

In defense of pure reason

A RATIONALIST ACCOUNT OF *A PRIORI*
JUSTIFICATION

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1

Introduction: the problem of a priori justification

§1.1. THE NEED FOR THE A PRIORI

Perhaps the most pervasive conviction within the Western epistemological tradition is that in order for a person's belief to constitute *knowledge* it is necessary (though not sufficient) that it be justified or warranted or rationally grounded, that the person have an adequate *reason* for accepting it. Moreover, this justifying reason must be of the right sort: though one might accept a belief for moral reasons or pragmatic reasons or religious reasons or reasons of some still further sort and be thereby in a sense justified, such reasons cannot satisfy the requirements for knowledge, no matter how powerful, in their own distinctive ways, they may happen to be. Knowledge requires instead that the belief in question be justified or rational in a way that is internally connected to the defining goal of the cognitive enterprise, that is, that there be a reason that enhances, to an appropriate degree, the chances that the belief is *true*. Justification of this distinctive, truth-conducive sort will be here referred to as *epistemic justification*.¹

1 For more extensive discussion of the general conception of epistemic justification, see my book *The Structure of Empirical Knowledge* (BonJour 1985; hereafter cited as *SEK*), chapter 1. Certain recent philosophers have questioned, or seemed to question, this requirement for knowledge, arguing instead that knowledge requires only that the process leading to the acceptance of the belief in question be *reliable*, i.e., that it in fact produce or tend to produce true beliefs, even though the person in question may have no reason of any sort for thinking that this is so (where this variant requirement may be presented as either a competing account of justification or as an alternative to the justification requirement). See, e.g., Nozick (1981), chapter 3; and Goldman (1985). My conviction is that views of this kind are merely wrong-headed and ultimately uninteresting evasions of the central epistemological issues. But I have dealt extensively with them elsewhere (and no doubt will again in future work) and so will mostly neglect them in the present work, where my main aim is to consider one crucial element of a more traditional epistemological position. See *SEK*, chapter 3; "Nozick, Externalism, and Skepticism," in Luper-Foy (1987), pp. 297–313; and "Replies and Clarifications," in Bender (1989), pp. 276–92.

Historically, most epistemologists have distinguished two main sources from which the epistemic justification of a belief might arise. It has seemed obvious to all but a very few that many beliefs are justified by appeal to one's sensory (and introspective) *experience* of the world. But it has seemed equally obvious to most that there are other beliefs, including many of the most important ones that we have, that are justified in a way that does not depend at all on such an appeal to experience, justified, as it is usually put, by reason or pure thought alone. Beliefs justified entirely in the latter way are said to be justified *a priori*, while beliefs justified at least partially in the former way are said to be justified empirically or *a posteriori*. As this suggests, the justification of some (indeed probably most) beliefs may derive in part from each of these sources; as the terms are standardly used, the justification of such beliefs counts as *a posteriori*, but this terminological point should not be allowed to obscure the possibility that the *a priori* component may be both substantial and, in many cases, essential.

In spite of its historical prominence, however, the very idea of *a priori* epistemic justification has over the last half century or so been the target of severe and relentless skepticism. Thus it may be useful to begin our discussion by considering, briefly and provisionally, three reasons why this venerable idea should still be taken seriously.

First. The most familiar and obvious appeal is to putative examples of knowledge whose justification, it is alleged, can only be construed as *a priori*. Here the leading examples are propositions of logic and mathematics; but there are a multitude of others as well, ranging from seemingly commonsensical truths such as "nothing can be both red and green all over at the same time" or "if one event is later than a second and the second is later than a third, then the first is later than the third," on the one hand, to alleged truths of metaphysics such as "a physical object cannot be in two places at the same time" or "every event must have a cause," on the other.

Although perhaps no one would wish to defend all of the particular examples that have been proposed in this connection, they are undeniably impressive when taken as a group, and it is no accident that the vast majority of historical philosophers, from Plato on down to Leibniz and Locke, would have regarded this general line of argument as both obvious and conclusive, so much so that the issue of whether there is *a priori* justification scarcely arises for them at all. As will emerge much later (mainly in §4.2), the perceived cogency of examples of these kinds, and perhaps others, is ultimately crucial for the defense of *a priori* justification. Nonetheless, the appeal to such examples can be resisted, at least initially, in ways that may seem to deprive it of much of its force. Some examples,

such as the causal principle cited above, may be dismissed as not being epistemically justified at all; and others may be argued to be grounded ultimately, albeit tacitly, in experience. (I ignore for the moment the less extreme tactic of claiming that the propositions in question, though indeed justified *a priori*, rest on definitions or linguistic conventions in a way that deprives the concept of a *a priori* justification of most of its epistemological force; this sort of response will be considered extensively in the next chapter.) Such rejoinders vary widely in their intuitive plausibility, both in general and in relation to the various specific examples, but they are at least dialectically tenable so long as the present argument stands alone.

Moreover, the perceived force of this sort of rejoinder has been greatly enhanced in modern times by the apparent collapse of the appeal to a *a priori* justification in the case that would for a very long time have been cited as the most obvious example of all: that of Euclidean geometry. Since geometry had been taken for centuries to be the very paradigm of a *a priori* knowledge, the advent of non-Euclidean geometries and the apparent discovery that Euclidean geometry, far from being unchallengeably justified and indeed certain on an *a priori* basis, was in fact false – indeed that this could seemingly be shown *empirically* – led quite naturally to a massive loss of confidence in alleged *a priori* justifications. While it is not in any way obviously legitimate to generalize in this way from what is arguably a rather special case, the collapse of this historically favorite example of a *a priori* justification has deprived the general argument from examples of much of its persuasive power: who is to say, it is likely to be asked, that the result in the case of geometry will not eventually be found to extend to the other examples as well?² Thus it is important to see that there are other, more general considerations that can be used to buttress the appeal to examples.

Second. Contrary to the tendency in recent times for even those who accept the existence of a *a priori* justification to downgrade its epistemological importance, it is arguable that the epistemic justification of at least the vast preponderance of what we think of as empirical knowledge must involve an indispensable *a priori* component – so that the only alternative to the existence of a *a priori* justification is skepticism of a most radical kind.

The argument for this conclusion is extremely straightforward and obvious, so much so that it is very hard to understand the widespread failure to

2 A second example of failed *a priori* justification, which has been at least as influential in narrowly philosophical circles, is set theory, where propositions that seemed at one time to be justified *a priori* turned out to lead to contradiction.

acknowledge it. It derives from reflecting on the relation between knowledge and experience. For present purposes, I shall suppose that there are certain “foundational” beliefs that are fully justified by appeal to direct experience or sensory observation alone. We need not pause to worry about just which beliefs these are, for example, whether they concern ordinary physical objects or perhaps only private experiences; all that matters for present purposes is that, as will be true on any conception of direct experience that has any plausibility or indeed that has ever been held, such beliefs are particular rather than general in their content and are confined to situations observable at specific and fairly narrowly delineated places and times. The obvious and fundamental epistemological question then becomes whether it is possible to infer, in a way that brings with it epistemic justification, from these foundational beliefs to beliefs whose content goes beyond direct experience or observation: beliefs about the past, the future, and the unobserved aspects of the present; beliefs that are general in their content; or beliefs that have to do with kinds of things that are not directly observable.

If the answer to this question is “no,” then the upshot is a quite deep form of skepticism (exactly how deep will depend on one’s account of the foundational beliefs – perhaps even solipsism of the present moment). But if the answer is “yes,” then such inferences must seemingly rely on either premises or principles of inference that are at least partially justified *a priori*. For if the conclusions of the inferences genuinely go beyond the content of direct experience, then it is impossible that those inferences could be entirely justified by appeal to that same experience. In this way, *a priori* justification may be seen to be essential if extremely severe forms of skepticism are to be avoided.

Third. The previous argument may be generalized in the following way. I have spoken so far as though the object of epistemic justification in general and *a priori* justification in particular is always a belief that some *proposition* or *thesis*, something capable of being either true or false, is true. But this way of putting things, though a harmless simplification when correctly understood, has the potential to be seriously misleading in one important respect, which must now be attended to. What it leaves out, or at least obscures, is perhaps the most cognitively indispensable application of the idea of the *a priori*: its application to arguments or inferences, to *reasoning*.

An *argument* is a set of beliefs or statements, or more precisely a set of propositions believed or stated, one of which (the conclusion) is claimed to follow from the others (the premises); the argumentative transition, in

thought or discourse, from the premises to the conclusion is an *inference*. For any argument an issue that is closely analogous to the issue of epistemic justification for propositions can be raised: is there any reason for thinking that the conclusion of the argument either must be true or else is likely to be true *if* the premises are true? When such a reason exists, the argument in question may be said to be rationally cogent and the inference in question to be, in a somewhat modified sense, epistemically justified; where no such reason exists, the argument has no rational force and the inference is epistemically unjustified.³ And the *a priori*–*a posteriori* distinction can also be extended to this variant kind of epistemic justification in an obvious way: if the reason for thinking that the conclusion will be true if the premise is true involves an appeal to experience of the world, in the sense explained above, then the inference is justified *a posteriori*; whereas if the reason is independent of any such appeal to experience, the inference is justified *a priori*. (As before, justification that is partially based on experience and partly independent of experience will be classified as *a posteriori*, but this of course does not alter the fact that such justification is partially *a priori* in character.)

Could an argument of any sort be entirely justified on empirical grounds? It seems clear on reflection that the answer to this question is “no.” Any purely empirical ingredient can, after all, always be formulated as an additional empirical premise. When all such premises have been explicitly formulated, either the intended conclusion will be explicitly included among them or it will not. In the former case, no argument or inference is necessary, while in the latter case, the needed inference clearly goes beyond what can be derived entirely from experience.⁴ Thus we see that the repudiation of all *a priori* justification is apparently tantamount to the repudiation of argument or reasoning generally, thus amounting in effect to intellectual suicide. This result will be examined further below, in Chapter 3, when I consider views, like those of Quine, that advocate such

3 For a particular person to be justified in accepting the conclusion of such an argument on the basis of a prior acceptance of its premises, the reason in question must, I assume, be in some way available to him.

4 This is not to deny that in practice we can and do employ empirical elements that function as principles of inference rather than as premises: e.g., the principle that a certain sort of frown indicates puzzlement on the part of the person exhibiting it or that a certain distinctive smell indicates that the food being cooked is starting to scorch. But the full justification of any inference that relies on such an empirical principle would presuppose an *a priori* justification for the transition (presumably inductive in character – see Chapter 7) from observations proper to the empirical principle in question and would also rely on *a priori* principles of logic to justify the transition from the empirical principle and specific observations to the conclusion. (I am indebted for this clarifying point to the referee.)

a repudiation, but it surely constitutes a strong *prima facie* reason for regarding the idea of a *priori* justification as philosophically and intellectually indispensable.

There is, of course, an intimate relation between the justification of inferences, as thus understood, and the justification of propositions or theses. For any argument, we may form the corresponding conditional, that is, the truth-functional conditional whose antecedent is the conjunction of the premises of the argument and whose consequent is its conclusion. The original inference will then be epistemically justified, in the sense just explained, if and only if this conditional proposition is epistemically justified in our original sense; and the classification of the justification as a *priori* or a *posteriori* will be the same for both inference and proposition. Because of this parallelism, it is sufficient for many purposes to confine our explicit attention to the *a priori* justification of propositions, and this is the course that will be largely followed here. Such an approach is apt to be misleading, however, insofar as it obscures the fact that the need for a *priori* justification is not confined merely to propositions accepted on a non-empirical basis, but extends also to reasoning itself.

These three arguments seem to me at the very least to constitute powerful *prima facie* reasons for resisting the prevailing skepticism concerning a *priori* justification. But while the need for a *priori* justification is in this way apparent, the precise character of the distinction between a *priori* and a *posteriori* justification remains more than a little obscure, and this obscurity is seriously compounded, as we shall see, by the still prevalent tendency to confuse or conflate it with other distinctions in the same dialectical vicinity. Thus it is necessary to begin by attempting to elucidate and clarify the main distinctions in the area: the *a priori*–*a posteriori* distinction itself, the necessary–contingent distinction, and, in a more provisional way, the analytic–synthetic distinction. This will be the main job of the next two sections. In the course of this discussion, we will also take a preliminary look at the main alternative positions on the nature and possibility of a *priori* justification, positions that will be considered in more detail in succeeding chapters.

§1.2. THE CONCEPT OF A *PRIORI* JUSTIFICATION

As the foregoing discussion suggests, the *a priori*–*a posteriori* distinction is an *epistemological* distinction, having to do with the ways in which the acceptance of a proposition may be epistemically justified, where that is understood to require having a reason for thinking that the proposition is

true. In fact, as was already implicit in the foregoing discussion, there are two distinguishable aspects to the classical conception of a *priori* justification, one negative and the other positive: a proposition is justified *a priori* if it is justified (a) independently of any appeal to *experience* and (b) by appeal to reason or pure thought alone.⁵ While these two sides of the concept have often been taken to go together, to pick out the same kind of justification, this should not be simply assumed. Thus it will be useful to speak for a while of the *negative* conception of a *priori* justification, reflected in aspect (a), distinguishing it from the *positive* conception of a *priori* justification, reflected in aspect (b).

One potential source of obscurity in the negative conception of a *priori* justification is the appeal to the idea of *experience*. While the general intent of this appeal seems clear enough at first glance, it turns out to be surprisingly difficult to delineate precisely. It is obvious at once that the broadest meaning of the term 'experience', that in which it refers to any sort of mental process that one consciously undergoes, is substantially too broad; in that sense, following a mathematical proof or even reflecting on a supposedly self-evident proposition would be an instance of experience, and a *priori* justification would be ruled out in a trivial and uninteresting way.⁶ But it is just as obvious that the relevant concept of experience cannot be confined in its scope to the obvious paradigm of such experience, namely, the experience involved in ordinary sense-perception and deriving from the five standard senses. The justification of introspective knowledge pertaining to one's own states of mind should surely count as empirical, as should that of kinesthetic knowledge of the position and movements of one's body and that of knowledge of past events deriving, via memory, from previous episodes of perception. Moreover, if it should turn out (surprisingly) that there is genuine knowledge that results from

5 For such a proposition to be *known a priori* requires at least that it be true and that its *a priori* justification be sufficiently strong. I will not, however, make the common assumption that any proposition that has any degree of *a priori* justification automatically and necessarily meets these further conditions.

6 At least this will be so if it is assumed that epistemic justification requires that the person in question have a subjective grasp of the reason why his belief is likely to be true, for any such grasping of a reason would count as an experience in this broad sense. This result could perhaps be avoided by adopting a reliabilist view of *a priori* justification, analogous to the views mentioned in note 1 above, according to which the reason that justifies a person's belief need not be subjectively grasped; but such a view would be even more implausible here than it is in the case of empirical justification. (For arguments against reliabilism, see the works cited in note 1; though the views explicitly under discussion in those works are reliabilist theories of empirical justification and knowledge, the objections raised seem to me to apply equally well to the case of *a priori* justification.)

parapsychological or extrasensory capacities such as telepathy and clairvoyance, it seems apparent that its justification should also count as empirical, and not *a priori*, from the standpoint of the traditional distinction, whether or not it involves any distinctive sort of sensation or sensuous imagery.

My suggestion at this point is that the relevant notion of experience should be understood to include any sort of process that is perceptual in the broad sense of (a) being a causally conditioned response to particular, contingent features of the world and (b) yielding doxastic states that have as their content putative information concerning such particular, contingent features of the actual world as contrasted with other possible worlds. So understood, there would be no essential connotation that sensuous qualities or imagery are involved. And thus not only sense experience, but also introspection, memory, kinesthesia, and clairvoyance or telepathy (should these exist) would count as varieties of experience and the justification derived therefrom as *a posteriori*.⁷ In contrast, “mathematical intuition,” even though it undoubtedly counts as experience in the sense of a consciously undergone mental process, would not count as experience in this more specific sense so long as it is concerned with eternal, abstract, and necessarily existent objects and offers no information about the actual world as opposed to other possible worlds, that is, so long as its deliverances consist solely of (putatively) necessary truths.⁸

The foregoing discussion in effect appeals to the positive conception of *a priori* justification to clarify and sharpen the negative conception. What is wrong with regarding introspective or kinesthetic or clairvoyant knowledge as justified *a priori* is that things known in these ways – unlike, for example, pure mathematics (at least as traditionally conceived) – are not apparent to pure rational thought, but are rather the product of processes strongly analogous to sense perception. Of course nothing ultimately hangs on such issues of taxonomy. One could always insist on a version of the negative conception according to which any proposition whose justification did not appeal to ordinary sense experience or perhaps, more narrowly, to ordinary sensory and introspective experience would count as *a priori*. Such a conception would perhaps not be mistaken in any clear sense, but it would lump together kinds of justification that are very hetero-

7 An appeal to a dream or hallucination that seemed to be a cognitive process of one of these sorts would also count as an appeal to experience, albeit an unreliable one.

8 I am not concerned to argue right now that this is the correct view of mathematical intuition, only that it is a possible view, under which the justification resulting from such intuition would count as *a priori*.

geneous. More importantly, it would fail to highlight the epistemological issue that is, in my judgment, the most crucial: whether there is a mode of epistemic justification that depends only on pure reason or rational thought and not at all on any input of an experiential or quasi-experiential sort. Since it is this last issue that is the focus of the present book, I will construe the concept of *a priori* justification accordingly.

A second important source of unclarity in the negative conception of *a priori* justification has to do with the sense in which such justification is to be *independent* of experience. Here there are two distinct problems, the first of which concerns the issue of concept acquisition. A strict interpretation of the requirement of independence would seem to require that experience should be in no way a precondition for *a priori* justification, so that something justified *a priori* could have been so justified even if the person in question had never had any relevant experience at all. One reason that this is problematic is that many propositions commonly regarded as being justified or justifiable *a priori* involve concepts that are plausibly regarded as *empirical* concepts derived from experience.

Consider, for example, the claim that nothing can be red all over and green all over at the same time, one of the most widely invoked examples of alleged *a priori* justification. While I have no desire to defend such a view in detail here, it is very commonly assumed and is surely at least *prima facie* plausible that the concepts of redness and greenness are derived from experience in the sense that only someone who has had certain familiar kinds of visual experience can acquire such concepts. Indeed, such a thesis about concept acquisition has often been regarded as itself a necessary truth and indeed as justified *a priori*. But even if it is only contingently true, it would still follow that someone who has not had the requisite experiences would in fact be unable to understand the proposition in question and thus trivially could not be justified in believing it. It would follow, therefore, that having had the color experiences in question is a necessary condition for being justified in believing the proposition, so that the justification in question would apparently not count as *a priori* after all.

Here again, the issue of taxonomy is unimportant in itself. One could adopt a concept of *a priori* justification according to which no proposition containing concepts that must be derived from experience can count as being justified *a priori*; this would correspond to Kant's category of "pure *a priori* knowledge."⁹ But this way of dividing up the ground would be inadvisable for at least two reasons. First, while the issue of concept acqui-

9 *Critique of Pure Reason*, 2nd edition (Kant 1787), Introduction, B3.

sition is important in its own right, it is not connected in any very close or essential way with the issue of justification; thus a conception of *a priori* justification that in effect conflates the two issues is less perspicuous than one that does not. Second, although the distinction between concepts that must be derived from experience and those that need not be is hard to draw with great confidence, it is at least debatable whether *any* concepts fall on the latter side of the divide and hence uncertain that any justification would count as *a priori* in the alternative sense indicated. For these reasons, I choose to follow Kant and the overall tradition by stipulating that a proposition will count as being justified *a priori* as long as no appeal to experience is needed for the proposition to be justified *once it is understood*, where it is allowed that experience may have been needed to achieve such an understanding.

There is, however, a further source of unclarity that needs to be considered at this point. It is at least possible that there are propositions for which the following situation obtains: experience is required in order to acquire the concepts needed to understand them, but any experience or set of experiences that suffices for such an understanding will also provide an adequate reason for thinking it that the proposition in question is true. Perhaps “I exist as a thinking thing” or even “I have experienced at some time a red visual sensation” express such propositions. But although such propositions will automatically be justified for anyone who understands them, they will not count as justified *a priori* according to the account being offered here. For someone who understands such a proposition will still have to appeal *again* to experience to find a reason for thinking it to be true; that the experiences appealed to may be the very same experiences via which the requisite concepts were acquired is simply irrelevant to the issue.¹⁰

The second problem pertaining to the idea of independence from experience concerns the question of whether *a priori* justification, in addition to being free of any positive appeal to experience, is independent of experience in the further sense of being incapable of being refuted by experience (or even, perhaps, incapable of having its justification weakened or undermined by experience). Traditional proponents of *a priori* justification have often made such claims on its behalf. But, as elaborated further in §1.4 and Chapter 4, such a claim is quite problematic and is in any case inessential to

10 For an account of *a priori* justification that differs on this point, see Kitcher (1973), pp. 21–9. Kitcher would classify such cases as being justified *a priori*. But this is at least in large part due to his refusal to explicitly invoke the concept of epistemic justification, thus leaving him no way to exclude them.

the main thrust of the idea of *a priori* justification: that of justification that derives from pure thought or reason alone with no positive dependence on experience. This being so, it would be a mistake to include this further dimension of independence in our primary conception of *a priori* justification. I will accordingly leave open the possibility that *a priori* justification, though not requiring positive experiential input, is nonetheless susceptible to refutation by experience. Whether this is in fact the case will be considered in §4.6.

In summation, I propose to count a proposition *P* as being justified *a priori* (for a particular person, at a particular time) if and only if that person has a reason for thinking *P* to be true that does not depend on any positive appeal to experience or other causally mediated, quasi-perceptual contact with contingent features of the world, but only on pure thought or reason, even if the person's ability to understand *P* in question derives, in whole or in part, from experience.

§1.3. THE *A PRIORI* AND THE NECESSARY

Understood in the way just indicated, the *a priori*–*a posteriori* distinction is obviously closely related to the distinction between necessary and contingent truths, and this no doubt accounts in substantial part for the tendency of many previous philosophers to treat the two distinctions as identical. As Kripke, among others, has pointed out,¹¹ however, this is a serious blunder, for the two distinctions, far from being identical, are not even distinctions of the same general kind: while the *a priori*–*a posteriori* distinction is, as we have seen, an *epistemological* distinction having to do with the way in which a claim or assertion is epistemically justified, the necessary–contingent distinction is a *metaphysical* distinction having to do with the status of a proposition in relation to the ways the world might have been (and having no immediate bearing on knowledge or justification).

A proposition is *necessary* (necessarily true) just in case it is true in all possible worlds, that is, true in any possible situation that obtains or might have obtained, such that, in the strongest possible sense, it had to be true and could not have been false; it is *contingent* if it is true in some possible worlds or situations and false in others, so that its truth value, whatever it in fact may actually be, might have been different (contingently true if the actual world is included in the former group of worlds, contingently false if it is included in the latter). A necessary falsehood, obviously enough, is

11 Kripke (1972), pp. 260–3, 275.

true in no possible world or situation. It is sometimes objected that this sort of characterization, relying as it does on the correlative notion of possibility, is essentially circular and thus of little help, but this seems to me mistaken. While it is obviously true that necessity and possibility are correlative, interdefinable concepts, it seems clear on reflection that it is the idea of possibility, of a world or situation that might have obtained, that is intuitively primary. A possible world is a way things might have been, a comprehensive situation that might have been real or actual, and this idea seems to be intuitively intelligible without any direct appeal to the notion of necessity.¹²

What is the relationship between these two distinctions? Though drawn on quite different bases, one epistemological and one metaphysical, it is of course still possible that they might turn out to fall in the same place within the class of propositions, that is, that necessity might in fact coincide with apriority and contingency with aposteriority. Such a coincidence thesis, as I will call it, has in fact often been held by those philosophers who do not simply conflate the two distinctions.

In fact, the conception of *a priori* justification adopted above already comes at least very close to incorporating part of the coincidence thesis: if *a priori* justification cannot appeal to any causally mediated process that yields information about this world as against other possible worlds, then whatever ground an *a priori* claim possesses, since it seemingly cannot pertain specifically to this world, will therefore extend just as well to any other possible world. It is tempting to conclude that propositions justified in this way must be justified in relation to any possible world if they are justified at all, and hence that apriority entails truth in all possible worlds, that is, necessity.

One challenge to this result has been offered by Kripke,¹³ who argues that propositions like “the standard meter stick is one meter long” are both justified *a priori* and contingent. The idea is that although it is plain that no

12 For an opposing view, see Bealer (1982), pp. 205–9. Bealer rejects the possible worlds definition of necessity as circular and offers his own: a proposition is necessary if it corresponds to a necessary condition (possible state of affairs); and a condition *x* is necessary if it is identical to some specimen necessary condition (Bealer chooses the condition that *x* is self-identical), for unlike propositions, all necessarily equivalent conditions are identical. (Bealer has an elaborate and systematic argument for this view of conditions.) But I am unable to see why this does not finally amount to saying that a proposition is necessary if it is *necessarily* equivalent to some further proposition recognized as necessary – which seems both circular and unhelpful (since we are given no account of the necessity of the sample proposition).

13 Kripke (1972), p. 275.

special experience of the world is needed in order to be justified in believing that such a proposition is true, there obviously are other possible worlds in which it is false (worlds, e.g., in which the standard meter stick is subjected to substantial heat). But this example is not convincing. What seems to be justifiable *a priori* is not a claim about some particular object, a specific platinum-iridium bar in Paris, but rather a general thesis about the relation between a general concept or unit of measurement and any physical standard used to “fix the reference” of the corresponding term. This thesis, which I will not pause to formulate exactly, is indeed justified and known *a priori*, but it is also necessary; while its application to any particular object, being dependent on the empirical fact that the object in question was used (at the moment in question¹⁴) to “fix the reference,” will be contingent but also *a posteriori*.

But although Kripke’s objection thus fails, this does not mean that the first part of the coincidence thesis is correct. The obvious flaw in the earlier argument is the move from the claim that *a priori* justification would pertain equally to all possible worlds, so that the proposition in question would be *justified* in relation to any such world, to the conclusion that such a proposition must be *true* in all possible worlds as well and thus necessary. The implicit presupposition is that *a priori* justification guarantees the truth of the proposition justified, so that it would not be possible for a proposition to be justified *a priori* but be nonetheless false. But while such a view has indeed been part of the standard doctrine of *a priori* knowledge, it is by no means obviously correct and will have to be considered at length later in our discussion; thus the correctness of the first part of the coincidence thesis will remain for the moment an open question.

Kripke also argues against the other part of the coincidence thesis, namely, the claim that necessity entails apriority (or, equivalently, that aposteriority entails contingency), and here his argument is much more compelling. In the first place, it is clearly not the case that all necessary propositions that have been considered up to the present moment are in fact known or justified *a priori*. There are obviously many contradictory pairs of propositions in mathematics, logic, and other *a priori* sciences, neither of which is presently justified on an *a priori* basis, but such that it is intuitively clear that whichever of them is true will also be necessary. Kripke’s example here is the famous mathematical proposition known as

14 Clearly the claim must be relativized to the precise moment at which the reference is “fixed,” for even in this world there is no guarantee that the standard object will not be heated or otherwise deformed at the very next instant.

Goldbach's conjecture: that every even number greater than 2 is the sum of two prime numbers. From an intuitive standpoint, it is clear that either Goldbach's conjecture or the denial thereof is a necessary truth: if there is an even number greater than 2 that is not the sum of two primes, then it will have this status in every possible world; and if there is no such number, then this will also be the case in every possible world. But presumably no one presently is justified in believing *a priori* that the necessary claim in question, whichever it is, is true or necessary.¹⁵ And it is also obvious that this situation might well remain unaltered throughout the entire future development of mathematics. Thus a necessary proposition need not ever be in fact known or justified *a priori*.

The natural suggestion at this point is to invoke the idea of an *a priori justifiable* proposition, one that *could* be justified *a priori* even if no one ever actually possesses such justification. And indeed, the phrase '*a priori* proposition' is perhaps most standardly used to refer to propositions that could be justified in such a way, whether or not they ever in fact are. But, as Kripke insists,¹⁶ the meaning of this conception is quite vague. Must an *a priori* proposition be justifiable *a priori* for human minds, or at least for minds more or less like ours, or might it be *a priori* justifiable only for God or some other being whose powers in this regard are radically different in character from our own? Leibniz notoriously believed that God could directly perceive truths about infinite collections such as the infinity of possible worlds simply by examining all of them, and in this way could perhaps be justified in believing any and all necessary truths. But this sort of view, even if correct, seems simply irrelevant to the concepts of *a priori* justification and knowledge as they apply to human knowers. And if such supernatural possibilities are thus dismissed, there is no clear reason for believing that all necessary truths are justifiable *a priori*, even in principle. Even setting aside debatable examples such as the essentialist necessary truths argued for by Kripke,¹⁷ there is no reason to think that, for example, Goldbach's conjecture or its denial (whichever is true) *must* be knowable or justifiable by human minds in any way that resembles ordinary cases of *a priori* justification. Why couldn't such a proposition be necessarily true even though there is no possible way to prove it nor any perspective from which its necessity can be intuitively grasped? Thus there is no clear argument for the second part of the coincidence thesis, and hence, no

15 Kripke (1972), p. 261–3. 16 *Ibid.*, p. 260.

17 *Ibid.*, *passim*.