered by a nonhumans who didn't arise from unions of a sperm and an egg, and who didn't have bodies made of molecules. Are there *metaphysically possible* beings of that sort who are capable of uttering instances of (14)? Although there is room to doubt that there are, let's suppose, for the sake of argument, that such beings really are possible. On this supposition, there are metaphysically possible contexts in which *these beings* would express falsehoods, if *they* were to utter instances of (14).

But what does that have to do with the *aposteriority* of the knowledge *I* express by an instance of (14)? Well, the two-dimensionalist must argue, in order to know that my utterance expresses a truth, I must rely on empirical evidence to rule out the possibility that *my context* is one of those in which the agent is a nonhuman who didn't come from a sperm and egg, and doesn't have a body made of molecules. But, surely, for empirical evidence to be required to rule out the possibility that *my context* is one of those is just for empirical evidence to be required to rule out that *I* am a nonhuman, that *I* didn't come from a sperm and egg, and that *I* don't have a body made up of molecules. After all, I *know* who the agent of *my* context is; it is not as though I am confused about which member of a class of numerically distinct but qualitatively identical beings uttered the sentence, and need empirical evidence to track him down. But then, the things I need empirical evidence to rule out are just the epistemically possible, but metaphysically impossible, world-states recognized by the essentialist route to the necessary *aposteriori*. In

short, the two dimensionalist has no plausible alternative but to accept the very thing that his elaborate system was designed to avoid. He must grant that there are world-states that are epistemically possible -- in the sense of being coherently conceivable, and not knowable apriori not to be instantiated – which are not really – i.e. metaphysically -- possible.

The Importance of Non-Linguistic Modalities

In my opinion, none of Kripke's many achievements is more important than his breaking the spell of the linguistic as the source of philosophically important modalities. In other work, I have tried to identify significant arguments of leading figures in the twentieth century that come to grief over the implicit identification of the necessary and the *apriori* with the analytic. However, there is more at stake than a collection of particular arguments. As long as these modalities are seen as varieties of *truth in virtue of meaning*, while meaning itself is viewed as essentially transparent to competent speakers, there will be no credible alternative to the old, confining orthodoxy of philosophy as linguistic analysis.

The problem with this orthodoxy is well-illustrated by the metaphilosophical position of the later Wittgenstein. If all of philosophy is the analysis of meaning, and meaning is fundamentally transparent to competent speakers, then there is little room for philosophically significant explanations and theories. For surely such explanations and theories will be necessary, or *apriori*, or both. If this renders them analytic, they must either be capable of being seen as trivially transparent by competent speakers, or derivable from trivially transparent truths by trivially transparent steps. But they aren't. Anyone immersed in the work of a philosopher of any note – including those, like the later Wittgenstein, who espoused this metaphilosophical position – should be able to see that their most interesting philosophical positions do *not* fit this restrictive

¹⁶ Volumes 1 and 2 of Philosophical Analysis in the Twentieth Century (Princeton: Princeton University Press), 2003.

model.¹⁷ Hence, we need a more expansive model that fits what good philosophers really do. We will never have it, if we identify the necessary and the *apriori* with the analytic.

This is why it is so important to recognize the lesson of Kripke's essentialist route to the necessary *aposteriori*, and why it is worth defending against the revival of linguistically based accounts of these modalities reflected in the following passage from Chalmers.¹⁸

If we make the equation [in which primary and secondary intension are taken to be two different aspects of meaning] both of these intensions will back a certain kind of conceptual truth, or *truth in virtue of meaning*. The primary intension backs *a priori* truths ... Such a statement will be true no matter how the actual world turns out [i.e. in any possible context of utterance], although it need not hold in all nonactual possible worlds. The secondary intension does not back *a priori* truths, but backs truths that hold in all counterfactual possible worlds... Both varieties qualify as *truths in virtue of meaning*; they are simply true in virtue of different aspects of meaning.

There is, of course, more to be done in constructing a defensible metaphilosophical view than defending, and drawing out the consequences of, Kripkean essentialism. It must also be admitted that Kripke was far more successful in illuminating the nature of necessity, and distinguishing it from both *apriority* and analyticity, than he was in illuminating the nature of *apriority*, and distinguishing it from analyticity. But the fact that work remains to be done does not make what has been accomplished any less precious.¹⁹

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¹⁷ See, e.g., chapters 1-4 of Volume 2 of Philosophical Analysis in the Twentieth Century.

¹⁸ The Conscious Mind, p. 62, my emphasis.

¹⁹ Thanks to Ali Kazmi and Jeff Speaks for comments on earlier drafts.