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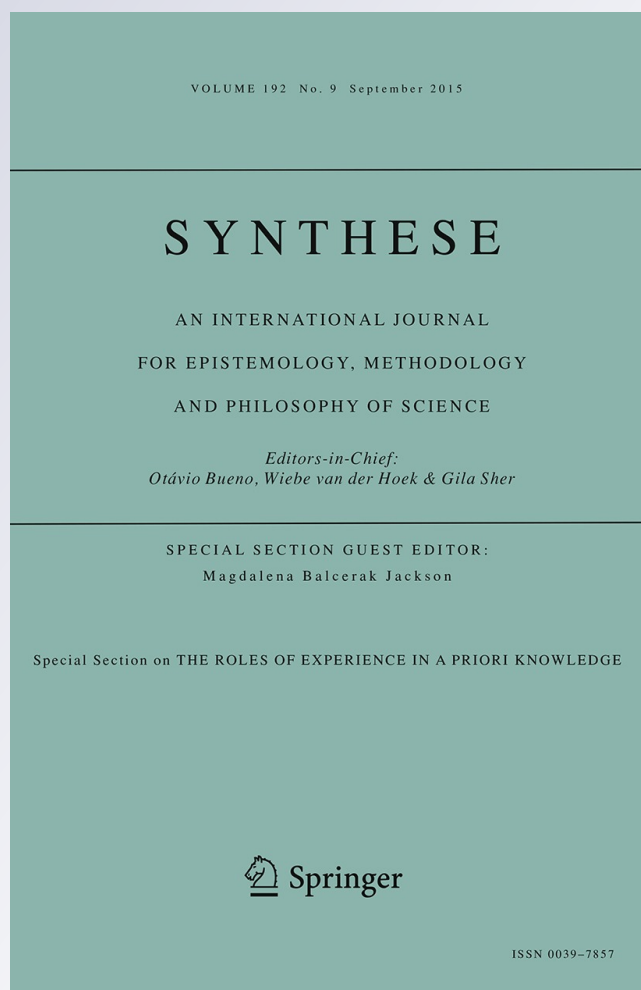
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Four challenges to the a priori—a posteriori distinction

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Abstract During the past decade a new twist in the debate regarding the a priori has unfolded. A number of prominent epistemologists have challenged the coherence or importance of the a priori—a posteriori distinction or, alternatively, of the concept of a priori knowledge. My focus in this paper is on these new challenges to the a priori. My goals are to (1) provide a framework for organizing the challenges, (2) articulate and assess a range of the challenges, and (3) present two challenges of my own.

Keywords A priori · A posteriori · Challenges · Significance · Concept · Distinction

Debate regarding the a priori has played a central role in epistemology over the past 50 years. The parameters of the debate, however, have shifted during that period. In the 1960s and 1970s, the debate was dominated by the contention of logical empiricists that a priori knowledge is limited to analytic truths and Quine's (1963) denial of the coherence of the analytic—synthetic distinction. In the early 1970s, Kripke (1971, 1972) challenged the prevailing tendency to assimilate the concepts of a priori knowledge, necessary truth and analytic truth, and focused attention on the traditional Kantian question of the relationship between a priori knowledge and necessary truth. Benacerraf's (1973) paper "Mathematical Truth" renewed interest on the topic of mathematical knowledge and, more generally, knowledge of necessary truth. As a result, a new literature emerged in the 1980s and 1990s that focused more directly on the nature and existence of a priori knowledge. At the turn of the century a new twist in the debate unfolded. Authors such as Fumerton (2006), Goldman (1999), Hawthorne (2007), Jenkins (2008), Kitcher (2000), Sosa (2013) and Williamson (2007, 2013) challenged the coherence or importance of the a priori—a posteriori distinction or,

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alternatively, of the concept of a priori knowledge. My focus in this paper is on the new millennium challenges to the a priori. My goals are to (1) provide a framework for organizing the challenges, (2) articulate and assess a range of the challenges, and (3) present two challenges of my own.

1 The framework

My first goal is to offer a framework for organizing the challenges to the a priori—*a posteriori* distinction. There are two primary reasons for introducing the framework. First, each type of challenge to the distinction requires different supporting considerations. Hence, in order to evaluate the cogency of any particular challenge, it is necessary to be clear about the type of challenge in question. Second, critics of the distinction often slide across the different types of challenge. Hence, a cogent evaluation of the challenges presented by such critics requires separate treatment of each type of criticism.

Several remarks about the scope of the framework are in order. My goal is to offer a framework that accurately and exhaustively captures the range of the recent challenges to the distinction in a manner that facilitates a systematic assessment of them. This goal is limited in two respects. First, I do not claim that the framework exhausts all possible challenges to the distinction. As the extant challenges undergo critical evaluation, new and unexpected challenges may emerge. If such challenges do emerge, the framework will have to be modified to accommodate them. So the framework is not fixed, but is subject to revision in light of new developments. Second, I do not claim that the framework provides a useful or exhaustive classification of challenges to other philosophical distinctions or concepts. I would be surprised if the framework did not capture at least some types of challenges to the others, but also regard it as likely that there are different challenges to some of them. So the framework might be a useful point of departure for assessing challenges to other important philosophical distinctions. After introducing the framework, I will illustrate how it captures a range of challenges to another distinction related to the a priori: the analytic—synthetic distinction.

The framework that I propose divides the challenges to the concept of the a priori into four categories:

- C1. The concept is incoherent.
- C2. The concept is coherent but vacuous.
- C3. The concept is coherent, nonvacuous but insignificant.
- C4. The concept is coherent, nonvacuous, significant but in tension with other aspects of the traditional view of the a priori.

The first challenge is the most serious. If the concept is incoherent then any theory of knowledge employing it in some essential way would also be (at least partially) incoherent. Moreover, if the first challenge succeeds, then the remaining challenges do not arise. If the concept of a priori knowledge is incoherent, then questions about the existence or significance of such knowledge cannot be coherently raised or addressed. If the first challenge fails, however, there remain serious challenges. Even if the concept

is coherent, it could fail to play a significant role in the theory of knowledge. There are two ways in which the concept could fail to play a significant role. If there is no a priori knowledge, then the theory of knowledge will have little to say about it apart from articulating the concept and the reasons why it is vacuous. This challenge is familiar: it encompasses the traditional debate between proponents and opponents of radical empiricism. Although serious, it is important to recognize that it is a different and weaker challenge than the first. One cannot coherently embrace the view that the a priori—a posteriori distinction is incoherent and all knowledge is a posteriori. If the radical empiricist challenge succeeds, the remaining challenges do not arise. If it fails, there remains another serious challenge. Proponents of a priori knowledge typically maintain not only that there exists such knowledge but also that it plays an important role in the theory of knowledge. They maintain that radical empiricist epistemologies have explanatory or other significant shortcomings. The third challenge is directed at the latter claim. Even if the concept is nonvacuous, it may fail to be significant because it plays no important theoretical or explanatory role in the theory of knowledge. This challenge is less familiar than the second. Since it is less familiar, it requires further articulation. Such an articulation requires addressing the relationship between a theory of a priori knowledge and the general theory of knowledge in which it is embedded and, consequently, will be postponed until Sect. 3. Finally, even if the concept is coherent, nonvacuous and significant, it may be in tension with other aspects of the traditional view of the a priori. The fourth challenge is the weakest in two respects. First, it arises only if the first three fail. Second, it is only an *indirect* challenge to the concept. The first three challenges are direct challenges in the sense that, if cogent, they establish that the concept is problematic in some respect. The fourth is an indirect challenge in the sense that, even if cogent, it may *fail* to establish that the concept is problematic in some respect. This feature of the fourth challenge requires some further explanation in order to forestall misunderstanding.

An analysis of the concept of a priori knowledge is one element in one's overall theory of the a priori. Such a theory includes other elements such as accounts of the nature of a priori knowledge, the scope of such knowledge, and the relationship between the concept and other concepts such as necessity or analyticity. Identifying a tension within some subset of these elements poses a challenge to one's overall theory of the a priori as opposed to some particular element. The tension must be resolved in order to have a coherent overall theory. If the tension is genuine, then its resolution requires an abandonment or revision of one of the elements in the subset. The fact that the elements are in tension does not by itself determine which element should be abandoned or revised. Determining which should be abandoned or revised requires an independent investigation into the relative costs and benefits of abandoning or revising each member. If the problematic subset includes an analysis of the concept of the a priori, then one of the options that must be assessed is abandoning or revising that concept. The tension does not by itself show that the concept must be abandoned or revised, but it provides a basis for evaluating the concept which, in turn, might provide a basis for abandoning or revising it. The important point for present purposes is that, in the face of such a tension, one must address the question of whether abandoning or revising the concept is the best response. The fourth challenge demands a response to that question.

The proposed framework can be illustrated by considering a distinction or, alternatively, a concept related to the a priori that is also controversial: the analytic—synthetic distinction or, alternatively, the concept of analytic truth. Boghossian (1996, p. 370), for example, maintains that there are two readings of Quine's (1963) attack on the distinction:

- (Q1) No coherent, determinate property is expressed by the predicate 'is analytic'.
- (Q2) There is a coherent, determinate property expressed by 'is analytic', but it is necessarily uninstantiated.

(Q1) and (Q2) provide clear examples of C1 and C2 in my proposed framework. Putnam (1975, p. 36), however, has a different reading of the significance of Quine's attack on the distinction:

I think that Quine is wrong. There are analytic statements: 'All bachelors are unmarried' is one of them. But in a deeper sense I think that Quine is right; far more right than his critics. I think that there is an analytic – synthetic distinction, but a rather trivial one.

Putnam clearly rejects both (Q1) and (Q2) and offers a version of C3 in my proposed framework: although the concept is coherent and nonvacuous, it is not significant. Putnam (1983, p. 94) suggests a version of C4. Consider the following cluster of views often associated with some versions of logical empiricism:

- (a) All a priori knowledge is of analytic truths.
- (b) A statement is analytic if it can be turned into a truth of logic by substituting synonyms for synonyms.
- (c) The analyticity of truths known a priori explains their special epistemological status.

Putnam maintains that the concept of analyticity does not explain the special epistemological status of logical laws since such laws are trivially analytic. If Putnam is right, there is a tension between the concept and other aspects of the logical empiricist view.

The framework that I propose divides the challenges to the concept of the a priori into four categories. I now turn to the challenges themselves. In Sect. 2, I consider two versions of the incoherence challenge, one due to the influence of Quine and a more contemporary version due to Fumerton, and argue that both fall short of their goal. I go on to offer a new version of the challenge that is more serious. Section 3 provides a brief survey and negative assessment of recent arguments against the existence of a priori knowledge. The survey is brief since I have addressed these arguments in more detail elsewhere.¹ Section 4 has two goals. The first is to locate more precisely the source of the challenges falling into the third category. The second is to offer a general strategy for addressing them. Section 5 presents a version of the fourth challenge.

¹ See Casullo (2003, Chap. 5).

2 The first challenge

The challenges in the first category allege that the concept of a priori knowledge is incoherent. The traditional Kantian concept of the a priori can be analyzed as follows:

- (APK) S knows a priori that p iff S's belief that p is justified a priori and the other conditions on knowledge are satisfied; and
- (APJ) S's belief that p is justified a priori iff S's justification for the belief that p does not depend on experience.

There are two prominent ways in which (APK) can fail to be coherent. Some constitutive conditions of the concept may be incompatible or, alternatively, some constitutive concept may be incoherent.

Concerns about the coherence of the concept of a priori knowledge originally emerged against the backdrop of Quine's (1963) denial of the coherence of the analytic—synthetic distinction. The concern was that if Quine's arguments established that the concept of analytic truth is not coherent, they also established that the concept of a priori knowledge is not coherent. The connection between the two concepts was alleged to be mediated by the central claim of logical empiricism, which was the focus of Quine's criticisms:

- (LE) All a priori knowledge is of analytic truths.

Hence, the two concepts were thought to stand or fall together.

The concern, however, was entirely misplaced. Let us grant for present discussion that

- (I1) The concept of analytic truth is incoherent.

The conjunction of (LE) and (I1) does not entail that

- (I2) The concept of a priori knowledge is incoherent.

The reason is straightforward. (LE) is not constitutive of the concept of a priori knowledge. Moreover, proponents of logical empiricism, such as Hempel (1972) and Ayer (1952), did not regard it as constitutive of the a priori. They endorsed the traditional Kantian concept of the a priori. Hence, (I1) establishes, at most, that (LE) is not coherent.²

Fumerton suggests that, given his account of noninferential justification, the a priori—a posteriori distinction collapses. Fumerton (2006, p. 63), endorses a version

² An anonymous referee maintains that if Quine and the target of his criticism took it as common ground that (LE) is constitutive of the a priori, then Quine's contention that the analytic—synthetic distinction is incoherent, if cogent, does indeed establish that the a priori—a posteriori distinction is also incoherent. This suggestion, however, is incorrect. The question at hand is whether Quine's contention, if cogent, establishes that the traditional Kantian concept of the a priori—i.e., the conjunction of (APK) and (APJ)—is incoherent. From the fact that Quine's contention, if cogent, establishes that the concept of the a priori endorsed by his target is incoherent, it does not follow that the traditional concept is incoherent unless the two concepts of the a priori are the same. But clearly they are not since (LE) is not constitutive of the traditional concept of the a priori. If it were, Kant would not have been in a position to raise (nontrivially), let alone affirmatively answer, the question: Is there synthetic a priori knowledge? Moreover, neither (APK) nor (APJ) explicitly involves the concept of analyticity and, as I (2003, Chap. 8) have argued elsewhere, the arguments that purport to show that either (APK) or (APJ) implicitly involves the concept of analyticity fail.

of traditional foundationalism according to which “one has noninferential justification for believing P when one has the thought that P while she is directly acquainted with the thought’s corresponding to the fact that P.” Acquaintance is an unanalyzable relation that holds between a person and a thing, a property, or a fact. The items with which one can be acquainted include both certain mental states such as pains as well as certain properties and their relations. As a consequence, Fumerton (2006, p. 68) maintains that there is a single basic source of noninferential knowledge of both contingent and necessary truths:

Just as one can be directly acquainted with pain, so also can one be directly acquainted with ideas and their relations. Plato, Russell, and countless others also thought that one can become acquainted “through thought” with properties and the relations they bear to other properties. So whether one thinks that it is relations between ideas or relations between properties that are the truth makers for necessary truths, one could discover the truth of a necessary truth by being acquainted with the relevant truth makers (while one has the thought that represents those truth makers).

Fumerton (2006, p. 69) is not fully explicit regarding the implications of his theory for the traditional concept of a priori knowledge:

Footnote 2 continued

It is important to distinguish the claim that (LE) is constitutive of the concept of a priori knowledge from another claim regarding (LE) suggested by Friedman (2006, p. 37):

Indeed, this rejection of pure intuition and the synthetic a priori in favor of the view that all logico-mathematical truth is analytic and has no factual content quickly became definitive of what Carnap and the Vienna Circle meant by their empiricism.

Friedman suggests that (LE) is constitutive of the concept of logical empiricism—i.e., constitutive of the epistemological view endorsed by Carnap and the Vienna Circle. The fact that logical empiricists endorsed (LE) as constitutive of their epistemological view does not commit them to the view that (LE) is constitutive of the concept of a priori (or empirical) knowledge.

Finally, it cannot be taken for granted that Quine and his target took it as common ground that (LE) is constitutive of the a priori if, as the referee suggests, his target is Carnap. For example, (Friedman 2006, pp. 51–52) argues:

Quine, as we have seen, never fully appreciated the deeply original character of the Carnapian logic of science. He assimilated it, instead, to a program in traditional epistemology, one which begins with the Kantian question how synthetic a priori knowledge is possible, replaces it with the question “How is logical certainty possible?” and concludes with “the linguistic doctrine of logical truth” as the supposed answer to this epistemological question...From Carnap’s point of view, however, Quine’s mature epistemology represents just as much of an externally motivated, purely philosophical intrusion into the ongoing progress of empirical science and the logic of science as Quine’s earlier defense of nominalism.

Ebbs (2011, p. 213) offers a similar reading of Carnap’s project:

Carnap’s account of ‘analytic’ or ‘L-true’ is language-system-relative. Carnap did not aim to analyse or explain the traditional notion of an a priori truth in terms of ‘L-true.’ Instead he eschewed the traditional phrase ‘a priori truth’, which he regarded as vague and confused.

I am not endorsing either Friedman’s or Ebbs’s position. I am only pointing out that it cannot be assumed uncritically that Quine and Carnap took it as common ground that (LE) is constitutive of the a priori.

One might worry that an acquaintance theory is collapsing the critical epistemological distinction between two radically different sorts of knowledge – the a priori and the a posteriori – but the proponent of the view might very well claim that it is an advantage of an acquaintance theory that one can offer a unified account of both types of noninferential knowledge.

He raises the concern that his theory collapses the a priori—a posteriori distinction and appears to embrace that consequence as a virtue of his theory.

Fumerton's assessment of the implications of his theory for the traditional concept of a priori knowledge is too quick. He offers two different accounts of the noninferential justification of necessary truths. Each results in a different epistemological theory with different implications for the traditional concept of a priori knowledge. If the truth makers for necessary truths are relations between ideas, then the resulting epistemological theory is a form of radical empiricism. The relation in which we stand to ideas and their relations is the same as the relation in which we stand to mental states such as pains. Acquaintance, on this theory, is just introspection, which has traditionally been viewed as a form of experience. If the truth makers for necessary truths are relations between properties, then the resulting theory is a novel epistemological theory different from both radical empiricism and traditional foundationalism. Since acquaintance, on this theory, is a relation in which one can stand to abstract, necessary objects, such as properties, it not introspection. Moreover, it is also different from putative nonexperiential sources of justification endorsed by traditional foundationalism, such as rational insight, since it is a relation in which one can stand to mental states such as pains. Acquaintance is a source of justification that is not properly classified as an experiential source or a nonexperiential source.

The former theory does not threaten the coherence of the concept of a priori knowledge. It maintains that all knowledge ultimately derives from a single experiential source—namely, introspection—which entails that the concept of a priori knowledge is vacuous. The former theory poses a challenge that falls into the second category. The latter theory poses a different challenge. It maintains that all knowledge derives from a single source, acquaintance, which is neither an experiential source nor a nonexperiential source. If the theory is correct, there is no conceptual space for the a priori—a posteriori distinction.

Although the latter theory poses a threat to the cogency of the a priori—a posteriori distinction, Fumerton has provided little basis for accepting it. In particular he has offered no reason to endorse the basic claim of the theory, which is that acquaintance is a cognitive relation in which one can stand to both concrete, contingent objects and abstract, necessary objects. Although acquaintance is a *sui generis*, unanalyzable relation, Fumerton maintains that we can identify it by focusing on our awareness of some mental state such as pain or by focusing on our awareness of some property such as redness. Suppose that one identifies one's awareness of some pain and one's awareness of some property, what reason does one have for believing that one has identified the very same cognitive relation in both cases? Presumably one believes (if one does) that one has identified the very same relation in both cases because there is no discernible introspective difference between the two. But why suppose that the absence of any introspectively discernible difference indicates that the cognitive

relation involved in both cases is the same? After all, as Fumerton himself implicitly acknowledges, some proponents of the view that we are directly acquainted with properties and their relations maintain that such acquaintance is “through thought,” which clearly indicates that they hold that the cognitive relation in which we stand to properties is different from the cognitive relation in which we stand to pains.

Although Fumerton’s account of noninferential justification does not pose a threat to the cogency of the concept of a priori knowledge, it does point in the direction of a threat. It draws attention to the fact that the concept presupposes that basic sources of justification are either experiential or nonexperiential and suggests that acquaintance is not happily classified as either. This points to a more general, more central, question. Is the experiential—nonexperiential distinction coherent? I conclude this section by arguing that this question introduces a new and more serious challenge to the coherence of the a priori—a posteriori distinction. I begin by articulating why it introduces a serious challenge and go on to show that a variety of responses to the challenge fail. It remains a serious and unmet challenge to the cogency of the distinction.

According to the traditional Kantian concept, a priori knowledge is knowledge whose justification is independent of experience. The Kantian concept introduces two concepts—*independent* and *experience*—that require further articulation. If both concepts cannot be articulated, the concept of a priori knowledge is poorly understood. Moreover, if one of the concepts should turn out to be incoherent, the concept of a priori knowledge is also incoherent. If the concept of a priori knowledge is poorly understood, then it can play, at most, a very limited role in the theory of knowledge. If it is incoherent, then it cannot play any role.

There has been considerable debate in recent years between proponents of two competing analyses of the concept of independence. Some, including myself (Casullo 1988, 2003), favor

(IN1) S’s belief that p is justified a priori if and only if S’s belief that p is nonexperientially justified.

Others, such as Kitcher (1983), favor

(IN2) S’s belief that p is justified a priori if and only if S’s belief that p is nonexperientially justified and cannot be defeated by experience.

By contrast, little has been said about the relevant concept of experience.³ Since this concept, unlike the concept of analyticity, is constitutive of the a priori, if it is incoherent then the concept of the a priori is also incoherent. The two concepts stand or fall together.

There are two general approaches to providing an articulation of the relevant concept of experience. The first is to offer an exhaustive list of experiential sources. One familiar list (Sosa 2007, p. 61) includes introspection, perception, memory and testimony. There are three problems with this approach. First, there is some controversy regarding which sources are experiential. Burge (1993), for example, denies that all

³ BonJour (1998) is an exception.

perceptual and testimonial knowledge is a posteriori.⁴ Second, it rules out the possibility that there are sources of experiential knowledge other than those on the list. So, if we should discover that clairvoyance is a source of knowledge, it automatically qualifies as a nonexperiential source. More generally, any source of knowledge not on the list automatically qualifies as a priori source of knowledge. Finally, an enumerative articulation has little explanatory value. Although it tells us *which* sources are experiential, it does not tell us *why* they are experiential. It offers no indication of which features they share, if any, by virtue of which they are experiential sources. Without any indication of the difference between experiential and nonexperiential sources of justification, the a priori—a posteriori distinction will also have limited explanatory value.

The second approach is to provide a general characterization of the difference between experiential and nonexperiential sources. The paradigm of an experiential source of justification is sense experience in its various forms. A general characterization of experiential sources must identify some feature common to sense experience in its various forms that is also possessed by all, and only, other experiential sources of justification. There are four candidate features for such a general characterization: (1) the phenomenological features of sense experience, (2) the content of beliefs justified by sense experience, (3) the objects of sense experience, and (4) the type of relation in which cognizers stand to the objects of sense experience.

The first proposal focuses on the cognitive states that are alleged to be sources of noninferential justification. Familiar examples include the experiences of the five senses, memory impressions, rational insights and introspective awarenesses. The cognitive states associated with each of the five senses have a characteristic phenomenology by virtue of which they are readily identifiable. We readily distinguish auditory experiences from visual experiences, and sense experiences generally from memory impressions. Proponents of the a priori maintain that the cognitive states that justify a priori have a characteristic phenomenology that distinguishes them from sense experiences and memory impressions. The phenomenological claims are controversial. But suppose that we grant them. It does not follow that the distinction between experiential and nonexperiential sources can be marked at the level of phenomenology. In order for the first proposal to succeed, there must be some phenomenological feature common to all and only those cognitive states that are experiential sources of justification. But it is difficult to locate some feature common to the cognitive states associated with sense experience in its various modes, let alone some feature common to sense experience in its various modes and other putative experiential sources such as introspection, memory and testimony.⁵

⁴ An anonymous referee suggests that if there is general agreement about the classification of some but not all sources, then the distinction is at least minimally coherent. The referee, however, also acknowledges that such a distinction will have little explanatory value.

⁵ One might attempt to circumvent the heterogeneity of experiential sources by contending that there is a single source of nonexperiential justification: a cognitive state such as rational insight with a characteristic phenomenology. This contention, even if correct, is not enough to mark the difference between experiential and nonexperiential sources of justification. Given that there are a number of different sources of experiential justification, each associated with a cognitive state that has a characteristic phenomenology, there is no basis for dividing sources of justification into two categories based on phenomenological differences unless there is some phenomenological feature common to all and only the cognitive states associated with the experiential sources.

The second proposal marks the distinction in terms of the content of the beliefs justified by the source. For example, one might suggest that experiential sources of justification are sources that noninferentially justify only contingent propositions and that nonexperiential sources are sources that noninferentially justify only necessary propositions. This proposal has three shortcomings. First, it settles by stipulation questions that have been regarded as substantive and controversial. Kant, for example, regarded the question of the relationship between a priori knowledge and necessary truth to be substantive in the sense that the answer to it is not a direct consequence of the analysis of the concept of a priori knowledge. Moreover, as Kripke's challenges to Kant's account of that relationship indicate, there remains controversy surrounding the issue. But, given the second approach, the answer to the question is a trivial consequence of the analysis of the concept of a priori knowledge. Second, the proposal entails that a radical empiricist who maintains that some necessary propositions are noninferentially justified by experience is embracing an obvious contradiction. Third, it has little explanatory value. It does not locate the difference, or even indicate whether there is a difference, between the noninferential justification of necessary propositions and the noninferential justification of contingent propositions.

The third proposal marks the distinction between experiential and nonexperiential sources in terms of their objects. A cursory examination of the familiar experiential sources indicates that they all involve a relation to some concrete object. Sense experience in its various forms involves a relation to some physical object. Introspection involves a relation to some psychological state of the cognizer. Memory involves a relation to some earlier belief or past event in the life of the cognizer. This suggests that experiential sources are those that involve a relation to some concrete object. Nonexperiential sources are those that involve a relation to some abstract object. This proposal has the consequence that experiential sources noninferentially justify only propositions about concrete objects, whereas nonexperiential sources noninferentially justify only propositions about abstract objects. As a result, it inherits all the problems of the previous proposal. It settles by stipulation questions about the relationship between a priori knowledge and abstract truths. It entails that a version of radical empiricism, according to which some abstract propositions are noninferentially justified by experience, is incoherent. Finally, it offers no indication of the difference, if any, between the noninferential justification of concrete propositions and the noninferential justification of abstract propositions.⁶

The fourth proposal marks the distinction between experiential and nonexperiential sources in terms of the type of relation in which cognizers stand to the objects of experience. In the paradigm case of an experiential source of justification—sense experience in its various forms—S's belief that *p* is noninferentially justified by a cognitive state produced in S by the subject matter of *p*. S's belief that there is a

⁶ The proposal does not accommodate theories of the a priori that deny that nonexperiential sources involve a relation to some abstract object. To accommodate such theories, the proposal might be revised to maintain that nonexperiential sources are those that do not involve a relation to some concrete object. The modified proposal is open to the same problems as the original.

cup on the table, for example, is justified by a visual experience caused by the cup on the table. Generalizing from the paradigm case, the fourth proposal suggests that experiential sources are those in which the subject matter of *p* causes the cognitive state that justifies the belief that *p*. Nonexperiential sources are those in which the subject matter of *p* does not cause the cognitive state that justifies the belief that *p*. The proposal clearly accommodates sense experience in its various forms. But it is not clear that it accommodates the remaining putative sources of experiential justification. On some accounts of introspective awareness, such awareness is not mediated by some causal relation between cognizer and the introspected state. The relationship between cognizer and introspected state is much more intimate: the awareness is a constitutive feature of the introspected state. Memory qualifies as an experiential source of justification only if some version of the causal theory of memory is true. But the status of the causal theory of memory remains controversial. Testimony presents a vexing problem. If my noninferential testimonial justification for the belief that *p* is based (at least in part) on my hearing you say that *p* then it follows, according to the proposal under consideration, that if the subject matter of *p* is abstract then the source of my justification is nonexperiential, but if the subject matter of *p* is concrete then the source of my justification is experiential.⁷ But there appears to be no relevant epistemic difference between the two cases.

There are also questions regarding whether the fourth proposal accommodates familiar examples of nonexperiential sources of justification, such as rational insight. Assume that *p* is some necessary truth, such as that nothing is both red and green all over, and that the truth conditions of *p* refer to abstract entities such as properties. If one's belief that *p* is noninferentially justified on the basis of rational insight, then the proposal under consideration gives the desired result that the source of one's justification is nonexperiential since the subject matter of *p* did not cause the cognitive state that justifies the belief in question. The proposal also introduces a new problem. Accounts of nonexperiential justification in terms of cognitive states such as rational insight face the challenge of explaining how such states can provide cognitive access to abstract entities. Providing the requisite explanation is a challenge because any satisfying explanation would presumably require some causal interaction between such cognitive states and abstract entities. The most promising line of explanation maintains that such cognitive states can stand in causal relations to property-instantiations and that cognitive access to the properties themselves is mediated by standing in appropriate causal relations to property-instantiations. In sum, cognitive states causally interact with properties via their instantiations. The conjunction of this explanation of cognitive access with the fourth proposal has the consequence that rational insight is an experiential source of justification.⁸

⁷ Burge (1993) denies that my noninferential testimonial justification for the belief that *p* is based (at least in part) on my hearing you say that *p*. Malmgren (2006) disagrees.

⁸ This explanation of cognitive access also has the consequence that sense experience provides cognitive access to the properties themselves via causal interaction with property-instantiations, thus undermining the need for nonexperiential access to the properties.

I have surveyed a number of proposals for articulating the experiential—nonexperiential distinction and raised questions about each of them.⁹ This does not show that the distinction is incoherent. It does show, however, that it requires further articulation. If that articulation is not forthcoming, then there is reason to doubt the coherence of the distinction and, as a consequence, the coherence of the a priori—a posteriori distinction.¹⁰

3 The second challenge

Even if the concept of a priori knowledge is coherent, it may still fail to play any significant role in the theory of knowledge. The most obvious way in which it may fail to do so is if the concept is vacuous. If there is no a priori knowledge then the concept of a priori knowledge, like the concept of phlogiston, would be of mere historical interest but not of theoretical interest. It would be necessary to provide an accurate history of the discipline but would play no role in formulating a correct theory of knowledge.

The leading arguments against the existence of a priori knowledge fall into two broad categories: conceptual and empirical. The conceptual arguments fall into two categories. Those in the first begin with an analysis of the concept of a priori knowledge. They go on to maintain that purported sources of a priori knowledge do not satisfy the conditions of the analysis and conclude that there is no a priori knowledge. Those in the second category begin with an (partial or full) analysis of the general concept of knowledge. They go on to maintain that purported sources of a priori knowledge fail to meet the requirements of the analysis and conclude that the sources in question are not sources of knowledge.¹¹

The most influential version of the first type of conceptual argument draws its inspiration from Putnam's (1983) reading of Quine's "Two Dogmas," which maintains that Quine's arguments are directed at two distinct targets. Some target the semantic concept of analyticity; some target the concept of a statement confirmed no matter what which, according to Putnam, is a concept of apriority. Kitcher (1983) endorses this

⁹ One might propose that the problem can be circumvented by rejecting (APJ) in favor of the following positive characterization of a priori justification:

$$(APJ^*) \text{ S's belief that } p \text{ is justified a priori iff S's belief that } p \text{ is justified by } \Phi,$$

where ' Φ ' designates some specific source of justification such as logical intuition or rational insight. Since (APJ*) does not contain the concept of experience, the proposal continues, its coherence does not depend on the coherence of the concept of experience.

Although the problem can be circumvented by embracing (APJ*), there is a price to pay. Embracing (APJ*) has the consequence of divorcing the question of whether there is a priori knowledge from the question of whether radical empiricism is true. Given (APJ*), the claim that some knowledge is a priori does not entail that some knowledge is nonexperientially justified. Consequently, one cannot draw the conclusion that radical empiricism is false from the premise that some knowledge is a priori. In order to draw that conclusion, the further premise that Φ is a nonexperiential source of justification is necessary, which reintroduces the original challenge.

¹⁰ For a proposed solution, see Casullo (2003), and subsequent discussion by Brueckner (2011), Jeshion (2011) and Casullo (2011).

¹¹ There is an important difference between the two types of conceptual argument. Those in the first category presuppose that there is a coherent concept of a priori knowledge. Those in the second do not.

reading and offers the following argument against the traditional view that mathematical knowledge is a priori:

- K1. The concept of a priori knowledge entails that a priori warrant is indefeasible by experience.
- K2. The warrant conferred by alleged sources of mathematical knowledge is defeasible by experience.
- K3. Therefore, no mathematical knowledge is a priori.

I ([Casullo 1988, 2003, 2009](#)) have argued elsewhere that the Putnam-Kitcher articulation of the concept of a priori knowledge does not capture the traditional Kantian concept of a priori knowledge and, moreover, that Kitcher's arguments to the contrary reflect a misunderstanding of the relationship between supporting evidence and defeating evidence for a belief.

The most influential version of the second type of conceptual argument is due to [Benacerraf \(1973\)](#) who maintains that, according to our best theory of truth, the truth conditions for mathematical statements refer to abstract entities and, according to our best theory of knowledge, knowledge requires a causal relation between knowers and the entities referred to by the truth conditions of the statements that they know. Since abstract entities cannot stand in causal relations, there is a tension between our best account of mathematical truth and our best account of mathematical knowledge. There are two significant problems with this version of the argument. First, the causal requirement on knowledge draws its support from the causal theory of knowledge, which is widely rejected.¹² Moreover, none of its externalist successors, such as reliabilism, support the causal requirement in any obvious way.¹³ Second, the argument is directed exclusively toward accounts of a priori knowledge that require cognitive contact between cognizers and abstract entities. Many contemporary accounts reject the need for such contact.

The empirical arguments are the most difficult to assess. The general idea behind them is to exploit empirical information about belief-forming processes that produce purported a priori justified beliefs in order to determine what role, if any, experience plays in the production of such beliefs. There are two different approaches. One, advocated by Alvin Goldman, is to examine the existing psychological literature on various types of knowledge alleged to be a priori. The results here are mixed. For example,

¹² Some theorists, such as [Field \(1989\)](#) and [Maddy \(1990\)](#), have attempted to revive a version of Benacerraf's argument that does not rest on the causal theory of knowledge. They maintain that any acceptable account of mathematical knowledge must explain the reliability of the mathematical beliefs of mathematicians but the fact that the truth conditions of mathematical statements refer to abstract entities precludes such an explanation. See [Casullo \(2003\)](#) for further discussion.

¹³ See [Casullo \(2003\)](#) for a defense of this claim. An anonymous referee worries that there is a tension between my rejection of the causal condition on knowledge and my claim in Sect. 2 that explaining how cognitive states such as rational insight can provide access to abstract entities is challenging since such an explanation would presumably require causal interaction between those cognitive states and abstract entities. The tension, however, is merely apparent. One must distinguish between two different claims: (1) The concept of knowledge entails that S knows that p only if S stands in a causal relation to the entities referred to by the truth conditions of p, and (2) A satisfactory explanation of how cognitive state S provides access to entities of type E requires that S stands in some causal relation to entities of type E. The claims are logically independent: the denial of (1) does not entail the denial of (2).

Goldman (1999) maintains that there is psychological evidence that human infants can compute small numerosities, which lends support to the view that they possess innate arithmetic capacities that are independent of experience. But Goldman (2013) also maintains that some empirical evidence suggests that conceptual processing involves materials derived from perception. Hence, it cannot be taken for granted that classification judgements have a priori status. Goldman, however, cautions that the empirical work is in its early stages and confident judgments cannot be made at this point. His primary contention is that the empirical information is relevant.

The alternative approach, one that I (Casullo 2003) have advocated, has two parts. The first is to identify the cognitive states that proponents of the a priori maintain justify beliefs a priori. The second is to employ empirical methods to examine the underlying cognitive processes that produce the states in question in order to determine what role, if any, experience plays in their production. Once again the challenge is difficult to assess since there is little, if any, relevant empirical evidence presently available.

In conclusion, the arguments in the second category do not pose an immanent threat to the a priori. The extant conceptual arguments fail and the empirical information necessary to arrive at any firm conclusions via the empirical arguments is simply not available and is not likely to be available for the foreseeable future. This does not, of course, preclude that more challenging arguments against the a priori, either conceptual or empirical, will emerge.

4 The third challenge

Even if the concept is coherent and nonvacuous, it could still fail to play a significant role in the theory of knowledge. It could fail to do so because the concept is of limited theoretical value. Hawthorne (2007, p. 201), for example, maintains that “the a priori—a posteriori distinction is not a particularly natural one.” Williamson (2007, p. 169) maintains that the distinction “is out of place in a deeper theoretical analysis, because it obscures more significant epistemic patterns.” Sosa (2013, p. 200, n.5) contends that “the importance of *experience* in epistemology is vastly overrated. Major categories, and distinctions among them—such as that of a priori versus a posteriori knowledge—should not turn on a matter of such limited importance by comparison with *competence*.”

The complaints voiced by Hawthorne, Williamson, and Sosa all point in the same direction. The a priori—a posteriori distinction is unnatural, superficial or relatively unimportant. But it would be useful to have a more general statement of the complaint, one that locates more precisely the common theme and provides a framework for assessing it. The following remark by Hawthorne (2007, p. 201) offers a suggestion: “If an epistemological distinction fails to carve at the epistemological joints, then it is not worthy of serious and protracted discussion.”¹⁴ This remark suggests that the

¹⁴ An anonymous referee finds Hawthorne’s reference to “epistemological joints” hard to understand and, moreover, suggests that a distinction can be important but fail to carve at the epistemological joints. I agree with these remarks. My goal in Sect. 4 is to offer an articulation of “epistemological joints” in terms of the features of one’s general theory of knowledge and to maintain that the best way to understand the criticism that the a priori—a posteriori distinction is unimportant is that the distinction does not mesh well with the features of the critic’s general theory of knowledge.

common theme expressed in the three complaints is that the a priori—a posteriori distinction fails to carve at the epistemological joints. A natural, deep, important distinction is one that carves at the epistemological joints. This way of understanding the complaint does not get us very far unless we have some grasp of the location of the epistemological joints. Our only access to the location of the epistemological joints, however, is through our epistemological theories. The correct epistemological theory locates the epistemological joints. So the suggestion appears to be of little value unless we know the correct epistemological theory.

This conclusion is overly pessimistic. In order to see why, it is crucial to locate accurately the place of an analysis of the concept of a priori knowledge within the general theory of knowledge. A priori knowledge is a *species* of knowledge. Consequently, any item of a priori knowledge must satisfy two conditions. First, it must satisfy the conditions on knowledge articulated in the general theory of knowledge in which it is embedded. These conditions are constitutive of knowledge in general. Second, it must also satisfy the conditions that differentiate items of a priori knowledge from items of a posteriori knowledge. These conditions are constitutive of a priori knowledge. Since a priori knowledge is a species of knowledge, an analysis of the concept of a priori knowledge is vulnerable to a distinct form of incoherence. The analysis may fail to cohere with the general theory of knowledge in which it is embedded. This occurs when there is a mismatch between the general conditions on knowledge and those that differentiate a priori knowledge from a posteriori knowledge.

My proposal is that the complaint that the a priori—a posteriori distinction is unnatural, superficial or relatively unimportant is best understood as the product of a mismatch between the general theory of knowledge endorsed by the critic and the analysis of the concept of a priori knowledge under consideration. The underlying issue can be framed as follows:

- F1. A general theory of knowledge is a proposal about the structure of epistemological reality, including the location of its joints.
- F2. An analysis of the concept of a priori knowledge in terms of conditions that do not match those in the general theory of knowledge does not carve at the epistemological joints.

From the perspective of this framework, we can see the complaint as a byproduct of the fragmentation in contemporary epistemology.¹⁵

¹⁵ An anonymous referee offers a different challenge that falls into the third category: There is a distinction between a priori and a posteriori knowledge that cuts at the epistemic joints but all significant knowledge is a mixture of both a priori and a posteriori knowledge. I don't regard this challenge as significant. To make matters more concrete, let us suppose that all significant mathematical, scientific and philosophical knowledge is a mixture of both a priori and a posteriori knowledge. The question at issue is whether the concept of a priori knowledge remains significant for the theory of knowledge. Since one of the main goals of the theory of knowledge is to identify basic sources of knowledge and explain how beliefs derived from those sources are known, the concept remains significant for the theory of knowledge. Given that the challenge concedes that the concept cuts at the epistemological joints, any theory of knowledge that does not employ it will be incomplete. Its taxonomy of basic sources will be incomplete.

Goldman (1999, p. 23), offers a version of this challenge:

A significant number of people's beliefs have a warranting history that includes both perceptual and ratiocinative processes. By calling such beliefs "empirical," the classificational system automatically

The traditional Kantian concept of a priori knowledge arose within a broader epistemological context with certain shared assumptions. First, that the concept of knowledge is analyzable. Second, that the justified true belief analysis is largely correct (modulo Gettier problems). Third, since the concept of justification is the only epistemic concept in the analysis, the a priori—a posteriori distinction must be framed in terms of that concept. Finally, although the Gettier problem introduces the need for some further condition on knowledge, the solution to the Gettier problem will not bear on the a priori—a posteriori distinction.

Many contemporary epistemologists reject some of these assumptions. Some maintain that knowledge is not analyzable and, more importantly, that justification is to be explained in terms of knowledge rather than vice-versa. Many reject justification as a necessary condition for knowledge or, alternatively, maintain that traditional assumptions about justification must be rejected. Finally, some maintain that the epistemic conditions relevant to knowledge extend beyond justification. Given the rejection of aspects of the traditional general theory of knowledge, it is not surprising that the conjunction of the traditional concept of a priori knowledge with a more contemporary theory of knowledge yields a mismatch between the two. But that by itself does not show that the distinction should be rejected.

To see why, let us consider an alternative general theory of knowledge that rejects some aspects of the traditional framework. Burge (1993) offers an epistemological framework whose central feature is the concept of entitlement. Entitlement is alleged to be a distinctive type of positive epistemic support that is different from justification. Both are species of warrant. Justification is the internalist form of warrant; entitlement is externalist. Burge (1993, pp. 458–459) distinguishes them as follows:

[E]ntitlements are epistemic rights or warrants that need not be understood by or even accessible to the subject. ... Justifications, in the narrow sense, involve

Footnote 15 continued

gives pride of place to the first of these components. To my mind, this is misleading.... We need an epistemology that puts the two sources of warrant on a more balanced footing.... What should we call an epistemology that gives roughly equal credit to perceptual and ratiocinative sources of warrant: empirico-rationalism? Unfortunately, the label “empirico-rationalism” tends to suggest that all warranted beliefs are warranted by perception, ratiocination, or a combination of the two. That, as we have seen, is false.... So it is best to reject not only the traditional options of empiricism and rationalism but even the appealing but simplistic synthesis of empirico-rationalism. Warrant is just a complex and multi-dimensional affair. Why try to force it into some neat little container or pair of containers that simply disguise its true contours?

The problem that Goldman raises is terminological. Cases of knowledge that derive from both a priori and a posteriori sources are classified as a posteriori as a matter of definitional stipulation. This problem, however, is easily resolved by introducing a third category of knowledge: knowledge that derives from both a priori and a posteriori sources, where neither source alone suffices for knowledge. (The final qualification is necessary to distinguish this category from cases of epistemic overdetermination—i.e., cases of knowledge that have two independent sources, one a priori and one a posteriori, where each source alone suffices for knowledge). As Goldman suggests, coming up with a suitable label for this category—i.e., one that is not misleading—may be challenging. Nevertheless, the categories themselves are quite clear. Setting aside cases of epistemic overdetermination, all knowledge falls into three categories: pure a priori, pure a posteriori and impure (or involving a mixture of both). If Goldman is right, then all three categories are nonvacuous. If the referee is right, then all significant knowledge is impure.

reasons that people have and have access to. ... [T]hey must be available in the cognitive repertoire of the subject.

Burge rejects the traditional view that justification is a necessary condition for knowledge. He maintains, instead, that warrant is necessary for knowledge.

Given his alternative general theory of knowledge, Burge is in a position to offer a criticism of the traditional concept of a priori knowledge that parallels the three that we rehearsed earlier. The concept is superficial since it is analyzed in terms of justification, which is not a necessary condition for knowledge. It is unnatural since it fails to carve at the epistemological joints. The concept of warrant carves at the epistemological joints but the concept of a priori knowledge does not apply to warrant. It is unimportant since the concept of justification is of limited importance by comparison with the concept of warrant.

Although the criticisms would have been accurate had they been made by Burge, their force is limited. They do not show that the concept of a priori knowledge should be rejected. The reason that they do not, as he recognizes, is that the traditional concept can be removed from the traditional general theory of knowledge and modified to fit his alternative theory of knowledge. Hence, Burge (1993, p. 458) offers the following alternative (partial) analysis of the concept of the a priori: “A justification or entitlement is a priori if its justificational force is in no way constituted or enhanced by reference to or reliance on the specifics of some range of sense experiences or perceptual beliefs.” The alternative analysis preserves the core idea of the traditional concept and is also natural—i.e., it coheres with his general theory of knowledge.

The general moral to draw from the discussion of Burge is that when faced with a complaint that falls into the third category, two questions should be asked. Does it arise from the fact that there is a mismatch between the general theory of knowledge endorsed by the critic and the general theory of knowledge in which the traditional concept of the a priori is embedded? Can the distinction be adapted to fit the general theory of knowledge favored by the critic? If the answer to both questions is affirmative, then the complaint is not cause for concern.¹⁶

5 The fourth challenge

The final challenge that we will consider is different from the others. It does not challenge the coherence or significance of the concept; it does not maintain that the concept is vacuous. Instead, it maintains that the concept is in tension with other aspects of the traditional view of the a priori. This problem was introduced by Jenkins (2008), who maintains that the traditional view of the a priori is unstable since it includes all of the following:

- (A) All a posteriori knowledge is knowledge that depends on empirical evidence.
- (B) Only knowledge that is independent of experience is a priori.
- (C) All knowledge is either a priori or a posteriori and none is both.

¹⁶ I have argued elsewhere (Casullo 2012) that the complaints of Hawthorne, Jenkins and Williamson can be addressed in this fashion.

She contends that if her account of mathematical knowledge is correct, some member of the triad must be abandoned.¹⁷

As I stressed in Sect. 1, the fourth challenge, if cogent, presents only an *indirect* challenge to the concept of the a priori. It presents a challenge because the triad includes an analysis of the concept of a priori knowledge.¹⁸ The challenge is indirect because it does not show that the concept must be abandoned or revised. It only shows that some member of the triad must be abandoned or revised. Determining which member should be abandoned or revised requires independent investigation and argument. There are three options for addressing the challenge. The first denies that the challenge is cogent. It maintains that the tension is merely apparent: the members of the triad are in fact compatible. The second concedes that the challenge is cogent and resolves it by abandoning or revising some member of the triad other than the concept of the a priori. The third also concedes that the challenge is cogent but resolves it by abandoning or revising the concept of the a priori. Jenkins exercises the second option. She rejects (C) and maintains that some knowledge is both a priori and empirical. She answers the tension without abandoning or revising her concept of the a priori.

Jenkins's challenge rests on a characterization of a priori knowledge that diverges from the traditional concept.¹⁹ My goal is to introduce a different version of the challenge, one that shows that there is a tension between the traditional concept of a priori justification and a consequence of the left conjunct of (C):

(JB) All justified belief is either a priori or a posteriori.

The source of the challenge is an account of positive epistemic support that has recently appeared on the epistemological scene.

In order to get our bearings, let us briefly consider two related views. Field (2000, p. 117) defines “a *weakly a priori* proposition as one that can be reasonably believed without empirical evidence; an *empirically indefeasible* proposition as one that admits no empirical evidence against it; and an a priori proposition as one that is both weakly a priori and empirically indefeasible.” He offers analogous definitions for rules of belief formation and revision. Field denies that an a priori proposition or rule can be reasonably believed only by someone who has a nonempirical justification for it. He wants to leave open the possibility of propositions and rules that can be reasonably believed without any justification at all. Field calls such propositions and rules “default reasonable.” It follows, given his definitions, that all default reasonable propositions and rules are, trivially, *weakly a priori*, and a priori if and only if they are empirically indefeasible. Field (2000, p. 119) maintains that this consequence is desirable since simple logical truths and basic deductive rules are among the most plausible examples

¹⁷ According to her account, (1) S's (basic) arithmetical knowledge that p depends epistemically on experience in just one respect: the concepts constitutive of S's belief that p must be grounded by the senses, but (2) the sensory input that grounds those concepts does not constitute evidence for S's belief that p. The conjunction of (A) and (2) entails that basic arithmetical knowledge is not a posteriori. The conjunction of (B) and (1) entails that basic arithmetical knowledge is not a priori. Hence (C) is false.

¹⁸ Jenkins's analysis of the concept of a priori knowledge is presented in (A) in terms of a posteriori knowledge: S knows a priori that p iff S knows that p and S's knowledge that p is independent of empirical evidence.

¹⁹ See Casullo (2012) for further discussion.

of default reasonable propositions, but it would be “odd to exclude these from the ranks of the *a priori* merely because of their being default reasonable.”

Crispin Wright offers an account of the epistemology of basic laws and rules of logic that bears an important similarity to Field's account. The account is offered within a broader epistemological framework, whose central feature is the concept of entitlement:

Suppose there is a type of rational warrant which one does not have to *do any specific evidential work* to earn: better, a type of rational warrant whose possession does not require the existence of evidence—in the broadest sense, encompassing both *a priori* and empirical considerations—for the truth of the warranted proposition. Call it *entitlement*.²⁰ (Wright 2004b, pp. 174–175)

(Wright 2004b, p. 191) goes on to articulate several varieties of entitlement. Our focus is on entitlements of cognitive project: “let us say that P is a *presupposition* of a particular cognitive project if to doubt P (in advance) would rationally commit one to doubting the significance or competence of the project.” An entitlement of cognitive project is a presupposition of a particular cognitive project that meets two further conditions:

- (i) We have no sufficient reason to believe that p is untrue; and
- (ii) The attempt to justify P would involve further presuppositions in turn of no more secure a prior standing ... and so on without limit. (Wright 2004b, pp. 191–192)

Wright (2004b, p. 192) explains the rationale for the entitlement as follows:

wherever we need to carry through a type of project, or anyway cannot lose and may gain by doing so, and where we cannot satisfy ourselves that the presuppositions of a successful execution are met except at the cost of making further presuppositions whose status is no more secure, we should—are *rationally entitled* to—just go ahead and *trust* that the former are met.

The entitlement is not an entitlement to believe that the presuppositions are met. It is an entitlement to accept or trust that they are met, where acceptance is a more general propositional attitude than belief that includes belief and trust as subcases. We are entitled to accept that the presuppositions are met despite the fact that we cannot acquire evidence in support of them. Entitlement is a species of warrant that does not require evidence.

Wright (2004a, p. 166) exploits this variety of entitlement to provide what he regards as an apriorist account of the epistemology of basic laws and rules of logic: “We can anticipate exactly this kind of rational entitlement to rely on the validity of the *basic inferential machinery*, if any, involved in the execution of the project.” Wright (2004a, p. 174) maintains that “what we have, at the level of the most basic laws of logic, is not knowledge, properly so regarded, at all but something beneath the scope of cognitive inquiry,—a kind of rational trust, susceptible [neither] to corroboration nor rebuttal by any cognitive achievement.”

²⁰ Wright's concept of entitlement is different from Burge's.

Wright's account differs from Field's in a crucial respect. The entitlement that we have to basic logical principles is not an entitlement to believe that they are valid; it is an entitlement to trust or accept that they are valid. Wright's account, however, has two important features in common with Field's account. First, Field claims that there are propositions and rules that one can reasonably believe without any justification; Wright claims that there are propositions and rules that one is rationally entitled to accept without evidence. Second, both Field and Wright claim that such propositions and rules have a *priori* status.

Field and Wright hold that a propositional attitude (belief or acceptance) can have a positive epistemic status (justified or entitled) in the absence of any positive epistemic support (justification or evidence). Both hold that belief or acceptance of basic logical principles (laws or inferences) has such status. Therefore, both conclude, such belief or acceptance is *a priori*. Field explicitly states that his conclusion is mediated by the following negative concept of a *priori* justification:

(APJN) S's belief that p is (weakly) *a priori* justified if and only if the justification of S's belief that p does not depend on empirical evidence.

Although Wright is not explicit on this point, presumably his conclusion is mediated by the following, more general, analogue of (APJN):

(APWN) S's acceptance that p is *a priori* warranted if and only if the warrant of S's acceptance that p does not depend on empirical evidence,

where warrant is a more general positive epistemic status that includes both justification and entitlement. The negative conception of the *a priori* leads directly to the conclusion that Field's default reasonable propositions and Wright's entitlements of cognitive project are *a priori*.

The traditional concept of a *priori* justification, however, is not negative. The traditional concept is positive or, at least, so I (Casullo 2003) have argued. The traditional concept requires that a *priori* justified beliefs *have* a particular type of justification; it requires more than that they *lack* a particular type of justification. According to the traditional concept,

(APJP) S's belief that p is justified *a priori* if and only if S's belief that p is nonexperientially justified.

On the traditional concept, Field's default reasonable propositions are not justified *a priori*. They are justified neither *a priori* nor *a posteriori*. If we extend (APJP) to cover the more general category of warrant, we arrive at

(APWP) S's acceptance that p is warranted *a priori* if and only if S's belief that p is nonexperientially warranted.

Given (APWP), Wright's entitlements of cognitive project are not warranted *a priori*. They are warranted neither *a priori* nor *a posteriori*.

We are now faced with a choice. The conjunction of (APJP) and Field's claim that there are default reasonable propositions entails that some justified belief is neither *a priori* nor *a posteriori*. Yet it is part of the traditional view of the *a priori* that

(JB) All justified belief is either *a priori* or *a posteriori*.

More generally, the conjunction of (APWP) and Wright's claim that there are entitlements of cognitive project entails that some warrant is neither a priori nor a posteriori, which is incompatible with

(WA) All warranted acceptance is either a priori or a posteriori.

So we must choose between the traditional concept of a priori justification and the traditional view that all justified belief is either a priori or a posteriori. We can embrace (APJP) and reject (JB). Alternatively, we can embrace (JB) and endorse (APJN).²¹

My goal in this section is to introduce a challenge to the traditional concept of the a priori that falls into the fourth category. To do so requires uncovering a tension between the traditional concept and some other aspect of the traditional view of the a priori. I have argued that there is a tension between the traditional concept and (JB). But, once again, one needs to be clear about what the challenge does and does not establish. Since the challenge is only *indirect*, it does not establish that the traditional concept must be abandoned or revised. Determining whether the traditional concept or (JB) should be abandoned or revised requires independent argument. The tension, however, cannot be ignored by proponents of the traditional concept.

How should the tension be resolved? Although responding to this question goes beyond my stated goal, the question is important and deserves consideration. I conclude by offering an argument in favor of retaining the traditional concept of the a priori and abandoning (JB). If Field and Wright are correct, then warranted acceptances fall into three distinct categories:

- (WA1) Acceptances whose warrant derives from experiential evidence or, more broadly, from some experiential source;
- (WA2) Acceptances whose warrant derives from nonexperiential evidence or, more broadly, from some nonexperiential source; and
- (WA3) Acceptances whose warrant does not derive from any evidence or, more broadly, from any source.

(APWP), which is the more general analogue of (APJP), yields a more natural classification of warranted acceptances than (APWN), which is the more general analogue of (APJN).

²¹ Two anonymous referees question the significance of the choice. One referee wonders why it matters if we have to give up (JB). It matters for both theoretical and practical reasons. On the theoretical side, a comprehensive theory of knowledge must acknowledge that there is knowledge that is neither a priori nor a posteriori, articulate its nature and scope, and coherently accommodate it within the framework of its more general commitments. On the practical side, philosophical arguments that employ (JB) or analogues of it (either explicitly or tacitly) must be reevaluated. For example, as Ayer (1952) recounts, the primary motivation behind logical empiricism is the rejection of synthetic a priori knowledge. The logical empiricists maintained that there are only two options for doing so: embrace radical empiricism or defend (LE). Since they found radical empiricism's account of mathematical and logical knowledge to be deficient, they opted to defend (LE). Their argument tacitly presupposes (JB); it overlooks the possibility of rejecting synthetic a priori knowledge by maintaining that the truths of mathematics and logic are synthetic but knowledge of them is neither a priori nor a posteriori. The other referee wonders why we need to respect the traditional concept of the a priori. The primary reason is that there is a cost to abandoning it. Abandoning it in favor of the negative concept of the a priori results in a less natural classification of warranted acceptances (or so I argue). The fact that abandoning the traditional concept comes at a cost does not establish that it cannot be abandoned. It establishes only that, prior to abandoning it, one must weigh the cost and benefit of doing so.

(APWN) entails that the category of a priori warranted acceptances includes all acceptances in categories (WA2) and (WA3), and that the category of a posteriori warranted acceptances includes only the acceptances in (WA1). The resulting category of a priori warranted acceptances is unnatural since it includes acceptances whose warrant originates in some source and acceptances whose warrant does not originate in any source. Moreover, the resulting classification obscures the fact that the acceptances in (WA3) have a unique epistemic feature that differentiates them from the acceptances in (WA1) and (WA2); their warrant does not originate in any source. (APWP), on the other hand, entails a tripartite classification of acceptances that highlights the similarities and differences among the three categories of warranted acceptances. The a priori—a posteriori distinction, at its most fundamental level, is a distinction between two sources of warrant: experiential and nonexperiential. In cases of warrant that does not derive from any source, the distinction does not apply since its basis is absent. (APWP) avoids the unnatural union of the acceptances in (WA2) and (WA3) into the category of a priori warranted acceptances; that category includes only the acceptances in (WA2). It also highlights the unique epistemic status of acceptances in (WA3) by placing them in a separate category. Since the traditional concept of the a priori yields a more natural classification of warranted acceptances than the negative conception, the tension should be resolved by embracing the traditional concept and rejecting (JB).²²

I have offered a challenge to the a priori—a posteriori distinction that falls into the fourth category: one that purports to show that there is a tension between the traditional concept of a priori justification and the traditional view that all justified belief is either a priori or a posteriori. I have also argued in favor of a particular resolution of the tension. There are two important points to bear in mind with respect to the challenge and proposed resolution. First, the challenge is based on the assumption that there are warranted acceptances whose warrant does not derive from any evidence or, more broadly, from any source. That assumption is controversial and I have not offered any defense of it. So the challenge that I have presented is conditional in form: If there are such warranted acceptances, then there is a tension between the traditional concept of a priori justification and the traditional view that all justified belief is either a priori or a posteriori. Second, even if one disagrees with my proposed resolution of the tension introduced by the challenge, the challenge remains. The primary purpose of this section is to introduce the challenge. The defense of the traditional concept, although important, is secondary.

²² An anonymous referee suggests that if all a priori justified beliefs are either default reasonable or derived from default reasonable beliefs via default reasonable rules, then the purely negative characterization of the a priori would suffice for purposes of epistemology. I disagree. If there are no nonexperientially justified beliefs, then the purely negative characterization of the a priori is adequate in the sense that the beliefs that satisfy it do not, as a matter of fact, include both beliefs justified nonexperientially and beliefs whose justification does not derive from any source. The resulting class of a priori justified beliefs is not unnatural. But the purely negative characterization remains theoretically inadequate in the sense that it masks the important distinction between beliefs justified nonexperientially and beliefs whose justification does not derive from any source. Consequently, even if all a priori justified beliefs are either default reasonable or derived from default reasonable beliefs via default reasonable rules, the negative characterization fails to highlight the unique feature of such justified beliefs.

6 Conclusion

The a priori has been at the center of a number of different controversies in the second half of the twentieth century. One was precipitated by the claim of logical empiricists that there is no synthetic a priori knowledge. Another was generated by Quine's denial of the cogency of the analytic—synthetic distinction. A third arose from the contention of radical empiricists that there is no a priori knowledge. The fourth stems from the more recent allegation that the concept of a priori knowledge is incoherent or insignificant. My focus in this paper is on the fourth.

I maintain that the challenges to the coherence or significance of the concept fall into four categories. I go on to assess the extant arguments in each category and maintain that they fall short of their goal. The concept, however, does not emerge unscathed. I also offer two novel challenges of my own. One challenges the coherence of the distinction by arguing that there are significant obstacles to articulating the experiential—nonexperiential distinction. The second maintains that if there are justified beliefs whose justification does not derive from any source then there is a tension between the traditional concept of the a priori and the traditional view that all justified belief is either a priori or a posteriori. The challenges are not conclusive indictments of the concept, but they must be addressed.²³

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²³ Earlier versions of this paper were presented at the Basic Knowledge: A Priori Conference, Northern Institute of Philosophy, University of Aberdeen, June 16–17, 2012; The Roles of Experience in A Priori Knowledge Conference, University of Cologne, October 13–14, 2012; and the Kline Workshop on A Priori Knowledge, University of Missouri, March 8–9, 2013. I would like to thank the organizers for inviting me and the audiences for their challenging questions, comments and criticisms. Special thanks are due to Mikkel Gerken, my commentator at the Basic Knowledge Conference, and to Andrew Melnyk, my commentator at the Kline Workshop. I would also like to thank three anonymous referees for this journal for their criticisms and suggestions, which have led to significant improvements in the paper.

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