How Are Basic Belief-Forming Methods Justified?

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In this paper, we present an account of in virtue of what thinkers are justified in employing certain basic belief-forming methods. The guiding idea is inspired by Reichenbach's work on induction. There are certain projects in which thinkers are rationally required to engage. Thinkers are epistemically justified in employing a belief-forming method that is indispensable for successfully engaging in such a project. We present a detailed account based on this intuitive thought, and address objections to it. We conclude by commenting on the implications that our account may have for other important epistemological debates.

1. The Problem

In virtue of what are we justified in employing the rules of inference and other belief-forming methods that we employ? Consider, for example, the rule of inference known as Inference to the Best Explanation (IBE). We often reason by employing IBE, or a rule of inference like it. We are often justified in so reasoning. And we are often justified in believing what we infer from justified beliefs using the rule. This justification requires explanation. Why is it that we are justified in employing IBE? Why is it that beliefs inferred from justified beliefs using IBE are themselves justified?

IBE is plausibly a belief-forming method that is basic for us, a method that supports our use of other belief-forming methods but that is not in turn supported by any other methods. And this creates a problem: It appears that no answer to the above questions is forthcoming. We cannot justify our use of IBE with a justification that relies upon IBE (or otherwise assumes its privileged epistemic status), since such a justification would be objectionably circular. We cannot justify our use of IBE by appealing to other

belief-forming methods, since IBE is a basic rule. Thus, there is nothing in virtue of which we are justified in using IBE. Or so it may seem.

This problem generalizes to other basic belief-forming methods. In virtue of what are we justified in employing Modus Ponens (MP), plausibly a basic rule of inference? Or, if it is not, if Modus Ponens depends on more basic deductive rules, in virtue of what are we justified in using them? Similarly, how is it that we are justified – if indeed we are – in relying on our perceptual faculties in forming beliefs? And how is it that we are justified in relying on memory, on moral and other normative intuitions, and on modal intuitions? Now, several of these examples may be controversial. Perhaps, for instance, relying on perception is not a belief-forming method that is basic for us. Perhaps we are not justified in relying on our modal intuitions. But surely we are justified in using at least some of these methods, and surely we are justified in using at least some of these methods as basic. The question of how it is that we are justified in employing basic belief-forming methods is thus very pressing.

In thinking about this question, one may be tempted by the following line of thought: Justification must come to an end somewhere. Basic belief-forming methods provide a plausible place for such an end. So, there is no need for a substantive account of our justification to employ basic belief-forming methods. Our lack of an account poses no difficulty.

This line of thought is unsatisfactory, and not merely because it is psychologically unsatisfying. True, a *thinker* need not possess a justification of the employment of a basic belief-forming method to be justified in employing it. Yet, this does not show that a *theorist* can have an adequate theory of justification without possessing an account of

how basic belief-forming methods are justified. There are many different possible belief-forming methods that could be employed as basic. Some, such as MP, IBE, and relying on perception, we presumably are justified in employing. Others, such as Affirming the Consequent, Inference to the Third Worst Explanation, and relying on wishful thinking, we presumably would be unjustified in employing.[1] It is highly implausible that it is merely a brute fact that we are justified in employing certain methods as basic and not others. It is much more plausible that there is a principled distinction between the two classes. And it is plausible that this distinction is one that we would be happy to accept as relevant to justification, one that presents the relevant methods in a rationally positive light.[2] This, then, is what a theorist should be after: a substantive account of what's in common to the belief-forming methods we are justified in employing as basic, an account that provides a plausible explanation of this epistemic status.

One distinction that a theorist may point to is the distinction between those methods that we are justified in believing reliable and those methods that we are not. This distinction may, indeed, be helpful in explaining some of our justification: A thinker may, for instance, be justified in relying upon her favorite thermometer because she is antecedently justified in believing that it reliably indicates the prevailing temperature. But holding a belief about the reliability of a belief-forming method cannot be a necessary condition for being justified in employing it as basic, for two familiar reasons. First, such a view over-intellectualizes the conditions of justification. A rather simple thinker (a young child, perhaps, or a cognitively advanced non-human animal) can be justified in

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[1] Affirming the Consequent is the rule of inference: from *if p then q* and *q* infer *p*. Inference to the Third Words Explanation is a rule of inference just like some reasonable version of IBE, except that it evaluates the quality of putative explanations differently, so that employing it leads to the "explanations" that are among the worst according to the original IBE rule.

using IBE or in relying upon perception without having – or being able to have – any belief about the belief-forming method or its reliability. Second, since the relevant reliability beliefs must themselves be justified, the threat of an infinite regress or vicious circularity looms large.[3] And analogous problems face views that ground the justification of our employment of basic belief-forming methods in the justification of other beliefs. In what follows, then, we attempt to account for the justification of employing basic belief-forming methods directly, and not via the justification of any belief.

The guiding idea of our account is simple. Consider the explanatory project, the project of understanding and explaining the world around us. This project is of fundamental importance to us. Indeed, it seems that engaging in this project is central to rationality; a thinker who does not inquire about the world around him is intuitively doing something wrong. This counts in favor of employing whatever methods are necessary for successfully engaging in the explanatory project. It is plausible that employing IBE (or a close relative) is needed for successfully engaging in the explanatory project. And this explains why we are justified in employing IBE as a basic rule in our thought.

Generalizing beyond the case of IBE, the rough idea is as follows: There are certain projects in which we rationally ought to engage. They are, as we will call them, *rationally required* projects. Such projects plausibly include explaining the world around us, deliberating about what to do, planning for the future, and evaluating our own patterns of thinking. We are justified in employing any belief-forming method needed for successfully engaging in a rationally required project. This provides the fundamental

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[2] Boghossian (2000, 239) and Peacocke (2004) make similar points. See Horwich (2006) for a countervailing view.

[3] For detailed discussion, see Boghossian (2000; 2001; 2003). The regress problem is one lesson of Carroll (1895).

explanation of our justification for employing such methods. In particular, this explains our justification for employing IBE, MP, relying on perception, and the other examples listed above.

Our discussion will proceed as follows. In the next section we discuss several preliminary points, to sharpen the issues and avoid misunderstandings. We then put forward our account in detail – presenting the intuitive motivations behind it in section 3, and presenting some needed clarifications and refinements in section 4. Section 5 is devoted to answering four central objections to the account. We conclude, in section 6, by briefly hinting at some of the implications our account may have for other important epistemological issues and debates.

2.   Preliminaries

A *belief-forming method* is a method (a procedure, for instance, or algorithm, or rule) that a thinker uses in forming beliefs and other belief-like mental states. To employ a belief-forming method, thinkers need not believe that they employ the method. They need only follow it.[4] Certain belief-forming methods – rules of inference – govern transitions between beliefs. Other belief-forming methods govern the non-inferential formation of beliefs. These include the methods guiding the formation of beliefs on the basis of

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[4] We leave it open how exactly one ought to understand "following" a belief-forming method. A discussion of this would take us deep into the dark constellation of issues concerning rule-following. Our point is only that a thinker need not have any conscious propositional attitudes to a belief-forming method for it to be correctly ascribed to her. There is a second issue that we would also like to put aside. This is the question of what distinguishes genuine methods from arbitrarily complex functions from beliefs (and other mental states) to beliefs. There is an intuitive sense in which someone who supplies you with a list of many beliefs, and tells you to infer them from whatever beliefs you already have, does not suggest to you a genuine belief-forming method. When we refer in the text to belief-forming methods, we mean genuine methods, in this intuitive sense. We think we can help ourselves in good faith to this notion, not because we have at hand a satisfactory philosophical account of it, but because the challenge of coming up with such an account – much like the rule-following challenge – is a challenge that everyone faces, whether or not they

perception and memory. Given the possibility of mistakes, inconsistencies, and the like, correctly ascribing a belief-forming method to a thinker involves some idealization. Thus, the belief-forming methods employed by a thinker are, roughly, those that appear in the best rational reconstruction of the thinker's cognitive processes.

For any thinker, certain belief-forming methods are employed as *basic*. The notion of basicness here is an intuitive one. The belief-forming methods that are basic for a thinker are those methods that are the most fundamental in how the thinker reasons. All other belief-forming methods employed by the thinker are derivative. This characterization of basicness is not fully precise, and it may be somewhat indeterminate which methods are employed as basic by a thinker. But we find it plausible that MP, IBE, reliance on memory and perception, and reliance on normative and modal intuitions (or close relatives of these belief-forming methods) are basic for most adult human thinkers.[5]

In providing an account of the justification of employing certain belief-forming methods as basic, the kind of justification we wish to explain is *epistemic justification,* not pragmatic justification.[6] Here is one way to motivate the distinction: By offering you a large sum of money to believe *p*, I may make it the case that you are pragmatically justified in believing *p*, for I am making it the case that believing *p* will be of benefit to you. But I do not thereby make it the case that you are epistemically justified in believing *p*. How best to characterize this distinction is an interesting and controversial issue. For

accept our account of the justification of basic belief-forming methods. We thank Paul Boghossian for reminding us of the relevance of this issue.

[5] Our notion of a basic belief-forming method is closely related to the notion of a basic psychological process in Goldman (1986).

[6] We use "justification" and its correlates broadly. Some justified beliefs are justified via an explicit justification being available to the relevant thinker. Other justified beliefs may not be so justified. On a popular way of talking due to Burge (1993), the latter class includes beliefs the thinker is merely *entitled* to hold. Similar remarks hold for "justification" as applied to belief-forming methods.

our purposes, however, an intuitive grasp of the epistemic/ pragmatic distinction will suffice.

One lesson of the internalism-externalism debate in epistemology is that there may be several different senses of epistemic justification. The sense of epistemic justification we are after is the one closely related to the notions of epistemic responsibility and blameworthiness. Whether a thinker is epistemically justified, in this sense, is tied to the question of whether she is being a responsible believer in holding the relevant belief. Whether there are other, more externalist notions of epistemic justification is an issue on which we can remain neutral.

Just as beliefs can be epistemically justified, so too can belief-forming methods, and the two notions may be related in roughly the following way: A thinker is epistemically justified in employing a belief-forming method just in case beliefs formed by applications of that method to epistemically justified inputs (where the question of epistemic justification arises) are *prima facie* epistemically justified for the thinker to hold, and furthermore are epistemically justified because they were so formed. For instance, a thinker is justified in employing MP just in case, roughly, whenever the thinker justifiably believes *p* and *if p then q*, and by employing MP forms the belief *q*, that belief is *prima facie* justified, and it is justified because it was so formed.

We want to restrict our project to a search for an account of *prima facie* epistemic justification. In some circumstances, considerations that confer justificatory status on a belief-forming method may be defeated. This is compatible with a method being *prima facie* justified, being such that we are justified in employing it in the absence of defeating

considerations.[7] A complete account of all-things-considered justification for belief-forming methods, like a complete account of all-things-considered justification for beliefs, must involve a characterization of defeating considerations and an explanation of the ways different defeating considerations interact. Though we think the account developed here can be straightforwardly extended to serve the purposes of this fuller project, we will not discuss this issue here.

What does it take for an account of our *prima facie* epistemic justification in employing basic belief-forming methods to be fully satisfactory? Such an account, at the very least, must be extensionally adequate. It should fit with our pre-theoretic judgments about which belief-forming methods – MP, IBE, and so on – we are justified in employing, and which belief-forming methods – Affirming the Consequent, Inference to the Third Worst Explanation, and so on – we are not. Or, if it is does not accord with all of our pre-theoretic judgments, it must provide a compelling reason to reject some of them.

Of course, mere extensional adequacy is insufficient for a fully satisfactory account. Providing necessary and sufficient conditions is not enough. It is important that the conditions not be gerrymandered or *ad hoc*. But this, too, is insufficient. What is needed is an *explanation* of our justification. The account need not be reductive; indeed, ours is not. But it must provide a way of seeing *why it is* that we are justified in employing as basic certain belief-forming methods but not others. The account must

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[7] We want to remain neutral regarding another possibility – the possibility of underminers. A justification is defeated if other epistemic considerations outweigh it. A justification is undermined if some considerations show that the (purported) initial justification did not in fact confer justificatory status to begin with.

show the justified methods in a rationally positive light.[8] To borrow a term from Feigl, the account should *vindicate* the belief-forming methods in question.[9] In what follows, we hope to show that the account we suggest here delivers all of these desiderata.

3.   The Pragmatic Account of Justification[10]

To provide an account of the epistemic justification of basic belief-forming methods, one must explain why it is that we are justified in employing MP and IBE, in relying on perception and memory, and in employing many other basic belief-forming methods. The motivation for our pragmatic account starts with the observation that these methods have very little in common other than the important role they play in our lives. What's common to these examples seems to be that they are our only relevant hope for successfully engaging in some extremely important projects.

Take, for example, IBE. One project that is of tremendous importance to us is the explanatory project. We are explaining creatures, creatures that try to make sense of ourselves and the world around us. This project may be one in which we cannot help but engage. Even if it is not, it seems that we ought to engage in this project; a thinker who did not inquire into the world around him would not be fully rational. Of course, it is not

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[8] Here is another way of making this point: Etiquette-justifications also come to an end somewhere. But we want an account of epistemic justification that gives it a more robust normative status than that of etiquette-related justification.

[9] See Feigl (1952). Rysiew (2002) reads Reid as searching for a similarly vindicating account of (what we call) basic belief-forming methods.

[10] Our view is interestingly related to, and in thinking about it we have benefited from, Kant's arguments for the postulates of practical reason (primarily, but not exclusively, in the Second Critique and the Canon of the First Critique); Reichenbach's pragmatic justification of Enumerative Induction in his (1938) and (1949); Feigl's distinction between validation and vindication in his (1952), (1954), and (1963); Carnap's distinction between internal and external questions in his (1950); Lycan's discussion of ultimate epistemic norms in his (1985); Nagel's emphasis on the unavoidability of basic logical and mathematical truths as a response to skepticism in his (1997); Dretske's discussion of belief-forming methods that are justified in virtue of being unavoidable in his (2000); and Wright's discussion of Reichenbach's suggestions as a

as if we all ought to be amateur scientists or philosophers. But the project of making sense of the world – in a more modest, everyday sense – is not rationally optional. In an important sense, the explanatory project is one in which we are rationally required to engage.

Now, given our constitution, it seems that we can only successfully make the world intelligible to us if IBE is a reasonably effective method. Perhaps we can successfully engage in the explanatory project using IBE. Perhaps we can also successfully engage in the project using a closely related method. But if IBE were ineffective, closely related methods would presumably fail, too, and we could not successfully engage in the explanatory project. It is in virtue of this that we are *prima facie* epistemically justified in employing IBE as a basic method. And we are justified in employing IBE antecedently of holding any justified belief concerning this method.[11]

The explanatory project is not the only rationally required project. Plausibly, rationally deliberating about what to do, planning for the future, and evaluating our own patterns of thinking are all rationally required projects, at least for beings like us. This, then, is the general idea of our account: If a belief-forming method is such that it is possible to successfully engage in a rationally required project by employing it, and such that it is impossible to successfully engage in the project if the method is ineffective, then we are *prima facie* epistemically justified in employing that method as basic, even in the absence of a justified belief concerning the method.

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possible reply to skeptical challenges in his (2004). We cannot, of course, pursue the relations between our view and these sources in detail here, but we hope to do so on another occasion.
[11] We leave it open whether a justified belief that IBE is *unreliable* would serve to defeat our *prima facie* justification for using IBE.

In motivating this suggestion, it is helpful to consider a parable due to Reichenbach (1949, 482):

> A blind man who has lost his way in the mountains feels a
> trail with his stick. He does not know where the path will
> lead him, or whether it may take him so close to the edge of
> a precipice that he will be plunged into the abyss. Yet he
> follows the path, groping his way step by step; for if there
> is any possibility of getting out of the wilderness, it is by
> feeling his way along the path.

The blind man is not justified in believing that the method he's using – "groping his way step by step" along the trail – will lead to his survival. Regarding this proposition, he has no evidence one way or another, or so we may assume. Yet, given that if the method does not work, all is lost for him, the blind man is pragmatically justified in employing the method. Indeed, he would be rationally criticizable had he not employed it.

The intuitive idea behind our account is similar. Seeing that if IBE does not work, the explanatory project is doomed to systematic failure, we are epistemically justified in employing IBE even in the absence of an antecedently justified belief in its likelihood of success. Indeed, we would be rationally criticizable had we not employed IBE.[12]

Perhaps this point can be made more clearly in terms of epistemic responsibility. Although he has no evidence that groping his way along the path will lead to safety, and

although such evidence is typically needed in order to use a practical method responsibly, nevertheless the blind man behaves responsibly in groping his way, because if he does not, all is lost. Similarly, although employing a belief-forming method is typically epistemically responsible only if the relevant thinker is antecedently justified in believing that the method is a good one, and although in the case of basic belief-forming methods no such justified belief is antecedently available, nevertheless employing such a method may be epistemically responsible. This is so in the case where if the method is not effective the relevant rationally required project is doomed to systematic failure.

Thinking in terms of epistemic responsibility also helps motivate the restriction of the pragmatic account to *basic* belief-forming methods. A thinker would be epistemically irresponsible in employing a non-basic belief-forming method without possessing a justification of the method. But a thinker would not be irresponsible in employing a belief-forming method as basic merely because she did not possess a justification. Such a requirement is much too strong. Given the *ex hypothesi* basicness of the method for the thinker, possessing a justification is impossible. Of course, the thinker is not justified in employing just any belief-forming method as basic. What our account does is to provide an intuitively plausible sufficient condition (and perhaps also a necessary one, though we won't argue the point here) for a thinker to be epistemically justified in employing a method as basic.

Perhaps it is helpful to consider another example or two. Think first of the rule of inference, MP. Employing MP, or a rule of inference like it, is plausibly indispensable (in our slightly technical sense) for a whole host of rationally required projects. One

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[12] There are important disanalogies between the case of Reichenbach's blind man and the cases in which we are interested, some of which we discuss below. These disanalogies do not, we think, defeat the limited

interesting example is the project of planning for future contingencies. This project intuitively is very important because such planning enables us to put our future situation under greater rational control. It is plausible that engaging in contingency planning requires possessing the concept of the conditional (or some similar logical device). One cannot plan to do x if y unless one can form conditional beliefs. Moreover, planning does not count as planning unless we can and sometimes do execute our plans. Executing contingency plans requires drawing the relevant Modus Ponens inferences. So engaging in the project of planning for contingencies requires employing MP. We cannot successfully engage in this project unless MP is effective; if MP is unreliable, the project of planning for contingencies is doomed to systematic failure. It is in virtue of this that we are justified in employing MP.[13] Notice, too, that no analogous claim regarding Affirming the Consequent can be defended. Given our constitution, it is just not true that Affirming the Consequent is indispensable for the project of contingency planning (or, it seems, for any other rationally required project).

For another example, consider the method of relying on our normative intuitions. The project of deciding what to do is quite plausibly one which is rationally required for us. Moreover, it is plausible that we can only successfully engage in this deliberative project if we have some way of coming to know normative truths. Given our constitution, our only hope for coming to know such truths is if our normative intuitions are at least reasonably reliable; if relying on these intuitions is not at all reliable, the project of deliberating about what to do is doomed to systematic failure. According to our account,

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use we make of Reichenbach's parable.

[13] Schechter (in preparation) discusses the case of MP in detail, examining the importance of employing MP for contingency planning, self-evaluation, and reasoning in general.

it is in virtue of these facts that we are *prima facie* epistemically justified in relying on our normative intuitions (or on some privileged subclass thereof).[14]

Notice that the pragmatic account's strengths allow it to meet the desiderata presented in the previous section.[15] The sufficient condition on justification that it provides is neither gerrymandered nor *ad hoc*. And indispensability to a rationally required project is clearly a positive rational status. So the pragmatic account supplies a vindicating, and quite plausibly fundamental, explanation of our epistemic justification.

There is an additional theoretical advantage worth noting. The problem of justifying our basic belief-forming methods is, it seems, the very same problem across the wide variety of basic belief-forming methods we employ. And it seems likely that the solution to this problem will be a unified account, one applicable to all the instances of the problem. At the very least, it should count in favor of a proposed account that it offers such a unified solution. Let us note, then, that the pragmatic account enjoys this important theoretical advantage, too. For on our account, what explains our justification for employing IBE and MP, for relying on perception and memory, and so on, is the same in every case – indispensability to a rationally required project.

4.   Details and Clarifications

To restate our view, we claim that

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[14] Enoch (2003; 2006) develops a related line of thought in detail, and argues that it suffices to establish a rather strong version of realism about the normative.

[15] In Schechter and Enoch (forthcoming), we argue that these strengths of the account make it preferable to an initially attractive competing family of accounts, those we call meaning-based accounts of justification.

A thinker is *prima facie* epistemically justified in employing a belief-forming method as basic if there is a project that is rationally required for the thinker such that:

> (i) it is possible for the thinker to successfully engage in the project by employing the method; and

> (ii) it is impossible for the thinker to successfully engage in the project if the method is ineffective.

Moreover, where clauses (i) and (ii) apply, it is in virtue of these facts that the thinker is so justified.

In this section, we make our account more precise by filling in some of the needed details in a way that retains the intuitive appeal of the account without sacrificing its potential for extensional adequacy. In particular, we discuss how "rationally required", "successfully engage in", "ineffective", and "possible" and "impossible" should best be understood.

4.1. Rationally Required Projects

Given a valuable project and a method that is indispensable for successfully engaging in it, how is one justified in proceeding? The answer depends on the likelihood of success using the method, the value of the project, and perhaps other factors as well. But what doesn't depend on such factors seems to be this: Given a project and a method indispensable for successfully engaging in it, one is justified in either employing the

method or discarding the project.[16] The pragmatic account makes use of rational requirements to block the second disjunct, leaving only the first. If a project is rationally required, discarding it is not an option. Employing the indispensable method is the only thing to do.[17]

Seeing that this is the intuitive role of the rational requirement condition, how can it be more precisely characterized? There is a clear case in which discarding a project is not a rationally available option: If a project is such that any rational agent ought to engage in it (and, presumably, ought to try to successfully engage in it), then it is rationally required. This suggestion has a natural generalization: If a project is such that a particular agent rationally ought to engage in it given the facts of her constitution and general abilities, then it is rationally required for her.[18]

There may be other ways to satisfy the rational requirement condition. For instance, it may be that projects that are unavoidable – projects that the relevant agent (psychologically, or perhaps metaphysically) cannot discard – are rationally required in the relevant sense. It may be that projects that are constitutive of rationality – projects that a being must engage in to qualify as a rational agent – are also rationally required.

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[16] This claim needs to be amended. If we falsely but justifiably believe that we can successfully engage in a project without using a given method, we may be justified in holding on to the project and not employing the method. This point does not impact the heuristic use we make of the claim in the text.

[17] Notice that we do not restrict the account to *epistemically* or *theoretically* rationally required projects. It is true that adding such a restriction would make it easier to rebut the charge that we conflate epistemic and pragmatic justification. On the other hand, adding such a restriction would result in an explanation of epistemic justification in terms of epistemically required projects. Even if the resulting account were not vacuous or objectionably circular, it still would lose much of its explanatory power. Furthermore, adding such a restriction would compromise the account's extensional adequacy. Not all belief-forming methods we are justified in employing as basic are plausibly indispensable to epistemic or theoretical projects. (Consider, for instance, reliance on normative intuitions.) Finally, as Owens (2003, 294) argues, there are reasons to doubt the possibility of isolating a purely epistemic set of goals. We thank an anonymous referee for pressing us on this issue.

[18] Are there projects that are rationally required for certain rational agents and not others? There is some pull to the idea that rational requirements satisfy an ought-implies-can principle. The greater an agent's

For the purposes of this paper, however, we will restrict "rationally required" so that only projects that thinkers rationally ought to engage in given their constitution and general abilities will count as rationally required.

We realize, of course, that this is not a very informative unpacking of what it is for a project to be rationally required. We think, however, that it may be impossible to do better. Rational requirement may be a basic normative status, unexplainable in more fundamental normative terms.

Thus understood, then, which projects are we rationally required to engage in? This is a big question, one that we cannot fully answer here. For our purposes, however, it is enough to note that there is something intuitively very problematic with thinkers like us who fail to engage in the projects we have so far mentioned – the explanatory project, the deliberative project, the project of planning for the future, and the project of self-evaluation. This suggests that we rationally ought to engage in all of them.

4.2. Successfully Engaging in a Project

How should "successfully engaging in a project" be understood if the pragmatic account is to retain its intuitive appeal without losing its extensional adequacy?

Clearly, what is needed to successfully engage in a particular project is more than whatever is needed to count as engaging in the project at all. Not much is needed in order to count as engaging in a project. And the intuitions underlying our account support a stronger reading. Perhaps, for instance, you cannot play chess without trying to win; arguably, if you don't even try to win, you don't count as playing chess. Then trying to

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cognitive abilities, the more rational requirements she might face. If a thinker is constitutively incapable of planning for future contingencies, for instance, the thinker may not be rationally required to do so.

win is necessary for engaging in the project of playing chess. However, *succeeding in engaging* in that project – managing to satisfy whatever conditions are necessary to qualify as engaging in the project – is not all that is needed to *successfully engage* in the project. So, if, in addition, sacrificing a knight were the only move that may possibly result in victory in a given game, you would be justified in sacrificing it in virtue of an otherwise-all-is-lost kind of argument. In failing to sacrifice the knight, you might succeed in playing chess, but you would not be successfully playing the game.[19]

The motivation for our account does not, however, support understanding successful engagement as achieving perfection. One can successfully engage in the explanatory project, for instance, without having available a full and perfect explanation of everything – whatever that may mean. One needs only to be a pretty good explainer. Indeed, even if perfection is impossible to achieve, one can still achieve success in a sense that supports the claim that one rationally ought to pursue it.

Merely engaging in a project, then, is too weak as an understanding of successful engagement, and achieving perfection is too strong. What is the appropriate middle ground? We suggest that the middle ground is project- and thinker-sensitive. What it is to successfully engage in a project is determined by the nature of the relevant project and the reason the relevant thinker has to engage in it in the first place.

Consider, for instance, the project for which relying on perception is arguably indispensable – the project, roughly speaking, of finding one's way in the world, of learning about one's surrounding in order to better guide one's actions. Given the nature of this project and the reasons there are for engaging in it, it is clear that success need not

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[19] Compare: The project Reichenbach's blind man is engaging in is that of trying to survive. Following the path is not necessary for engaging in this project. It is necessary for successfully engaging in the project.

entail perfect perception of, say, very far or very small objects, or even infallibility concerning nearby medium-size objects. It is enough to be a pretty good perceiver of relevant objects. Similarly, consider the deliberative project, the project of deciding what to do. Perhaps what makes the deliberative project important is the role deliberation plays in allowing one to shape one's life according to what one thinks is of value instead of merely being pulled and tugged by circumstances. Arguably, if our normative intuitions are radically unreliable, engaging in whatever is left of the deliberative project is not nearly as important. There seems little value in doing what one thinks is best if there is no connection between what one thinks is best and what really is best.[20] On the other hand, perfect reliability is not required for engaging in the deliberative project to be of value; one can lead one's own life and not merely be the location of happenings involving one's body, even if one is sometimes mistaken in one's normative judgments. This does not, of course, determine a precise point at which unreliability of our normative intuitions undermines the possibility of successfully engaging in the deliberative project, but it does give an idea of how "successfully engaging" should best be understood.

To successfully engage in a project, then, is to satisfy enough of the aims of the project – constitutive or otherwise – to make engaging in the project worthwhile.

4.3.   The Effectiveness of a Method

The intuition underlying the pragmatic account is that a thinker is justified in employing a method when it is such that if even it fails, the thinker cannot successfully engage in the relevant rationally required project. This intuitive idea can be understood as involving

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That is, it is necessary for surviving.

two requirements: First, employing the relevant method, it must be possible to successfully engage in the relevant project. Second, it must be impossible to successfully engage in the project if even that method fails. Or, as we put it in the statement of the view above, it must be impossible to successfully engage in the project if the method is ineffective.

This second clause should not be understood to mean that it is impossible to successfully engage in the project without employing the given method. There is no intuitive requirement that every other methods would fail. Rather, it is sufficient that if any method yields success, this one does.[21]

How, then, are we to understand the notion of a method being effective or ineffective? We propose the following straightforward definition: A belief-forming method is effective with respect to a thinker and a project just in case the thinker is able to successfully engage in the project by employing the method. It is ineffective otherwise. Given this definition, the second clause of our account is equivalent to the claim that it is impossible for the thinker to successfully engage in the project but be unable to successfully engage in the project by employing the method.

4.4.   The Relevant Modalities

In the statement of the account, two modal notions are used. The relevant method must be such that it is *possible* to successfully engage in the relevant project by employing it, and such that it is *impossible* to successfully engage in the project if the method is ineffective.

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[20] A detailed examination of the deliberative project in this spirit can be found in Enoch (2003). For an outline, see Enoch (2006).

It is evident that, for these requirements to be made explicit, something should be said about the nature of the modalities involved.

It might be thought that the modal notions at issue are epistemic modalities. Think again of Reichenbach's blind man: In order for him to be justified in employing the method of groping his way step by step along the path it seems sufficient that *as far as he knows* it may lead to safety, and that *he knows* (or justifiably believes) that if even that method fails all is lost. It is thus important to note that, in the context of the pragmatic account, reading both modalities as epistemic is unpromising. It is not entirely clear how epistemic modalities should best be understood, but they seem to involve claims about justification or about knowledge (and thus indirectly about justification). Relying upon facts about epistemic justification in an account of the epistemic justification of employing basic belief-forming methods would render the account vacuous or otherwise objectionable. So the modalities involved in the pragmatic account cannot be epistemic modalities.

A further constraint on the relevant modalities is as follows: The impossibility of success if the relevant method is ineffective must be at least as strong as psychological impossibility. Surely, if it is not ruled out by the laws of physics and psychology that I can successfully engage in the explanatory project even if IBE is ineffective, then IBE is not indispensable in the sense required for the pragmatic account.

Other than these two constraints on the relevant modalities – they cannot be epistemic, and the relevant impossibility must be at least psychological – it is not entirely

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[21] Compare Reichenbach's pragmatic justification of Enumerative Induction: What Reichenbach attempted to show was not that no other method of prediction can possibly work, but rather that if any method is effective so is Enumerative Induction.

clear to us how best to characterize them.[22] Let us nevertheless make a concrete suggestion here, one that is somewhat vague but not, we think, too vague, and one that manages, we hope, to avoid extensional inadequacies and maintain the intuitive appeal of the account. The thought is that the modal notions in question are closely related to the can of ability, the modal notion that best captures the meaning of such locutions as "I can do A" or "he is able to do A", in the sense in which my abilities remain fixed even as the circumstances in which I find myself change. This is the sense in which can-do locutions capture something more about me than about the world with which I interact. What I can do, in this sense, is thus a matter of my dispositions.

Using the lingo of possible worlds, we can say that the two modalities should be understood in terms of sufficiently close possible worlds. Thus, we suggest, it is possible for a thinker to successfully engage in a project by employing a given method just in case she can successfully engage in that project by employing the method, or, in the terms we now want to introduce, just in case there is a sufficiently close – a "pragmatically relevant" – possible world at which the thinker successfully engages in that project by employing the method. It is impossible for a thinker to successfully engage in a project if the method is ineffective just in case there is no sufficiently close world at which the thinker successfully engages in the project but at which the method is ineffective.

The qualification to sufficiently close possible worlds is needed both for extensional adequacy and in order to maintain the initial intuitive appeal of the pragmatic account. Consider the case of IBE. It seems clear that there are some – far out – possible worlds at which we can successfully engage in the explanatory project by using a very

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[22] It is not even clear to us whether the two modalities ought to come apart. Perhaps, for instance, the best version of the pragmatic account invokes the metaphysical possibility of success (employing the method)

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different belief-forming method. Perhaps, for instance, there is a world at which everything can be made intelligible to us in a flash if we employ some version of mystical contemplation. But we want IBE to be a method we are justified in employing as basic. So if the pragmatic account is to be extensionally adequate, a qualification to sufficiently close possible worlds is needed. Moreover, the existence of such far out possible worlds is intuitively irrelevant to the motivations underlying our account. It does not show that we can – in a commonsensical sense – succeed in the explanatory project even if IBE is ineffective. So the qualification to sufficiently close worlds is needed to preserve the pragmatic account's intuitive appeal, as well.[23]

How is the "sufficiently close" qualifier to be understood? Unfortunately, we do not have a very detailed answer to this question. The sufficiently close qualifier is meant to capture an intuitive idea: The relevant worlds must be not so far out as to be pragmatically irrelevant, irrelevant to what we, in a liberal but everyday sense, can do. So, for instance, it is plausible that such worlds include only those worlds at which our constitution is held fixed. The idea of a sufficiently close world is imprecise, but it is not without content. And it will do, we think, for our purposes here.

5.   Four Objections

Now that the pragmatic account of the justification of basic belief-forming methods has been rendered at least somewhat precise we are in a position to discuss the most pressing objections to it.

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and the "pragmatic" impossibility of success (if the method is ineffective).

[23] Compare: There is a possible world at which it is the case that if the blind man jumps up and down three times, an eagle will swoop down and bring him to safety. Such a possibility does not reduce the intuitive pull of the claim that the blind man is pragmatically justified in taking the path.

5.1.   Pragmatic and Epistemic Justification

One may concede that we are justified – in some sense – in using the methods picked out by the pragmatic account, without conceding that we are *epistemically* justified in employing them. The worry is that on the pragmatic account, the reason that we are justified in employing a belief-forming method is, roughly, that the method is very useful for achieving something of value. This seems to be a paradigmatic case of pragmatic justification, not epistemic justification.

This worry is strengthened by reflecting on Reichenbach's discussion of the blind man and on his account of the justification of Enumerative Induction, a precursor of our own view. Reichenbach's blind man is pragmatically justified in groping his way step by step as well as (arguably) in acting as if following this method will lead to his survival. But he is not epistemically justified in believing that it will. Why, then, is IBE epistemically justified? Furthermore, Reichenbach claimed that we are justified in employing Enumerative Induction because if any method will succeed in making correct predictions about the natural world, Enumerative Induction will do so. Reichenbach took this account only to show that we are pragmatically justified in employing Enumerative Induction and not that we are epistemically justified. What makes us think that we can do better?

There are two points to make in reply. First, it is important to be clear on exactly the role our account is playing.[24] In an important sense, the pragmatic account is not part of the epistemic story of our justification. Justifications do come to an end somewhere, and basic methods may very well be where they come to an end. Certainly, to be justified

in employing a belief-forming method, a thinker need not have knowledge of the pragmatic account. Nor must she know that the relevant method is indispensable to a rationally required project. It's just that even after realizing that justification comes to an end somewhere – or that some belief-forming methods are "default-reasonable" – there is a felt need for there to be some further theoretical story that explains the epistemic justification we have for employing certain basic belief-forming methods (and not others). There must be some substantive criterion that distinguishes epistemically justified basic methods from the rest. This is where the pragmatic account fits in. It provides a general, principled explanation of in virtue of what certain basic belief-forming methods are justified. Its role is not – we emphasize again – that of a justification that must be accessible to the relevant thinker, but rather that of a theorist's account of justification. It would be inappropriate to apply any intuitions that we have concerning how justifications that are accessible to a thinker must look to the pragmatic account.

Second, it is important to recognize that our account is importantly different from the claim that a belief-forming method is epistemically justified if it is useful for achieving the aims of a project that is valued. Our account only applies to belief-forming methods that are employed as basic. The epistemic status of non-basic methods ultimately depends on whether or not they are vindicated by basic methods, and not on their usefulness. Perhaps more importantly, our account does not ground the vindication of basic methods in what is useful but, rather, in what is indispensable (in our somewhat technical sense). It does not ground the vindication of our basic methods in projects that are valued, but in projects that thinkers are rationally required to pursue. These differences are important. Employing a method that is indispensable for success in a

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[24] Our thinking about such matters is indebted to the discussion in Lycan (1985).

rationally required project is much more closely related to the intuitive idea of being a responsible thinker than employing a method that is merely useful for some or other desired end.[25]

What, then, of Reichenbach's blind man and of his pragmatic justification of Enumerative Induction? Believing that following the path will lead to survival is not indispensable for survival, and survival is not a rationally required end. So there is no intuitive pull to the idea that the blind man is epistemically justified in believing that he will survive. Furthermore, Reichenbach claimed that there are no objective facts about which projects we ought to pursue, and in particular, whether we ought to engage in the predictive project. Given this view – a view we do not share – it is not surprising that he claimed that we are pragmatically, but not epistemically, justified in employing IBE.[26]

These points notwithstanding, it might be argued that our account is open to a possible counterexample along the following lines: Suppose I issue a reliable threat that unless you employ an otherwise unjustified belief-forming method, I will make it impossible for you to succeed in explaining and understanding the world (for instance, by ensuring that you systematically misperceive the world). Now, you may very well be pragmatically justified in employing that method, but surely we do not want to say that

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[25] Perhaps there is a different worry lurking in the background, namely the worry that our view can only account for a kind of rational justification, not epistemic justification. The idea, I take it, is that epistemic justification is distinctively tied to truth, and the sort of justification that features in our account is not. In response, we'd like to make three general points. First, epistemic justification should not be taken to be solely concerned with truth. Pushed too far, such a view leads to reliablism, which as we discuss below, overly divorces justification and epistemic responsibility. Second, there are a host of other, clearly epistemic virtues such as explanatory significance and fruitfulness. Finally, there is a connection between the methods indispensable to a rationally required project and the truth. For instance, one does not count as a successful explainer if all of one's beliefs are manifestly off the mark.

[26] Reichenbach is especially clear on this claim in his (1940). There are several other important dissimilarities between Reichenbach's account and the pragmatic account. We can only briefly mention two here: First, Reichenbach has a very different conception of success; he claims only that Enumerative Induction will succeed if any method will succeed *in the extremely long run*. Second, Reichenbach seems

you are *epistemically* justified – not even *prima facie* epistemically justified – in forming your beliefs in accordance with that method, do we? And the worry is that there is no way to avoid saying so consistently with our account and its underlying philosophical motivations.

Fortunately, however, this is not so. In the proposed counterexample, you come to employ the otherwise unjustified method because you've reasoned from the threat to the advisability of employing it. Thus, you cannot be employing it as basic. But our pragmatic account is explicitly restricted so as to apply only to basic methods. This is for good reason: The epistemic credentials of non-basic belief-forming methods should depend on the verdicts of more basic methods. So the purported counterexample fails to provide a genuine counterexample.

What if the scenario is modified to evade this response? Consider the following modification: Suppose you already employed the otherwise unjustified belief-forming method *as basic* when I made the threat. Do we then want to say that my having made the reliable threat makes it the case that you are (*prima facie*) epistemically justified in employing the method? Surely not.[27]

To see why this purported counterexample also fails, recall the two clauses of our account. You are epistemically justified in employing the otherwise unjustified method if both (i) it is possible for you to successfully engage in the explanatory project by employing the method; and (ii) it is impossible for you to successfully engage in the explanatory project if the method is ineffective. Neither clause applies. First, you cannot

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to believe that a thinker needs to know the general outlines of his argument to be pragmatically justified in employing Enumerative Induction. We make no analogous claim.

[27] We are grateful to two referees for *Philosophy and Phenomenological Research* for pressing us on these issues.

successfully engage in this project *by* employing the method. Instead, successful engagement is a mere *side-effect* of your employment of the method. Second, in the described scenario, your pursuit of the explanatory project is doomed to failure if you do not employ the relevant method. What is required for the pragmatic account is that the project be doomed to failure *if the relevant method is ineffective*. And this is not the case. The otherwise unjustified method *is* ineffective; you cannot successfully engage in the project by employing it. But you can successfully engage in the explanatory project by employing IBE. The fact that I have issued a reliable threat does not strip you of this ability.[28]

Can the counterexample be modified so as to take these replies into account? Such an example would have to be one in which you can successfully engage in the explanatory project by employing the method and in which you cannot successfully engage in the project if the method is ineffective. Is there any such example? Here is one attempt: Suppose there is a jealous god (or angel or demon or mad scientist) such that, unbeknownst to you:

(a)   if you employ some otherwise unjustified belief-forming method – say, a certain form of mystical contemplation – you will come to thereby believe many important and true explanations, and successfully engage in the explanatory project; and

(b)   if you do not employ this method, and employ IBE instead, the jealous being will ensure that you do not successfully engage in the explanatory project.

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[28] Compare: Even if a quick painter will paint a certain stone red whenever it is brought into the light, still the stone is not disposed to look red in the light. See also Johnston's example of the shy but powerfully

Suppose, further, that you already employ the otherwise unjustified method. Surely, given these facts, you are not epistemically justified in so doing. Rather, you would still be epistemically justified in employing IBE.

Notice that the purported counterexample is rather baroque, and it is not obviously very costly to bite the bullet here. Nevertheless, there are a few points that can be made in reply. It is not clear whether you can successfully engage in the explanatory project *by* employing the method. The answer to this question depends on the precise details of the case. If mystic contemplation is supposed to yield success only via the actions of another agent, then you cannot successfully engage in the project by employing the method. If mystic contemplation is instead supposed to resemble a form of perception, then perhaps you can successfully engage in the project by employing the method. But then it is by no means clear that you would be epistemically unjustified in so doing. And analogous points can be made on the issue of whether you can successfully engage in the explanatory project by employing IBE.

Much care is needed, then, to formulate an example where our view really is committed to the (*prima facie*) epistemic justification of employing a seemingly unjustified method. If such an example can be presented we will be forced to bite the bullet. But countenancing the existence of such an example would not have a great cost. And it would not demonstrate that the pragmatic account too closely links the pragmatic and the epistemic.

5.2.   Is the Pragmatic Account Objectionably Externalist?

intuitive chameleon in his (1994).

We earlier emphasized that our account is intended to explain the sort of epistemic justification that is closely tied to epistemic responsibility. But it might be thought that our account must surely miss its target. The problem is that the connection with responsibility makes the kind of justification we are after internalist, or at least internalist in spirit, while the pragmatic account seems to be objectionably externalist.

This point may be developed by considering the so-called new evil demon problem.[29] It seems to be a robust intuition that someone internally very much like you who is deceived by an evil demon (or mad scientist) is indistinguishable from you, at least so far as epistemic justification is concerned. Your deceived counterpart is epistemically justified in using IBE, say, or in relying on her perceptual faculties, just in case you are. And since you are justified in employing these methods as basic, so is she. The pragmatic account, however, does not obviously accommodate this result, for it isn't clear whether your deceived counterpart can successfully engage in the explanatory project by employing IBE. It is not clear, in other words, whether there are possible worlds sufficiently close to the demon's work at which your deceived counterpart successfully engages in the explanatory project by employing IBE.

In response we want to note that the pragmatic account is indeed externalist, but is only as externalist as any plausible account must be. It can accommodate much of what the internalist wants; it is not *objectionably* externalist. In order to make these points, it is necessary to discuss the internalist-externalist divide more generally.[30]

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[29] See Cohen (1984).

[30] Boghossian motivates his meaning-based account of the justification of basic belief-forming methods partly by presenting it as a plausible middle-ground between extreme versions of internalism and externalism. Naturally, we think that the pragmatic account is to be preferred to meaning-based accounts. Nevertheless, we are heavily indebted to Boghossian's discussion in his (2000; 2001; and 2003).

One way to make the distinction between internalists and externalists reasonably precise is as follows: Internalists accept and externalists deny the claim that whether a thinker is epistemically justified in holding a belief (or in employing a belief-forming method) supervenes on what is cognitively accessible to the thinker by reflection alone.[31] Now, on the pragmatic account, whether a thinker is justified in employing a belief-forming method as basic depends (roughly) on its *being* indispensable for successfully engaging in a rationally required project, not on the relevant thinker's *believing* that it is. And, of course, the indispensability of a method and the rational requiredness of a project may not be accessible to thinker by reflection. So it seems possible for there to be two internally indistinguishable thinkers – that is, who have the same contents accessible by reflection alone – such that one is epistemically justified in employing a certain belief-forming method, and the other is unjustified in employing that method. The pragmatic account thus counts as an externalist account.[32]

A rather crude version of internalism is the one we'll call "extreme internalism".[33] According to extreme internalism, a thinker is only justified in employing a belief-forming method (or in holding a belief – from now on we will mention only the case of methods) if she possesses an explicit justification of the relevant method. This view is strongly motivated by the intuitions underlying internalism in general.[34] But, as we have already discussed, extreme internalism must be rejected: It doesn't allow relatively simple thinkers to be justified in employing belief-forming methods, and more generally,

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[31] This definition of "internalism" is what Pryor (2001, section 3) labels "simple internalism".
[32] Strictly speaking, the pragmatic account is compatible with internalism. However, such a combination would entail implausibly strong claims about what is accessible to thinkers by reflection alone.
[33] This position is called "Simple Inferential Internalism" in Boghossian (2003).
[34] Taken sufficiently seriously, being fully epistemically responsible seems to require that a thinker actually possess a justification, not that she merely be in a position to cook one up.

it leads to either vicious circularities or infinite regresses (and so at least flirts with global skepticism).

So some external condition seems unavoidable. Having learned this lesson, extreme reliablists overreach. They claim that a thinker is epistemically justified in employing a belief-forming method just in case the method tends to be truth-preserving.[35] But reliablism, too, faces insurmountable problems. Intuitively, whether a thinker's reasoning counts as responsible does not depend on whether the thinker gets it right. It is, for instance, intuitively clear that one can be an epistemically responsible thinker, and still – through no epistemic fault of one's own – employ unreliable belief-forming methods. This is part of the point of the new evil demon scenario. Similarly, it is intuitively clear that one can be epistemically irresponsible despite the fact that one's beliefs are formed by reliable belief-forming methods. BonJour's famous example of the reliable clairvoyant who has no evidence in favor of using this faculty provides one case of this.[36] So, too, does the example of a thinker who reliably draws an extremely complex logically valid inference in a single step, without going through the requisite intermediate reasoning. Extreme reliablism thus misrepresents the connection between epistemic justification and epistemic responsibility. In doing so, it becomes a highly revisionist account of justification: Rather than doing anything else, it simply changes the subject.

It is thus important to note that the pragmatic account we suggest, though externalist, can to a large extent accommodate the internalist intuitions connecting

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[35] This position is labeled "Mad-Dog Reliabilism" in Dretske (2000, 595).
[36] See BonJour (1985, 37–40).

responsibility with justification.[37] There is nothing intuitively irresponsible about a thinker who employs the only method that could yield success in pursuing a required project. Reichenbach's blind man counts as a responsible agent in groping his way along the path. So, too, do we count as responsible thinkers in employing belief-forming methods that are indispensable for successfully engaging in rationally required projects.

But let us not pretend that all is well. Problems remain. The new evil demon scenario still threatens, and we do seem committed to the claim that we are justified in employing IBE as basic and our internally-indistinguishable deceived counterparts are not. And cases analogous to BonJour's counterexamples to reliablism may exert further pressure on the pragmatic account. For we can imagine cases where, though a belief-forming method is indispensable to a rationally required project, the relevant thinker has no reason to believe that this is so, and perhaps even has reasons to believe that it is not so. In such cases, isn't the pragmatic account committed to intuitively implausible results?[38]

It is, of course, important to get the details of such purported counterexamples right, and it's not completely clear how much intuitive force survives the needed precisifications. Your deceived counterpart, for instance, may be a brilliant logician, and, depending on the exact details of the deception, may have other truths accessible to her as well. So the scope of the problem is limited. Moreover, it's not as if our account requires that for your counterpart to be justified in employing IBE as basic, IBE must yield success in her world. It is only required that it yield success in some world sufficiently

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[37] At one point, Boghossian (2001, 29–30) suggests taking the connection between epistemic justification and responsibility to be the defining feature of internalism. If "internalism" is so understood, the pragmatic account plausibly counts as internalist.
[38] We thank Paul Boghossian for pressing us on this topic.

close to hers. So again, the objection has less force than meets the eye. Furthermore, it's not completely clear that the analogues of the BonJour cases work very well against our account. Intuitively, it is not clear that a clairvoyant for whom relying on this faculty is indispensable for finding his way around the world is epistemically unjustified in relying on his clairvoyance. In such a case, clairvoyance might be relevantly similar to perception. And for both kinds of counterexamples, it should be remembered that our account is only meant as an account of *prima facie* epistemic justification. So the option remains of accounting for some purported counterexamples by noting the presence of defeaters.[39]

Let us concede, though, that even after such moves have been made, some counterintuitive flavor may remain. And this is a result we would have liked our account to avoid. But this is a bullet we are willing to bite. Given the conclusive arguments against simple internalism, similar bullets must be bitten by any other plausible view as well. Some wedge, for instance, is going to have to be driven between justification and blameworthiness, given that your deceived counterpart is certainly not blameworthy for the fact that she is using some belief-forming methods she is not – but you are – justified in employing. But, to repeat, such bullet-biting is unavoidable. And the pragmatic account's bullet is not harder – and is, quite possibly, easier – to bite than those of its alternatives.

The pragmatic account thus avoids the pitfalls of extreme internalism, without collapsing into extreme reliablism (or another extreme version of externalism). And it accommodates – as much as is possible without endorsing extreme internalism – the benign underlying internalist intuitions. So the pragmatic account is not objectionably

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[39] This part of our reply is also available to extreme reliabilists, as Boghossian (2003, 228) points out.

externalist. Indeed, we believe that it fills a privileged intermediate position along the internalist/externalist spectrum.

5.3.   Reichenbach's Ghost

Reichenbach's pragmatic justification of induction is widely held to have failed, not so much because it delivers only pragmatic justification, but because of the following problem:[40] Reichenbach argued that if any method of prediction can succeed, so can Enumerative Induction (at least in the very long run), and given that we want to predict, we are pragmatically justified in employing Enumerative Induction. In arguing in this way, Reichenbach hoped to vindicate a specific inductive rule of inference. But it was subsequently shown that Reichenbach's reasoning applies equally well to infinitely-many competing inductive rules. So, even if Reichenbach's reasoning was sufficient to show that we are pragmatically justified in using his inductive rule rather than not using any inductive rule at all, his reasoning did not support using his favored inductive rule over any of the many alternative inductive rules to which it also applies.

Our pragmatic account, it might be argued, falls prey to a similar problem.[41] Even if we are justified in employing IBE as opposed to using no ampliative rule of inference at all, are we justified in using IBE rather than other possible rules of ampliative inference? Such alternative rules include Inference to the Third Worst Explanation (IWE) and Inference to the Best* Explanation (IB*E), where the best* explanation is best according to a slightly different way of evaluating putative explanations from the one we actually use. There is an obvious worry here: If IBE fails, perhaps not all is lost, since

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[40] For discussion of this problem, see Salmon (1991).
[41] We are indebted to Hartry Field for pressing us on this matter.

IWE, or perhaps IB*E, or perhaps IB**E, may succeed. If so, IBE is not indispensable in the relevant sense after all, and the pragmatic account does not yield the result that we are justified in employing IBE as basic. Indeed, it is difficult to see how the pragmatic account can distinguish between IBE on one side and IB*E and IWE on the other. But without such a distinction surely the account fails to properly explain our justification for employing IBE. And analogous problems can be raised, it seems, concerning other basic belief-forming methods.

Our reply consists in the combined weight of two separate points, one regarding methods that are reasonably close to the justified methods we employ (such as IB*E), and one regarding far crazier methods (such as IWE). With regard to the former, we want to emphasize that we are in some ways less ambitious than Reichenbach was. He wanted, remember, to justify a *specific* inductive rule. We settle for less: We want to account for the *prima facie* justification of employing certain belief-forming methods as basic, IBE included. In doing that, it is not clear that we need to claim that we wouldn't be *prima facie* justified in employing IB*E. Since IB*E is a belief-forming method that is closely related to IBE, it is plausible that if IBE were ineffective – if it did not enable a thinker to successfully engage in the explanatory project – IB*E would be ineffective, too. Hence, the possibility of success using IB*E does not threaten the *prima facie* justification of IBE on our account. Indeed, that we are *prima facie* justified in using either IBE or IB*E is not intuitively very worrying, given the close relationship between the two methods.[42] Moreover, it is still possible that *all-things-considered*, IBE is to be preferred to IB*E (because, for instance, we have some other belief-forming methods that guide us in

choosing among the different explanatory methods,[43] or because IB*E gets into trouble with other belief-forming methods we are *prima facie* justified in employing, and so on). But even if this is not so, our account can yield *prima facie* justification for employing IBE. For Reichenbach this would not have been enough. But for us it is.

How about crazier methods, such as IWE? If our account cannot distinguish between IBE and IWE this *does* count heavily against it. Now it is true, of course, that even if such crazy methods are *prima facie* justified, nevertheless they might be defeated later on – by other methods, or in some cases perhaps even by themselves – and so would lack all-things-considered justification. But unlike for the case of IB*E, for the case of IWE this is not a satisfying response. Intuitively, IWE is not even *prima facie* justified.

In reply, let us just note that it is extremely difficult to see how IWE can satisfy the requirements of our account: While it might be pragmatically possible to engage in the explanatory project by employing IWE, it seems that it is pragmatically impossible to *successfully* engage in this project using IWE. So IWE does not come out as *prima facie* justified, and our account does not deliver the threatened counterintuitive result.

In order to make the objection against Reichenbach's justification of Enumerative Induction into an equally devastating objection to our account what is needed is an example of a method that avoids both parts of our reply. What is needed, in other words, is a method that is sufficiently close to justified methods to make success possible, but that is sufficiently crazy to make unacceptable the suggestion that we are *prima facie*

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[42] Even if IBE and IB*E were not equally effective in all pragmatic possibilities, a natural generalization of our account can be used to generate the result that we are *prima facie* justified in employing the disjunctive method.

[43] Among these methods may be one that calls upon us to give more weight, all other things equal, to a method that "comes more naturally" to us. Such a line of thought echoes a well-known reply to Goodman's "new riddle" of induction: It may be reasonable to prefer inducing on blue and green rather than grue and

justified in employing it. We cannot think of such an example, and we speculate that none is to be found.

5.4.   Objectivity

Imagine a community of thinkers very different from us. The basic belief-forming methods they employ are very different from ours. Perhaps, for instance, they employ some rule of Counter-Induction as basic. Granted, it is difficult to fill in the details of such a community: What do they believe? What do their social practices look like? How have they survived?[44] But it is still more difficult to rule out such a community as metaphysically impossible. And even if a community of counter-inductors is impossible, surely it is not impossible for there to be a community of thinkers who employ an explanatory method very different from IBE, or who have highly unusual perceptual practices, and so on. Let's proceed, then, on the assumption that it is possible for such a community to exist. Now add a further assumption: Given the centrality of Counter-Induction to their reasoning practices, if Counter-Induction fails, they cannot successfully engage in the predictive or explanatory projects.

Now, it is intuitive that we are *objectively* justified in employing Enumerative Induction, that this method is universally epistemically justified. It is also intuitive that it is objective that employing Counter-Induction is unjustified, that Counter-Induction is universally epistemically unjustified. And, however exactly these intuitions should be

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bleen simply because, roughly speaking, blue and green come more naturally to us. See, for instance, Quine (1970).

[44] There is a legitimate concern – based, perhaps, on principle-of-charity considerations – that even if we were to encounter these people, we would not attribute to them Counter-Induction. We would either interpret them as employing different basic belief-forming methods, or we would fail to recognize them as thinkers at all. However, that we would not attribute these methods to any community does not suffice to show that it is impossible for such a community to exist.

made sense of, they seem to entail that no thinker is epistemically justified in employing Counter-Induction rather than Enumerative Induction. Given our account, however, it may be difficult to see how this claim can be maintained. It seems that the deviant community will come out as epistemically justified in employing Counter-Induction. The counter-inductors are different from us in a way that the pragmatic account seems to render relevant. The worry, then, is that our account makes the justificatory status of basic belief-forming methods relative (or subjective, or local) in an objectionable way.[45]

Before we address this worry, we need to make a general point about objectivity. The objectivity of a norm is not threatened by its sensitivity to circumstances. So, for instance, that we are sometimes morally required to tell the truth but at other times morally permitted to tell a lie doesn't show that moral norms are not objective. Rather, moral norms are sensitive to circumstances: It is objectively true that in some circumstances one ought to tell the truth, and that in other circumstances one is permitted to lie.

In some cases, an apparent failure of objectivity is a matter of the sensitivity to circumstances rather than being a genuine failure of objectivity. Creatures with very different perceptual organs, for instance, are presumably justified in relying on whatever perceptual capabilities they – not we – have. This is no threat to the objectivity of the justification of relying on (say) visual perception; it is simply a benign case of the sensitivity of the ultimate epistemic norms to circumstances.

In sufficiently weird cases, though, this line does not seem promising: We are not willing to concede that the counter-inductors are just as justified as we are, and that this is

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[45] We take it for granted here that play with rigidification – modifying the account so that whether a thinker is justified depends on what we *actually* do – is no serious cure to worries about the absence of objectivity.

merely a case of benign sensitivity to circumstances. Fortunately, then, we have available to us a stronger reply. For even if it is true that if Counter-Induction fails the counter-inductors cannot successfully engage in the predictive or explanatory projects, this doesn't suffice to satisfy the conditions of our pragmatic account. It is also necessary that by using Counter-Induction, it is possible for them to succeed. And this is simply false. The counter-inductors suffer from an extreme case of bad epistemic luck; they cannot successfully engage in the predictive or the explanatory projects, irrespective of their use of Counter-Induction. Our pragmatic account, then, does not vindicate their use of Counter-Induction.

As in the case of Reichenbach's Ghost, to pose a genuine problem, what is needed is an example that manages to tread the line between these two replies – a case where a community uses a belief-forming method as basic, where the method is sufficiently crazy to make it highly implausible that it is justified for them to use, but where the method is not so crazy as to render success in the relevant project unattainable. Once again, we conjecture that no such example can be found.

6.   Conclusion

Quite plausibly, basic belief-forming methods are where the need for a justification comes to an end. But that does not show that the question of in virtue of what we are epistemically justified in employing basic belief-forming methods has no answer. As we have argued, the epistemic justification of basic belief-forming methods is grounded in their indispensability to rationally required projects. Our pragmatic account provides an explanation of the epistemic justification of those belief-forming methods that we pre-

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For an especially clear statement of the general problem with such moves, see Lewis (1989, 89).

theoretically think we are justified in employing as basic. It presents a unified picture of the justification of basic belief-forming methods, emphasizing what is had in common by such otherwise diverse belief-forming methods as inferring to the best explanation, using MP, relying on perception, and relying on normative and modal intuitions. And the feature all of these methods have in common – indispensability to a rationally required project – is one that presents them in a rationally positive light.

The pragmatic account is also theoretically productive. We have already discussed how it bears on the internalism-externalism debate. Let us quickly note two other places where the pragmatic account provides interesting epistemological payoffs.

Arguably, if any beliefs or belief-forming methods are to be justified, there must be some "default reasonable" belief-forming methods – methods that are justified without being in need of anything like an explicit justification. For, it might be argued, circular "justifications" and infinite regresses cannot generate genuine justification; justifications must start somewhere; and so they must start with default reasonable methods and beliefs.[46] Now, basic belief-forming methods are natural candidates for being default-reasonable. And our account of their justification does not deprive them of this status; we have not argued that a thinker needs an explicit justification of a basic belief-forming method to be justified in employing it. Indeed, the pragmatic account can serve to answer an initially powerful objection to making use of the idea of default reasonableness in a solution to the problem of justifying basic belief-forming methods. As Boghossian (2000) writes, if some beliefs or methods count as default-reasonable and others do not, there must be some explanation of why the former are and the latter are not default-reasonable.

In other words, there must be a principled way of drawing the line between the default-reasonable and the non-default-reasonable. Rejecting the ways of coping with this challenge he considers, Boghossian concludes that making use of the idea of default reasonableness is a mistake. But our pragmatic account – an account Boghossian doesn't consider – can supply a way of coping with the challenge. Belief-forming methods qualify as good epistemic starting points – are default-reasonable – if they satisfy the two clauses of our account. The pragmatic account can thus help in developing an adequate account of default-reasonableness. Indeed, it may be thought of simply *as* such an account.

Next consider the following argument:

(i) We use IBE, both when doing science and in our everyday commonsensical reasoning.

(ii) Our scientific and commonsensical reasoning have been tremendously successful.

(iii) If IBE had not been reliable, this success would have been utterly mysterious.

(iv) Therefore, IBE is reliable.

This argument is initially very promising. Upon reflection, however, a problem quickly appears: The move from (iii) to (iv) is, when made fully explicit, an instance of IBE. This

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[46] A version of this argument can be found in Field (2000, 120–124). As we state below, we believe some rule-circular justifications are unobjectionable. The argument in the text should be modified to take this fact into account.

argument, then, is rule-circular. It argues for the reliability of a rule of inference by employing that very rule.

Rule-circular arguments are, of course, problematic. This can be seen from the abundance of rule-circular arguments we clearly want to reject (such as an argument "establishing" the reliability of astrological methods that itself depends on the use of astrological methods), and by the strong feeling that such arguments beg the question against anyone who wasn't already convinced of the reliability of the relevant method.[47] Nevertheless, the idea that some rule-circular arguments are cogent is not without philosophical appeal. We want to note, then, that our account can accommodate this idea. What makes rule-circular arguments problematic is that one is typically justified in following a rule of inference only if one is antecedently justified in believing that it is at least reasonably reliable. When this is so, the rule-circular argument is only available to someone already justified in believing its conclusion. So if there is to be any hope for rule-circular arguments, there must be cases in which one's justification for following the relevant rule of inference does not depend on being antecedently justified in believing it reliable.[48] But the justified employment of a basic belief-forming method does not, on the pragmatic account, depend on any antecedent justified belief about it or its reliability. So the pragmatic account can explain how it is that some, and not all, rule-circular arguments are of value. And the pragmatic account seems to draw the line between acceptable and vicious rule-circular arguments in an intuitively appealing place.

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[47] For discussions of rule-circular justifications, see Alston (1986) and van Cleve (1979). For an elaborate and sympathetic discussion of a rule-circular justification of MP, see Boghossian (2000; 2001). The two problems for rule-circular justifications we discuss draw upon Boghossian (2000, 254–8).

[48] This point is made in Boghossian (2001, 12).

This is all very quick, of course. Much more needs to be said on each of these issues. But enough has been said, we hope, to appreciate some of the theoretical potential of the pragmatic account.

You may not be fully convinced by some of the details of our pragmatic account. We, too, are more confident in the general picture than we are in the specific details developed here. But the advantages of the pragmatic account are so significant, and its shortcomings so unavoidable, that something like it must be true.[49]

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