

BonJour's Abductivist Reply to Skepticism

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Abstract The abductivist reply to skepticism is the view that commonsense explanations of the patterns and regularities that appear in our sensory experiences should be rationally preferred to skeptical explanations of those same patterns and regularities on the basis of explanatory considerations. In this article I critically examine Laurence BonJour's rationalist version of the abductivist position. After explaining why BonJour's account is more defensible than other versions of the view, I argue that the notion of probability he relies upon is deeply problematic, that he incorporates an implausible double-standard concerning a priori and a posteriori justification, and that his view is vulnerable to skepticism about the a priori. I suggest that some of these problems are due to idiosyncratic commitments BonJour makes and that abductivists would be better off without them. I conclude with some suggestions about how to improve BonJour's abductivist response to skepticism.

Keywords Skepticism · Abductivism · Rationalism · Inference to the best explanation · BonJour

According to the abductivist reply to skepticism, the continuity, coherence and repeatable regularities found in our sensory experiences cry out for explanation. Abductivists claim the best explanation of these features of our experience is that they reflect objective regularities in the world. They maintain that the hypothesis that our sense experiences are caused by objects having roughly the characteristics we ordinarily take them to have constitutes a better explanation of our sensory experience than any skeptical hypothesis involving evil demons or brains in vats. The explanatory superiority of the commonsensical hypothesis, abductivists contend, renders belief in it epistemically justified and belief in the falsity of skeptical hypotheses justified as well.

If we let 'the real world hypothesis' (hereafter 'RWH') denote the hypothesis that our sensory experiences are caused by objects having roughly the characteristics we commonsensically take

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them to have and ‘ SK_i ’ any radical skeptical hypothesis about our sensory experience, the common core of abductivist replies to skepticism can be represented as follows:

- (1.1) O (a description of our sensory experiences).
- (1.2) Of the set of available and competing explanations (including RWH and SK_1, SK_2, \dots, SK_n) capable of explaining O , RWH is the best according to the correct criteria for choosing among potential explanations.
- (1.3) Therefore, in all probability, RWH is true.

Criteria for theory choice often invoke the following explanatory virtues: ontological simplicity, explanatory simplicity, explanatory breadth, explanatory depth, coherence with background knowledge, intrinsic plausibility, avoidance of ad hoc elements, fecundity, conservatism, and modesty.¹ According to these criteria, theories that possess more explanatory virtues or possess them to greater degrees are to be rationally preferred to theories that possess fewer of them or possess them to lesser degrees.

Over the course of his career BonJour (1985, 1998, 1999, 2003) has developed one of the most sophisticated and defensible versions of the abductivist reply to skepticism.² In this article I critically examine BonJour’s antiskeptical position and explain how his account avoids many of the difficulties other versions of abductivism face. I then raise three objections to his view and offer suggestions on how to avoid them. The first section presents the essential components of BonJour’s responses to inductive and external world skepticism and notes some of the advantages of his approach. The second and third sections examine the most serious difficulties facing BonJour’s view, including the fact that it appeals to a deeply problematic notion of probability, that it includes an implausible double-standard with respect to a priori and a posteriori justification, and that it is vulnerable to even the mildest form of skepticism about the a priori. The fourth section takes a brief look at some surprising confessions BonJour makes about how weak he takes his own position to be. In the final section I offer suggestions on how rationalist abductivists like BonJour can best reformulate and defend their view.

Inductive and External World Skepticism

BonJour offers abductivist responses to both inductive and external world skepticism. In his recent solution to the problem of induction, BonJour (1998, ch. 7) argues that in the appropriate circumstances we can be a priori justified in believing the following:

- (2.1) The fact that m/n As have been observed to be Bs constitutes good reason to believe that m/n As are Bs .

The relevant circumstances include those where we are a posteriori justified in believing that the following are true:

- (2.2) The observed proportion of As that are Bs has converged to m/n and remained relatively stable over time.
- (2.3) Observational conditions have been varied to a substantial degree.

¹Cf. Beebe (forthcoming c) for detailed discussion of these explanatory criteria and their justification.

²Other proponents of abductivism include Locke (1690/1975, bk. iv, ch. xi), Russell (1912; 1927; 1948), Broad (1925), Ayer (1956), Slote (1970), Harman (1973), Mackie (1976), Jackson (1977), Cornman (1980), Goldman (1988), Lycan (1988), Moser (1989), and Vogel (1990; 2005). Cf. Beebe (forthcoming c) for a thorough discussion of the entire family of abductivist positions.

In these circumstances BonJour claims that our a priori justification for believing (2.1) will derive from our ability to apprehend the following necessary truths a priori:

- (2.4) It is highly likely there is some explanation other than mere coincidence or chance for the convergence and constancy of the observed proportion.
- (2.5) The best explanation of the convergence and constancy of the observed proportion is that it accurately reflects (within a reasonable degree of approximation) a corresponding objective regularity in the world.

According to BonJour, because our justification for believing (2.1), (2.4) and (2.5) is entirely a priori and our justification for believing (2.2) and (2.3) is a posteriori, our overall justification for believing that m/n *As* are *Bs* should be considered a posteriori as well.

BonJour's (1999, 236–246; 2003, 83–96) recent abductivist response to external world skepticism appeals to a priori probabilities and explanatory considerations in a similar fashion. BonJour (2003, 88) claims we can be justified in believing that the following features of our sensory experiences are “systematically caused by a relatively definite world of mostly solid objects arranged in three-dimensional space”:

- (3.1) The continuity that exists between the varied sensory experiences we can have of an object through one sensory modality.
- (3.2) The coordination between the contents of experiences from different sensory modalities.
- (3.3) The regular, repeatable and unified sensory experiences we have of different objects as we move through space.
- (3.4) That features of our sensory experiences are correlated in just the way we would expect them to be if some of the things we experience were the causes of other things we experience.
- (3.5) That families of sensory experiences and their relations to each other seem to change over time in ways that intuitively reflect changes in both the experienced objects and the movements of observers.

Treating a description of these features of experience as one premise and the apparent fact that these features seem to cry out for explanation as another, BonJour (2003, 92) claims we can abductively infer that our sensory experiences are caused by a realm of three-dimensional objects having roughly the shapes, spatial relations and causal properties that are reflected in our sensory experiences – i.e., we can infer that RWH is true. BonJour (2003, 94–95) maintains that the explanatory superiority of RWH renders it more likely to be true than any skeptical hypothesis involving “Berkeley’s God, Descartes’s demon, or the computer that feeds electrical impulses to a brain-in-a-vat.”

BonJour’s rationalist abductivism enjoys a number of advantages over other versions of the view that have been proposed. Some abductivists (e.g., Broad 1925, 196–198) beg the question against the skeptic by appealing to facts they allegedly know about the external world as they provide descriptions of the features of our sensory experiences RWH is supposed to explain.³ BonJour (1999, 2003) avoids this difficulty by showing how the patterns and regularities described in (3.1) through (3.5) can be described in purely

³Broad, for example, claims that some of the data to be explained by RWH include the fact that each time he looks in a certain direction he undergoes sensory experiences of roughly the same sort and that when he moves from one location to another, his sensory experiences undergo a continuous sort of change. In a discussion of Broad, Alston (1999, 227) argues, “More crucially, the patterns in experience cited as the *explananda* involve suppositions about the physical environment we could only know about through perception, thus introducing a circularity in the argument.”

phenomenological or sense-datum terms that do not assume the existence of the external world. Other abductivists (e.g., Locke 1690/1975, bk. iv, ch. xi, §4; Harman 1973, 22) appear to beg the question against the skeptic by appealing to putative knowledge of the external world as they attempt to provide reason for thinking RWH is more likely to be true than its skeptical competitors.⁴ By appealing to a priori considerations that are independent of what the actual world is like, BonJour is able to provide a bridge between our sensory experiences and the world that does not rely upon illicit assumptions about the external world. (Cf. “[Modal Frequentism](#)” section for further discussion of this point.)

Other abductivists (e.g., Slote 1970, 66–67; Cornman 1980, 10–15) offer merely pragmatic or instrumental reasons for believing that RWH is true or that inference to the best explanation (hereafter ‘IBE’) is reliable when epistemic reasons are what is required. Because epistemological skepticism is the thesis that we lack epistemically justified beliefs about the external world, any response to this thesis that tries to show that our external world beliefs are merely pragmatically, instrumentally or otherwise nonepistemically justified will fail to address the central skeptical challenge. BonJour (1985, 180) takes a strong stance against those who offer nonepistemic reasons for disbelieving skepticism:

In effect, positions which rely on responses to skepticism of this sort are themselves merely sophisticated versions of skepticism; they offer a non-epistemic reason for preferring our ordinary beliefs to the skeptical alternatives, while admitting all the while that the skeptical alternative is no less likely to be true.

Even if BonJour’s abductivist reply is not otherwise successful, it at least has the virtue of trying to muster distinctively epistemic reasons in support of RWH.

Some abductivists (e.g., Goldman 1988, 12, 296) offer blatantly circular justifications of their use of IBE, while others (e.g., Russell 1927, 132–133; Lycan 1988, 135, 166) simply deny there is any good reason to believe IBE-based beliefs are epistemically justified. However, any abductivist who maintains that RWH is epistemically justified because it satisfies certain explanatory criteria we are not epistemically justified in believing to be correct or truth-conducive fails to squarely address the skeptical challenge. BonJour defends IBE by maintaining that we can apprehend a priori certain necessary truths about both the likelihood and the explanatory goodness of competing explanations.

Thus, BonJour avoids the foregoing difficulties by adhering to the following constraints concerning acceptable justifications of RWH and IBE:

- (4.1) The justification must be epistemic.
- (4.2) The justification cannot be circular.
- (4.3) The justification cannot be transmitted from any justified belief about the external world, since the justification of this entire class of beliefs is called into question by the radical skeptic.
- (4.4) The justification must be capable of underwriting inferences from beliefs about our sensory experiences to beliefs about the external world.

⁴Locke, for example, appears to beg the question when he writes, “‘Tis plain, those Perceptions are produced in us by exterior Causes affecting our Senses: Because *those that want the Organs of any Sense, never can have the Ideas belonging to that Sense* produced in their Minds.” Bennett (1971, 66) complains that Locke’s argument “has a premiss about sense-organs, including those of other people” but that “sense-organs are among the ‘things without us’ whose reality is in question.”

BonJour maintains that only a rationalist form of foundationalism can satisfy these constraints and account for the justification of RWH and IBE. In a discussion of Locke, Bennett (1971, 69) argues that the “essential error in Locke’s theory of reality” is “his setting the entire range of facts about sensory states over against the entire range of facts about the objective realm and then looking for empirical links between them.” Looking for empirical links, Bennett maintains, will always result in begging the question against the skeptic. If the abductivist needs a link between experience and reality and the link cannot be empirical, it seems that the link (if there is one) must be *a priori*. Unlike most abductivists who reject the *a priori* (e.g., Mackie 1976; Goldman 1988; Lycan 1988), BonJour embraces it – apparently to his advantage.⁵

Another strength of BonJour’s rationalist version of abductivism is that it provides at least some hope of answering van Fraassen’s (1989) powerful recent challenges to IBE. One of van Fraassen’s (1989, 143) best known arguments against IBE is the Argument from the Bad Lot:

We can watch no contest of the theories we have so painfully struggled to formulate, with those no one has proposed. So our selection may well be the best of a bad lot. To believe is *at least* to consider more likely to be true, than not. So to believe the best explanation requires more than an evaluation of the given hypotheses. It requires a step beyond the comparative judgment that this hypothesis is better than its actual rivals.... For me to take it that the best of set *X* will be more likely to be true than not, requires a prior belief that the truth is already more likely to be found in *X*, than not.

Since there seems to be no good reason to believe “we are by nature predisposed to hit on the right range of hypotheses,” van Fraassen (1989, 143) concludes we are not justified in believing the required extra premise. A common response to van Fraassen’s argument (e.g., Psillos 1996, 38ff) is to argue that scientists only bother to formulate explanatory theories they have good reason to think are true and that they rely upon background knowledge to narrow the range of hypotheses considered as potential explanations of the data. Abductivists, however, cannot appeal to background knowledge of the external world in order to support either RWH or IBE because whether we have any knowledge of the external world is precisely what is at issue with the radical skeptic. Abductivists who eschew *a priori* reasoning altogether seem to be incapable of offering any non-question-begging response to

⁵In spite of the fact that pursuing a rationalist line seems to allow abductivists a fairly obviously way to avoid begging the question against the skeptic, many abductivists have been reluctant to claim their beliefs about the virtues of various explanatory hypotheses are justified *a priori*. Mackie (1976, 62), for instance, recognizes that what is needed to bridge the “logical gap between ideas and reality, or between how we see things and how they are” is an explanatory hypothesis such as RWH, and he takes for granted that any such explanation will invoke nomologically necessary laws about what causes what. He also recognizes that any attempt to provide an empirical justification for belief in these causal laws will beg the question against the skeptic. However, Mackie (1976, 62) denies that causal laws can be justified *a priori*:

Causal laws are not merely not analytic, logical truths, they are not known or knowable *a priori* in any other way either. There is no method by which, from the mere inspection of an effect on its own, we can say from what sort of cause it must have arisen. So to justify an inference from an effect to a cause, we need a synthetic, *a posteriori*, causal law.

Thus, Mackie’s background beliefs create a dilemma for him concerning the justification of these laws: if they cannot be justified *a priori*, how can they be justified *a posteriori* without begging the question against the skeptic?

van Fraassen's challenge. However, if – as rationalist abductivists contend – a priori insight enables us to see not only that a given hypothesis is the best of a given lot but also that it is a priori more likely to be true than not, rational insight may provide us with some reason to believe an hypothesis is not a member of an entirely bad lot.

Another of van Fraassen's (1989, 146) arguments against IBE is The Argument from Indifference:

I believe, and so do you, that there are many theories, perhaps never yet formulated but in accordance with all evidence so far, which explain at least as well as the best we have now. Since these theories can disagree in so many ways about statements that go beyond our evidence to date, it is clear that most of them by far must be false. I know nothing about our best explanation, relevant to its truth-value, except that it belongs to this class. So I must treat it as a random member of this class, most of which is false. Hence it must seem very improbable to me that it is true.

It is common for proponents of IBE to object that we do know more about our best available explanations than that they belong to classes of mostly false explanations. Again, however, such objections cannot appeal to *empirical* background knowledge without begging the question against the skeptic. The only available alternative seems to be an appeal to some form of a priori insight. If an hypothesis' intrinsic probability can be discerned a priori, it may be possible for the abductivist to offer a non-question-begging defense of the claim that theory choices do not occur in a state of epistemic indifference.

Modal Frequentism

Although BonJour believes RWH is more likely to be true than each of its skeptical competitors, he acknowledges that the following claims are true as well:

- (5.1) It is both metaphysically and epistemically possible that RWH is false.
- (5.2) It is both metaphysically and epistemically possible that we inhabit a world where simpler (deeper, broader, less ad hoc, etc.) explanations are true less often than more complex (shallower, narrower, more ad hoc, etc.) explanations.

If we inhabit the sort of world described in (5.2), the truth frequency of "best" explanations will be lower than the truth frequency of "worse" explanations. BonJour, however, insists that even if we inhabited a world where IBE is highly unreliable, RWH would still be more probable than its skeptical competitors and we would still be justified in believing it was true. BonJour, therefore, seems to require a conception of probability on which probabilities remain the same across possible worlds. And indeed BonJour (1985, 1998, 2003) has proposed just such a conception of probability.

According to the view I call 'modal frequentism,' probabilities are measures of limiting frequencies across sets of possible worlds. BonJour's (1998, 208–209) most explicit endorsement of modal frequentism is found in his solution to the problem of induction:

Thus the relevant claim would be that it is true in all possible worlds that there is likely to be a non-chance explanation for the truth of a standard inductive premise. This would not mean, of course, that there could not be cases in a particular possible world in which such a non-chance explanation was in fact not to be found. It does not even mean that in a particular possible world, which might of course be the actual

world, such cases in which there is no non-chance explanation for the truth of a standard inductive premise could not be substantially more numerous than those for which an explanation exists. But it would mean that such possible worlds involve the repeated recurrence of an unlikely situation – and hence that they are quite rare and unlikely within the total class of possible worlds. And this in turn would make the claim that the actual world is not such a world itself highly likely to be true.

Thus, according to BonJour's version of modal frequentism, the following claims are necessarily true, if true at all:

- (6.1) The probability of RWH, given the facts described in (3.1) through (3.5), is high.
- (6.2) The probability of SK_i , given the facts described in (3.1) through (3.5), is low.

' $P(\text{RWH} | (3.1-3.5))$ ' is a measure of the frequency of RWH-worlds (i.e., worlds where RWH is true), within the class of (3.1–3.5)-worlds (i.e., worlds where (3.1–3.5) are true). The value of this limiting frequency will remain the same, regardless of whether we inhabit an RWH-world, a not-RWH-world, a world where IBE is highly reliable, or a world where IBE is highly unreliable. It is the stability of these modal frequencies across possible worlds that makes them candidates for being knowable a priori.

In a footnote to his remarks about the relative rarity of counter-inductive worlds, BonJour (1998, 209, n. 24) writes:

This way of putting the matter assumes in effect that it is possible to make sense of the relative size of classes of possible worlds, even though both those classes and the total set of possible worlds are presumably infinite. But I have no space to go into the issues surrounding this assumption and must be content here with saying that its intuitive credentials in other cases (e.g., the claim that there are twice as many positive integers as even integers) seem to me strong enough to make it reasonable to construe the difficulties as problems to be solved and not as insuperable objections.

These comments highlight the most serious challenge facing any such approach. Limiting frequencies within infinite classes can only be defined relative to sequences (i.e., ordered sets) of worlds. When the reference and attribute classes are finite, the order (or lack thereof) is irrelevant because relative frequencies within finite sets can be determined by simple ratios of the cardinalities of the sets. When dealing with infinite sets, however, order becomes crucial. For example, although it is plausible to think that the relative frequency of the positive even integers within the set of all positive integers is $1/2$, it is only when the positive integers are taken in a particular order that this is the case. If, for example, the integers are ordered so that even numbers appear in every fourth place (i.e., 1, 3, 5, 2, 7, 9, 11, 4, 13, 15, 17, 6,...), their relative frequency converges to $1/4$ rather than $1/2$. In fact, by suitably reordering the integers, we can make the limiting frequency of evens converge to any value between 0 and 1. The "intuitive credentials" of thinking the frequency of evens is $1/2$ seems to stem from the fact that there is a conventional or privileged ordering of integers, relative to which this is true.⁶

The critical question for BonJour is which sequences of worlds are the basis for his claims about the limiting frequencies of RWH-worlds within various infinite classes of worlds. The crucial difficulty is that there is no privileged or natural ordering of worlds to

⁶Cf. Beebe (forthcoming b) for suggestions on how someone might try to make sense of the intuitive idea that there are more positive integers than positive even integers.

which he can appeal. Yet if his claims about limiting frequencies are not relativized to any particular sequence(s) of worlds, the frequencies in question will be undefined and hence his claims about them cannot be true. BonJour does not take any steps toward resolving this difficulty, but without a workable interpretation of probability a rationalist abductivist like BonJour cannot provide any account of how (6.1) and (6.2) can be apprehended *a priori*.⁷

Fumerton (1995, ch. 7) has argued that epistemic internalists who want to construct a successful response to skepticism must take on board a Keynesian conception of probability.⁸ According to Fumerton (1995, 198), the probabilistic connections that obtain between the propositions that constitute our evidence and the propositions inferred from that evidence should be understood as holding necessarily because of the nonrelational properties of the propositions in question.⁹ Like BonJour, Fumerton claims that the relevant probability relations can be known *a priori*, but unlike BonJour he denies that these relations can be reduced to or supervene upon more fundamental facts about frequencies.

Throughout most of the last century, however, the Keynesian interpretation of probability has been viewed with almost overwhelming suspicion. Many probability theorists have expressed sympathy with Ramsey's (1926, 161) well-known remarks on the matter:

But let us now return to a more fundamental criticism of Mr. Keynes' views, which is the obvious one that there really do not seem to be any such things as the probability relations he describes. He supposes that, at any rate in certain cases, they can be perceived; but speaking for myself I feel confident that this is not true. I do not perceive them, and if I am to be persuaded that they exist it must be by argument; moreover I shrewdly suspect that others do not perceive them either, because they are able to come to so very little agreement as to which of them relates any two given propositions.

Although Fumerton (1995, 218) maintains that the Keynesian notion of probability offers the epistemic internalist's last hope for avoiding skepticism, he ultimately concludes:

I cannot quite bring myself to believe that I am phenomenologically acquainted with this internal relation of making probable bridging the problematic gaps.... And in the end, I strongly suspect that the probability relation that philosophers *do seek* in order to avoid skepticism concerning inferentially justified beliefs is an illusion.

In spite of Fumerton's pessimism and because of the serious problems that afflict modal frequentism, it seems that BonJour's best bet is to follow Fumerton's initial advice and try to make some version of the Keynesian theory more palatable.¹⁰ If BonJour could succeed

⁷Cf. Beebe (forthcoming b) and Wrenn (2006) for further discussion of the problems and prospects of modal frequentism.

⁸I am grateful to an anonymous reviewer from *Philosophia* for encouraging me to address the possibility that BonJour and other abductivists could adopt a Keynesian interpretation of probability.

⁹According to modal frequentism, probabilistic relations between propositions are based upon relations those propositions have to various worlds and the relations that obtain between sets of those worlds. Thus, the relations that obtain between these propositions will not be 'internal' i.e., they will not hold necessarily because of the nonrelational properties of the propositions.

¹⁰One difficulty BonJour must overcome is that – at least according to Fumerton (1995, 201) – a Keynesian conception of probability “loses that necessary connection between epistemic rationality and truth.” This alleged fact clashes sharply with BonJour's deep-seated beliefs about the relation between justification and truth. Cf. “Metatheoretic Constraints” section for further discussion of BonJour's views on this matter.

in explaining how we can have a priori justified beliefs in necessary truths about probabilistic relations between propositions, he might succeed in constructing a convincing reply to radical skepticism. Developing and defending such an interpretation of probability, however, will be no small task.

Metatheoretic Constraints

Further difficulties beset BonJour's abductivist position, however, when we consider the metatheoretic constraints he places on accounts of epistemic justification. For instance, BonJour endorses each of the following metatheoretic claims:

- (7.1) In order for us to have empirically justified beliefs about the external world, we must be able to show that adherence to the epistemic standards governing our practices of forming beliefs about the external world are likely to lead us to the truth; such a "metajustification" must be strong enough to underwrite a successful argument against the truth of both inductive and external world skepticism.
- (7.2) In order for us to have a priori justified beliefs, we do not need to be able to show that adherence to the epistemic standards governing our practices of forming beliefs about putatively necessary truths are likely to lead us to the truth; no such "metajustification" of a priori insight can or should be given, and no successful argument against the truth of a priori skepticism is ultimately possible.

The problematic tension between (7.1) and (7.2) is heightened by the fact (1) that BonJour places enormous emphasis on the importance of satisfying the metajustification requirement for theories of empirical justification and (2) that BonJour offers purely a priori responses to both inductive and external world skepticism.

The foundation of BonJour's epistemology is a firm belief in a strong, internal connection between epistemic justification and truth. He claims:

[A]ny degree of epistemic justification, however small, must increase to a commensurate degree the chances that the belief in question is true (assuming that these are not already maximal), for otherwise it cannot qualify as epistemic justification at all. (BonJour 1985, 8)

BonJour's (1985, 9) conception of epistemic justification places a significant burden on anyone offering an account of empirical justification or knowledge:

[I]t is incumbent on the proponent of such an epistemological theory to provide an argument or rationale of some sort to *show* that his proposed standards of justification are indeed truth-conducive, that accepting beliefs in accordance with them would indeed be likely in the long run to lead to truth (and more likely than would be the case for any conspicuously available alternative account).¹¹

¹¹BonJour (1985, 157) writes:

The basis for this [metajustification] requirement is simply but also extremely compelling: truth is the essential, defining goal of cognitive inquiry, and thus any sort of justification which was not in this way truth-conducive would be simply irrelevant from the standpoint of cognition, whatever its other virtues might be. It would not be *epistemic* justification, and there would be no reason for a person whose goal is truth to accept beliefs according to its dictates.

In BonJour's (1985, 9) eyes, failure to provide such a metajustification has severe epistemological consequences:

Providing such an argument is ultimately the only satisfactory way to defend such a theory against its rivals and against the skeptic; any other sort of defense would be simply irrelevant to the cognitive role that such standards of justification are supposed to play. To disclaim the need for such an argument would be, in effect, to abandon tacitly the claim that the standards in question were indeed standards of *epistemic* justification rather than of some other kind.

Because BonJour interprets skepticism as the view that there is no reason to think any of our beliefs (perhaps in some restricted domain) are likely to be true, he claims that any epistemological theory that fails to show that its proposed epistemic standards are truth-conducive is in fact a disguised form of skepticism.

For example, because Quinean empiricism seems unable to provide a metajustification for the basic explanatory virtues of empirical theories – e.g., simplicity, scope, fecundity, explanatory adequacy, and conservatism – BonJour (1998, 91) concludes that “the Quinean epistemological view amounts to complete skepticism regarding at least non-observational empirical knowledge.”¹² BonJour (1998, 85–86) also maintains that naturalized epistemology – understood as the view that epistemology should simply be a chapter of psychology – amounts to skepticism:

And hence, if Quine is right that naturalized epistemology is the best we can do, the result is a thoroughgoing version of skepticism: we have a set of beliefs, that is, we accept a set of sentences, that describe the external world; part of that very set of beliefs describes how the beliefs are *caused* by observation, that is, by sensory stimulation; but we have no cogent reason of any sort for thinking that *any* of these beliefs are true. And if knowledge necessarily involves the possession of such reasons, as most philosophers would still insist, then we also have no knowledge.¹³

BonJour thinks it is not sufficient for there to be a reason why forming beliefs in a particular way is likely to lead to the truth. We must possess that reason or it must at least be in principle available to us:

If a given putative knower is himself to be epistemically responsible in accepting beliefs in virtue of their meeting the standards of a given epistemological account, then it seems to follow that an appropriate metajustification of those standards must, in principle at least, be available *to him*. For how can the fact that a belief meets those standards give that believer a reason for thinking that it is likely to be true (and thus an

¹²BonJour (1998, 91) supports this claim with the following line of thought:

What reason can be offered for thinking that a system of beliefs which is simpler, more conservative, explanatorily more adequate, etc., is thereby more likely to be true, that following such standards is at least somewhat conducive to finding the truth? Someone who had not rejected the possibility of a priori justification might attempt to offer an a priori argument for the truth-conduciveness of at least some of these standards.... But Quine has in any case ruled out such an appeal. Moreover, it is clear at once that any attempt at an empirical argument for this sort of conclusion would inevitably be question-begging, since it would have to appeal to at least some of these very standards.

¹³BonJour (2002, 266) also claims that “naturalized epistemology seems at bottom to concede everything that the skeptic wants, while avoiding this appearance only by changing the subject.”

epistemically appropriate reason for accepting it), unless he himself knows that beliefs satisfying those standards are likely to be true? (BonJour 1985, 10)

Because information about the cognitive processes that cause our beliefs is not readily unavailable to ordinary subjects, BonJour claims that naturalized epistemology is actually a disguised version of skepticism. He offers similar remarks about epistemic externalism:

[W]hatever account externalists may offer for concepts like knowledge or justification, there is still a plain and undeniable sense in which if externalism is the final story, we have no reason to think that any of our beliefs are true; and this result obviously amounts by itself to a very strong and intuitively implausible version of skepticism.¹⁴ (BonJour 1998, 96)

We can see, then, that BonJour takes satisfaction of the metajustification requirement to be an absolutely essential component of offering a successful theory of empirical knowledge or justification. Because BonJour places more emphasis on such a requirement than any other recent epistemologist, his rejection of a metajustification requirement on accounts of a priori justification is more than a little puzzling.

Nonetheless, BonJour strongly denies that any sort of metajustification requirement applies to theories of a priori justification. BonJour (1998, 144–145) calls the demand for a metajustification of rational insight “implausibly strong” and “misconceived.” In response to the charge that theories of the a priori should be subject to the same general requirements as theories of the a posteriori, BonJour (1998, 145) insists:

[T]his is obviously the wrong picture and amounts simply and obviously to a refusal to take rational insight seriously as a basis for justification: a refusal for which the present objection can offer no further rationale, and which is thus question-begging.

Yet BonJour does not interpret the demand for a metajustification of theories of empirical justification to be a question-begging refusal to take empirical justification seriously. Rather, he takes such a demand to be an essential component of the construction of an adequate theory of empirical justification. At one point BonJour (1985, 15) remarked, “if skeptics did not exist, one might reasonably say, the serious epistemologist would have to invent them.” Apparently, there is not a need to invent skeptics about a priori justification, should they not exist.

If claiming that a metajustification does not need to be given for one’s theory of empirical justification amounts to abandoning the claim to be providing a theory of *epistemic* justification rather than of some other kind, BonJour’s disclamation should rob his account of the a priori of any claim to be a theory of a priori epistemic justification as well. Remember that BonJour believes that theories of empirical justification which fail to provide metajustifications are actually “disguised versions of skepticism.” BonJour levels this charge against naturalized epistemology, epistemic externalism, Quinean empiricism, contextualism, various forms of ordinary language philosophy, pragmatic vindications of

¹⁴BonJour (1998, 96) also suggests that “externalism, like naturalized epistemology, seems to simply change the subject without really speaking to the issues that an adequate epistemology must address.” In earlier work, BonJour (1985, 58) wrote that externalist theories invoke the following:

external justifying conditions which need not be at all within the ken of the knowing subject. But the price of such a view is the abandonment of any claim that this subject *himself* has any reason for accepting the basic belief and thus seemingly also of the claim that *he* is justified in holding either that belief or others which depend on it. In this way, the externalist view collapses into skepticism.

induction, all forms of radical empiricism, and even semantic externalism.¹⁵ And yet BonJour denies that his own view of the a priori, which repudiates any metajustification requirement, is a version of skepticism. How can this be?¹⁶ The double-standard BonJour adopts with respect to a priori and a posteriori justification is frankly unconvincing and counts as a significant mark against his position.

BonJour's predicament is made worse by the fact that he thinks no response to skepticism about the a priori can be given. He writes:

There are certain versions of skepticism which are so deep and thoroughgoing that it is impossible in principle to refute them. Of these, skepticism about the a priori is perhaps the deepest and most radical of all, and it is obviously impervious to any direct assault. (BonJour 1985, 194)

BonJour's admission that a priori skepticism is ultimately unanswerable introduces a kind of fragility into his overall approach that is not found in externalist and contextualist responses to skepticism. As long as skeptical challenges focus only on whether we have this or that form of a posteriori justification, BonJour can seemingly provide a response. However, if skeptical doubts arise about a priori justification, not only can BonJour not turn back the challenge of a priori skepticism, he can no longer respond to any form of skepticism about a posteriori skepticism either because these responses rely upon the a priori. He obviously cannot use a priori reasoning to fend off skepticism about the a priori without begging the question. For instance, he cannot claim the a priori probability of a priori skepticism is considerably less than the a priori probability of some competing commonsense hypothesis or that we can see a priori that a priori skepticism is a less adequate explanation of a certain range of phenomena. Yet a rationalist abductivist like BonJour seems to have no other resources in his arsenal to reply to a priori skepticism.

Some abductivists (e.g., Vogel 2005, 81) have claimed that skepticism about a priori matters is "exotic" and, hence, need not be refuted. However, as Fumerton (2005, 94) notes, "One philosopher's domestic species of skeptic... is another philosopher's exotic skeptic." Descartes, for example, did not consider the possibility of skepticism about seemingly self-evident a priori truths to be beyond the pale when he wrote:

But what about when I was considering something very simple and straightforward in arithmetic or geometry, for example that two and three added together make five, and so on? Did I not see at least these things clearly enough to affirm their truth? Indeed, the only reason for my later judgment that they were open to doubt was that it occurred to me that perhaps some God could have given me a nature such that I was deceived even in matters which seemed most evident. And whenever my preconceived belief in the power of God comes to mind, I cannot but admit that it would be easy for him, if he so desired, to bring it about that I go wrong even in those matters which I think I see clearly with my mind's eye. (AT VII: 36; CSM II: 25)

Descartes thought that evil demon skepticism could very easily be extended to belief about matters that seem to be self-evident. And since BonJour – like almost all contemporary rationalists – maintains that a priori justification is fallible, it is far from clear why simple challenges to the truth-conduciveness of beliefs based upon rational insight should be

¹⁵ BonJour's remarks on contextualism are found in BonJour (2002, ch. 12). His remarks on semantic externalism are in BonJour (1998, ch. 6).

¹⁶ I am indebted to an anonymous reviewer from *Philosophia* for helping me avoid a serious blunder in my discussion of the issues in this section.

considered terribly exotic. Indeed, since the particular sort of a priori beliefs BonJour appeals to are necessary truths about probabilities – something that those who are not skeptical about the a priori in general may well be skeptical about – it seems quite reasonable to ask what reason he has for believing these peculiar a priori beliefs are likely to be true.

Surprising Confessions

While it is not surprising to find critics of abductivism complaining that the abductivist's inference to the external world is insufficiently strong, it is rather surprising to find someone like BonJour (2003, 95–96) denying that any of the following claims are true:

- (8.1) The abductivist justification of RWH renders it more likely to be true than the disjunction of its skeptical competitors.
- (8.2) The abductivist justification of RWH renders it more likely to be true than not.
- (8.3) The abductivist justification of RWH renders it likely enough for belief in its truth to count as knowledge.

If (8.2) is true, it is difficult to see how (8.4) can be true:

- (8.4) The abductivist justification of RWH renders it likely enough for belief in its truth to be epistemically justified.

BonJour (2003, 95–96) also admits that “it does not seem plausible to claim that anything very closely approximating [the abductivist response] is in the minds of ordinary people when they make claims about the physical world.” As a result, BonJour (2003, 95–96) concludes that, while the abductivist reply may provide the reflective scholar with a meager degree of justification, the external world beliefs of ordinary subjects will not be justified to any significant degree at all. These seem to be significant concessions to skepticism.

BonJour tries to mitigate the devastating impact of these admissions by attacking the concept of knowledge itself. According to BonJour (2003, 21):

[T]he concept of knowledge is, in my judgment, a seriously problematic concept in more than one way. So much so that it is, I believe, best avoided as far as possible in sober epistemological discussion – as paradoxical as that may sound.

BonJour (2003, 21–23) cites two primary difficulties that make the concept of knowledge “seriously problematic.” The first is that there does not seem to be a non-skeptical way of giving a precise account of what degree of justification is required for knowledge. If the justification or ground of a belief must guarantee the truth of that belief, skepticism appears to result. If one allows reasons or justifications to be less than fully conclusive, one must specify what degree of justification is required for knowledge. Few epistemologists have ever attempted such a specification, and no proposal that has been offered has never gained widespread acceptance. The second difficulty is that if the degree of justification required for knowledge falls below the maximum, it will be possible for two beliefs to count as knowledge when considered individually but for their conjunction to fail to count as knowledge.¹⁷ According to BonJour (2003, 23), these difficulties “suggest that our grip on the supposed concept of knowledge itself is anything but sure, if indeed there is even a clear and univocal concept there to be understood.”

¹⁷ In a footnote BonJour (2003, 23, n. 19) also mentions the following, third difficulty: knowledge cannot be identified with true belief justified to any degree of justification less than the maximum because no such account will be Gettier-proof. In other writings BonJour (2002, 47) notes that any conception of knowledge that requires less than conclusive justification will also give the wrong verdict in lottery cases.

BonJour's fundamental reason for thinking the concept of knowledge is "seriously problematic" is simply that common (internalist) ways of thinking about it lead to skepticism. However, it is difficult to see why such skeptical implications should count as evidence against the intelligibility of the concept of knowledge or our ability to grasp it. Skeptics of course would embrace these skeptical results without taking them to show that the concept of knowledge is problematic. And indeed most anti-skeptics take the problems BonJour describes to indicate that the real difficulty lies with BonJour's internalist conception of knowledge rather than with the concept of knowledge itself. That is why most anti-skeptics today offer alternative conceptions of knowledge that attempt to block these skeptical results.¹⁸ Some have suggested that BonJour's quixotic attempt to cast doubt upon the intelligibility of the concept of knowledge or our ability to grasp it succeeds only in casting doubt upon his own response to skepticism.

The Future of Abductivism

As surprising as BonJour's concessions to skepticism may seem, it is not clear how much weight they should ultimately be accorded in a sober assessment of the merits of his position.¹⁹ If BonJour's negative assessments are based upon any deep difficulties he sees with his view, he gives no indication of what those difficulties might be. He does not mention any of the objections I raise against his view – e.g., that it appeals to a problematic notion of a priori probability, that it incorporates an implausible double-standard with respect to metajustifications, and that it is vulnerable to a priori skepticism – and indeed does not take these issues to present any serious problems. The sympathetic reader cannot help but wonder whether BonJour's pessimistic musings are not simply idiosyncratic and whether other abductivists should not be free to reject them. In other words, it is not clear why a committed abductivist could not be more sanguine about the strength of BonJour's rationalist abductivism than BonJour himself.

Moreover, BonJour's views about the alleged metajustification requirements on theories of empirical justification also seem to be further inessential accretions that abductivists would be better off without. If abductivists were to jettison these problematic parts of BonJour's position, two obstacles for the view would seem to remain. One is that abductivism appears to be quite vulnerable to a priori skepticism. However, since most philosophers seem inclined to believe that a priori skepticism is not a coherent or intelligible position and so cannot pose a serious skeptical threat to our knowledge of a priori truths, I will set this issue aside for now.²⁰ The only remaining difficulty, then, is that of formulating a viable interpretation of a priori probability. If abductivists follow Fumerton's suggestions and can persuasively defend a Keynesian conception of probability, they may stand a good chance of offering a successful internalist reply to skepticism. In

¹⁸For example, many relevant alternatives, externalist and neo-Moorean accounts of knowledge require that one's grounds be conclusive in order to have knowledge. All such theories attempt to avoid both of the problems BonJour describes.

¹⁹I am grateful to an anonymous reviewer from *Philosophia* for getting me to address the issues in this section more squarely than I had done before.

²⁰But cf. Beebe (forthcoming a) for detailed discussion of the seriousness of the potential threat of a *a priori* skepticism.

order to succeed, it seems they would need to incorporate all of the following positive features of BonJour's position: (1) that he describes the patterns and regularities in our sensory experience that cry out for explanation in ways that do not assume the existence of the external world, (2) that he looks for a priori ways to bridge the gap between sensory experience and the external world, (3) that he offers a uniform response to both inductive and external world skepticism, (4) that he offers distinctively epistemic reasons for preferring RWH to its skeptical competitors, (5) that he avoids circular and nonepistemic justifications for RWH and IBE, and (6) that his account provides some hope of defending IBE against well-known objections. Although an increasing number of epistemologists claim epistemic internalism is incapable of providing a convincing reply to skepticism, there appears to be one internalist response that may have some life left in it.

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