

Response to my critics: Chris Pincock, Lisa Warenski and Jonathan Weinberg

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Abstract This is my response to the papers by Chris Pincock, Lisa Warenski and Jonathan Weinberg, which were presented at the Book Symposium on my *Essays on A Priori Knowledge and Justification*, American Philosophical Association Pacific Division Meetings, March 16–19, 2014.

1 Response to Lisa Warenski

Lisa's comments address two major themes: the role of a priori argument in defenses of the a priori and the role of indefeasibility conditions in the concept of the a priori.

In my book (Casullo 2003) and, to a lesser extent, in my essay "A Priori Knowledge" (Casullo 2012, chap. 6), I argue that a priori arguments both for and against the existence of a priori knowledge are largely inconclusive and advocate for a different approach to addressing the issue of the existence of a priori knowledge: one that appeals to empirical evidence. Deficiency arguments provide one example of a category of arguments that are alleged to support the existence of a priori knowledge that I contend fail to do so. Lisa maintains that I have underestimated the force of Bealer's (1992) argument. She draws two general conclusions:

There is no a priori reason to exclude them [deficiency arguments] when considering the relative merits of (moderate) rationalism and empiricism. If the advocate of a deficiency argument that poses a dilemma for empiricism can mount a satisfactory reply to a parallel dilemma argument, then the

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original deficiency argument is one more quiver in the moderate rationalist's bow.

Before turning to her defense of Bealer's argument, I want to emphasize that I agree with one and one-half of her conclusions. First, I offer no a priori reason for excluding deficiency arguments or any other type of a priori argument in favor of a priori knowledge. My approach is case-based and my conclusion is that the track record is bad. Second, I also agree that it is open to a proponent of a deficiency argument to maintain that there is a satisfactory reply to my parallel dilemma argument. Such a reply results in a revised version of the original dilemma argument. However, such an argument is one more quiver in the moderate rationalist's bow only if the revised version of the dilemma argument is not open to a revised parallel argument.

Bealer maintains that the empiricist cannot explain how empiricism differs from other views, such as visualism, that arbitrarily exclude standard sources of prima facie evidence. I (Casullo 2012, chap. 11) maintain that the standard justificatory procedure (SJP) faces an analogous problem: it cannot explain how it differs from views that arbitrarily introduce nonstandard sources of prima facie evidence such as his example of the political authority. My argument, as Lisa notes, depends essentially on two features of the SJP (as articulated by Bealer). First, some sources of evidence can be used to eliminate others only if the challenged source is not as basic as those being used to challenge it. Second, we determine whether one source is more basic than another by consulting our intuitions regarding their relative basicness. Lisa responds that

The parallel challenge reveals a weakness in the original Argument from Epistemic Norms, namely the reliance on intuition as a test for whether a putative source of evidence is basic. With a different criterion for basicness, the original dilemma argument might be amended in such a way as to withstand Al's parallel challenge.

I agree with Lisa that Bealer can introduce different criteria for basicness to avoid my parallel deficiency argument. But such a move incurs a cost.

Bealer claims that it is part of the SJP that we determine which sources are basic by appeal to intuition. Hence, Lisa's proposal abandons the SJP. It acknowledges that the SJP cannot be defended against my challenge from within the SJP. Such a defense must take place outside of the SJP. But Bealer concedes that empiricism can be defended from outside the SJP. So empiricism is not at a disadvantage. Moreover, Lisa's two proposed criteria don't deliver the desired results. Bealer does not deny that empiricism provides a comprehensive account of our knowledge. He argues against the stronger position that empiricism provides the *only* account of our knowledge. In the absence of an argument against the weaker position, it remains open that the traditional a priori domains are epistemically overdetermined—i.e., there is both a priori and empirical knowledge of domains such as logic and mathematics. If so, then on both of Lisa's proposed criteria for basicness, intuition does not fare well. Suppose we grant that “a distinguishing feature of a basic evidential source is that it cannot be given a non-circular justification.” Given

overdetermination, we do have an independent way of evaluating the reliability of intuition as a candidate source of evidence. Suppose we grant that “another indicator of basicness for an evidential source is the lack of reasonably-decent alternative to it.” Once again, given overdetermination, intuition does not fare well as a basic source.

So where does this leave us? In order for Bealer’s argument to succeed, he needs a criterion of basicness of sources of evidence that meets two conditions: (1) it admits intuition as a basic source; (2) it does not admit the political authority as a basic source. The criterion that he offers—appeal to intuition—satisfies (1) but not (2). Lisa’s proposed criteria satisfy (2) but not (1). Hence, Lisa’s revised version of Bealer’s deficiency argument remains open to a parallel deficiency argument.

As Lisa points out, my preferred analysis of the concept of a priori justification is austere:

(AP1) S’s belief that p is justified a priori if and only if S’s belief that p is justified by some nonexperiential source.

The leading alternative analysis adds an indefeasibility condition:

(AP2) S’s belief that p is justified a priori if and only if S’s belief that p is justified by some nonexperiential source and cannot be defeated by experience.

Lisa agrees with my rejection of the indefeasibility condition entailed by (AP2),

(EI-1) S’s a priori-justified belief that P cannot be defeated by experience,

but goes on to develop and endorse a weaker, “nondogmatic” version of the condition:

(EI-2) S’s a priori-justified belief that P should not be defeated by any (sensory) experiences that we can think of, given our current body of knowledge.

She introduces “should” as opposed to “can” in (EI-2) in order to rule out the possibility of defeat by “inauthentic” evidence. Hence, (EI-2) can be restated as

(EI-3) S’s a priori-justified belief that P cannot be defeated by any genuine empirical evidence that we can think of, given our current body of knowledge.

(EI-3) is a novel version of the indefeasibility requirement; one that I have not previously addressed.

There are two points that I want to press with respect to this proposal. First, (EI-3) introduces an indefeasibility condition that applies only to a priori justification. Why suppose that a priori and a posteriori justification differ in this respect? Lisa offers two arguments to motivate the difference. The first captures the thought that leads most theorists to embrace indefeasibility condition:

if an a priori source of justification is empirically defeasible, then a priori-justified beliefs ultimately have empirical justification conditions because these beliefs are understood to admit of empirical defeat.

There is clearly something wrong with this argument as can be seen by considering an analogue of it in the empirical domain:

If perceptual warrants are testimonially defeasible, then perceptually-justified beliefs ultimately have testimonial justification conditions because these beliefs are understood to admit of testimonial defeat.

The source of the problem, as I (Casullo 2003, 137) have argued, is that it presupposes the following symmetry between justifying evidence and defeating evidence:

(ST) If evidence of kind A can defeat the justification conferred on S's belief that p by evidence of kind B, then S's belief that p is justified by evidence of kind A.

Even if testimony can defeat the justification conferred on any my beliefs by perception, it does not follow that none of my beliefs are justified solely on the basis of perception.

Lisa also contends that

An empiricist might happily acknowledge that we have some prima facie a priori entitlements, but she will be unperturbed by this feature of justification if she understands the full justification conditions for any given belief to be empirical.

This argument turns on the commitments of empiricism. Bealer (1992, 99) takes the empiricist to be committed to:

(E1) A person's experiences and/or observations comprise the person's prima facie evidence.

Bealer's empiricist rejects prima facie a priori entitlements. Suppose that we take the empiricist to be committed only to:

(E2) Experience is the only source of full justification.

The conjunction of (AP2) and

(E3) We have some prima facie a priori entitlements.

is not sufficient to rule out full a priori justification since it does not entail that all prima facie a priori entitlements are defeasible by experience. I conclude that neither argument succeeds in motivating (EI-3).

(EI-3) is also open to an argument that I present against (EI-1). Moreover, Lisa appears to endorse that argument. Consider the following remarks:

A sensible apriorist will want to allow that a particular person might have an empirical justification for a proposition that can be known a priori. Consider a child just learning to count. For the child, combining a set of five objects with a set of seven objects and counting them up would provide evidence that $5 + 7 = 12$. But once the concepts of number, counting, adding, and the identity operator have been acquired, the numerical equivalence of $5 + 7$ and 12 can be deduced without the aid of objects.

I have argued that (EI-1) is incompatible with the particular form of epistemic overdetermination that Lisa contends a sensible apriorist should allow. The basic idea of the argument is simple and can be illustrated using her example. Suppose the child is justified in believing that $5 + 7 = 12$ on the basis of combining a set of five objects and a set of seven objects, counting them and arriving at a total of twelve. Furthermore, suppose that the child recounts the objects and arrives at a total of eleven. Presumably, given the fallibility of empirical sources of justification, the child is justified in believing that $5 + 7 = 11$. Moreover, the latter justified belief is an overriding defeater for the child's empirically justified belief that $5 + 7 = 12$. However, I maintain that if the child's latter justified belief is an overriding defeater for the child's empirically justified belief that $5 + 7 = 12$, it is also a potential overrider for the child's conceptually based belief that $5 + 7 = 12$. Hence, the child's conceptual justification for believing that $5 + 7 = 12$ is empirically defeasible. Given (EI-1), it follows that the child's conceptually justified belief that $5 + 7 = 12$ is not a priori justified. Hence (EI-1) should be rejected because it rules out the possibility of a particular form of epistemic overdetermination that a sensible apriorist should allow.

As far as I can tell, however, (EI-2) is open to the same objection. The primary difference between (EI-1) and (EI-2) is the introduction of an epistemic possibility condition that restricts the scope of relevant experiential defeaters to those that we can think of given our current body of knowledge. But the example of the child recounting the objects and arriving at a total of eleven satisfies this condition. The only other option available to resist this conclusion is to invoke the condition that was made explicit in (EI-3)—i.e., that the evidence be genuine. But it is hard to see how this helps. Since Lisa acknowledges that counting the objects and getting the right answer is genuine evidence, then counting the objects and getting the wrong answer must also be genuine evidence. To deny this would effectively rule out the possibility of fallible justification and overriding defeaters. So I conclude that there is good reason to resist Lisa's novel version of the indefeasibility condition.

2 Response to Chris Pincock

Chris's comments focus on two issues. First, he maintains that there is a gap in my argument against analyses of a priori justification that contain an indefeasibility by experience condition. Second, he raises two questions about my proposal that proponents of the a priori should marshal empirical evidence in support of the existence of such knowledge.

In “A Priori Knowledge” (Casullo 2012, chap. 6), I argue that the two leading analyses of the concept of a priori justification are:

- (N2) S’s belief that p is justified a priori if and only if S’s belief that p is nonexperientially justified; and
- (N3) 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.

(N3) entails the weak unrevisability condition:

- (WU) If S’s belief that p is justified a priori, then S’s belief that p is not rationally revisable in light of any experiential evidence.

I (Casullo 2012, chap. 7) argue against (WU) in “Epistemic Overdetermination and A Priori Justification” on the grounds that (WU) is incompatible with a form of epistemic overdetermination:

- (EO) S’s belief that p is justified both a priori and by experiential evidence.

As Chris notes, I (Casullo 2012, chap. 6) also offer a version of this argument in “A Priori Knowledge” in order to reject (N3) in favor of (N2). Chris’s focus is on the former version of the argument.

The argument turns on two ideas. First, empirical sources of justification are self-revising in the sense that an empirical source can justify S’s belief that p just in case it can justify S’s belief that not-p. Therefore, if S’s belief that p is justified by some empirical source B, then S’s justification is defeasible by a belief that not-p justified by source B. Second, if S’s belief that p is justified by some source A and S’s belief that p can be justified by some empirical source B, then S’s A-based justification is defeasible by a belief that not-p justified by source B. Since (WU) entails that a priori justification is immune to such empirical defeasibility, it follows that no belief can be justified both a priori and by an empirical source.

Chris claims that the argument fails because it does not distinguish between two types of overriding defeaters: local and global. Consider again a belief that not-p justified by a self-revising source B. The B-justified belief that not-p is *local* overrider just in case it defeats only B-based justification for the belief that p. The B-justified belief that not-p is a *global* overrider just in case it defeats justification for the belief that p based in any source. Chris correctly points out that my argument presupposes that overriding defeaters generated by empirical sources are *not* local and concludes that an empiricist who maintains that “each source is self-revising in the local sense but not in the global sense” can endorse (WU) and allow for overdetermination. (5) Chris acknowledges that I might contend that empiricists “are committed to all self-revising sources yielding globally overriding defeaters,” noting that I claim in “A Priori Knowledge” that overriding defeaters are *source-neutral*. Here he responds that empiricists “have no motivation to assume that their empirical sources are each self-revising in this global sense.”

I will offer three responses to Chris's argument. First, I am not aware of any empiricist who endorses the view that empirical sources of justification are self-revising in only the local sense. Moreover, empiricists have a strong motivation to deny this since they frequently defend (WU) in the broader context of offering the following argument (inspired by Quine) against a priori knowledge:

- (Q1) No statement is immune to revision in light of recalcitrant experience.
- (WU) If S's belief that p is justified a priori, then S's belief that p is not rationally revisable in light of any *experiential* evidence.
- (Q2) Therefore, no knowledge is a priori.

If recalcitrant experience generates only local undermining defeaters, the argument clearly fails. Second, there are uncontroversial examples of empirically justified nonlocal overriding defeaters. Suppose that I seem to remember that my keys are on the kitchen table. Assume that circumstances are benign and that my belief is justified. When I go to the kitchen to retrieve them, I see that there is nothing on the table. Presumably, the justification conferred by memory on my belief that the keys are on the table is defeated by my perceptually-based belief that there is nothing on the table. Third, as Chris points out, I maintain that overriding defeaters are source-neutral, which entails that they are global. I offer an argument in support of that claim in "A Priori Knowledge," and will conclude by rehearsing that version of the argument since it makes explicit two premises that are not present in the compressed version of the argument in "Epistemic Overdetermination and A Priori Justification."

(N2) and (N3) offer competing accounts of justification that is minimally sufficient for a priori knowledge. Let us call a belief justified to the degree minimally sufficient for knowledge, a *justified_k* belief. My argument begins with assumption that (N3) does *not* require of a priori knowledge a degree of justification greater than that minimally required for knowledge in general. We can state this point explicitly as the *Equality of Strength Thesis*:

- (ES) The degree of justification minimally sufficient for a priori knowledge equals the degree of justification minimally sufficient for knowledge in general.

I will return to this assumption at the end of the argument. Given this assumption, (WU) can be stated more precisely as

- (WU*) If S's belief that p is justified_k a priori, then S's belief that p is not rationally revisable in light of any *experiential* evidence.

Radical empiricism denies a priori knowledge and, *a fortiori*, a priori justification that is sufficient for knowledge. So we have:

- (RE) If S's belief that p is justified_k, then it is justified_k by an experiential source.

My initial claim that experiential sources of justification are (locally) self-revising entails that:

(SR) If S's belief that p is justified_k by experiential source B, then S's justification is defeasible by a belief that not-p justified by source B.

What are the conditions under which S's justified belief that p is defeated by S's justified belief that not-p? Here I introduce my key premise:

(KP) The conditions under which S's justified belief that not-p defeats S's justification for the belief that p is a function of the relative degree of justification each enjoys.

In order to remain neutral between competing accounts of the minimal degree of justification that S's belief that not-p must enjoy in order to defeat S's justified_k belief that p, I introduce 'd' to stand for that degree of justification, whatever it is, and call a belief justified to degree d, a *justified_d* belief. We can now introduce the neutral principle:

(D) S's justified belief that not-p defeats (can defeat) S's justified_k belief that p if and only if S's belief that not-p is at least justified_d (justifiable_d).

It follows from (SR) and (D) that

(SR*) If S's belief that p is justified_k by experiential source B, then S's belief that not-p justifiable_d by source B.

But, given (KP), *Source Neutrality* follows from (SR*):

(SN) If S's B-based justified_d (justifiable_d) belief that not-p defeats (can defeat) S's B-based justified_k belief that p, then it defeats (can defeat) S's A-based justified_k belief that p, where A is any other source of justification.

Therefore, local revisability leads to global revisability via Source Neutrality.

Radical empiricists can avoid this consequence by denying the Equality of Strength Thesis. Such a move requires building into the concept of a priori knowledge a higher standard of justification than that required by the general concept of knowledge. Such a requirement entails that beliefs justified_k a priori always have a higher degree of justification than beliefs justified_k empirically. But then the debate would shift to the supporting argument for the differential requirements on a priori and a posteriori knowledge.

Chris notes that a central theme in my work on the a priori is the relevance of empirical investigations to addressing questions about the a priori. More specifically, I (Casullo 2003, chap. 6; Casullo 2012, chap. 6) have proposed that two projects, the Articulation Project and the Empirical Project, are particularly relevant.

Chris raises two questions about the projects. What model of a priori justification motivates these projects? Does the model take for granted any substantial issues about the a priori? In response, he maintains that they presuppose “a restricted model of a priori justification,” which he calls the “quasi-perceptual” model, and worries that this model “could obscure how a priori justification actually arises, and might ultimately undermine an otherwise successful empirical investigation of these issues.” Chris motivates this concern by presenting an episode from the history of mathematics: Weierstrass’s definition of a continuous function that was nowhere differentiable. He argues that consideration of this definition initiated a process that resulted in the a priori justified belief that some continuous functions are nowhere differentiable, but that the quasi-perceptual model is hard pressed to account for its justification. Chris goes on to suggest that defenders of the a priori approach the empirical projects with an alternative model of a priori justification, one that “emphasizes concepts and their possession conditions.” Chris concludes by articulating how this approach can be developed and applied to the justification of the beliefs of mathematicians. The upshot is that, whereas my articulation of the Empirical Project, which was tied to the quasi-perceptual model, emphasized psychological investigations, Chris’s articulation of that project emphasizes historical investigations.

Chris’s remarks are rich and touch on a number of important themes that deserve detailed consideration. Given the limitations of space, my responses will be selective and not do full justice to the range of issues that Chris raises. I begin with two general comments. First, I regard Chris’s suggestions as friendly. He agrees that the Empirical Project is important in addressing questions about the a priori but places a greater emphasis on historical over psychological investigations. I mention both in my description of the Empirical Project but Chris is correct to maintain that I emphasize the psychological investigations. Second, I think that the difference in emphasis is due to the fact that we are approaching the a priori from different perspectives. My focus is almost exclusively on the (putative) a priori knowledge of the nonspecialist—i.e., the mathematical knowledge of nonmathematicians. Chris’s focus is on the (putative) a priori knowledge of the specialist—i.e., the mathematical knowledge of professional mathematicians. The two perspectives are not competing perspectives. A complete account of a priori knowledge must address both.

Turning now to Chris’s concern: namely, that the Empirical Project presupposes a quasi-perceptual model which could obscure how a priori justification actually arises. Chris articulates a number of features of such a model. The feature that generates the limitations that concern him is presented as follows:

Perception is only able to provide empirical justification for a special range of beliefs, and this range is circumscribed by the workings of our cognitive systems. Similarly, a source of a priori justification will be able to generate only a special kind of noninferentially justified belief. Again, empirical investigation will help us to determine what these beliefs are like.

This concern plays out in the case of Weierstrass’s discovery as follows:

However, it is hard to see how such a capacity could be responsible for our a priori justified beliefs in mathematics or other domains like logic and ethics. Each of these domains has experienced a dramatic transformation over time. There is little reason to think that our minds are equipped with a reliable cognitive capacity that will point us towards the truth across the centuries. We might be able to isolate a cognitive process with a distinctive phenomenology and show that it is invariably present in mathematical reasoning. But we will be hard to pressed to provide evidence of its reliability. Why, after all, would we expect a fixed cognitive capacity to give us reliable judgments about continuous functions? I suggest, then, that if we persist with this quasi-perceptual model, the scope of a priori justification will be severely limited.

I have two reservations about Chris's argument. First, it rejects a quasi-perceptual model of a priori justification in favor of a concept-based model, but the two models are not mutually exclusive. For example, Bealer (1992) maintains that intuitions are evidence but explains their status as evidence in terms of a theory of determinate concept possession. So it is not clear to me what distinguishes a concept-based model and why such a model does not presuppose a fixed cognitive capacity. Second, and more important, the argument does not establish that a quasi-perceptual model leads to a restriction in the scope of a priori justification. Perception is an example of a fixed cognitive capacity, but it is generally agreed that perception plays a role in the justification of scientific theories that is analogous to the role that intuitions are alleged to play in the justification of mathematical theories. Yet one can offer an argument that parallels Chris's argument whose conclusion is that it is hard to see how perception could be responsible for our a posteriori justified beliefs in science. After all, physics and biology have undergone dramatic transformations over time. But there is little reason to think that our minds are equipped with a reliable cognitive capacity that will point us toward the truth across the centuries. We might maintain that perception is invariably present in scientific reasoning, but we will be hard pressed to provide evidence of its reliability. Why would we expect a fixed cognitive capacity to give us reliable judgments about galaxies or tumors?

I conclude by addressing Chris's alternative concept-based approach to a priori justification. According to it, "possessing the concept of a group involves being disposed to conclude that any set that meets the definition is a group" and "an a priori justified belief requires only that we reason in line with the definition of a group and whatever other concepts are involved." Why accept the approach? Here Chris tells us that:

One advantage of this approach is that there is an easy way to assemble evidence of reliability. Suppose we begin with the assumption that most of our mathematical beliefs are true. An account of our mathematical concepts should explain the possession conditions of these concepts in terms of some limited range of dispositions to reason. Then we can reconstruct a given belief's justification in terms of these concepts.

So, according to Chris, a primary virtue of the approach is that it allows us to offer a reconstruction of the justification of some elementary truths about groups in terms of the possession conditions of the concept group (and perhaps some others).

There is, however, a further complication that must be addressed. Chris agrees with Jenkins (2008) that reasoning in accordance with the possession conditions of a concept is not sufficient for justification and knowledge. The concept must also be acquired in the right way. Let's call a concept that is acquired in the right way a *grounded* concept. Moreover, Chris agrees with me (Casullo 2012, chap. 14) that if a concept is empirically grounded, the resulting justification is not a priori. Hence, Chris proposes an a priori source of grounding for mathematical concepts:

My suggestion is that we turn to history. For the concept of group, for example, there is ample support for deploying this concept based on prior mathematical beliefs. Groups make sense of this or that domain of mathematics, such as geometry or polynomial equations.

If I understand Chris correctly, he is proposing that the concept group is grounded hypothetico-deductively—i.e., given that group theory is useful for explaining results in other domains of mathematics, such as geometry, the concept group is thereby justified by virtue of that explanatory role.

I conclude by posing two challenges to the approach. The first concerns its target. Is the target of the approach an account of the *actual* justification of the beliefs of mathematicians (at least with respect to the elementary truths of group theory) or a *reconstruction* of that justification? If it is the latter, then it is not an alternative to the fixed-capacity approach since the target of the fixed-capacity approach is an account of the actual justification of mathematical beliefs. If it is the former, then additional evidence (presumably empirical) is necessary to establish that conclusion. The second concerns the adequacy of the approach. Can the concept-based approach fully explain the a priori justification of mathematical beliefs? I assume that introduction of the concept group is justified or grounded hypothetico-deductively only if it explains mathematical beliefs or domains that are antecedently justified. If this is correct, then approach cannot fully explain the a priori justification of mathematical beliefs. Concept-based justification deriving from reasoning in accordance with possession conditions for concepts requires that concepts be grounded. Concepts can be grounded a priori only if they explain other domains of justified mathematical beliefs. What justifies the mathematical beliefs in the other domains? Clearly, the answer cannot be that such justification derives from reasoning in accordance with the possession conditions of the basic mathematical concepts in those domains. Such an answer leads to a regress. Hence, the concept-based approach seems to presuppose that there is a source of a priori justification of mathematical beliefs that is not based concept-based. Such a source is necessary to get the concept-grounding story that is essential to the concept-based approach off the ground.

3 Response to Jonathan Weinberg

Jonathan's focus is on the a priori—a posteriori distinction and, in particular, the distinction between experiential and nonexperiential sources of justification. He maintains that there are three major aspects of experiential justification as commonly understood: (1) distinctive phenomenology, (2) pertaining to local contingent particulars, and (3) causally explicable epistemic contact. Jonathan contends that as long as this cluster of properties remains stable, the a priori – a posteriori distinction is useful for epistemological theorizing and, moreover, that

(APJ) S's belief that p is justified a priori just in case S's belief that p is nonexperientially justified

adequately articulates the relevant concept of a priori justification. The questions, however, that interest Jonathan are: What if the cluster starts to fragment, and what will that mean for (APJ)? Jonathan cites two sources of fragmentation in the recent literature. First, Jenkins (2008) and Williamson (2007) offer cases in which they allege that experience plays a role that is more than purely enabling but less than strictly evidential. Second, Ichikawa (2013) considers cases where one's nonexperiential justification for some belief is defeated by empirical evidence, but the defeating empirical evidence is itself defeated by further empirical evidence.

Jonathan's leading contention is that if the cluster fragments, then we need to ask which feature or features of the cluster should we take to constitute the basis of the distinction. In response, he proposes a *Modal Justification Analysis* of the a priori:

(MJA) S's belief that p is justified a priori just in case S's belief that p is justified with mojo, and that justification has not lost its mojo through modal enervation.

According to Jonathan we should be interested in "originating sources of justification for modally strong beliefs," and he calls the capacity of some sources to deliver such justification as "modal justification of origination," or mojo, for short. Hence, an a priori justified belief is one that is justified with retained mojo. In favor of his account, he maintains that it provides answers to the Jenkins and Ichikawa cases. Moreover, he maintains that his account has two advantages over mine, the second of which provides the basis for his two closing questions. In between these two discussions, he addresses a concern—namely, that his account does not do justice to the traditional debate over the existence of a priori knowledge.

My comments on (MJA) will be somewhat tentative because I am not sure that I fully understand it. Jonathan's focus is on originating sources of justification for modally strong beliefs such as (Necessarily)Q or, alternatively, if P then (Necessarily)Q. Mojo is the capacity of a source to provide original justification for strong modal beliefs. Let S be such a source and let us assume that it justifies the belief B. Furthermore let us assume that the justification in question is retained (so that we can ignore the second condition in (MJA)). Is the content of B modal? It appears that since our focus is the justification of modally strong beliefs and S is an

originating source for strong modal justification, the content of B is modal—i.e., it has either the form (Necessarily)Q or, alternatively, the form if p then (Necessarily)Q. This conclusion is reinforced by Jonathan’s characterization of his view as “analyzing a priority in terms of original sources of modal justification.”

It is important to recognize, however, that the locution “sources of justification for modally strong beliefs” is ambiguous. Consider again the modally strong belief (Necessarily)Q. We must distinguish between the source of justification for the truth of the belief and the source of justification for its modality. As Kripke’s examples, such as (Necessarily)Water is H_2O , indicate, we cannot assume that the source of justification for both is the same. Similarly, if we consider Kant’s example of “ $7 + 5 = 12$,” there are two questions in play: What is the justification for believing that it is true? What is the justification for believing that it is necessary?

Now suppose that the belief that (Necessarily) $7 + 5 = 12$ is analogous to Kripke’s example in the following respect: the source of justification for the belief that $7 + 5 = 12$ is different from the source of justification for the belief that if $7 + 5 = 12$ then necessarily $7 + 5 = 12$. It follows that the belief that $7 + 5 = 12$ is not justified a priori solely in virtue of the fact that its source does not justify modally strong propositions. This strikes me as an unwelcome result. It does not accurately reflect the historical debates over the nature of mathematical knowledge, which focused on knowledge of their truth value and not on knowledge of their modality. Moreover, it seems to be a mistake either to assume that the justification of the truth and the justification of the modality of necessary propositions derives from the same source or to maintain that, if they come from different sources, the justification of the truth of such propositions is not a priori.

Jonathan maintains that (MJA) sheds light on both the Ichikawa and Jenkins cases. I have reservations about both claims. With respect to the Ichikawa case, we need to disaggregate—i.e., we need to separate issues in general epistemology from those specific to the a priori. The Ichikawa case raises the following general issue. Suppose that S’s belief that p is justified by source A, S’s A-based justification is defeated by a belief justified by source B and S’s B-based justification for the defeater is defeated by another belief justified by source B. S’s belief that p is justified since the defeater is defeated. But the following question arises: Is S’s belief that p justified by source A alone or by both sources A and B? So consider the following case: You have a visually justified belief that there is a pen on the table. The others in the room testify that they don’t see a pen on the table and you have no reason to doubt their honesty or sincerity. Your justification is defeated. You are then told that the others conspired to trick you. You are now justified in believing that there is a pen on the table. Are you justified solely on the basis of perception or on the basis of both perception and testimony? If you answer “solely perception” in this case, then you should agree that the person in the Ichikawa case is justified a priori. Jonathan and I agree on this point. Jonathan, however, claims that (MJA) explains the verdict where (APJ) does not. This strikes me as wrong since it is clear that whatever explains the verdict in the Ichikawa case explains the verdict in the perception case. That explanation will be found in one’s general theory of defeaters not in one’s analysis of the concept of the a priori.

With respect to the Jenkins case, Jonathan maintains that the “cognitions in question have *mojo*... and the empirical contribution is not *enervating*.” I don’t fully understand the claim so I will bring out two relevant issues. First, Jenkins is offering an account of knowledge of the truth of mathematical propositions and not an account of knowledge of their modality. Perhaps the account of the former can be extended to the latter but that is not what is at issue here. Second, on Jenkins’s account, there are two sources of justification for mathematical beliefs: the experiences that ground the concepts and the process of conceptual examination. Both are necessary for the justification and neither is merely an enabler. So, it seems to me that a focus on *mojo*, or modal justification, is misplaced here. Moreover, even if the account were extended to explain the justification of beliefs regarding the modality of mathematical propositions, there is no single originating source of modal justification. Both experience and conceptual examination, working in tandem, are necessary.

Drawing on this second point, I will close by stating why I think (APJ) is superior to (MJA). If we accept the view that the grounding of concepts is necessary to having justified beliefs via the examination of concepts and that the grounding of concepts contributes to, rather than merely enables, the justification of beliefs based on an examination of concepts, then I think that it is crucial to distinguish between an account of concept-based justification that embraces Jenkins’s experience-based approach to grounding concepts as opposed to one that embraces Chris’s a priori-based approach to grounding concepts. (APJ) clearly distinguishes them since it will classify beliefs justified by the former approach as a posteriori and beliefs justified by the latter approach as a priori. (MJA) blurs the difference by classifying both as a priori.

In his closing remarks, Jonathan maintains that (MJA) has an advantage over (APJ) and poses two questions. I begin with the more general question: Why care about the distinction? The short answer: It is not clear to me that we should. My goal in *A Priori Justification* (Casullo 2003) is to understand the parameters of the traditional rationalist–empiricist debate. The investigation divided into two parts: articulating the relevant concept of a priori knowledge and examining the arguments for and against the existence of such knowledge. I argued that the traditional debate took place within a conceptual framework that took for granted the coherence of the concept of experience. I also maintained that if the distinction between experiential and nonexperiential sources of justification cannot be coherently articulated then at least part of that conceptual framework must be rejected. I went on to argue that the traditional ways of marking that distinction fail. I also suggested, as Jonathan points out, that perhaps experience functions as a natural kind term where the traditional cluster of properties associated with the term fixes its reference and that scientific investigation will determine whether there is any interesting underlying unity to the processes picked out by those markers. It remains an open empirical question whether there is such an underlying unity. So, in sum, I think that the distinction is important to understanding the traditional debate and, more importantly, to assessing the claims of contemporary epistemologists who claim to be addressing that debate. Having said that I continue to have serious reservations as to whether

we have a firm enough grasp on the experiential–nonexperiential distinction to make it central to epistemological theorizing.

The second question pertains to cases of “mixed” cognition. In Casullo 2013, I argue that we should introduce a third category for cases of justification that derive from both experiential and nonexperiential sources, where neither source alone suffices for the justification in question.¹ Once again, we need to disaggregate. Suppose, for example, that I have a belief justified by perception that this is water and a belief justified by testimony that if this is water then this is composed of H₂O molecules and, on that basis, believe that this is composed of H₂O molecules. No one is tempted to maintain that my justification for that belief is either solely perceptual or solely testimonial. We recognize cases of mixed justification in the domain of empirical justification and classify them as such. We should do the same in cases of mixed justification that cut across the a priori and empirical domains. Hence, I agree that mixed cognitions require a tripartite distinction. Moreover, there is an additional complication. I (Casullo 2012, chap. 14) have argued that if there are beliefs whose justification is “for free” in the sense that it does not derive from any source, either experiential or nonexperiential, then their justification is neither a priori or a posteriori. So we may need a four-part distinction: a priori, a posteriori, mixed and neither.

I will conclude with some remarks regarding Jonathan’s clairvoyance case, which is alleged to reveal an advantage of (MJA). The salient features of the case, as I understand it, are (1) clairvoyance is reliable, (2) the beliefs that it produces are not accompanied by experiential vision-like content, and (3) some unknown causal pathway places these contents in long-term memory. Jonathan maintains that the resulting justification is a posteriori but nonexperiential. But, on my natural-kind approach to the term ‘experience’, the presence of visual phenomenology is not a necessary condition for a source of justification to be experiential. It is at most a feature that fixes the reference of the term ‘experience’. Jonathan is correct to point out that, on my view, if scientists determined that the process underlying clairvoyance is similar to those that underlie the five senses, then it would be classified as experiential. However, he claims that his account is superior because irrespective of how the psychology worked out his account would classify them as a posteriori “since they have the same sort of locally causal, actual world epistemology as paradigm cases of perceptual justification.” It seems to me the alleged resulting superiority that Jonathan offers is due to the fact that he has stipulated in advance that the relevant features of the underlying psychological processes involved in clairvoyance are sufficiently similar to other paradigm cases of perceptual justification and, as a consequence, empirical investigation is unnecessary to uncover this fact.

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¹ The argument is directed at Goldman (1999), who presses a similar concern.

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