In Defense of Radical Empiricism

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Abstract

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In Defense of Radical Empiricism

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Laurence BonJour defends a moderate version of rationalism against rivaling empiricist epistemologies. His moderate rationalism maintains that some beliefs are justified a priori in a way that does not reduce to mere analyticity, but he tempers this strong claim by saying that such justification is both fallible and empirically defeasible. With the aim of ruling out radical empiricism (the form of empiricism that repudiates the a priori), BonJour puts forth what he calls the “master argument.” According to this argument, the resources available to radical empiricists are too slender to allow for justified empirical beliefs that go beyond what is immediately available to sense-perception, e.g., what we see, hear, and taste. If so, then radical empiricists are committed to a severe form of skepticism, one in which it is impossible to have justified beliefs about the distant past, the future, unobserved aspects of the present, etc. Worse, radical empiricists, who pride themselves on their scientific worldview, would be unable to account for justified beliefs about the abstract, theoretical claims of science itself! Clearly, the master argument is intended to hit the radical empiricist where it hurts. Fortunately for the radical empiricist, however, it is possible to escape BonJour’s would-be deathblow. One way to respond to BonJour is to adopt a holistic approach to justification. Another way is to reject a crucial assumption that BonJour makes about the nature of inferential justification. Either response allows radical empiricists to prevent
their skepticism about the a priori from generalizing into a form of radical skepticism in which nothing is known at all.
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Introduction

Laurence BonJour defends a moderate version of rationalism against rivaling empiricist epistemologies (1998). His moderate rationalism maintains that some beliefs are justified a priori in a way that does not reduce to mere analyticity, but he tempers this strong claim by saying that such justification is both fallible and empirically defeasible. With the aim of ruling out radical empiricism (the form of empiricism that repudiates the a priori), BonJour puts forth what he calls the “master argument.” According to this argument, the resources available to radical empiricists are too slender to allow for justified empirical beliefs that go beyond what is immediately available to sense-perception, e.g., what we see, hear, and taste. If so, then radical empiricists are committed to a severe form of skepticism, one in which it is impossible to have justified beliefs about the distant past, the future, unobserved aspects of the present, etc. Worse, radical empiricists, who pride themselves on their scientific worldview, would be unable to account for justified beliefs about the abstract, theoretical claims of science itself! Clearly, the master argument is intended to hit the radical empiricist where it hurts.

Fortunately for the radical empiricist, however, it is possible to escape BonJour’s would-be deathblow. One way to respond to BonJour is to adopt a holistic approach to justification. Another way is to reject a crucial assumption that BonJour makes about the nature of inferential justification. Either response allows radical empiricists to prevent their skepticism about the a priori from generalizing into a form of radical skepticism in which nothing is known at all.
What is Radical Empiricism?

Bonjour distinguishes three main views surrounding the a priori: rationalism, moderate empiricism, and radical empiricism. (This is not an exhaustive list of all the logically possible positions.) The standard rationalist account of a priori justification is that such justification is the result rational intuition and not reducible to analyticity. Next, moderate empiricism grants that there is a priori justification but attempts to reduce it to analyticity, meaning, or linguistic convention. Finally, the radical empiricist denies that any justification is a priori, maintaining, instead, that all justified beliefs are justified purely a posteriori.

But before discussing what these different positions say about the a priori, I should discuss the a priori itself. There are two ways a belief can be justified, a posteriori and a priori. A posteriori justification is simple enough: the belief that p justified a posteriori if and only if it is justified at least in part by experience. Meanwhile, a priori justification is independent of experience: the belief that p is justified a priori if and only if it is justified completely non-experientially. A consequence of the present way of distinguishing the a priori from the a posteriori is that “justified a priori” means “justified purely a priori” and “justified a posteriori” means “justified either purely a posteriori or at least partially a posteriori.”

One qualification about the a priori is that the justification of a belief is not rendered a posteriori merely because that belief makes use of concepts that can only be acquired through experience. That is, a belief may still count as justified a priori even if certain experiences are required to enable the person to form the belief; these are called
enabling experiences. Enabling experiences are distinguished from justifying experiences, which play a role in the justification of the belief. A precise conception of the a priori should have a clause mentioning enabling experience: the belief that \( p \) is justified a priori if and only if it is justified in some non-experiential way even where some experiences are required to enable one to form the belief in question.\(^1\)

For this paper, any theory of justification that countenances even a single instance of a priori justification (that isn’t reduced to analyticity) will count as a kind of rationalism. BonJour defends such a view, writing that rational insights provide us with immediate a priori justification about necessary truths (1998, 15-16). Specifically, he defends a view that he calls “moderate rationalism.” BonJour’s rationalism is moderate in the sense that it allows that rational insights are both fallible and correctable (at least in part) by experience (1998, 110-24). He recognizes that, in these respects, he departs from virtually all historical defenders of rationalism; nevertheless, he thinks that rationalism’s main thesis (that a priori justification exists and is not reducible to analyticity) does not require these extraneous theses (BonJour 1998, 16-7).

Of course, any rationalist’s rival is an empiricist, of which BonJour distinguishes two kinds: moderate empiricists and radical empiricists. Moderate empiricists don’t deny that there is a priori justification; rather, they maintain that all such justification can be reduced to analyticity (BonJour 1998, 18). The meaning of “analyticity” varies widely

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\(^1\) BonJour writes that there are two conceptions of the a priori, one negative and one positive. The negative conception is that it is independent of experience. Meanwhile, the positive conception is that the belief that \( p \) is justified a priori if and only if it is justified by pure reason alone, where pure reason is allowed to make use of concepts acquired experientially (BonJour 1998 7). It is not clear whether BonJour means “pure reason” in precisely the same sense that Kant means it.
among moderate empiricists. Some say that analytic statements are those that can be
transformed into logical truths by substituting synonyms for synonyms. Others say that
analytic statements are true in virtue of meaning. Others still say that analytic statements
are statements whose denials entail a contradiction (BonJour 1998, 32). Moderate
empiricists think that reducing the a priori to analyticity gives us the best of both worlds
in the rationalism-empiricism debate: we still have a priori justification, but it is no
longer mysterious, since it gives us insight only into concepts and language rather than
insight into the way the world is (BonJour 1998, 28).

Finally, there is the view that rejects a priori justification altogether, radical
empiricism (BonJour 1998, 19). Radical empiricists need not deny that the beliefs usually
alleged to be justified a priori (e.g., logical and mathematical beliefs) can be justified.
They merely deny that the justification of such beliefs (or any beliefs) is based on rational
insight or analyticity. It is a central tenet of radical empiricism that all beliefs are justified
a posteriori. Importantly, the radical empiricists goes beyond the claim that mathematics
and logic are empirically defeasible. After all, that much is consistent with moderate
rationalism. The radical empiricist puts forth the stronger claim that the only positive
justification for any logical or mathematical belief ultimately stems from experience
(usually by way of holism), without any need for the a priori. Finally, it should be
clarified that radical empiricism is meant to be inconsistent with any radical skepticism
that denies that all (or most) of our beliefs are unjustified. Rationalism and moderate
empiricism both entail the negation of any such skepticism by claiming that some beliefs
are justified a priori. Meanwhile, the mere denial of a priori justification does not entail
the falsity of such skepticism. Therefore, I thought it best to make the radical empiricism’s inconsistency with radical skepticism explicit.

In this section, I have described the three main views surrounding a prior justification: rationalism, moderate empiricism, and radical empiricism. These views are probably not as far apart as they are commonly assumed to be. Rationalism and moderate empiricism both accept the a priorist claim that some beliefs are justified a priori. However, they differ on whether all such justification is due to analyticity. Meanwhile, radical empiricists accept logical and mathematical claims as justified; they merely think that such claims require experience. Moreover, both moderate rationalism and radical empiricism accept the fallibility of justified beliefs about logic and mathematics. Given the close interrelations that obtain between these views, it will be important to remember the theses that define and differentiate them.

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Figure 1: Defining Theses
What Radical Empiricism Isn’t

Having said what radical empiricism is, I will say what it isn’t. There is a variety of views that radical empiricism is liable to be conflated with. The views I will consider are a priori skepticism, physicalism, concept empiricism, and naturalized epistemology. First, BonJour characterizes radical empiricism as the view that no beliefs are justified a priori. However, this characterization of radical empiricism does not sufficiently distinguish it from the more general view: a priori skepticism. The distinctive thesis of a priori skepticism is the anti-a-priorist claim that no justification is even partially a priori. But a priori skepticism is consistent with a global skepticism according to which no beliefs are justified. Meanwhile, radical empiricism, because it affirms the anti-skeptical claim, is inconsistent with such global skepticism. Put this way, the distinction between radical empiricism and a priori skepticism is obvious: a priori skepticism makes only the anti-a-priorist claim, whereas the radical empiricist makes both the anti-a-priorist claim and the anti-skeptical claim. Nevertheless, BonJour’s characterization fails to make the difference clear.

Next, it is also important to distinguish radical empiricism from the related view, physicalism. Radical empiricists make an epistemic claim: namely, that all justification is a posteriori. Meanwhile physicalists make a metaphysical claim: namely, that everything is physical (rather than mental or anything else). Radical empiricism is opposed to rationalism and moderate empiricism. Physicalism is opposed to dualism and idealism. The distinction between radical empiricism and physicalism can be easily muddled, because both views are often given the ambiguous label, “naturalism.” Moreover, it must
be admitted that philosophers who accept one are likely to accept the other. Nevertheless, it is not clear that either view implies the other. In any case, an entailment either way would have to be shown rather than merely assumed. And, for what it’s worth, Quine, who can be interpreted as a radical empiricist, was not a physicalist, because he accepted the existence of abstract objects: “scientific discourse is as irredeemably committed to abstract objects—to nations, species, numbers, functions, sets—as it is to apples and other bodies” (1981, 149-50).

Relatedly, radical empiricism is also distinct from concept empiricism. Whereas radical empiricists make an epistemic claim, concept empiricists make an empirical/metaphysical claim: namely, that all concepts ultimately stem from experience. Meanwhile, whereas radical empiricism is opposed to rationalism, concept empiricism is opposed to nativism, the view that some concepts are innate rather than acquired through experience. This distinction, too, is easy to muddle, because both views are sometimes referred to simply as “empiricism.” This distinction is important, because it may be wondered, “If all justification is a posteriori, how can humans have access to abstract domains of knowledge, such as morality, epistemology, and metaphysics?” However, this question likely runs together two distinct questions: First, if all justification is a posteriori, how can humans have justified beliefs about abstract disciplines, such as logic, ethics, epistemology, or metaphysics? Second, if all justification is a posteriori, how can humans have abstract concepts, such as consistency, justice, coherence, and truth? The first question is an excellent question to ask the radical empiricist (though answering it is not the aim of the present paper). However, the second question, because it concerns
concept possession rather than epistemic justification, is more a question for concept empiricists than for radical empiricists. Perhaps, historically, empiricists about justification have tended to also accept concept empiricism, but I do not see that radical empiricism entails concept empiricism (or that the entailment holds the other way around). In any case, either entailment would have to be shown rather than merely assumed.

There is also a distinction between radical empiricism and naturalized epistemology. According to one kind of naturalized epistemology, traditional epistemology should be replaced by the empirical study of the causal relationship between experience and belief (Feldman sec. “Replacement Naturalism”). If this bars us from evaluating beliefs as justified or unjustified, then naturalized epistemology is actually inconsistent with radical empiricism, because radical empiricism makes claims about justification. Another kind of naturalized epistemology makes the metaphysical claim that all facts are “natural” facts. From here, it is insisted that, if epistemological claims are factual, then it must be possible to rephrase epistemology’s normative language (e.g., “justified,” “reason,” and “knowledge”) into more naturalist-friendly language (e.g., “implies that,” “causes,” and “belief”) (Feldman sec. “Substantive Naturalism”). This form of naturalized epistemology is a metaphysical view, whereas radical empiricism, again, is an epistemological view. Nevertheless, radical empiricism is stated in normative language; therefore, if normative language cannot be rephrased in a

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2 Quine is often interpreted as arguing for this kind of naturalized epistemology in his paper “Epistemology Naturalized” (1969).
way that pleases the naturalized epistemologist, then the two are inconsistent. Otherwise, the two views seem compatible (though distinct).

Other naturalized epistemologists merely say that empirical information is needed to do epistemology. This can be interpreted two ways: The strong interpretation is that scientific experiments are required to do epistemology. The weak interpretation is that commonplace experiences are required to do epistemology: though we can still do philosophy from the armchair, our intuitions are informed by common sorts of experiences that hardly any normal human could fail to have (Feldman sec. “Cooperative Naturalism”). Radical empiricism’s relationship to either the weak or strong view depends on what each says about the a priori. Radical empiricism is consistent with the strong claim (as long as it does not require a priori justification), but does not require it. The strong interpretation requires epistemologists to do scientific experiments; however, radical empiricism makes no such requirement. Radical empiricism, however, does require that the way we do epistemology be purely a posteriori. So, if intuitions are to count as evidence, then intuitions must be seen as empirically-informed rather than a priori. Of course, this is very close to the weak kind of naturalized epistemology. Still, some proponents of this weaker kind of naturalized epistemology (such as Kornblith) claim to be open to the existence of a priori justification (2007, 52-3). In sum, radical empiricism is distinct from the various forms of naturalized epistemology; nevertheless, there are interesting relationships in this area.

One lesson to draw from these distinctions is this: once radical empiricism is understood as a merely epistemological view, the metaphysical and epistemological
options open to radical empiricists are far from limited. After all, the conjunction of radical empiricism’s two defining theses is consistent with various metaphysical claims: e.g., “there are abstract objects,” “minds are not part of the physical world,” and “not all concepts are acquired through experience.” The same goes for many epistemological claims: e.g. “intuitions are evidence” and “science is not the only way to justify beliefs.” It may well be wondered how a radical empiricist might hope to justify such metaphysical and epistemological claims, but that is a matter that should not be decided until empiricists have actually been given a chance to think things through. Not only is it impossible to refute a system that has never been explained, it is also impossible to defend a system without being given a fair hearing.  

In sum, because radical empiricists accept the anti-a-priorist claim that no beliefs are justified even partially a priori, radical empiricism is a form of a priori skepticism. Nevertheless, radical empiricism is not identical to a priori skepticism, because, in addition, radical empiricists are committed to the anti-skeptical claim that some belief are justified. Moreover, radical empiricism is independent of physicalism, concept empiricism, and most forms of naturalized epistemology. Once radical empiricism is properly circumscribed, it is consistent with a variety of metaphysical and epistemological positions.

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3 It might be worried that, even if radical empiricism is logically consistent with a variety of claims, it might still fail to cohere with them. However, before deciding whether such claims can be members of the same coherent system, we must first consider the system. And it is at least not obvious that no coherent system could affirm both that all justification is a posteriori and also that some concepts are innate.
Reasons for Radical Empiricism

It may still be wondered: who holds this radical view and why? It is, therefore, worth pointing out that radical empiricism (or something akin to it) is seen as a viable option by a sizable minority of the philosophical community. Though Devitt is the only clear example of a pure radical empiricist, other philosophers (Quine, Kornblith, and Kitcher) defend views that are similar in important ways. These philosophers’ views differ in many respects, but, nevertheless, they all share a high degree of skepticism about a priori justification. The arguments presented by these philosophers go a ways toward showing the radical empiricist’s rejection of the a priori is at least not unreasonable.

Quine

The most celebrated example of a radical empiricist is Quine. However, not all of Quine’s claims cohere with radical empiricism, suggesting that his true interests did not lie with rejecting the a priori altogether and that over time he may have wavered in his rejection of analyticity. Therefore, as Arnold and Shapiro write, we can distinguish between two Quines: a meeker Quine who granted logic a special role in one’s belief system and a radical Quine who thought that logic is supported by and revisable in light of experience, though in a fairly indirect way (Arnold and Shapiro 276-7). It is the latter Quine who fathered radical empiricism with his bold metaphor of the man-made fabric of knowledge:

The totality of our so-called knowledge or beliefs, from the most casual matters of geography and history to the profoundest laws of atomic physics or even of pure mathematics and logic, is a man-made fabric which impinges on experience only along the edges. (1951, 39)
One way to read this metaphor is that, because nothing but experience lies along the edges of the fabric, it follows that experience is our only connection to the world; therefore, any belief can only be justified in light of experience, even if very indirectly.

However, for a non-metaphorical statement of his view, we must read “Two Dogmas” a bit further:

Revision even of the logical law of the excluded middle has been proposed as a means of simplifying quantum mechanics; and what difference is there in principle between such a shift and the shift whereby Kepler superseded Ptolemy, or Einstein Newton, or Darwin Aristotle? (1951, 40)

This passage shows that Quine thought logical laws are empirically defeasible. However, it doesn’t show that Quine thought that logic received positive support from experience (let alone that experience provided the only support for logic). I do not see explicit support for such a thesis anywhere in “Two Dogmas.” Nevertheless, Quine does seem to defend this claim elsewhere. For example, in Philosophy of Logic, he writes:

“Mathematics and logic are supported by observation only in the indirect way that those aspects of natural science are supported by observation; namely as participating in an organized whole which, way up at its empirical edges, squares with observation” (Quine 1986, 100, italics added). This passage seems to support the conclusion that Quine, at least at some point, thought that the justification of mathematics and logic were (at least indirectly) a posteriori.

It is fairly clear why the radical Quine was so radical. Quine rejected the idea that there is a principled distinction between statements that can be rationally held independent of facts and those that can be rationally revised in light of facts. To Quine, this amounted to denying that there is a principled distinction between analytic and
synthetic statements. Meanwhile, he accepted that beliefs are justified holistically. Putting these two considerations together, he concluded in “Two Dogmas” that even logic is empirically defeasible. Eventually, he extended this view to say that logic could receive positive support from experience (albeit indirectly). Or perhaps he accepted this claim even when writing “Two Dogmas,” but the acceptance was obscured by his emphasis on defeasibility rather than positive support.⁴

Kornblith

Kornblith, though not committed to radical empiricism himself, expresses his approval of the anti-a-priorism in Quine’s famous metaphor of the web of belief. He writes:

the web metaphor is designed to show that there is available a way of looking at things which makes sense of a thoroughgoing rejection of the a priori...The web metaphor offers some real promise of epistemological insight into the empirical justification of apparently a priori claims, a promise which has been fulfilled, I believe, by historical studies of science and mathematics. (Kornblith 2000, 74)

Though Kornblith is open to radical empiricism, he is not committed to rejecting the a priori. He sketches a reliabilist approach to a priori justification in which some process in the brain that does not use experiential input reliably produces true beliefs.

⁴ Interestingly, however, the meeker Quine makes an appearance in “Two Dogmas.” Quine allows that some instances of synonymy (and, thereby, analyticity) are intelligible. He considers “the explicitly conventional introduction of novel notations for purposes of sheer abbreviation,” writing that:

Here the definiendum becomes synonymous with the definiens simply because it has been created expressly for the purpose of being synonymous with the definiens. Here we have a really transparent case of synonymy created by definition; would that all species of synonymy were as intelligible. (Quine 1951, 26)

Quine’s point is that, if I were to stipulate a definition for some word, w, at time t, then it would be analytic that w means so-and-so and I could, therefore, know a priori that w means so-and-so at t. Notice that not only does Quine qualify his skepticism about analyticity, he does so in “Two Dogmas” no less. This goes to show that the interpretation of Quine found in this paper is only one possible interpretation.
This process in the brain that he imagines is “a reasoning module” that is “innate in all human beings, and hard-wired with a basic deductive system” (Kornblith 2007, 53). Kornblith claims that such a view of the a priori is respectable from the point of view of naturalistic epistemology.

Even though Kornblith is not committed to radical empiricism, he does present an argument against a priori justification:

The force of the examples from the history of science, mathematics and logic is that an agent’s inability, at a given time, to conceive of things being otherwise has often given way, as a product of empirical theorizing, to the recognition that things are otherwise. Thus, many of the claims which we cannot currently imagine being false may well be ones which are indeed false, and which we will be able, with the progress of theory, to recognize as false at some suitable time in the future. (2000, 70)

Kornblith cites the example of how Einstein’s theory of relativity undermined claims that we know a priori that time is linear (2000, 69). Kornblith’s conclusion here is not that a priori justification is impossible, obscure, or even unreliable. Rather, the conclusion is that, even when a belief seems to be justified a priori, we still ought to seek out empirical considerations when deciding whether to believe it. Kornblith takes this to imply that “The appeal to a priority can do no epistemological work” (2000, 71).

Kitcher

Kitcher also makes some claims that make him sound amenable to radical empiricism. He writes:

Scientists endeavor to improve their epistemic states by appealing to standards that embody broadly shared values, values that are themselves articulated using prevailing beliefs about nature...For Kuhnian, as well as Quinean, reasons we should reject the idea of a priori epistemology as a myth. (Kitcher 38)
Based on these Kuhnian and Quinean reasons, Kitcher concludes that “Virtually nothing is knowable a priori, and, in particular, no epistemological principle is knowable a priori” (40). However, he does not call himself a radical empiricist; instead, he writes that “In rejecting the a priori, traditional naturalists recognize both the historical and social embeddedness of knowledge” (Kitcher 66). Kitcher calls his largely anti-a-priorist view “historicism;” it claims that “Our knowledge is embedded in the history of human knowledge and not detachable from it” (37). Nevertheless, he takes his historicism to imply that there is no Cartesian foundation where we can begin our theorizing; instead, “As Quine so frequently reminds us, we are all in Neurath's boat” (Kitcher 37). It seems that historicism and radical empiricism may be closely related.

Kitcher’s rejection of a priori justification is based on “Kuhnian, as well as Quinean, reasons” (38). What exactly are these reasons? The Kuhnian reason is that there is a mismatch between the deliverances of methodology and the reasoning that scientists actually employ. Unless one can show that attention to the historical record will close the gap between philosophers’ methodologies and scientific practice (a course that few have pursued), methodologists are confronted with a dilemma. Either they can continue to insist that philosophers know a priori the principles of confirmation and evidence, concluding that the actual reasoning of scientists is cognitively deficient, or they can abandon the a priori status of methodological claims and use the performances of past and present scientists as a guide to formulating a fallible theory of confirmation and evidence. (Kitcher 37-8, italics in original)

Kitcher argues that the former option has “an uncomfortable air of arrogance,” so he opts for the latter, which calls into question just whether philosophers have a priori knowledge of anything (or at least anything important) (38).
Next, the Quinean reason is that “If justification and knowledge turn on the characteristics of the processes that generate and sustain belief, then a priori justification and a priori knowledge result from the presence of processes that are, in some sense, independent of experience” (Kitcher 36). But there are only two processes that are good candidates for being experience-independent processes: logical/mathematical reasoning and understanding language. However, perhaps logical or mathematical reasoning would be rendered unjustified if one were in a situation in which experience called into question the reliability of one’s reasoning. Meanwhile, experience might also convince us to abandon a conceptual framework, which would undermine our claim to a priori knowledge of language assuming that “there is no epistemological difference between changing one's doctrines and modifying parts of one's conceptual framework” (Kitcher 36-7).

Devitt

In contrast with Quine, Kornblith, and Kitcher, Devitt states in no unclear terms that he thinks there is absolutely no a priori justification. He writes that “we have no need to turn to an a priori explanation of our knowledge of mathematics, logic, and the like;” his reasoning is that we can “see the knowledge as empirical: it is justified empirically in an indirect holistic way” (2005, 107). The first part of Devitt’s argument is that there is no reason to think that we cannot do without the a priori: beliefs, even whole theories, face the tribunal of experience not alone, but in the company of auxiliary theories, background assumptions, and the like...In light of this, we have no reason to believe that whereas scientific laws, which are uncontroversially empirical, are confirmed in the holistic empirical way, the laws of logic and mathematics are not... (2005, 106)
Second, the a priori is too obscure to figure into an explanation of how we know what we know, because there is no good account of what a priori justification is or how it links us to the world in the way required for epistemic justification (Devitt 2005, 111-13). Devitt challenges the rationalist to answer the question:

What sort of link could there be between the mind/brain and the external world, other than via experience, that would make states of the mind/brain likely to be true about the world? What nonexperiential link to reality could support insights into its necessary character? (2005, 114)

The plausible assumption behind Devitt’s questions is that S is justified in believing any claim about the world only if there is some link through which information from the world makes its way to S’s mind. For a posteriori justification, this link is experience. We have a fairly clear idea of how experience relates us to the world: we have sensory organs that, via causal processes, receive information from the world and then somehow we represent that information in the form of sense-perception. It is currently not clear exactly how the brain produces sense-perceptions, but there should be little doubt that science will eventually have a good answer about this.

However, matters are less clear with a priori justification. According to rationalists, a priori justified beliefs are about the world, not meanings or concepts. So, S has a priori justified beliefs only if there is some non-experiential link through which the information about the world travels to S’s mind. What is this link? BonJour’s answer is “apparent rational insight.” However, beyond giving the alleged non-experiential connection a name, he says little that is very informative. The empiricist’s story about experience is good for two main reason: first, we have a fairly clear idea of what experience is phenomenologically (it involves raw feels, representations, etc.) and,
second, we have a causal account of how it connects us to the world. However, the phenomenological evidence for rational insight is much weaker than it is for experience, and it is unclear how rational insight fits with our metaphysical and scientific views. The basic objection, then, is this: we have an answer for how experience connects us to the information from the world in the way required for justification, but no answer for how anything other than experience could connect us to the world in this way. Hoping to avoid this anomaly, the radical empiricist tries to show that experience can function as our link to all information from the world. Devitt takes these two considerations to establish a “nice abduction,” according to which radical empiricism is the best explanation of how we know what we know (Devitt 2005, 106).

Summary

In sum, Devitt emerges as the only clear example of a pure radical empiricist. Arnold and Shapiro show that it is difficult to say exactly what Quine’s considered view is regarding the justification of logic. Kornblith is open to the idea of a priori justification. And Kitcher merely says that nothing important could be known a priori. Devitt would say that the radical Quine had it right: logic and everything else is justified empirically and only empirically. Meanwhile, Devitt would object to Kornblith’s openness to a reliabilist theory of the a priori, arguing that reliability is not sufficient for justification; in addition, the belief must be shown to be non-accidental (1997, 51-2) However, because Devitt does not address the issue of history-independent knowledge, it is unclear what he would think of Kitcher’s historicism.
The point of mentioning these philosophers is to show that radical empiricism is worthy of serious discussion. After all, even if the logical possibility of radical empiricism is granted, one may still think that it is merely a strange, fringe view that doesn’t really warrant consideration. However, it should now be clear that radical empiricism has a few philosophers in its corner (or at least near its corner). In addition, I think their reasons for avoiding the a priori cannot simply be dismissed out of hand (though I do not mean to say that I accept those reasons myself).
BonJour’s Case for Rationalism

BonJour divides his defense of rationalism into three phases. In the first phase, he attempts to rule out rationalism’s only non-skeptical rival, empiricism. BonJour treats the two forms of empiricism, moderate and radical, in very different ways. He argues against moderate empiricism by attacking appeals to analyticity. He disambiguates the different uses of “analyticity” and argues that no version of it is sufficient to cover every case of a priori justification. Meanwhile, he attacks radical empiricism by trying to show that it leads to a severe form of skepticism in which we know nothing beyond our immediate sense-perceptions. The idea here is that at least one a priori principle is needed to infer from sense-perception to the rest of one’s beliefs (BonJour 1998, 4).

In the second phase, BonJour fleshes out what rationalism claims and attempts to show that it is a plausible view. Here, BonJour is providing positive support to supplement the negative support gained by rejecting empiricism. He gives examples of beliefs that seem justified a priori: e.g., “Nothing can be red and green all over at the same time, “2 + 3 = 5,” and “If A is taller than B and B taller than C, then A is taller than C.” Though it is perhaps possible to give an empiricist construal of these examples, BonJour argues that no such empiricist construal can ultimately succeed. As we will see in more detail, BonJour thinks the moderate empiricist’s appeal to analyticity ultimately fails and the radical empiricist’s attempt to reject the a priori leads to radical skepticism. Thinking he has ruled out empiricism, BonJour feels free to give a rationalist construal of these beliefs, according to which we are justified in believing them immediately merely by understanding them (BonJour 1998, 106). He explains a priori justification by
appealing to apparent rational insights; such insights occur “when the mind directly or intuitively sees or grasps or apprehends...a necessary fact about the nature or structure of reality” (BonJour 1998, 15-16). Last, he explains why we should consider a priori justification to be fallible and empirically defeasible (BonJour 1998, 110-15, 120-4).

Third, BonJour defends rationalism against the various objections that are likely to be raised against it. These objections divide into two main categories, epistemic and metaphysical. Epistemic worries include the concern that, being non-discursive, rational insights can’t justify beliefs; concerns about conflicting rational insights; the demand for a metajustification of rational insight; and other issues (BonJour 1998, 147). Meanwhile, there are only two metaphysical concerns: First is the Benacerraff-inspired worry that knowledge requires some causal connection between the knower and the known object, but that the objects of putative a priori knowledge are causally-inert abstract objects (Benacerraff 661; BonJour 1998, 156-62). Second, the symbolic theory of thought, according to which thoughts are merely words (or the equivalents of words in the language of thought), is said to be inconsistent with the rationalist’s claim that we can have universals and abstract objects directly before our minds in thought (BonJour 1998, 162).

It should be noted that the negative project of ruling out empiricism is absolutely crucial to BonJour’s case for rationalism. As he admits, the alleged examples of a priori justification can be given empiricist construals. Therefore, before a rationalist construal can be justified, it is necessary to rule out the empiricist alternative. Thus, the rejection of empiricism is actually the most logically prior part of BonJour’s argument for
rationalism. Without it, his case for rationalism lacks a crucial bit of justification and the response to objections becomes moot. Because this negative project against empiricism seems to be where the philosophical action is, that is where I will focus.

Against Moderate Empiricism: The Failure of Analyticity

According to moderate empiricists, all a priori justification reduces to analyticity. Therefore, the best attack on moderate empiricism consists of an attack on analyticity. This is precisely the approach that BonJour takes. He writes that moderate empiricists are concerned to defend two main theses: first, that all a priori justification reduces to analyticity and, second, that appealing to analyticity does not involve the rationalist’s allegedly mysterious grasp of reality (BonJour 1998, 29). The way to argue against the first thesis is to present counterexamples; e.g., that nothing can be red and green all over at the same time, that nothing can be in two different places at once, etc. However, BonJour writes that moderate empiricists tend to be dismissive of such counterexamples, either gesturing at some potential way they can be shown to be analytic or arguing that they involve some degree of a posteriori justification (1998, 30-1). Adapting to this dialectical situation, BonJour focuses on the second thesis.

In turn, BonJour considers a range of ways that “analyticity” is used by moderate empiricists and concludes that all conceptions of analyticity divide into two categories: reductive and obfuscat ing. A reductive conception “explains the a priori epistemic justification of some propositions by appeal to that of other propositions, but is thus automatically incapable of saying anything epistemologically helpful about the a priori justification of the latter” (BonJour 1998, 34). Frege’s conception of analyticity is said to
be a good example of a reductive conception of analyticity. For Frege, an analytic proposition is one that can be transformed into a logical truth by substituting synonyms for synonyms. But this conception presupposes that we already know the logical truths in some independent way. Therefore, the Fregean conception of analyticity, in principle, cannot account for logical truth (BonJour 1998, 32).

Meanwhile, the obfuscating conceptions conflate analyticity with necessity or rational insight, or else they presuppose rational insight in some way (BonJour 1998, 36). When analyticity is conflated with necessity, it remains to ask how we know necessary truths (BonJour 1998, 36). Meanwhile, the familiar conception of analyticity as truth in virtue of meaning amounts to saying that an analytic proposition is one that can be known merely by understanding it. But this, BonJour argues, is simply a restatement of the rationalist’s allegedly mysterious appeal to apparent rational insight (1998, 36-7). Last, an example of a conception of analyticity that tacitly presupposes rational insight is the appeal to implicit definition. On this view, analytic statements constitute implicit definitions for the claims contained in them. BonJour cites Butchvarov’s appeal to implicit definition according to which analytic propositions are those for which it is stipulated that any unknown terms are to be interpreted so that the proposition comes out true. For example, if it is stipulated that “40@8 = 5” is analytic, then it must be the case that “@” stands for division. However, BonJour argues that the only way to know that “@” stands for division is to already know a priori that 40/8=5. Generalizing, all appeals to implicit definition are said to presuppose instances of a priori justification that are
never accounted for (BonJour 1998, 49-51). Therefore, BonJour concludes that no conception of analyticity suffices to account for all a priori justification.

**Against Radical Empiricism: The Master Argument**

After rejecting moderate empiricism, BonJour takes aim at radical empiricism, wielding the master argument as his primary weapon. This argument raises a challenge to radical empiricists that threatens to prevent them from giving an account of any empirical justification that goes beyond what is immediately available in sense-perception. If this argument is correct, then radical empiricism devolves into a severe form of skepticism, leaving rationalism as the only option for a non-skeptical epistemology.

BonJour sets up the master argument by distinguishing between beliefs that are justified by experience in a fairly direct way (e.g., sensory beliefs about the present) and beliefs that are justified by experience in a less direct way (e.g., theoretical beliefs) (2005, 101). For simplicity, he makes the foundationalist supposition that the beliefs justified by experience in the more direct way are “justified by the content of experience alone, without the need for any reasoning or any further premises” (BonJour 2005, 101). That is, these beliefs are immediately justified (justified in a way that does not appeal to other justified beliefs) by sense-perception alone.\(^5\)\(^6\) Call these “Observational Beliefs.”

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\(^5\) The class of beliefs immediately justified by experience can be construed in one of two ways: either so narrowly as to include only beliefs about perceptions (e.g., “I am appeared to yellowly”) or so broadly as to include beliefs about external objects (e.g., “There is a table in front of me”). The argument does not depend on either construal. All that is important for BonJour is that many important beliefs are not members of this class, so that skepticism about all beliefs that are not members of this class would constitute a severe form of skepticism.

\(^6\) Meanwhile, if all perceptual beliefs (e.g., that I am appeared to yellowly) were implicitly inferential, then such beliefs would simply be Non-Observational Beliefs and would, therefore, have to be justified as such.
Meanwhile, all other empirical beliefs are mediately justified (justified by at least one other justified belief). Examples include beliefs about the remote past, about the future, about laws of nature, and about aspects of the present that the perceiver in question is not present to witness. Call these “Non-Observational Empirical Beliefs.”

Next, BonJour affirms that experience alone—without the a priori—can justify any Non-Observational Empirical Belief only if one has a justified belief in some conditional statement that has as its antecedent a conjunction of Observational Beliefs and as its consequent the Non-Observational Empirical Belief that one wants to infer (BonJour 2005, 102). I refer to beliefs in such conditionals as Bridge Beliefs. More precisely,

a Bridge Belief is any belief of the form: if x is true, then y is (at least likely to be) true, where x contains at least one Observational Belief and y contains at least one Non-Observational Empirical Belief.\(^7\)

The alleged problem for the radical empiricist is that this Bridge Belief itself requires justification, and, according to BonJour, experience alone cannot justify it. If he is right, then radical empiricists are unable to justify any Non-Observational Beliefs, e.g., beliefs about the remote past, the future, and about theoretical entities.\(^8\) BonJour’s claim rests on two main premises: First, experience alone cannot immediately justify any Bridge Belief. Second, any mediate justification for any Bridge Belief would need to be justified by a

\(^7\) Ordinarily, the antecedent of a these conditionals will include only Observational Beliefs that are relevant to the consequent. However, BonJour writes that, in principle, the antecedent could be expanded to include the set of all Observational Beliefs (even though the vast majority of these beliefs will be irrelevant to any one consequent) (2005, 102).

\(^8\) BonJour would also likely say that beliefs based on memory and testimony need to be justified at least partially a priori, though he is not explicit on this point. Beebe’s interprets BonJour in the same way (246).
belief in a further conditional belief, ultimately resulting in a circle via Agrippa’s trilemma (here, I ignore an infinite regress). From these considerations, BonJour concludes that any Bridge Belief can only be justified a priori. Therefore, experience alone cannot justify any belief (besides those that are immediately justified by experience). Thus, rejecting a priori justification leaves one without justification for any belief that is not immediately justified by experience, which constitutes a severe skepticism (BonJour 2005, 102).

This argument should be clarified in two ways. First, by “experience,” BonJour does not mean only present sense-perception; rather, he means “experience” in the looser sense of being any kind of justification that relies on sense-perception to some extent and does not at all rely on the a priori. To clarify, given BonJour’s foundationalist assumption, one can be justified in believing that one is appeared to yellowly merely by having a particular sense-perception. However, a scientist cannot be justified in choosing one theory over another on the basis of merely a single present sense-perception. Rather, theory choice involves not only the use of present sense-perceptions but also a large body of beliefs (including Bridge Beliefs) based on a great many past sense-perceptions that have been judged to be veridical. The point is this: when BonJour says “experience alone” in this context, he means something like “purely a posteriori means of justification,” which covers both the case of being appeared to yellowly and the case of the scientist. Second, for BonJour, having justification for believing p is the same thing as having a sufficiently good reason for believing p that is cognitively accessible to the
subject. (This is opposed to justification that the subject is completely unaware of, e.g.,
being justified due to one’s belief being the result of a reliable belief-forming process.)

With these two clarifications in mind, BonJour’s master argument can be stated more formally:

(1) Any Non-Observational Empirical Belief can be justified purely a posteriori only
if some Bridge Belief can be justified purely a posteriori.

(2) No Bridge Belief can be justified purely a posteriori.

(3) Therefore, any Non-Observational Empirical Belief can only be justified at least
partially a priori.

The inference is valid, except that I have omitted one trivial step between (2) and (3):
namely, that, if no Non-Observational Empirical Belief can be justified purely a
posteriori, then any Non-Observational Empirical Belief can only be justified at least
partially a priori.

Before considering how radical empiricists can respond, we should see what
reason there is to accept either premise of BonJour’s argument. The rationale for premise
(1) is that the Non-Observational Belief requires a Bridge Belief as part of its
justification. Why is that? By definition, Non-Observational Empirical Beliefs are not
justified immediately. Therefore, such beliefs must be justified mediately. Moreover,
there must be something linking the content of experience (expressed propositionally via
Observational Beliefs) to the Non-Observational Empirical Beliefs. After all, it is not
possible to perform an immediate inference from the former to the latter. This link must
apparently be a conditional statement. Therefore, any inference from Observational
Beliefs to any Non-Observational Empirical Belief requires believing some conditional, according to which some set of Observational Belief(s) implies that some Non-Observational Empirical Belief is probable. But that conditional belief is just a Bridge Belief. Therefore, any Non-Observational Empirical Belief is justified only if some Bridge Belief is justified.

But isn’t it true that inductive and abductive inferences simply do not require any further conditionals? For example, consider the inductive argument:

All observed flamingos on the island have been pink.

Therefore, all the flamingos on the island are pink.

By BonJour’s standards, this inductive argument needs to be supplemented with the conditional: If all observed flamingos on the island have been pink, then (it is at least likely that) all the flamingos on the island are pink. Here, BonJour seems to be appealing to Fumerton’s “Principle of Inferential Justification,” according to which “To be justified in believing $P$ on the basis of $E$ one must not only be [i] justified in believing $E$, but also [ii] justified in believing that $E$ makes probable $P$” (Fumerton and Hasan sec. “The Regress Arguments for Foundationalism”). Accordingly, any mediately justified proposition must be justified in a way fitting the following schema:

E is true

If E is true, then P is (at least likely to be) true

Therefore, P is (at least likely to be) true

By this standard, the flamingo argument does, indeed, need to be supplemented with a further conditional claim.
One of the consequences of the master argument is that this conditional claim must be justified at least partially a priori, because it presumes an inductive principle and BonJour holds that the problem of induction can only be solved by appealing to the a priori. However, the radical empiricist will need this conditional belief to be justified purely a posteriori. A purely a posteriori justification is, by definition, a kind of justification that is not at all based on the a priori no matter how far back one carries the line of reasoning. That is, if the belief that \( q \) (\( B_q \)) is justified purely a posteriori and \( B_q \) is justified by \( B_p \), then \( B_p \) must be justifiable purely a posteriori.

In sum, the argument for (1) seems to rest on the following two claims:

1a) Any Non-Observational Empirical Belief is justified only if some Bridge Belief is justified. (from Fumerton’s Principle of Inferential Justification)

1b) If \( B_q \) is justified purely a posteriori and \( B_q \) is justified by \( B_p \), then \( B_p \) is justifiable purely a posteriori.

The inference to (1) is valid and premise (1b) is trivially true, leaving only (1a) to dispute. However, I don’t wish to quarrel with the BonJourian/Fumertonian approach to mediate justification just yet, so I will allow this point to stand until later in the paper. Therefore, I will assume that the radical empiricist should look elsewhere for a weakness in the master argument.

Next, according to premise (2), no Bridge Belief can be justified purely a posteriori. BonJour’s defense of this premise goes as follows: “experience can offer no direct reason (and no indirect reason without assuming some other conditional of the
same sort) for thinking that such a conditional proposition [a Bridge Belief] is true”
(2005, 100). In short, BonJour is making two points in favor of premise (2):

(2a) No Bridge Belief can be immediately justified purely a posteriori.

(2b) No Bridge Belief can be mediate justified purely a posteriori.

The idea is that, if neither mediate nor immediate justification is available on purely a posteriori grounds, then radical empiricists will be unable to justify Bridge Beliefs and, thereby, any Non-Observational Empirical Beliefs (BonJour 2005, 102).

BonJour does not give an argument for the first claim, (2a); nevertheless, it is a good assumption in the context of the present debate. After all, the most obvious way for a belief to be immediately justified purely a posteriori is for it to be justified by the content of sense-perception alone. But even philosophers who hold that the content of sense-perception alone can immediately justify some beliefs do not suppose that this takes us very far. Beliefs about the future, the remote past, laws of nature, unobserved aspects of the present, and others still require mediate justification. There is perhaps another way in which a Bridge Beliefs might be immediately justified purely a posteriori: by the accumulation of past experiences preserved in memory. However, I will grant (for the moment) that memory beliefs are not sources of immediate justification, because I want to attack the master argument in a different way. Thus, for now, my radical empiricist will grant that Bridge Beliefs require further beliefs for their justification and so cannot be justified immediately by either sense-perception or memory. After all, such beliefs seemingly go beyond what a single sense-perception can represent. So, they must

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9 But see the discussion of FRE-2 in section “Non-Holistic Radical Empiricism” (below) for an investigation of what results if we accept that beliefs can be immediately justified on the basis of memory.
be judged in light of other beliefs. In sum, (2a) is in the common ground between rationalists and empiricists.

However, (2b) is more contentious and, therefore, requires defense. BonJour’s reason for (2b) is that “experience can offer...no indirect reason [for any Bridge Belief] without assuming some other conditional of the same sort” (2005, 100). That is, the Bridge Belief, if it cannot be immediately justified a posteriori, requires a further conditional belief as part of its justification (this follows from Fumerton’s Principle of Inferential Justification). BonJour’s objection, then, is probably intended to go like this: The new conditional belief will, by Fumerton’s principle, need to be justified by yet another conditional belief that cannot be justified immediately. Thus, the justification of any Bridge Belief requires further and further conditional beliefs. In line with Agrippa’s trilemma, because immediate justification is not an option, this line of justification must either go on infinitely or circle back on itself. Therefore, assuming that an infinite regress of beliefs is ruled out, the radical empiricist is, at best, left with a circle of conditional beliefs. Finally, BonJour apparently assumes that such circularity is vicious and so concludes, as per (2b), that Bridge Beliefs cannot be mediately justified purely a posteriori.

This reconstruction of BonJour’s master argument differs from previous reconstructions with respect to (2b). I claim that (2b) is justified by an Agrippa-style argument. However, Casullo would say that BonJour’s justification for (2b) depends on the Generality Argument. Casullo formulates this argument as follows:

[C1] Experience is limited to particular objects.
No experience can directly justify a belief whose content goes beyond that of the experience.

Principles of inference are general.

Therefore, experience cannot directly justify principles of inference. (Casullo 2000, 33)

Casullo emphasizes BonJour’s claim that experience is limited to the particular, whereas principles of inference are general. Given the text surrounding the master argument in BonJour’s 1998 statement of the master argument, Casullo’s reconstruction is not unreasonable. However, whatever textual support there is for Casullo’s reconstruction is absent in BonJour’s 2005 statement of the master argument. That is, BonJour’s talk about what’s particular and what’s general is clearly not used to support the master argument in 2005.

Meanwhile, in 2008, Beebe (who apparently missed BonJour’s 2005 publication) suggests that BonJour might defend the premise using the problem of induction thus:

Assume: It is false that no direct experience is able to justify an observation-transcendent inference.

If it is false that no direct experience is able to justify an observation-transcendent inference, then at least some observation-transcendent inferences are justifiable entirely a posteriori.

Observation-transcendent inferences are inductive inferences.

If it is false that no direct experience is able to justify an observation-transcendent inference, then at least some inductive inferences are justifiable entirely a posteriori.

If some inductive inferences are justifiable entirely a posteriori, then the problem of induction (i.e., the problem of showing how inductive inferences can be justified) can be given a purely a posteriori solution.

But no purely a posteriori solution to the problem of induction has ever been given, and most empiricists believe the problem of induction is unsolvable.

Therefore, it is true that no direct experience is able to justify an observation-transcendent inference. (Beebe 248-9)
Beebe justifies his reconstruction, saying that BonJour seems especially concerned with the problem of induction. I think the case for Casullo’s reconstruction, given the 1998 statement of the argument, is much stronger than Beebe’s interpretation. But, even granting that Beebe’s interpretation is plausible given the 1998 statement, there is no evidence for it at all in BonJour’s 2005 work. BonJour doesn’t even mention the problem of induction in his 2005 work. In sum, there is little or no evidence for either Casullo’s reconstruction or Beebe’s in the 2005 statement of the master argument.

Why do Casullo and Beebe come to reconstructions that are so different from mine? The answer is that the Agrippa-style argument for (2b) was not made explicit until 2005. BonJour has presented the master argument in many different publications; however, his Agrippa-style argument for the premise that experience alone could not justify Bridge Beliefs was not particularly explicit until recently. In his original statement of the master argument, BonJour says only that Bridge Beliefs “must seemingly rely on premises or principles of inference which are not justified by appeal to experience and hence must be justified at least partially a priori” (1992, 55). However, he does not give a reason for accepting this claim until 1994, when he writes that “the reason for thinking that this [Bridge Belief] is true can again only be a priori: if, as we may assume, all relevant observations are already included in the antecedent, they can offer no support to the claim that if that antecedent is true, then something further is true” (BonJour 1994, 297). Later, in 1998, he makes essentially the same claim: “if the [consequents of Bridge Beliefs] genuinely go beyond the content of direct experience, then it is impossible that those [Bridge Beliefs] could be entirely justified by appeal to that same experience”
(BonJour 1998, 4). But it is not until 2005 that we see the Agrippa-style argument for (2b).
A Sketch of Holistic Radical Empiricism

BonJour’s master argument relies heavily on Agrippa’s trilemma. Therefore, one obvious way for the radical empiricist to reply is to appeal to some of the answers that have been given in response to the problem raised by Agrippa. Before looking to any proposed solution, I will quickly summarize the argument. It goes as follows: Any belief is justified only if it is supported by some reason. Any reason must itself be supported by a reason. The line of reasoning can end in one of four ways: an unjustified belief, a belief that does not need to be supported, a circle of beliefs, or an infinite regress of beliefs. But none of these four options yields justified belief. Therefore, no belief is justified. There are three views that attempt to answer Agrippa. The first is foundationalism, according to which justification ends in basic beliefs, which do not need to be supported by further beliefs. The second is coherentism, according to which a finite set of beliefs can be justified via membership in a system of mutually supporting beliefs. The third is infinitism, according to which a belief is justified if it is a member of an infinite, non-repeating set of beliefs.

I will focus on the coherentist response to Agrippa’s trilemma. In particular, I will appeal to holism, a strategy that (perhaps ironically) BonJour used to favor. According to BonJour, an implicit assumption in Agrippa’s trilemma is that “inferential justification is essentially linear in character, that it involves a one-dimensional sequence of beliefs, ordered by a relation of logical priority, along which epistemic justification is passed from the earlier beliefs to the later beliefs in the sequence via connections of inference” (1985, 90 italics in original). If this assumption is accepted, then circularity must be
vicious. However, he writes that coherentists can reject this assumption in favor of a holistic approach to justification, according to which “beliefs are justified by being inferentially related to other beliefs in the overall context of coherent system” (BonJour 1985 90). In short, by rejecting the linear conception of justification, the coherentist appeals not to circularity, but to holism.

BonJour’s coherentist says that justification is circular only if a linear conception of justification is accepted. But what exactly is that? According to the linear conception of justification, Bp is justified when Bq transmits its logically prior justification to it. Likewise, Bq is justified when Br transmits its justification to Bq. On this view, beliefs are justified by other beliefs, where the justification from the premise-belief is passed along to the conclusion-belief. (2b) requires precisely this conception of justification: this premise assumes that any Non-Observational Empirical Belief becomes justified only if a belief in the conjunction of at least one Observational Belief and a Bridge Belief transmits its logically prior justification to the Non-Observational Empirical Belief in question. On this assumption, it will eventually follow that any Non-Observational Empirical Belief is justified only if it was already justified in the first place. This entails that it can never actually become justified. Therefore, if this assumption about the transmission of justification is granted, then the coherentist response is viciously circular.

Alternatively, on the holistic account of justification, we cannot talk about the justification of beliefs without talking about the justification of a system of beliefs. Beliefs are justified only in the derived sense of being members of a system that is comprised of adequate logical, inductive, and explanatory relations. As such, beliefs are
not justified by mere beliefs, as the linear view would have it; rather, beliefs are justified by a system of beliefs. The first main point is that a system of beliefs (rather than just a belief) is justified if and only if it is coherent. Next, a system of beliefs is coherent if and only if the beliefs it is composed of bear the right kinds of relations to each other.

According to BonJour, a system is coherent to the degree that its component beliefs do not admit of anomalies, do not divide into independent subsystems, are logically and probabilistically consistent, and bear explanatory and inferential relations to each other (1985, 95-9). Finally, a belief (rather than a system) is justified if and only if it is a member of such a coherent system.

Importantly, as Day writes, “There is no reason to think that we cannot have a holistic theory of coherence built on linear relations” (139). If so, holism need not reject the idea that beliefs can bear asymmetric relations to each other: e.g., p can logically entail q without q entailing p. Instead, the various relations among beliefs, though they do not themselves justify anything, can be seen as contributing to the unification of the system. That is, holism allows that beliefs can stand in linear relations to each other and, additionally, that these linear relations are relevant to justification; however, these relations are seen as relevant only inasmuch as they contribute to the unification of the system (Day 139-40). And, given adequate unification, the system will become justified, because “Justification is a property of systems of beliefs that supervenes on certain relations that hold between beliefs” (Day 139). From there, the beliefs making up the system become justified as a result of being members of it.
The radical empiricist can make use of BonJour’s holistic alternative to the linear conception of justification in responding to the master argument. By appealing to holism, the radical empiricist can deny \((2b)\). After all, the rationale for \((2b)\) is that, because the justification of Bridge Beliefs consists of a circle of conditionals (due to Agrippa’s trilemma), Bridge Beliefs are never actually justified. But the radical empiricist can deny this, saying that Agrippa’s trilemma illicitly assumes a linear conception of justification. The radical empiricist can, then, opt for a holistic approach to justification, which skirts the charge of Agrippian charge of circularity. But BonJour’s master argument relies on the Agrippian charge of circularity in claiming that no Bridge Belief can be mediately justified purely a posteriori. Therefore, by appealing to holism, the radical empiricist can escape the master argument’s conclusion.

One obvious way of developing the radical empiricist’s appeal to holism is to consider Coherentist Radical Empiricism. This view maintains the two defining theses of radical empiricism (the anti-a-priorist claim and the anti-skeptical claim) and adds that justification is the result of coherence. That is, the Coherentist Radical Empiricist accepts the following three tenets:

- The anti-a-priorist claim: No beliefs are justified even partially a priori.
- The anti-skeptical claim: Some beliefs are justified.
- The coherentist claim: Any belief is justified if and only if it is a member of a coherent belief system.\(^{10}\)

\(^{10}\) Admittedly, this characterization of coherentism only shows how a belief can be propositionally justified by coherentist radical empiricist standards. The general issue of how coherentism can account for doxastic justification cannot be addressed here. The most I could say is that any acceptable form of coherentism...
According to coherentism, any belief is justified only in the derived sense of being a member of a coherent (and, thereby, justified) system. Importantly, this provides a way of justifying Bridge Beliefs, which opens the door to Non-Observational Empirical Beliefs (such as historical and theoretical beliefs). But it is not just Bridge Beliefs that are justified via coherence on this view: beliefs, such as “There is a table in front of me” or “I am appeared to yellowly,” will be justified via coherence (as opposed to being justified by the content of sense-perception alone).

Experience’s connection to sensory beliefs, theoretical beliefs, and others seems unproblematic. However, it might be worried that, for Coherentist Radical Empiricists, all beliefs will have to share some obvious connection to experience. In particular, the worry is that this view will make logic, mathematics, and philosophy too empirical. However, radical empiricism does not require that every belief be justified by some scientific experiment in any direct way. For example, claims about set theory can be justified by coherence with their surrounding mathematical and logical systems. These mathematical and logical systems reside in a single larger system that includes other domains of knowledge and that eventually branches out into experience. In the context of this broader system, set theory is empirically informed via a long chain of inferential connections, eventually leading to the edge of the belief system that impinges on experience. Thus, set theory is seen as related to experience in, albeit indirectly; however,

must face the problem of doxastic justification and that the radical empiricist may be able to use the answer that future coherentists come up with (whatever that may be).
this does not require all beliefs about set theory to be tested in the way that we would test a belief about human behavior or photosynthesis.

Additionally, philosophical beliefs (e.g., those about epistemology and metaphysics) do not usually need to be tested scientifically. Often, we simply appeal to intuition. However, these intuitions are not a priori; they are empirically informed. The assumption here is that intuitions merely appear to be justified a priori because the kind of experiences needed for justification is so minimal that hardly any normal human could fail to have them. Thus, to answer some questions about epistemology, sometimes all that is needed is a moment for (empirically-informed) reflection along with a comfortable armchair, not a scientific experiment. Still, we do not put our trust in intuition entirely; rather, part of our justification for trusting intuition is that we think we are expert enough to have correct intuitions about the domain in question (Devitt 2011, 15). Moreover, these intuitions need to be incorporated into one’s system as a whole in order to be justified, so they must face the test of coherence just like any other belief. And, once the belief is tested for coherence, there is no guarantee the other empirical considerations won’t become relevant. Notice that coherence is the only positive reason for thinking any intuition is true; it is not just that intuitions are initially credible but defeasible to coherence.

Thus, the radical empiricist may be able to put coherentism to good use. But, if the radical empiricist is going to appeal to coherentism, then it is important to characterize coherence at least to some degree. BonJour characterizes coherence in terms of the following five principles:
A system of beliefs is coherent [to the degree that it is] logically consistent.\textsuperscript{11} A system of beliefs is coherent in proportion to its degree of probabilistic consistency.

The coherence of a system of beliefs is increased by the presence of inferential connections between its component beliefs and increased in proportion to the number and strength of such connections.

The coherence of a system of beliefs is diminished to the extent to which it is divided into subsystems of beliefs which are relatively unconnected teach other by inferential connections.

The coherence of a system of beliefs is decreased in proportion to the presence of unexplained anomalies in the believed content of the system. (1985, 95-99)

However, BonJour admits that even this account is just a sketch (1985, 101). Coherentist Radical Empiricists can agree with BonJour on these points.

In addition, Coherentist Radical Empiricists are likely to add the further criterion that the coherence of a system of beliefs is maintained and increased by appealing to theoretical virtues.\textsuperscript{12} What are these theoretical virtues? Quine says it best:

One is simplicity: empirical laws concerning seemingly dissimilar phenomena are integrated into a compact and unitary theory. Another is familiarity of principle: the already familiar laws...are made to serve where independent laws would otherwise have been needed. A third is scope: the resulting unitary theory implies a wider array of testable consequences than any likely accumulation of separate laws would have implied. A fourth is fecundity: successful further extensions of theory are expedited. The fifth goes without saying: such testable consequences of the theory as have been tested have turned out well, aside from such sparse exceptions as may in good conscience be chalked up to unexplained interferences. (1966, 247)

Here, Quine lists five virtues: simplicity, familiarity, scope, fecundity, and a fifth that goes unnamed. He is also well-known for a further theoretical virtue that doesn’t appear on this list: conservatism, according to which “The less rejection of prior beliefs required,

\textsuperscript{11} BonJour says that, due to the Preface Paradox and considerations due to relevance logic, it may be too strong to require logical consistency as a necessary condition on coherence (1985, 240).

\textsuperscript{12} The theoretical virtues, too, will be justified via membership in the system for the Coherentist Radical Empiricist. As for the question of what reason there is to think coherence itself is truth-conducive, see the end of this section.
the more plausible the hypothesis—other things being equal” (Quine and Ullian 1978, 43). Though this is not intended as an exhaustive list, these are some of the standard virtues that radical empiricists are likely to appeal to.

Importantly, the theoretical virtues are meant to provide good epistemic reasons for beliefs, not merely pragmatic reasons (e.g., framing one’s belief system in a certain way will be more convenient for data entry). Admittedly, the truth-conduciveness of each of the virtues is contestable: Why should simplicity be a mark of truth? Why should I give credence to claims that don’t require major belief revisions? However, I will pass over this point for now. I will say only that, if Coherentist Radical Empiricism is going make essential use of the theoretical virtues, then those virtues had better be truth-conducive. Of course, practical reasons are still important. We don’t just want to collect a list of truths; rather, we want to collect truths that are important in various ways, and what counts as important will often be relative to our interests. Still, though practical reasons are an important part of inquiry, they are no substitute for epistemic reasons.

One final point about the theoretical virtues: I think any Coherentist Radical Empiricist is likely to make use of theoretical virtues such as these; however, I do not think they are committed to doing so (it’s an option, but not a requirement). The radical empiricist is committed to the anti-a-priorist claim, the anti-skeptical claim, and the coherence claim. But if there were a way to maintain these three claims that didn’t make use of any theoretical virtues, I see no reason such a view wouldn’t count as Coherentist Radical Empiricist. Thus, we can think of the anti-a-priorist claim, the anti-skeptical claim, and the coherence claim as being in the hard core (to borrow from Lakatos) of
radical empiricism (Lakatos 1-7). Meanwhile, appeals to theoretical virtues are more like auxiliary hypotheses: they are reasonable but dispensable if the circumstances are dire enough. While it is admittedly unclear what Coherentist Radical Empiricism would look like without these auxiliary hypotheses, this unclarity is not a strong argument that such a view is untenable. That is, if it were somehow possible for radical empiricists to achieve coherence without the virtues, I see no reason why the virtues could not be rejected. Therefore, Coherentist Radical Empiricism is best characterized as containing the three main theses in its hard core and one main auxiliary hypothesis: namely,

- The virtue claim: Beliefs are justified by appeals to theoretical virtues.

Whether Coherentist Radical Empiricists should take on other auxiliary hypotheses in addition to the virtue claim is a matter I leave open.

So far, I have been sketching the possible benefits that the radical empiricist might gain by accepting coherentism. However, there is also a downside: appealing to coherentism saddles the radical empiricist with the well-known objections to coherentism. First, there is the truth connection objection: the question of whether coherence is truth-conducive; and, if it is, how we can justifiably believe that it’s truth-conducive. Second, there is the input objection: if coherence is only a function of relations among beliefs, then it seems to allow that a system of empirical beliefs could be justified without any input from the world. Third, there is the alternative systems objection: if two belief systems are equally coherent but inconsistent, then both would be equally justified and one would have no grounds for believing one over the other (BonJour 1985, 106-110). A further problem is that the radical empiricist must make sure
that whatever advances are made by coherentists do not make any appeal to the a priori. For example, radical empiricists will be in trouble if it turns out that the concept of coherence requires an essential a priori element or if it turns out that some of the objections to coherentism can only be answered a priori.

But remember that the discussion of coherentism was brought on by using holism to justify Bridge Beliefs and, thereby, deny (2b). Therefore, at this point, it is relevant to mention that coherentism is not the only view that allows for appeals to holism. There is also weak foundationalism to consider. According to weak foundationalism, the foundational beliefs “possess only a very low degree of epistemic justification on their own, a degree of justification insufficient by itself [to count as even prima facie justification]” (BonJour 1985, 28). In order to be fully justified, these foundations need to be supplemented by holistic considerations: they need to bear logical, inductive, and explanatory relations to other beliefs in the system. Thus, Weak Foundationalist Radical Empiricism consists of the following three tenets:

- The anti-a-priorist claim: No beliefs are justified even partially a priori.
- The anti-skeptical claim: Some beliefs are justified.
- The weak foundationalist claim: Any belief is justified if and only if either (a) it is justified mediately in a way that appeals, at least indirectly, to a foundational belief or (b) it is a foundational belief, in which case it has a meager degree of justification that comes from outside the belief system but this meager justification must be supplemented by appeal to other beliefs in order for the belief in question to be adequately justified.
Admittedly, this view bears a strong resemblance to Coherentist Radical Empiricism; nevertheless, there is an important difference.

With respect to Bridge Beliefs, theoretical beliefs, and mathematical beliefs, Weak Foundationalist Radical Empiricism differs only slightly from Coherentist Radical Empiricism. For the Coherentist Radical Empiricist, such beliefs are justified holistically and only holistically in a system where all other beliefs are also justified holistically and only holistically. Similarly, for the Weak Foundationalist Radical Empiricist, such beliefs are justified holistically. However, there are other beliefs in the system (the foundational beliefs) that are not justified purely by holism. I will assume that the foundational beliefs are all perceptual beliefs (whether they are about sense-experience itself or external objects) rather than memory beliefs or anything else. The foundations will be justified partially by holism but also partially by the meager degree of justification they receive from the content of sense-perception. Thus, one difference between two views is that the former has no foundations whereas the latter does.\(^\text{13}\)

But, precisely because the foundational beliefs provide a source of justification that comes from outside the belief system, the weak foundationalist approach avoids the aforementioned objections to coheren

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\(^{13}\) A further difference is that, though the coherentist and the weak foundationalist agree that coherence can generate justification, the weak foundationalist denies that coherence can generate justification \textit{from scratch} whereas the coherentism affirms this.
coherentism, is the answer to the radical empiricist’s woes. Rather, my point is that, in using holism to answer the master argument, the radical empiricist is not, thereby, committed to coherentism with all its problems.\textsuperscript{14}

\textsuperscript{14} The coherentist might object that the weak foundationalist’s alleged basic beliefs are only justified as a result of coherence, which collapses weak foundationalism into coherentism. This argument concerns the general relation between coherentism and weak foundationalism rather than any consideration specific to radical empiricism. I will only say that the holistic radical empiricist should side with whichever side happens to win the day.
A Sketch of Non-Holistic Radical Empiricism

So far, I have only explored how the radical empiricist might benefit from accepting holism. However, it may be that a non-holistic form of radical empiricism is also possible. Whereas holism doesn’t imply coherentism, the denial of holism does imply the denial of coherentism. Therefore, the discussion of non-holistic radical empiricism will be limited to foundationalism. The view to be discussed, then, is Foundationalist Radical Empiricism, whose three tenets are as follows:

- The anti-a-priorist claim: No beliefs are justified a priori.
- The anti-skeptical claim: Some beliefs are justified.
- The foundationalist claim: Any belief is justified if and only if either it is immediately justified or its justification is ultimately based, at least indirectly, on immediately justified beliefs.

Any form of Foundationalist Radical Empiricism must fit the above definition; nevertheless, there are still many possibilities. First, the foundational beliefs can be either infallible or fallible; and, if fallible, either strong or weak. According to strong foundationalism, the foundational beliefs are justified but defeasible. According to weak foundationalism, the foundational beliefs possess a meager degree initial credibility that must be supplemented by appeal to other beliefs. Second, there is latitude regarding which beliefs counts as foundational. Are beliefs about the external world foundational or

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15 Here, I ignore the possibility of Infinitist Radical Empiricism, the view that beliefs are justified if and only if they are members of a set of non-repeating, infinitely-ongoing lines of justification, where no member of the set is justified a priori; this formulation is inspired by Klein’s (8).
only beliefs about sense-experience? Are beliefs based on memory foundational? Might every belief that a person happens to have count as foundational, as in Harman’s general foundationalism (Harman 2001, 657-8)? Third, foundationalism is usually associated with a linear theory of justification, according to which beliefs are justified by having other justification transmitted to them by logically independent reasons. But can foundationalism allow for a holistic approach to justification in which there can be mutual support among beliefs? In short, could there be a raft atop the pyramid?

This list of questions points us to some interesting distinctions within foundationalism. First, foundationalist theories can differ in the epistemic strength of the foundational beliefs: they can be infallible, strong, or weak. Second, foundationalist theories can differ in the scope of the foundational beliefs: they can include all of one’s beliefs (as in Harman’s general foundationalism) or some subset of one’s beliefs, such as one’s perceptual beliefs or memory beliefs (call the latter option “selective foundationalism.”) Third, foundationalists theories can differ with regard to the theories of justification they allow: justification can either be purely linear or a combination of linearity and holism. In sum, the foundations can be varied with respect to strength, scope, and what role they play in justifying other beliefs. Importantly, these distinctions are not exhaustive; nevertheless, they are enough to generate many different possibilities for foundationalists. One could have an infallibilist, selective foundationalism that allows

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16 If memory beliefs are foundational, do they have the same degree of justification as the perceptual beliefs?
only for linear justification. Alternatively, one could have a weak, general foundationalism that allows for both linearity and holism. This is quite a spread.

We have already seen that a form of weak, selective, foundationalism can respond to the master argument by appealing to holism. But how might a non-holistic response go? In answering this question, I will, first, describe a form of Foundationalist Radical Empiricism that BonJour’s master argument succeeds in ruling out. According to this view,

(a) All justification is linear
(b) Only perceptual beliefs (whether they are about sense-experience or external objects) can be foundational.

It won’t matter whether the foundations are weak, strong, or infallible. Call this view “FRE-1.” The master argument is valid, so FRE-1 would have to attack the premises. I’ve already granted (1a), (1b), and (2a), so the deciding issue is (2b). However, FRE-1 is committed to (2b), because it accepts only linear justification: remember that (2b) rests on an Agrippa-style argument that assumes that any finite system consisting of only mediate justified beliefs is viciously circular. Therefore, FRE-1 will have to accept BonJour’s conclusion: either there is a priori justification or all Non-Observational Empirical Beliefs are unjustified. But the Foundationalist Radical Empiricist rejects a priori justification. Therefore, FRE-1 is left with precisely the skepticism that BonJour was talking about.

But suppose I know first-hand that all observed flamingos on the island have been pink. Couldn’t this justify me in holding the Non-Observational Empirical Belief that all
the flamingos on the island are pink? Moreover, wouldn’t this justification be purely a posteriori? First of all, if my foundational beliefs only include present perceptual beliefs, then the only foundational evidence I have for this belief will consist of only the present instance I see before me here and now. In this situation, my generalization is too hasty. What I need are justified memory beliefs. Hence, let us abandon FRE-1 in favor for FRE-2, which still accepts (i), but that

(b’) Only perceptual beliefs (whether they are about sense-experience or external objects) and memory beliefs can be foundational.

Now, suppose I have at my disposal a wealth of instances in which flamingoes on the island have been pink. Indeed, suppose I know that all observed flamingos on the island have been pink. But I wish to draw a further conclusion: namely, that all flamingos on the island are pink. According to BonJour, in order to draw this conclusion, I must justifiably believe a Bridge Belief, according to which: if all observed flamingos on the island have been pink, then probably all the flamingos on the island are pink. At this point, we must ask: what in my memory or present sense-experience could justify this Bridge Belief? The Bridge Belief is not immediately justified, but it is not clear how it can be traced back to the foundations allowed by FRE-2 (that is, to sense-experience and memories of past sense-experiences).

One response open to FRE-2 (which I have not yet considered) is to simply deny (1a), according to which Bridge Beliefs are necessary in order to justifiably believe any Non-Observational Empirical Beliefs. As I said, (1a) seems to be based on something like Fumerton’s Principle of Inferential Justification: “To be justified in believing $P$ on the
basis of $E$ one must not only be [i] justified in believing $E$, but also [ii] justified in believing that $E$ makes probable $P$” (Fumerton and Hasan sec. “The Regress Arguments for Foundationalism”). Therefore, in seeking to deny (1a), FRE-2 should attack Fumerton’s principle. Fortunately for FRE-2, this principle faces a serious problem: the principle seems to result in a Carrollian paradox in which every inference leads to an infinite regress (691-3). For example, suppose I draw the following inference:

\[
\begin{align*}
p & \\
\text{if } p \text{ then } q & \\
\text{Therefore, } q
\end{align*}
\]

According to Fumerton’s principle, in order to justifiably believe $q$, I must be, as per [i], justified in believing that $p$ and if $p$ then $q$, and, as per [ii], justified in believing that the claim “$p$ and if $p$ then $q$” makes $q$ at least probable. But [ii] seems too demanding. Seemingly, when I believe $p$ and if $p$ then $q$, I am simply justified in believing $q$ (provided that I see the inferential connection and draw the conclusion). If so, Fumerton’s demand that I form any further beliefs is too strong.

But the paradox continues. Fumerton’s principle has forced me to supplement my additional inference in the following way:

\[
\begin{align*}
p & \\
\text{if } p \text{ then } q & \\
\text{If } p \text{ and if } p \text{ then } q, \text{ then } q \text{ is at least probable} & \\
\text{Therefore, } q
\end{align*}
\]
But, once again, Fumerton’s principle requires that the inference be supplemented by a further premise: namely, that

\[ \text{If } p \text{, if } p \text{ then } q \text{, and if } p \text{ and if } p \text{ then } q \text{, then } q \text{ is at least probable}, \text{then } q \text{ is at least probable.} \]

But even if we add this premise, we will still need to add another and another.

Fumerton’s principle requires us to add further premises without end. FRE-2 can take this as evidence against the principle, saying that, because Fumerton’s principle leads to an infinite regress, we should just reject the principle.

By rejecting Fumerton’s principle, FRE-2 might be able to say that the claim “All observed flamingos on the island have been pink” is sufficient to justifiably believe the conclusion that all flamingos on the island are pink. BonJour required that a Bridge Belief was needed to draw such a conclusion. However, BonJour’s requirement for Bridge Beliefs was based on Fumerton’s problematic principle. Rejecting this principle, we can simply reason inductively and draw the conclusion directly from our evidence. If so, we can accept the following inductive argument as a good argument as it stands, in need of no supplementary premises (such as premises involving Bridge Beliefs):

All observed flamingos on the island have been pink.

Therefore, all the flamingos on the island are pink.

This seems to be a plausible result. Thus, a form of radical empiricist that accepts foundationalism, rejects Fumerton’s principle and with it (1b), and allows both memory and perceptual beliefs to be foundational seems to be a live option. Therefore, it seems that radical empiricism also has a possible answer to the master argument that does not
require holism. Moreover, it should be noted that I have considered only the smallest sample of the possible foundationalist options. Therefore, it may turn out that the radical empiricist has attractive foundationalist answers that I have not discussed.\footnote{But, again, this is not to see that foundationalism is without its problems.}
The Future of Radical Empiricism

So far, I have argued that BonJour’s master argument fails as a decisive objection to all forms of radical empiricism. However, an answer to BonJour is but a drop in the ocean: there are many deficiency arguments (as Casullo calls them) on the market designed to demonstrate the inadequacy of radical empiricism. Such arguments aim to show that it is impossible in principle for radical empiricism to account for knowledge of logic, mathematics, necessary truth, or philosophical claims generally (Casullo 2003, 90-93). It is beyond the scope of the paper to deal with other deficiency arguments here.

Nevertheless, it is, admittedly, incumbent upon radical empiricists to show how these deficiency arguments fail if radical empiricism is to remain a viable view. Indeed, it is incumbent upon any philosophical theory to show that the objections to it are not decisive. But remember that rationalists face objections too. In all likelihood, both rationalists and radical empiricists are subject to criticisms that they do not currently know how to answer. If so, it seems that both should be allowed to develop their theories until a clear winner emerges. In such a dialectical situation, both radical empiricism and rationalism could be considered a viable research programs even in the face of extremely serious objections that no one knows how to answer.

Moving past the deficiency arguments, it can simply be asked what a radical empiricist account of logic, mathematics, or necessity would look like. However, I think it is currently too much to expect the radical empiricist to give a positive account of such domains. After all, in many cases, we cannot explain the knowledge in question until we decide on the metaphysics involved in the domain under consideration. And these
metaphysical issues are still open (Devitt 2005, 107). Are numbers merely useful fictions? Are logical claims the sorts of things that can be true or false? What is the ontological status of epistemic things, such knowledge, justification, and coherence? Are moral values humanly constructed, or are they built into the nature of reality? Until we answer such questions, the most we could hope for is to give conditional answers: e.g., if metaphysical theory of numbers, T1, is true, then the empiricist must say so-and-so; if theory T2 is true, then the empiricist must say such-and-so-forth; and, if T3 is true, then empiricism cannot account for mathematical knowledge. If rationalists were better able to answer such questions, then that would count in favor of rationalism and against radical empiricism. However, this is not clearly the case. Therefore, even the radical empiricist’s current inability to give a positive account of how we have knowledge of the problematic domains may not be a serious criticism. If so, dealing with such domains should be seen as an anomaly to be dealt with.

In sum, I grant that there is much to do in defending radical empiricism. In particular, though I have no space to do so here, the deficiency arguments against radical empiricism must be discredited if radical empiricism is to be shown tenable (although perhaps some deficiency arguments may be allowed to go unanswered if rationalism faces equally serious objections). Meanwhile, a complete radical empiricist theory should account for the problematic domains of logic, mathematics, etc. However, the fact that radical empiricism has not shown how to deal with these domains is not a point in favor of rationalism, because rationalists also lack an account of such domains. The present discussion may make it seem that radical empiricism is in a precarious position. It has
many questions to answer and there are arguments that claim that it is impossible for radical empiricism to answer them. However, I regard these issues as unsolved problems, not unsolvable problems. The problems might prove to be unsolvable, but I have not yet seen this to be the case. Moreover, though radical empiricism is faced with many anomalies, we should not forget that rationalism also faces anomalies; indeed, all philosophical theories do. Both views have points in their favor and problems to deal with. The point of this paper is not to decide the issue in favor of radical empiricism: I aim only to show that BonJour’s master argument has not decided the issue in favor of rationalism.
Conclusion

In sum, BonJour’s master argument fails to rule out a radical empiricism in all its forms. First, his argument does not rule out a holistic approach to radical empiricism, involving coherentism or weak foundationalism. That the master argument does not rule out a coherentist approach to radical empiricism is a major limitation. After all, radical empiricists’ frequent talk of Quinean webs, and Neurathian boats makes them sound quite amenable to the holistic option. Second, the master argument requires a claim about inferential justification that the radical empiricist is free to reject. In particular, the master argument relies on Fumerton’s Principle of Inferential Justification. But this principle leads to an infinite regress, so it may be plausibly rejected. Therefore, BonJour’s argument ultimately fails to accomplish its main task of showing that radical empiricism leads inevitably to skepticism. Importantly, however, I have given no positive reason to accept radical empiricism. Therefore, the modest conclusion of this paper is that BonJour has failed to demonstrate that radical empiricism is an unworkable position.
References


