

Chapter 11

Naming and Non-necessity



Nathan Salmon

Abstract Kripke's examples of allegedly contingent *a priori* sentences include 'Stick *S* is exactly one meter long', where the reference of 'meter' is fixed by the description 'the length of stick *S*'. In response to skepticism concerning apriority Kripke replaced the meter sentence with a more sophisticated variant, arguing that the modified example is more immune to such skepticism. The case for apriority is examined. A distinction is drawn between apriority and a broader notion, "qua-priority," of a truth whose epistemic justification is dependent on no experience other than that required to justify belief of the deliverances of pure semantics. It is argued that Kripke's examples are neither *a priori* nor qua-priori.

Keywords Contingent *a priori* · Jack the Ripper · Saul Kripke · Meter · Neptune

11.1 The Examples

Saul Kripke's *Naming and Necessity* (*N&N*) stands as one of the greatest philosophical works of the twentieth century. Perhaps the most startling claim Kripke makes in *N&N* is that certain sentences that are (semantically) true as a consequence of the way a name's reference was fixed by description are metaphysically contingent yet knowable *a priori*. Kripke does not mean by this that it is a contingent meta-truth, one knowable *a priori*, that the sentences in question are true. To say that a given sentence is necessary, or contingent, is to attribute something modal not about the semantic fact that the sentence is true but about the very proposition expressed by the sentence as its semantic content. A true sentence is necessary (i.e., semantically necessary) insofar as the truth it semantically expresses is itself metaphysically necessary, and is (semantically) contingent insofar as the truth it semantically expresses is metaphysically contingent. Kripke eschews propositions in *N&N*

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N. Salmon (✉)

Department of Philosophy, University of California, Santa Barbara, CA, USA
e-mail: nsalmon@ucsb.edu

and elsewhere throughout his philosophical work. Consequently, he might prefer to say that a true sentence is necessary insofar as it is true with respect to all metaphysically possible worlds, contingent insofar as it is true but not necessary.

A true sentence is (semantically) *a priori* insofar as the truth it semantically expresses is knowable with epistemic justification that is independent of experience, and is (semantically) *a posteriori* insofar as the truth it semantically expresses is knowable only with epistemic justification that is dependent on experience. The phrase ‘dependent on experience’ is to be understood in a very particular way. The paradigm of a knowable fact whose epistemic justification is independent of experience is one described by a mathematical theorem, like the fact that $17 + 23 = 40$. Perhaps some experience is inevitably involved in acquiring the concept of the *sum* of a pair of numbers. If so, that experience is irrelevant to the epistemic justification. Also, calculating the sum of 17 and 23 involves some experience, at least typically. Perhaps any human means of arriving at the sum essentially involves experience of one sort or another. But if the calculation is performed correctly, the experience that accompanies the calculation plays no justificatory role. Rather, the justification lies entirely in the calculation, i.e., in the proof itself, which is a deduction ultimately from intuitive “first truths.”¹ This makes the equation ‘ $17 + 23 = 40$ ’ *a priori*. By contrast, if someone is locked in a room with an elephant, the subject’s belief that an elephant is uncomfortably nearby is justified, at least in part, by visual experience of the elephant. The belief cannot be justified instead by something like a mathematical proof (a deduction from intuitive first truths). The sentence ‘An elephant is nearby’ is thus *a posteriori*. The sentence ‘I am having a visual experience as of an elephant nearby’, which also is not subject to mathematical-like proof, is also *a posteriori*. (Consider what would go into a *reductio* argument for the visual experience itself.) In some cases, the justification that is dependent on experience is precisely the *absence* of a relevant experience. Thus if someone is locked in a room without any elephants, and is not intoxicated or hallucinating, the fact described by ‘I am not having a visual experience as of an elephant standing in front of me’ should be classified as *a posteriori*. The relevant justification in this case is not any mathematical-like proof. It is instead the lack of visual elephant impressions. In this sense, it is dependent on experience.

Kripke’s examples arise from the introduction of a name or term into the language (or idiolect) through *fixing its reference*, i.e., through stipulating its designatum, by means of a definite description. He focuses on three examples: (i) Suppose that Le Verrier fixed the reference of ‘Neptune’ by means of (the French for) a description of the form ‘the planet causing such-and-such perturbations in the orbit of Uranus’;² (ii) suppose that the measurement term ‘meter’ – more accurately, the length term ‘one meter’ – had its reference fixed by means of a description ‘the

¹ Here by ‘intuitive’ I mean knowledge that comes from a non-sensory cognitive faculty, like the mathematical faculty (assuming there is one) through which mathematicians gain knowledge of the Peano axioms for arithmetic.

² To make this as pure a case as possible we suppose that Le Verrier uttered French words to the following effect: Let ‘Neptune’ be a name for the planet causing such-and-such perturbations in

length of stick *S* at time t_0 ;³ and (iii) suppose that the police investigating the Whitechapel murders fixed the reference of the name ‘Jack the Ripper’ by means of the description of the form ‘the person who committed such-and-such murders, or most of them anyway’. Three further examples of the same alleged phenomenon have also been widely discussed in the relevant literature: (iv) Suppose that the reference of ‘Shorty’ is fixed by the description ‘the world’s shortest spy’ (David Kaplan and Robert Sleigh); (v) suppose that the reference of ‘Newman-1’ is fixed by the description ‘the first child to be born in the 22nd Century’ (Kaplan); and (vi) suppose the reference of ‘Julius’ is fixed by the description ‘the inventor of the zipper’ (Gareth Evans).

Kripke says about (i) and (ii) that the following sentences are (semantically) contingent yet *a priori* for the reference fixer (at the time of fixing), the a-priority being a consequence of how reference is fixed:

- (1) Stick *S*, if it exists at t_0 , is exactly one meter long at t_0 (Kripke 1980: 54–57).
- (2) If there is a unique planet causing perturbations in the orbit of Uranus, then Neptune is causing perturbations in the orbit of Uranus (Kripke 1980: 79 n. 33).

Though Kripke does not make the analogous claim in connection with (iii), what he says about (i) taken together with his remarks about (iii) (Kripke 1980: 79, 94) arguably commit him to the thesis that the following sentence is likewise contingent *a priori*:

- (3) If anyone singlehandedly committed such-and-such murders, then Jack the Ripper did.⁴

About (1) Kripke says, “The case of fixing the reference of ‘one meter’ is a very clear example in which someone, just because he fixed the reference in this way, can in some sense know *a priori* that the length of this stick is a meter without regarding it as a necessary truth” (1980: 63; cf. pp. 14–15). It is an indication of Kripke’s genius that he also explicitly recognizes that his view that (1) is *a priori* is, if not mistaken, then at least quite implausible. He writes:

the orbit of Uranus, if exactly one planet is causing those perturbations; and let ‘Neptune’ name nothing otherwise. Similar expansions should be supplied for the other examples.

³More accurately still, we suppose that the designation of the measurement term ‘meter’ is fixed by means of the description ‘the function that assigns to any real number n , the length that is exactly n times the length of *S* at t_0 ’. This simultaneously fixes the reference of ‘one meter’, ‘two meters’, ‘0.5 meters’, ‘17 meters’, etc.

⁴Kripke does not discuss the analogs of (1) and (2) for any of (iii)–(vi). One might assume that he would deem the analogs also contingent *a priori*, but one does so at the risk of misinterpretation. The cases of (iii) and (vi) are highly analogous to (i), all three of which invoke verbs of causation (‘cause’, ‘murder’, ‘invent’). By contrast, (iv) and (v) invoke grammatical superlatives (‘shortest’, ‘first’) while (ii) stands apart from all the rest. In work published subsequent to *N&N*, Kripke raises considerations that count heavily against extending the mechanism to superlative cases to generate purported contingent *a priori* truths through stipulating the designatum of a name by description. See Kripke 2011.

If someone fixes a meter as ‘the length of stick *S* at t_0 ’, then in some sense he knows *a priori* that the length of stick *S* at t_0 is one meter, even though he uses this statement to express a contingent truth. But, merely by fixing a system of measurement, has he thereby *learned* some (contingent) *information* about the world, some new *fact* that he did not know before? It seems plausible that in some sense he did not, even though it is undeniably a contingent fact that *S* is one meter long. So there may be a case for reformulating the thesis that everything *a priori* is necessary so as to save it from this type of counterexample. (Kripke 1980: 63n)

For many of us it has seemed that no reformulation is needed. Even as formulated above, the thesis that everything *a priori* is necessary is already immune to Kripke’s alleged counterexamples.⁵ However, Kripke goes on to say,

Since I will not attempt such a reformulation, I shall consistently use the term ‘*a priori*’ in the text so as to make statements whose truth follows from a reference-fixing ‘definition’ *a priori*. (Kripke 1980: 63-64n)

⁵There is another kind of sentence for which the thesis is vulnerable, e.g., ‘If Kripke is actually a philosopher, then Kripke is a philosopher’ and ‘If Kripke is a plumber, then Kripke is actually a plumber’. Each of these conditionals, although evidently (semantically) *a priori*, is false with respect to possible worlds in which Kripke is a plumber instead of a philosopher. To the best of my knowledge, examples like these were first noted by Kaplan in 1971 or 1973 (see Kaplan 1979: 95); and later in his 1977 masterpiece (see Kaplan 1989: 539 n. 65). Cf. Salmon 1981: 77–78; 1986: 141–142, 180 n. 19; and 1987a. The a-priority of the examples depends on our being *de re* connected to the actual world in conceiving it metaphysically as *this possible world [the only world that is realized]*, or *this possible world [the only world that obtains]*. Notice that conceiving a world in this manner is a way of knowing what world is in question.

A case can be made that ‘Saul Kripke is actually a philosopher’ is itself (semantically) *a priori*, provided that it is possible to be *de re* connected to the actual world by conceiving of it *compositionally*, rather than metaphysically, as *the only possible world in which: p, p', p'', ...*, including sufficiently many propositions to pin down the actual world. Notice, however, that this is arguably not a way of knowing what world is in question (*viz.*, the one that is realized/obtains). Furthermore, a compositional conception of the actual world is not a possibility for knowers with finite or otherwise reasonably limited comprehension (including all humans). Given that the first example mentioned in the preceding paragraph is also *a priori*, it appears to follow that their consequence ‘Kripke is a philosopher’ is *a priori* as well, provided it is possible to be *de re* connected to the actual world in conceiving it compositionally. It does not actually follow, however, since if there are such different ways of being *de re* connected to the actual world, a-priority need not be closed under logical consequence. Cf. Soames 2007: 261–263. Soames uses the label ‘indexical’ for the conception of the actual world that accompanies ‘actually’, and labels the potential alternative, compositional conception ‘non-indexical’. I believe that the relevant distinction is not correctly drawn in these terms. While the modal adverb ‘actually’ (in the relevant sense) is indeed indexical, the metaphysical conception of the actual world that accompanies it is no less descriptive than is a compositional conception. (To suppose that the actual world can be demonstrated seems to presuppose a David-Lewis-like misconception of possible worlds as universes, as opposed to abstract maximal scenarios or states of the universe. Perhaps one can gesture toward, or otherwise demonstrate, the universe, but how would one demonstrate the maximal scenario that obtains or the *total way that things are*, in order to single it out from all the other maximal scenarios or total ways for things to be?)

We shall return to the question of exactly how Kripke uses the term ‘*a priori*’.

11.2 A Purported Proof

Kripke has persuaded the angels and all right-minded philosophers that each of (1)–(3) is indeed contingent.⁶ The alleged *a priori*, on the other hand, remains a sticking point. Early on, following trenchant observations made by Alvin Plantinga, Keith Donnellan pointed out that even if the manner in which the reference was fixed produces the result that it is knowable *a priori* by the reference fixer that the phrase ‘one meter’ designates the length of *S* at t_0 (if *S* exists) so that (1) is true, or that pseudonym ‘Jack the Ripper’ designates the person who committed the Whitechapel murders (if any person did so singlehandedly) so that (3) is true, or that the name ‘Neptune’ designates the planet that is perturbing the orbit of Uranus (if any single planet is) so that (2) is true, it does not straightforwardly follow that any of (1)–(3) is itself *a priori*. Analogously, it is a contingent *a posteriori* fact that ‘ $2 + 3 = 5$ ’ is true, but it does not follow that the equation itself is either contingent or *a posteriori*. Contrary to *N&N*, it is evidently *a posteriori* that the length of *S* at t_0 is one meter, and *a posteriori* that Neptune causes perturbations.⁷ For as Donnellan argued, the knowledge that *S* (if it exists) is exactly one meter long at t_0 , is *de re* knowledge of the length, one meter, that *S* is exactly *that long*, no longer and no shorter, at t_0 ; and the knowledge that Jack the Ripper (if he existed) was a murderer is *de re* knowledge of the Whitechapel Murderer that *he* was a murderer; and the knowledge that Neptune (if it exists) perturbs Uranus is *de re* knowledge of the eighth planet that *it* perturbs Uranus. Each of these pieces of *de re* knowledge is quite real, but each is evidently also quite *a posteriori*.

What is Kripke’s rationale in *N&N* for his view that (1) and (2) are *a priori* for the reference fixer? In the preface to *N&N* Kripke describes how he hit upon the idea:

I imagined a hypothetical formal language in which a rigid designator ‘*a*’ is introduced with the ceremony, ‘Let “*a*” (rigidly) denote the unique object that actually has property *F*, when talking about any situation, actual or counterfactual.’ It seemed clear that if a speaker did introduce a designator into a language that way, then in virtue of his very linguistic act, he would be in a position to say ‘I know that *Fa*’, but nevertheless ‘*Fa*’ would express a contingent truth (provided that *F* is not an essential property of the unique object that possesses it). (Kripke 1980: 14)

Kripke thinks the *a priori* of (1) and (2) is a result or product of the manner in which the reference fixer fixed the reference of the crucial term. His thought appears to be that the reference fixer first recognizes *a priori* that the sentence is true, and then in a purely *a priori* manner transitions his/her way from the truth of the sentence to the content itself. To illustrate Kripke’s apparent strategy, let us suppose

⁶With the exception of Michael Devitt. See Devitt 2015: 136–137.

⁷Plantinga 1974: 8–9n; Levin 1975: 152n; Donnellan 1979. I provide an argument similar to Donnellan’s in Salmon 1986: 141–142, and in Salmon 1987b.

that the reference fixer introduces instead of the measurement term ‘meter’ an invented proper name, ‘OneMeter’, by stipulating

RF: Let ‘OneMeter’ be a proper name of the length of stick *S* at t_0 , if stick *S* exists (and has exactly one length) at t_0 ; otherwise let the name ‘OneMeter’ designate nothing.

Our objective is to establish *a priori* – in effect, to prove – the proposition semantically expressed by the following sentence:

M: If stick *S* exists (and has exactly one length) at t_0 , then the length of stick *S* at $t_0 = \text{OneMeter}$.

To that end we may suppose the reference fixer constructs the following purported proof, in which each line is taken to represent the proposition expressed by the sentence occurring on that line:

1. If stick *S* exists (and has exactly one length) at t_0 , then the length of stick *S* at $t_0 =$ the length of stick *S* at t_0 . (logic)
2. Line 1 is true iff if stick *S* exists (and has exactly one length) at t_0 , then the length of stick *S* at $t_0 =$ the length of stick *S* at t_0 . (semantics)
3. Line 1 is true. (1, 2, propositional logic)
4. If stick *S* exists (and has exactly one length) at t_0 , then ‘OneMeter’ designates the length of stick *S* at t_0 . (stipulation of *RF*)
5. If (a) line 1 is true, and (b) if stick *S* exists (and has exactly one length) at t_0 , then ‘OneMeter’ designates the length of stick *S* at t_0 , then (c) *M* is true. (semantics)
6. *M* is true. (3, 4, 5, propositional logic)
7. *M* is true iff if stick *S* exists (and has exactly one length) at t_0 , then the length of stick *S* at $t_0 = \text{OneMeter}$. (semantics)
8. If stick *S* exists (and has exactly one length) at t_0 , then the length of stick *S* at $t_0 = \text{OneMeter}$. (6, 7, propositional logic)

That *M* is true is a trivial and nearly immediate consequence of the reference fixing. The basic strategy is to prove the proposition expressed by *M* (line 8) on the basis of the truth of *M* (line 6) and the familiar Tarski-semantics equivalence (line 7). Each of lines 1, 2, 4, 5, and 7 of the proof is put forward as semantically *a priori*. The inferences to lines 3, 6, and 8 are each logically valid. Hence each preserves semantic a-priority. Thus, if each of lines 1, 2, 4, 5, and 7 is indeed semantically *a priori*, then *M* is as well.

The most significant problem with this attempt to establish the a-priority of *M* (there are several problems) is that the line 7 is semantically *a posteriori*. It is a common misconception that the *T*-sentences (i.e., the instances of the Tarski *T*-schema) for a natural language are analytic and therefore *a priori* – e.g., ‘Snow is white’ is true in English iff snow is white’. (Cf. the so-called redundancy or disquotational theory of truth.) That they are in fact synthetic and *a posteriori* is proved

by the Church-Langford translation test.⁸ Consider the French translation of the classic *T*-sentence:

‘Snow is white’ *est vrai en anglais si et seulement si la neige est blanche.*

This French sentence contains exactly the same information, no more and no less, as that contained in the original *T*-sentence: a non-linguistic necessary and sufficient condition for the truth in English of ‘Snow is white’. But an ideally competent French speaker with no understanding of English does not know this information and cannot learn it except by means of experience – any more than an ideally competent English speaker with no understanding of French can know *a priori* that ‘*La neige est blanche*’ is true in French iff snow is white. One’s understanding of a natural language, even of one’s mother tongue, is invariably *a posteriori*. For exactly similar reasons, lines 2, 3, and 5 are, like line 7, semantically *a posteriori*.

11.3 Quasi-a-priority

We should probably conclude from the preceding considerations that Kripke means something different by his use of the term ‘*a priori*’.

First a bit of taxonomy.⁹ Information concerning how a name came to name whom or what it does – whether the designation was fixed by description, for example, or instead by ostension and then passed from one speaker to the next – is not genuinely semantic, as such. It is *pre-semantic*. Information concerning whom or what a name names, by contrast, is typically (not invariably) *purely semantic*, depending on its pre-semantics. Thus the fact that ‘Walter Scott’ designates Walter Scott (in English) is purely semantic. Also purely semantic is the fact that ‘the sole author of *Waverley*’ designates whoever singlehandedly wrote *Waverley*. The resultant fact that ‘the sole author of *Waverley*’ designates Walter Scott is *partly semantic, partly non-semantic*, since it is a result of, and dependent upon, both the purely semantic fact that ‘the sole author of *Waverley*’ designates the sole author of *Waverley* and the altogether *non-semantic*, historic fact that Scott singlehandedly wrote *Waverley*. Analogously, the fact that ‘Snow is white’ is true (in English) iff snow is white is purely semantic, whereas the fact that ‘Snow is white’ is true is only partly semantic, being dependent on the non-semantic fact that snow is white. (A fact is said to be *semantic* if it is at least partly semantic; a fact is *non-semantic* if and only if it is not even partly semantic.) A name whose designation was fixed by description reverses the usual order of things. Line 4 of the reference fixer’s proof expresses a truth of pure semantics, although it does not identify what length ‘OneMeter’ designates (if *S* exists and has exactly one length at *t*₀), whereas the

⁸Church 1950. See also Salmon 2001.

⁹The taxonomy, inspired by Rudolf Carnap, comes from Salmon 1993. In the terminology proposed there, (1)–(3) and their analogs with regard to (iv)–(vi) should be regarded as contingent analytic rather than contingent *a priori*.

semantic fact that ‘OneMeter’ designates the particular length that it does (if S exists and has exactly one length at t_0), is dependent on the non-semantic fact that S is exactly that long at t_0 , and hence partly non-semantic.

I submit that what Kripke has in mind by his use of the term ‘*a priori*’ is a truth that is knowable independently of any experience beyond that on which knowledge of purely semantic (and/or purely pre-semantic) information about the language in question depends (even insofar as such knowledge is *a posteriori* in the traditional sense). This is a broader category; it includes, but extends beyond, knowledge whose epistemic justification is altogether independent of experience, i.e., *a priori* knowledge in the traditional sense. I shall say that a truth is *quasi-a-priori* – for short, *qua-priori* – if it fits this broader notion, i.e., if it is either *a priori* or else an *a priori* consequence of pure semantics (together with pre-semantics). I shall say that a truth is *quasi-a-posteriori* – for short, *qua-posteriori* – if it is knowable but not *qua-priori*, i.e., if its epistemic justification is dependent on some experience or other beyond that on which knowledge of purely semantic (and/or pre-semantic) facts depends. Thus, for example, the fact described by the French sentence displayed above is *qua-priori*, whereas the simpler fact that ‘Snow is white’ is indeed true in English, although partly semantic, is *qua-posteriori*. Of course, one can infer the latter fact from the former taken in conjunction with the fact that snow is white, but the truth that snow is white is *qua-posteriori*. We shall also say that a true sentence is (*semantically*) *qua-priori* if the truth it semantically expresses is *qua-priori*, and that it is (*semantically*) *qua-posteriori* if the semantically expressed truth is *qua-posteriori*.

Never mind whether M is *a priori*. (It is not, but never mind that.) Is M *qua-priori*?

The proof displayed above makes a forceful case that M is indeed *qua-priori*. Each of the lines 1, 2, 4, 5, and 7, even if not *a priori*, is at least arguably *qua-priori*; furthermore each of the inferences to lines 3, 6, and 8, being logically valid, preserves *qua-priority*. Something along these lines captures, or at least comes close to capturing, the rationale for Kripke’s claim in *N&N* that (1) and (2) are to be classified as “*a priori*”, i.e. (as I interpret him), as *qua-priori*.

Line 7 remains the major stumbling block. To be sure, since the biconditional sentence occurring at line 7 is a *T*-sentence, the meta-meta-truth that the sentence is meta-true is indeed *qua-priori*. But this does not entail concerning the meta-truth that the biconditional expresses that it is itself *qua-priori*. Indeed, that meta-truth is in fact *qua-posteriori*. Knowledge of that information is *de re*; it is knowledge concerning the length in question – one meter, i.e., 39.3701 inches – that M is true iff stick S (if it exists and has exactly one length at t_0) is exactly *that long* at t_0 . Since it is *qua-priori* that M is true (the left-hand-side proposition), any knowledge of the biconditional meta-truth yields (by *modus ponens*) *de re* knowledge that is entirely non-semantic (extra-linguistic), *viz.*, knowledge of the particular length in question that stick S (if it exists and has exactly one length at t_0) is exactly *that long* at t_0 . A moment’s reflection confirms that this bit of *de re* knowledge is *qua-posteriori*, making the biconditional *qua-posteriori* as well. (If the biconditional and its left-hand side were both *qua-priori*, then the right-hand side would also be *qua-priori*.) In previous work I wrote the following:

it would seem that no matter what stipulations one makes, one cannot know without resorting to experience such things as that *S*, if it exists, has precisely such-and-such particular length at t_0 . It would seem that one must at least look at *S*'s length, or be told that it is precisely that long, etc. (Salmon 1987b: 198)

Exactly similarly, no matter what reference-fixing stipulations one makes, one cannot know of the particular length, one meter = 39.3701 inches, just on the basis of purely semantic (and/or purely pre-semantic) information that *S* (if it exists, etc.) is exactly *that long* at t_0 . Suppose that the reference fixer has heard of *S* but has never seen it. Suppose further that the reference fixer utters *RF* using the description 'the length of stick *S* at t_0 ' attributively rather than referentially, in Donnellan's (1966) sense ("the present length of *S*, *whatever that is*"), but under a wildly mistaken impression of *S*'s length (e.g., that *S* is about an inch long, or roughly the length of a football field). In such circumstances the reference fixer clearly does not know of the actual length, one meter, that *S* is exactly that long, even though the reference fixer does know, qua-priori, that *M* is true. In *N&N* Kripke supposed that the reference fixer utters *RF* while looking at *S* directly in front of him/her. This is a very special kind of case; in a significant sense, it is not a case of genuinely fixing reference *by description*. In such a case, the reference fixer uses the description referentially rather than attributively. Here the reference fixer does indeed know of the actual length, one meter, that *S* is exactly that long. But, to use Russell's terminology, the reference fixer knows this *by acquaintance* rather than by description.¹⁰ The reference fixer's *de re* knowledge concerning the length is based on visual contact with the stick and its length. Hence, while it is true that the reference fixer in the envisaged example knows *de re* concerning one meter that *S* (if it exists and has a unique length) is exactly that long, it is not qua-priori knowledge.

11.4 Kripke's Revised Case

Post-*N&N* Kripke shifted ground with respect to his claim that (1) is *a priori*. In his unpublished 1986 Exxon Distinguished Lectures at the University of Notre Dame, "Rigid Designation and the Contingent *A Priori*: The Meter Stick Revisited," he has replaced (1) with a variant along the lines of the following:

¹⁰Cf. Kripke, "Rigid Designation and the Contingent *A Priori*: The Meter Stick Revisited," unpublished transcription of the 1986 Exxon Distinguished Lectures at the University of Notre Dame, at pp. 35–40 (the close of lecture 2). Kripke there admits that the case of stick *S* and 'meter', as envisaged in *N&N*, is not a "pure case" of fixing the reference of a *de jure* rigid designator by description (lecture 1, p. 3). He says that the definite description 'the length of *S* at t_0 ' is not a reference-fixing description, and is instead an "acquaintance-guiding description".

Although I did not know the content of Kripke's Notre Dame lecture series when I wrote "How to Measure the Standard Metre" (Salmon 1987b), to some extent the latter can serve as a sort of reply. (I explicitly mentioned the lecture series, at p. 204 n. 11.)

- (1') If I am presently having a visual experience as of a stick before me of roughly a yard in length, and I am not under any perceptual illusion, then the stick presently before me is presently exactly one meter long.

The idea behind this variant is that by forming a conditional and “putting into the antecedent” the experiences that would justify belief of the consequent, those experiences play no justificatory role with regard to the conditional itself (pp. 57, 62–63). The reference fixer may then come to know the consequent proposition (which is itself *a posteriori*) by attending to his/her experiential knowledge and performing *modus ponens* on the conditional. (Here we might suppose a Cartesian epistemology, whereby a subject infers the external world from internal experiences and conditionals linking the two.) It thereby seems more plausible that (1'), in contrast to (1), is genuinely *a priori*.

Even in the case of (1'), the justification for the reference fixer's belief of the relevant proposition is arguably dependent upon experience. As a prelude to arguing for this, we first note that (1') is logically equivalent to a three-way disjunction:

- (1'') Either I am not presently having a visual experience as of a stick before me of roughly a yard in length, or I am under some perceptual illusion, or else the stick presently before me is presently exactly one meter long.

Now suppose that the reference fixer is blindfolded and informed that stick *S*, which the subject has heard of but has never seen and has no opinion as to its length, sits a couple of feet in front. At t_0 , still blindfolded, the reference fixer utters *RF*. Can the reference fixer now know the disjunctive fact described by (1'') independently of experience (other than experience that justifies knowledge of purely semantic and purely pre-semantic facts)? The reference fixer of course knows the first disjunct of (1''). The justification for the reference fixer's belief of this proposition is the lack of visual experience as of a stick, and hence is dependent on experience. But that is irrelevant. The relevant question is this: At t_0 , while still blindfolded, can the reference fixer's belief of the full disjunctive fact be epistemically justified *without appeal to the absence of visual experience* and instead entirely by means of intuitive or conceptual connections among the disjuncts themselves? More to the point, concerning the particular length one meter = 39.3701 inches, can the reference fixer, while blindfolded at t_0 , know *de re*, but independently of experience, that if he/she is having a non-illusory visual experience as of a stick of roughly a yard in length, then the stick in question is presently *exactly that long*?

One difficulty is that while blindfolded, it is difficult for the reference fixer to get a cognitive grip on the particular length in question, in order to form any belief at all about it. This difficulty is surmountable. Suppose that although the reference fixer has never seen *S*, he/she happens to be very familiar with a different stick *S'* that, by sheer coincidence, is exactly the same length as *S*. Suppose the reference fixer even knows that *S'* is 39.3700787 inches long, and thus knows precisely how long *S'* is. The reference fixer can then get hold of the relevant length by thinking of it

demonstratively as *that length [the length of S']*.¹¹ Thinking of the length in this way at t_0 , while blindfolded, can the reference fixer know independently of experience that either he/she is not having a visual experience as of a stick of roughly a yard in length, or he/she is under some perceptual illusion, or else the stick presently before him/her is presently exactly *that long [the length of S']*?

It is evident that the answer is 'No'. Indeed, it would be quite irrational for the blindfolded reference fixer even to believe (1'') *except* on the basis of the absence of visual experience. Were he/she to believe the full disjunctive proposition independently of the lack of visual experience, the belief would be only so much guesswork, lucky that the length the reference fixer has in mind happens to coincide with that of *S*. Furthermore, it is no better for the reference fixer to think of the relevant length as *the length of the stick presently before me*, thereby eliminating dumb luck in favor of logical certainty. Pending experiential contact with *S*, thinking of the length by *description* in this way is not a way of getting connected to the length and does not enable one to form *de re* beliefs about it. Of course, the reference fixer can always learn the relevant proposition by simply removing the blindfold and opening his/her eyes. But looking at the stick is not a way for the reference fixer to gain non-experiential knowledge of (1'). As soon as the reference fixer looks at *S*, and thinks of its length demonstratively as *that length [the length of the stick presently before me]*, the visual experience is itself an essential part of the epistemic justification for his/her belief of (1'). Otherwise removing the blindfold would be entirely unnecessary for epistemic justification.

Our conclusion is that (1') is, like (1)–(3), both *a posteriori* and qua-posteriori.

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¹¹In terms of Kaplan's indexical operator '*dthat*', the reference fixer can think of the length in question by means of the semantic character of the indexical expression '*dthat*[the length of *S'*]'. See Kaplan 1989, especially pp. 518–522.

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