Common Sense Rationalism

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THESIS
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Dedicated to THE STRAIGHT EDGE
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SUMMARY

My aim in this essay is to defend rationalism, the view that some propositions expressed by synthetic sentences can be justifiably believed on a priori grounds. More specifically, I defend the following principle of epistemic justification:

**IPC (intellectual phenomenal conservatism):** If it *intellectually* seems to S that \( p \), then, in the absence of defeaters, S thereby has at least some degree of *a priori* justification for believing that \( p \).

IPC says that intellectual seemings (or appearances)—mental states with propositional content that are neither beliefs nor experiences—are a source of *a priori* justification. Since it permits beliefs whose contents can be expressed by *synthetic* sentences to be justified a priori, IPC is undoubtedly a rationalist principle.

IPC is an instance of Michael Huemer’s *general* principle of Phenomenal Conservatism, which says, roughly, that, absent defeaters, *all* seeming states provide some degree epistemic justification. Phenomenal Conservatism, is, in turn, inspired by the Common Sense approach to epistemological methodology associated with Reid, Moore, and Chisholm. Thus, my defense of rationalism proceeds, by five steps, from (broadly) Common Sense presuppositions.

First, I provide a theoretical definition of rationalism and an analysis of its constituent concepts. Second, in light of this definition, I identify four bodies of evidence that provide *prima facie* support for rationalism. Third, I argue that empiricist explanations of this evidence are inadequate. Fourth, I exposit and defend the principle of phenomenal conservatism and, by extension, IPC. Finally, I argue that a successor principle, RPC (a) adequately explains our *prima facie* evidence for rationalism, (b) is more attractive than competing versions of rationalism, and (c) withstands the main objections to rationalism.
1. INTRODUCTION

1.1 Project Overview

Epistemological rationalism is, roughly, the view that some propositions expressed by synthetic sentences can be justifiably believed a priori. Permutations of this ancient and honorable position have been advanced by some of the most significant figures in the history of philosophy, including Plato, Descartes, Spinoza, Leibniz, Frege, and Russell. Indeed, the sustained popularity of the rationalist view can, perhaps, be explained by its considerable initial plausibility. To appreciate this, let us briefly consider the epistemic and semantic status of the following propositions:

(1) \((87 + 7) + 7 = 87 + (7 + 7)\).
(2) If John is identical to Steven and Steven is identical to Frank, then John is identical to Frank.
(3) Two sets that have the same members are identical.
(4) If something is indigo, then not everything is maroon.
(5) Every object with a shape has a size.
(6) If A is true and A entails B, then B is true.

Notice, first, that we appear to be immediately justified in believing each of these propositions simply by virtue of understanding them. This suggests that they are justified a priori. Now observe that the truth of the sentences that express these propositions appears to be fixed, in part, by language-independent facts. This suggests that they are synthetic. Thus, we have several clear-cut examples of propositions that (apparently) can be expressed by synthetic sentences and justified a
priori. These examples, in turn, provide *prima facie* support for rationalism (although, of course, the various details of the view are in need of further specification and defense).

Despite rationalism’s palpable allure, empiricism—which we’ll provisionally define as the view that every true synthetic sentence expresses a proposition that can only be justifiably believed on *a posteriori* grounds—has been the dominant position on epistemic justification for the better part of the last century. In fact, for most of the period, a general commitment to empiricism was *de rigueur* among mainstream philosophers. Recently, however, a number of important figures—including BonJour (1998), Katz (1998), Bealer (2000), and Peacocke (2004)—have come out in favor of rationalism. As a result, the rationalist party has started to recapture previously ceded portions of the philosophical electorate.

Over the same period of time, philosophers such as Plantinga (2000), Pryor (2000), Huemer (2001), and Lemos (2004) have reinvigorated the common sense approach to epistemology traditionally associated with Reid, Moore, and Chisholm. The defining commitment of common sense epistemology is *particularism*, a meta-epistemic methodological position according to which (a) we can identify paradigm cases of knowledge and justified belief without appeal to any general epistemic principles, (b) common sense propositions constitute the bulk of these paradigms, and (c) the paradigms occupy a position of epistemic privilege when weighed against competing *theoretical* claims. Thus, commonsensists maintain that our epistemological theories are adequate only insofar as they explain the positive epistemic status of a wide-range of common sense propositions.
One contemporary theory of epistemic justification that promises to meet this adequacy condition is *phenomenal conservatism*. Michael Huemer (2007, p.30), the progenitor of the view, formulates it as follows:

\[(PC)\] If it seems to \(S\) that \(p\), then, in the absence of defeaters, \(S\) thereby has at least some degree of justification for believing that \(p\).

The basic idea is that there are non-doxastic representational mental states—ordinarily called seemings or appearances—that provide epistemic subjects with some reason, though not always good or decisive reason, to believe their contents. Since common sense propositions seem true to most people most of the time, phenomenal conservatism provides a rather straightforward explanation of their positive epistemic status.

For the most part, neo-rationalists remain, despite their contemporaneous genesis, dialectically isolated from commonsensists and phenomenal conservatives.\(^1\) This has created a significant gap in the epistemological literature. My aim in this essay is to fill it. I will do so by defending a version of rationalism that is informed by common sense and modeled on the theory of justification advanced by phenomenal conservatives.

My two fundamental theses are (a) that a rationalist theory of epistemic justification best explains how we are justified in believing many common sense propositions and (b) that *phenomenal conservatism* best explains how rationalist justification is possible. My defense of

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\(^1\) Although BonJour’s (1998) inference to the best explanation argument for rationalism, for instance, seems to rest on data gleaned from common sense, in more recent work (2010, p. 242-245) he has explicitly repudiated particularism. Plantinga (2000 pp.110-117) is a rationalist who unreservedly accepts particularism (1983, p. 76), but has never, as far as I can tell, provided a sustained argument for (or full account of) his rationalist commitments. Huemer, whose influence is felt throughout essay, is also a rationalist particularist. His recent book on ethical intuitionism includes a brief argument (2005, pp. 99-105) from the principle of phenomenal conservatism to the conclusion that moral beliefs can be justified a priori. As Huemer develops this argument, he suggests that other kinds of beliefs can also be justified a priori. What he doesn’t do, however, is provide a direct and sustained argument for rationalism or a thoroughgoing explanation of how the principle of phenomenal conservatism can be used to account for the synthetic a priori.
these theses proceeds by six steps. In the present chapter, I exposit and briefly defend my theoretical presuppositions. In Chapter 2, I provide a definition of rationalism and an analysis of its constituent concepts. In Chapter 3, I argue that ordinary thought and talk —the data of common sense — provide prima facie evidence for rationalism. In Chapters 4 and 5, I make an ultima facie case for rationalism by identifying and then undermining the most promising empiricist explanations of this evidence. In Chapter 6, I explain and defend phenomenal conservatism. I conclude, in Chapter 7, by arguing that phenomenal conservatism provides a model for rationalism that is adequate to our prima facie evidence, more attractive than its primary competitors, and withstands the main objections to the synthetic a priori.

1.2 Chapter Overview

Rationalism is a theory of epistemic justification. It is virtually impossible to defend a position on justification without engaging other central issues in epistemology. In order to produce a manageable piece of work, I must restrict the range of subjects to which I give comprehensive consideration. Thus, I will assume—but will not painstakingly defend—contentious positions on epistemological methodology as well as on the nature, structure, and extent of knowledge and justification.

These theoretical presuppositions permeate the chapters to come and directly motivate some of my most important arguments. In this section, I will articulate the epistemological positions I presuppose and briefly highlight their attractive features. This will enable readers to understand why I have adopted these positions, to locate my version of rationalism in logical space, and to more easily detect potential points of disagreement.
1.3 **Common Sense Methodology**

My approach to epistemology is heavily influenced by the methodological prescriptions of Thomas Reid, G. E. Moore, and Roderick Chisholm. These three philosophers are the pillars of the common sense tradition in epistemology.\(^2\) The fundamental precept of this tradition is, as noted above, methodological particularism, which is best characterized as the conjunction of two theses:

**Identification**: We can recognize paradigm cases of knowledge and justified belief *immediately*, i.e., without inference from our beliefs about any general epistemic principles, formulae, or criteria; these paradigm cases constitute data to which our epistemological theories must answer.

**Conservation**: Paradigm cases of knowledge and justification (a) should be assigned a very significant amount of initial epistemic weight, (b) should be assigned *more* initial epistemic weight than philosophical propositions and (c) if, as inquiry proceeds, there is conflict between a paradigm case and a philosophical proposition, then, *prima facie*, one should reject the philosophical proposition.

Note that identification is, by itself, a rather weak thesis. It does not tell us how to proceed once we’ve identified some paradigm cases of knowledge and justification. Moreover, it is, as I demonstrate below, consistent with a variety of methodological positions. Thus, the conservation thesis is what really distinguishes particularism from its competitors.

In the sub-sections that follow, I provide the reader with a sense of how identification and conservation converge to create a coherent methodological picture. Although my aim is primarily expository, I also attempt to *motivate* particularism. To that end, I provide brief arguments for both of its constituent theses.

\(^2\)There are, of course, other important philosophers who can, with some merit, be said to speak for common sense. Aristotle, Berkeley, Pierce, Wittgenstein, Popper, Quine, and the Oxford ordinary linguists, to provide a small sampling, have all, at times, defended common sense claims or used them as premises when constructing philosophical arguments. Nevertheless, to show that any of these figures would endorse both *Identification* and *Conservation* (see below) would be a significant scholarly undertaking. Indeed, in my judgment, few of the philosophers named above would accept either of the theses in question without revision.
1.3.1 Identification

Antecedent to any philosophical activity, there are many propositions that we unreservedly take ourselves to know. Here are some examples:

(7) The earth is very old.
(8) I have two hands.
(9) I have a body.
(10) Some apples are red.

These propositions are paradigm cases of knowledge, i.e., they are among the clearest and least controversial examples of knowledge that anyone could produce. Advocates of the identification thesis hold that (a) we can reliably pick out paradigm cases without appeal to principle-driven decision procedures and (b) that paradigm cases provide data that epistemic theories must explain.\(^3\)

Most of the propositions we identify as paradigm cases of knowledge are, like those listed above, common sense propositions.\(^4\) That is, they are widely believed, inspire maximal confidence, and are taken for granted in our everyday thought and talk. This becomes important when we note, with Lemos (2004, p. 4), that some common sense propositions make claims about knowledge, justification, rationality, and other epistemological concepts. Consider, for instance, the following:

(11) I know that I have two hands.
(12) Many people know that water is H\(_2\)O.
(13) It is not reasonable to hold beliefs based only on wishful thinking.

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\(^3\)As Chisholm (1982, p. 74) writes “knowing what we do about ourselves and the world, we have at our disposal certain instances that our [epistemic] rules or principles should countenance, and certain other instances that our rules or principles should rule out or forbid.”

\(^4\)Of course, there are some (putative) paradigm cases of knowledge that aren’t instances of common knowledge, such as my name is Robert Farley and I once lived in New Jersey.
These epistemic common sense propositions are as widely and unreservedly affirmed as (7)-(10). Thus, they too are paradigm cases of knowledge. Accordingly, they too supply us with data against which to test epistemological theories. Since we know (11), for instance, we are entitled to use it to evaluate philosophical proposals about the nature, sources, and extent of our knowledge.

1.3.2 Conservation

To see how such an evaluation proceeds, let us examine a familiar skeptical argument:

(14) If you know that you have two hands, then your evidence rules out the possibility that you are a handless brain in a vat.
(15) Your evidence does not rule out the possibility that you are a handless brain in a vat.
(16) Thus, you do not know that you have two hands.

Proposition (14) is an instance of a more general philosophical principle:

(17) If S knows that p, then S’s evidence rules out any possibility in which ~p.

Now, (14) and (17) are philosophical propositions advanced by the kinds of theoretically aspirational individuals who populate academic institutions. They are certainly not to be found among the paradigms of knowledge. Proposition (11), by contrast, is surely a paradigm instance of knowledge. If I know anything at all, I know (11). With that in mind, G.E. Moore (1939) contends that my knowledge of (11) entitles me to reject (14) and (17).

I think what Moore has in mind is this: since we must reject either (11) or (14) and since (11) has more initial epistemic weight than (14), the rational way to proceed, ceteris paribus, is to reject (14). It would only be rational to favor (14) over (11) if there were reason to significantly adjust their initial weightings in light of new evidence. But there is no such reason. This is largely
because philosophical principles begin their careers in such an epistemically impoverished state that they’ve no real chance to bootstrap their way to parity with the claims of common sense.

This reconstruction of the Moorean response to skepticism rests on the conservation thesis. One also finds this thesis expressed by Reid (1969, p.4)—

To what purpose is it for philosophy to decide against common sense in this or any other matter? The belief of a material world is...of more authority than any of the principles of philosophy. It declines the tribunal of reason, and laughs at all the artillery of the logician. It retains its sovereign authority in spite of all the edicts of philosophy, and reason itself must stoop to its orders.

—and by Chisholm (1966, p. 57):

If we take [the common sense] point of view, then we can say, with Thomas Reid, that if empiricism has the consequence that we do not know any...“external facts,” then empiricism, ipso facto, is false.

Thus, there is textual evidence which suggests that the central figures within the common sense tradition are committed to conservation. Most importantly, that commitment is what distinguishes their epistemological method from its competitors.

1.3.3 A Case for Particularism

There are at least three basic approaches to epistemological methodology:

**Extreme Methodism**: We should begin epistemological inquiry with general epistemic principles. Their proper application will determine which propositions are known, rational, justified, etc. These principles should (a) be assigned a significant amount of initial epistemic weight, (b) be assigned more initial weight than judgments about paradigm cases, and (c) should always win out in cases of conflict with paradigm cases.

**Reflective Equilibrium**: We should begin epistemological inquiry with a mix of general principles and paradigm cases. The principles and paradigm cases we start with should each be assigned a significant and equivalent amount of initial epistemic weight. When principles and paradigm cases conflict we should revise each as needed, with the aim of preserving system-wide coherence.
**Extreme Particularism:** We should begin epistemological inquiry by identifying paradigm cases of epistemic phenomena. Inference from these instances will provide us with general principles of knowledge, rationality, justification, etc. These paradigm cases should (a) be assigned a significant amount of initial epistemic weight, (b) be assigned more initial weight than general epistemic/philosophical principles, and (c) should *always* triumph in cases of conflict with general epistemic/philosophical principles.

While some views on epistemological method may not fit neatly into one of these categories, the categories themselves effectively delimit the methodological spectrum. Thus, every alternative position can be plotted somewhere between the strongest version of methodism and the strongest version of particularism, with reflective equilibrium serving as the mean between extremes.

Consideration of this classificatory scheme brings to light a philosophically significant point; namely, that *identification* is accepted by every epistemologist to the left of the extreme methodist. For instance, even *moderate* methodists—i.e., those who assign significantly more epistemic weight to principles than paradigm cases—think that we can pick out *some* paradigm cases without appeal to general principles. Moreover, they accept that their principles may, at times, be subject to revision in order to accommodate judgments about particular cases. By contrast, extreme methodists recommend a wholly *deductive* approach to epistemology. On their view, the epistemologist should begin by identifying self-evident principles from which—given the right kind of supplementary premises, e.g., that proposition *p* satisfies principle *q*—the epistemic status of particular propositions can be deduced. In this respect, then, the methods of epistemology are supposed to be indistinguishable from the methods of geometry.

There are at least two strong reasons to reject extreme methodism. First, there aren’t any extant epistemic principles that command the unreserved assent enjoyed by, e.g., Euclid’s first postulate. Although it’s *possible* that there are yet-to-be-discovered self-evident epistemic principles, our track-record supports pessimism on that score. Second, philosophers are deeply and
broadly committed to the method of assessing theories (which, of course, include general principles) by testing them against examples. But this method is inconsistent with extreme methodism. That’s because counterexamples just are judgments about particular cases made without appeal to general principles. Thus one of our default methods of testing philosophical theories presupposes identification, i.e., it presupposes that we can reliably pick out genuine counterexamples. In light of this, the burden of proof rests on the extreme methodist. She must demonstrate that a default approach to theory assessment (not just in epistemology but throughout philosophy) ought to be discarded.\(^5\)

Of course, particularism is not just the negation of extreme methodism. Even if we reject the latter view and accept identification, a range of further methodological choices remain. For instance, once we concede that paradigm cases have some initial weight, we still need to determine just how much weight to assign them, both individually and in comparison to general philosophical principles. Moreover, we need some kind of decision procedure to which we can appeal when, invariably, our judgments about particular cases conflict with our principles. Particularism is distinguished from competing methodologies by its recommendations with respect to these choices, which jointly constitute the conservation thesis. Thus, to make the case for particularism, one really needs to make the case for conservation.

Although I haven’t the space to offer a thoroughgoing apologia for conservation, I shall briefly run through some considerations that tell in its favor. To start, recall that conservation provides three interconnected methodological prescriptions. The first tells us to assign a significant amount of initial epistemic weight to our judgments about paradigm cases. The second tells us to

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\(^5\) Fumerton (2008) makes a similar point vis-à-vis methodism and the epistemic force of counter-examples, although he uses it to motivate a somewhat different conclusion.
assign more initial weight to judgments about paradigm cases than to judgments about philosophical principles. The third tells us that judgments about paradigm cases should, prima facie, trump judgments about philosophical principles in cases of conflict.

Support for the first prescription falls out of the identification thesis. On the assumption that we can immediately identify paradigm instances of knowledge and justified belief, it follows that we identify them as instances of knowledge and justified belief. This is sufficient to justify assigning them a significant amount of initial epistemic weight, since, presumably, a proposition that is known or justifiably believed will possess a significant amount of epistemic weight. Of course, the proponent of reflective equilibrium can accept this point. It’s the second of conservation’s constitutive prescriptions that he must reject.

Several considerations that favor this second prescription emerge when we compare paradigmatically known propositions (most of which, you will recall, are common sense propositions) with other kinds of intuitively plausible propositions. Specifically, most members of the former set of propositions possess two features—unanimity and practical indubitability—that other kinds of propositions don’t possess. I contend that these features suffice to justify assigning them more initial epistemic weight than general philosophical/theoretical claims. In support of this contention, I have developed two explicit arguments for conservation’s second prescription, one based on unanimity and one based on practical indubitability.

Let’s begin by reviewing the unanimity argument:

(18) If there is widespread agreement about \( p \) and widespread disagreement about \( q \), then we ought to assign more initial epistemic weight to \( p \) than to \( q \).

(19) There is widespread agreement about common sense propositions and widespread disagreement about philosophical principles.
Thus, we ought to assign more initial epistemic weight to common sense propositions than to philosophical principles.

Insofar as premise (19) reports a truism, I don’t expect it to be controversial. Premise (18) may attract a bit of criticism, but it too is hardly contentious. Although there is on-going debate about the extent to which the attitudes of our interlocutors affect the epistemic standing of our beliefs, that they do is not disputed.

For instance, the fact that I agree with you that $p$ is true appears to augment your justification for the belief that $p$ (though probably not by much). That is, simply learning that I believe a proposition you believe provides some additional reason for you to believe that proposition. When many people share one of your beliefs, you’ve even more reason to hold it. Similarly, the fact that you don’t agree that $q$ counts against my belief that $q$ (though usually not enough to defeat it). When lots of people disagree with one of your beliefs, it follows that you’ve a significant reason to doubt it. Thus, if there is widespread agreement that $p$ and widespread disagreement that $q$, then, ceteris paribus, we should assign more initial epistemic weight to $p$ than to $q$.

Let’s now turn to the argument from practical indubitability:

(21) If $p$ is less dubious than $q$, we ought to assign more epistemic weight to $p$ than to $q$.

(22) Common sense propositions are less dubious than philosophical principles.

(23) Thus, we ought to assign more epistemic weight to common sense propositions than to philosophical principles.

Premise (21) is an exceedingly plausible methodological norm. If we’re going to assign pre-theoretical values to propositions, then we should assign more value to less dubious propositions than to more dubious propositions. Although (22) also enjoys a high degree of intuitive
plausibility, it’s worth reflecting on just what it is about common sense propositions that renders them less dubious than their theoretical counterparts.

To see this, we need to make out some rough conceptual distinctions. First, let’s say that proposition $p$ is *intellectually* dubitable when (a) we can *imagine* acquiring a defeater for the belief that $p$ and (b) cannot rule out the possibility that the defeater in question obtains. Next, let’s say that $p$ is *practically* dubitable when (a) it is intellectually dubitable and (b) our doubts about it make a behavioral difference.

Now, some propositions—call them *cogito* propositions—turn out to be intellectually indubitable and, by extension, practically indubitable. To use a stock example, since I cannot imagine acquiring a defeater for the belief that I exist, I cannot doubt the proposition *I exist*. Interestingly, however, some propositions are such that, although we *can* intellectually doubt them, these doubts fail to have any significant influence upon our thought, speech, or conduct.

Suppose, for instance, that the skeptic has led you to doubt the proposition that *there are external objects*. Now, if there aren’t any external objects, then there aren’t any books, cars, or chairs. In light of this, your general doubts about external objects should elicit particular doubts about the reality of books, cars, and chairs. But will they? Granting your external object skepticism, if someone were to ask you whether you own any books would you say “I’m not sure?” Would you stop paying your car insurance? Would you continue to stand erect for fear that the chairs in your vicinity are somehow unreal? I presume that you wouldn’t do any of these things. What this suggests, then, is that your doubts about *there are external objects* are idle, i.e., they make no practical difference. The proposition is thus *practically* indubitable.
By contrast, suppose you are convinced by the arguments of a religious skeptic. You now intellectually doubt, say, that there is such a person as God. If you acquire enough intellectual doubt, this will, in all likelihood, exert significant influence on your thought, talk, and conduct. For instance, you will probably stop saying prayers, attending church services, asserting certain religious claims, using certain religious expressions, and so forth. Similarly, if you are convinced by the arguments of the global warming skeptic, you will, in all likelihood, start driving your car more often and, indeed, forgo riding your bicycle when it’s cold outside. In light of this, it seems that claims about God and global warming are both intellectually and practically dubitable.

Among intellectually dubitable propositions, then, there are some that are inherently more dubious than others. These are propositions that we can doubt in good faith. If our doubts were to spill over into active disbelief, we can see that there would be straightforward practical consequences. There are others—those that are practically indubitable—that we really cannot doubt with any degree of consistency or good faith. Common sense propositions are intellectually dubitable but not practically dubitable. Philosophical principles are both intellectually and practically dubitable. Thus, we have a reason to think that common sense propositions are less dubious overall than philosopher’s theoretical claims. For this reason, we should assign more initial epistemic weight to the claims of common sense.  

The arguments offered in the preceding paragraphs support the second of conservation’s three constitutive prescriptions. They can also be used to generate support for the third, which, you will recall, enjoins us to give prima facie preference to claims of common sense when they conflict with philosophical principles. Since common sense propositions begin their epistemic careers with

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6 My argument from practical indubitability is partially inspired by Huemer (2001, pp. 18-20). I am responsible for formulating the relevant conceptual distinctions and providing an explicit formulation of the argument.
a serious advantage, they are not likely to be deposed by principles that enter our discourse in a state of epistemic penury. If any such principle is to mount a serious challenge to common sense propositions, then the principle in question must enjoy substantial evidential support. But, at best, only a select few philosophical principles are supported by the kind and degree of evidence needed to bring them to parity with common sense propositions. Thus, for any particular philosophical principle, we are prima facie justified in rejecting it if it conflicts with common sense.

The considerations adduced in favor of conservation support particularism over and against reflective equilibrium and moderate methodism. It should be noted, however, that these considerations do not support extreme particularism over more moderate variants of the view. Moderate particularists accept identification and conservation, but allow that philosophical principles may occasionally, under the right conditions, depose specific judgments about paradigm cases. Of course, with an initial weighting that heavily favors common sense, such occasions are likely to be rare. Thus, moderate particularists contend that revisionary philosophers bear a tremendous burden of proof while providing them with the intellectual space they need to plead their case. Indeed, in what follows, I assume only moderate particularism.

1.4 Justification and Knowledge

Epistemic justification is a normative property of verific propositional attitudes. As the name suggests, verific propositional attitudes take a stance on the truth of the propositions over which they range. Traditionally, there are three attitudes one can adopt with respect to a proposition’s truth: affirmation, denial, and neutrality (or suspension of judgment). A verific propositional attitude is justified when it is the one that a subject ought to adopt with respect to the
proposition in question, relative to the general intellectual goal of obtaining truth and eluding deception. The intuitive idea, then, is that for any proposition $p$, a subject $S$’s belief that $p$, for instance, is justified just in case $S$ ought to adopt the attitude of affirmation with respect to $p$.\(^7\)

Now, as noted above, rationalism is a theory of epistemic justification. In particular, rationalism offers an account of the factors that facilitate epistemic justification. Many philosophers take an interest in these factors because they believe that epistemic justification is connected to knowledge in some important way. For instance, according to one prominent view justification is a necessary condition on knowledge, i.e., necessarily, if $S$ knows that $p$, then $S$ has a justified belief that $p$. Those who adopt this view plausibly conclude that an illuminating account of justification will also shed light on the nature of knowledge.

Despite this widespread instrumental concern, however, the property of epistemic justification is interesting and important in its own right. Our ordinary practices of epistemic assessment—that is, of critiquing and commending people’s verific attitudes—presuppose that there is a property of epistemic justification which some such attitudes possess. Even if these practices are hopelessly confused, we’ll need to do a good deal of philosophy to discover as much. Thus, whatever the precise relation between knowledge and justification, an adequate epistemology will offer thorough treatments of both of these notions. For this reason, we needn’t attempt to vindicate the forthcoming defense of rationalism by arguing that it imparts insight about the nature of knowledge. We may remain strictly agnostic with respect to the relation, if any, between knowledge and epistemic justification.

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\(^7\)In the pages to come, I will mainly discuss justification as predicated of beliefs, rather than of the other verific attitudes. I do this simply as a means of simplifying and streamlining my prose.
Since we aim to develop a theory about the nature and scope epistemic justification, independent of its bearing on knowledge, our primary data will be drawn from ordinary thought and talk about justification. Nevertheless, if there is a necessary connection between justification and knowledge, our ordinary thought and talk about knowledge will provide a secondary source of data. The idea here is straightforward: on the assumption that knowledge requires justification, the judgment that \( p \) is known will warrant the judgment that \( p \) is justifiably believed. Such data may prove important in cases where our intuitions about paradigm cases of knowledge are more robust than our corresponding intuitions about justification.

I haven’t the space or the inclination to defend the position that justification is necessary for knowledge. In what follows, I simply presuppose it. As a result, I treat intuitions about knowledge as an additional source of data. I do this mainly for the sake of expository simplicity. Relative to the aims of this essay, I do not think anything of fundamental importance hangs on the presupposition that justified belief is necessary for knowledge. Those who reject it can (and, by my lights, should) still endorse my version of rationalism and accept most the arguments I use to support it (with some minor revisions, of course).

1.5 Internalism

In the previous section, we said that a verific propositional attitude is justified for a subject when, relative to the goal of securing truth and evading falsehood, it is the attitude the she ought to adopt with respect to \( p \). This account of epistemic justification naturally prompts inquiry into

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8Although I adopt no stance whatsoever on the correct analysis of knowledge or the question of whether it is a properly analyzable state/concept, I do endorse the view that having a justified belief that \( p \) is, somehow or other, necessary for knowing that \( p \). Thus, I have a secondary reason to presuppose this position; namely, that I’d like the ensuing discussion to reflect my views — even those I’m not presently prepared to defend — as closely as possible.
the factors that determine whether a subject ought to affirm, deny, or suspend judgment about the truth of \( p \). One of the central disagreements in contemporary epistemology has to do with whether or not any of these justificatory factors are, somehow or other, independent of the epistemic subject. Externalists endorse this claim. They hold that justification can supervene on states, properties, or relations that are wholly external to the subject (in a sense to be delimited below). Internalists deny this. They hold that justification supervenes only on the internal states of the subject.\(^9\)

There, in connection with the internalism-externalism debate, an on-going dispute about how to spell out the relevant notion of an internal state. Mentalists, such as Conee and Feldman (2001), hold that internal states are mental states. Access Internalists, such as BonJour (2003), hold that internal states are cognitively accessible states. Thus, although the members of each camp take themselves to be internalists, they end up endorsing significantly different theories of justification. Mentalists hold that a subject’s justification supervenes on all and only her mental states. Access internalists, by contrast, hold that a subject’s justification supervenes on all and only those states that are consciously accessible from her subjective perspective.

\(^9\)The present iteration of this disagreement emerged from a complicated and shifting dialectic that began with Gettier’s (1963) counterexamples to the traditional justified-true-belief analysis of knowledge. These counterexamples consist of cases in which it is clear that a belief is both justified and true but equally clear that is not an instance of knowledge. In an attempt to accommodate our intuitions about such cases, several prominent epistemologists—including Goldman (1967), Dretske (1971), and Armstrong (1973)—revised the traditional analysis of knowledge by replacing the justification condition. In its place, they proposed conditions that look to factors outside the perspective of the subject, such as the fact that a belief is a reliable indicator that \( p \), generated by a reliable belief-forming mechanism, or caused by the fact that \( p \). These externalist analyses of knowledge presented a fundamental challenge to the longstanding Cartesian conviction that knowledge, somehow or other, depends on factors within the perspective of the epistemic subject. In doing this, they paved the way for externalist theories of justification. Nevertheless, since we are not presently concerned with the correct analysis of knowledge, we will sidestep this manifestation of the internalism/externalism controversy to focus on its justificatory permutation.
In this essay, I assume a broadly accessibilist theory of epistemic justification. This position is best motivated by sequential reflection on two very convincing thought experiments. The first of these is the New Evil Demon thought experiment. Although it was first developed by Lehrer and Cohen (1983), I find Ralph Wedgwood’s (2002) recent presentation to be especially lucid:

Consider two possible worlds, \( w_1 \) and \( w_2 \). In both worlds, you have exactly the same experiences, apparent memories, and intuitions, and in both worlds you go through exactly the same processes of reasoning, and form exactly the same beliefs. In this case, it seems, exactly the same beliefs are [justified] in both worlds, and exactly the same beliefs are [unjustified] in both worlds. Now suppose that in \( w_1 \) you are bedeviled by an evil demon who ensures that many of your experiences are misleading, with the result that many of the beliefs that you hold in \( w_1 \) are false. In \( w_2 \), on the other hand, almost all your experiences are veridical, with the result that almost all the beliefs that you hold in \( w_2 \) are true. Intuitively, this makes no difference at all. Exactly the same beliefs are [justified] and [unjustified] in both worlds.

This thought experiment suggests that when we alter the facts about a subject’s environment while holding fixed the facts about her mind, there is no corresponding change in the justificatory status of her verific attitudes. In light of this, we’ve good reason to conclude that epistemic justification does not supervene on facts, conditions, or relations external to mind of the believing subject.

Although the New Evil Demon thought experiment tells strongly in favor of some kind of internalism, it does not clearly decide between mentalism and accessibilism. On the one hand, the mentalist can plausibly argue that the justificatory facts remain the same across \( w_1 \) and \( w_2 \) because we’ve held the subject’s mental states fixed. On the other hand, the accessibilist can plausibly argue that the justificatory facts remain the same across \( w_1 \) and \( w_2 \) because, by hypothesis, we’ve held fixed all the facts about the context and contours of the subject’s first-person perspective. Thus, to motivate accessibilism over and against mentalism, another thought experiment is called for.
Suppose, then, that Jim and Steve are United States soldiers who, during the midst of the Second World War, smuggled several famous paintings out of Nazi Germany and buried them at sea. Both Jim and Steve believe that the paintings are buried ten miles southeast of the old lighthouse. Moreover, both of them have the memory that the paintings are buried ten miles southeast of the old lighthouse. Steve, however, owing to post-traumatic stress from the war, cannot access the relevant memory. Jim, by contrast, has unproblematic access to the memory. Intuitively, this seems to make a significant epistemological difference. Despite the fact that Steve’s memory is evidence for his belief, he simply cannot appeal to this evidence to generate a reason that favors belief over the alternative verific attitudes. Yet, without a reason to support his belief, it seems that Steve does not believe as he should. This suggests that his belief is unjustified.

This thought experiment trades on a crucial distinction between there being reasons for S to believe that p and S’s having reasons to believe that p. Insofar as there is, in Steve’s mind, to speak loosely, a mental state m the content of which is evidence for p, there is a reason for Steve to believe that p. Unfortunately, Steve doesn’t have this reason. While its “located” in Steve’s mind, for all the epistemic good it does him it might as well be “located” in your mind or at the top of the old lighthouse. Mentalism doesn’t appear to disambiguate between the reasons there are for S to believe that p and the reasons S has to believe that p. Our intuitions about justification, however, suggest that a subject does not believe as he ought if he doesn’t have a reason. Thus, we’ve some basis to conclude that epistemic justification supervenes only on states or facts that are, somehow or other, accessible from the first-person perspective.

\[10\] For present purposes, assume the “memory” in question is not an explicit belief but, instead, whatever our best theory of memorial beliefs would cite as their ground.
Of course, there is persistent debate about how to specify the kind of access needed for epistemic justification. Some access internalists claim that only presently accessible facts can serve as justifiers. Others contend that any potentially accessible facts can serve as justifiers. Some claim that introspective or second-order access to the fact that the relevant facts are accessible is needed if they are to serve as justifiers. Others think that mere experiential access to the relevant facts is sufficient. These disputes are largely orthogonal to the issues taken up in this essay. For that reason, I won’t take a firm stance on the issue. My arguments require just the relatively weak thesis that a subject’s belief is justified only if it is properly related to cognitively accessible facts of some kind.

Naturally, externalists will have none of this. They have argued, plausibly enough, that accessibilist requirements set the bar for justified belief far too high. Indeed, some accessibilists have come under fire for flirting general skepticism about justification. More frequently, they have been charged with illicitly depriving children and other unsophisticated subjects of their prima facie justified beliefs. BonJour (2010, p. 208) nicely summarizes these charges as follows: “if [accessibilism] is correct, only at best a few epistemologists and students of epistemology will have access to good reasons for the vast majority of beliefs that common sense regards as justified.”

An adequate accessibilist theory must meet these concerns head on. Nevertheless, since the aim of this essay is not to sort out (much less resolve) the internalist/externalist controversy, I will not respond to these or any other externalist challenges. The thought experiments provided above ground a presumption in favor of accessibilism. That presumption provides sufficient initial credibility for the access internalist commitments that I presuppose in the remainder of this essay.
Before closing this section, it should be noted that the rationalist view I defend is not inconsistent with externalism. This is because externalism, as ordinarily formulated, claims only that justifiers can be subject-external. It does not claim that justifiers must be subject-external. Thus, externalism doesn’t rule out the possibility that there are internal states that can provide a priori justification. In fact, some externalists, such as Plantinga (2000, pp.110-115), are happy to admit, with certain qualifications, that such states provide justification. Thus, while we are going to disagree on some important details, I believe that many externalists (especially those working within the broader rationalist milieu) will be able to profitably engage with my arguments.

1.6 Moderate Foundationalism

Foundationalism is the view that (a) some justified beliefs are basic, i.e., they can be justified immediately (that is, without appeal to any other doxastic states) and (b) non-basic justified beliefs are justified only insofar as they stand in a justification-conferring relation to basic beliefs. Among those who accept (a) and (b), there are significant disagreements about the kinds of beliefs that are basic and the kinds of doxastic relations that are justification-conferring. According to the adherents of traditional foundationalism (e.g., Descartes), basic beliefs must be

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11 Of course, Plantinga holds that epistemic justification is conceptually distinct from warrant, the property that, on his view, turns true belief into knowledge. Nevertheless, I think those externalists who believe that justification and warrant are conceptually linked can, like Plantinga, accept that some justifiers are internal and a priori without revising their broader epistemological views.

12 I use “doxastic states” to pick out all and only those mental states that arise when a subject adopts a verific attitude towards a proposition, i.e., belief, disbelief, and suspension of judgment. Thus, if a justified belief is basic, then its justification need not supervene on any of the epistemic subject’s verific attitudes. I italicize the term “other” because self-evident beliefs, if there are any, should count as basic even though, in virtue of their being somehow self-justifying, they are justified by doxastic states.

13 The reason I do not define basic beliefs in terms of non-inferential justification, as some foundationalists do, is because seemings—the states that I later identify as the justifiers for basic beliefs—they may well justify in a quasi-inferential way. Since they aren’t doxastic states and aren’t themselves in need of justification, however, the justification they provide is foundational and the beliefs they support are basic.
self-evident or incorrigible and non-basic beliefs can be justified only by deductive inference from basic beliefs. Strong foundationalists, such as Lewis (1946) and McGrew (2003), think that basic beliefs must be incorrigible but allow that probabilistic and/or ampliative inference can justify non-basic beliefs. Adherents of moderate foundationalism, such as Pastin (1975), Audi (2003), and Van Cleve (2005), take the set of basic beliefs to include members that are neither self-evident nor incorrigible, such as perceptual and memorial beliefs. Moreover, they hold that justification can be transmitted from basic to non-basic beliefs by several different kinds of relations, including coherence relations and abductive explanatory relations.

In what follows, I will not attempt to sort out all of the issues that divide traditional, strong, and moderate foundationalists. Instead, I will make a case for moderate foundationalism by appealing to our judgments about particular cases.\(^\text{14}\) To that end, consider the following propositions:

\begin{enumerate}
\item[(24)] My knee hurts.
\item[(25)] My car is parked in the driveway.
\item[(26)] I am imagining a goat.
\item[(27)] I did laundry two days ago.
\end{enumerate}

Suppose that you believe (24)-(27). If a pedant were to ask after your justification for believing one of them, what would you say in response? I contend that (it is exceedingly likely that) you would not cite any kind of relation to one (or more) of your other beliefs. If you did, you’d probably end up saying something rather silly, such as “I believe that my knee hurts because I can hear myself moaning and see that it is swollen.” But surely you’d be justified in believing (24) even if

\(^{14}\)This strategy is adapted from Pryor (2005).
your lights were out, your mirrors were broken, and your ears were incapacitated. In fact, it appears that having the experience of knee-pain would, by itself, be sufficient to justify your belief. Indeed, as a general rule, that one feels some kind of way appears to be sufficient to justify the belief that one feels that way. Thus, since (24) can be justified by non-doxastic states, we have good reason to conclude that it is a basic belief.

Of course, what’s true of (24) is equally true of (25), (26), (27) and a whole host of other paradigm cases of justified belief. For instance, apart from any other evidence she may possess, a subject’s having a certain kind of perceptual experience appears sufficient to justify her belief that the car is in the driveway. Similarly, a subject’s being in a certain kind of imaginative state appears sufficient to justify her belief that she is in that state. In addition, a subject’s memory that he did laundry two days ago appears sufficient to justify his belief that he did laundry two days ago.

Now, as noted above, it is just these non-doxastic states that we cite as justifiers if, in ordinary conversation, one of (25)-(27) comes under epistemic scrutiny. For instance, if someone asked you why you believe that your car is parked in the driveway, you’d likely respond by citing a visual experience rather than a doxastic state. Thus, there is a strong presumption in favor of the thesis that some justified beliefs are basic. Notice, also, that several of the exemplars that we’ve classified as basic beliefs are clearly defeasible. This provides support for a moderate foundationalist position on the nature of basic beliefs, i.e., that they needn’t be incorrigible to count as basic.

Foundationalism also includes a proviso on the relationship between basic and non-basic beliefs. It states that non-basic beliefs can be justified only if they are properly related to basic beliefs. This appears plausible when we note that (a) non-basic beliefs require justification, (b)
they have to be justified by other beliefs, (c) those other beliefs also have to be justified, and (d)
there's no especially promising way to model infinitary, circular, or coherence conceptions of
justification. Although (d) is a somewhat contentious claim, I won't defend it here. I can get away
with this because, as far as I know, all of the philosophers who reject the proviso in question do so
because they don't think that there are any basic beliefs. Since we've provided *prima facie* reason
to think that there *are* basic beliefs (and will deal with the most significant objection to this view
in the next section), we just won't concern ourselves with what the structure of justification would
look like if there weren't any.

Finally, I will not attempt to (a) identify the features that make a relation between beliefs
justification-conferring or (b) provide a list of the relations that appear to possess such features. It
should be sufficient to note that the relevant notion of a justification-conferring relation is broad
enough to capture deductive, inductive, and abductive inferential relations along with coherence
relations. In fact, there is broad consensus among contemporary foundationalists that several
different kinds of relations between basic and non-basic beliefs confer justification upon the latter.
Thus, in the chapters to come I will assume a moderate foundationalism according to which there
are defeasible basic beliefs that transmit justification to non-basic beliefs through a variety of
channels.

1.7 The Sellarsian Dilemma

In the preceding sections, I outlined and attempted to motivate a moderate, rough-hewn
version of internalist foundationalism. The central challenge to internalist foundationalism is posed
by the Sellarsian dilemma, so named because of its origin in Wilfred Sellars' (1956) "Empiricism
and the Philosophy of Mind.” This dilemma rests on an apparent tension between the internalist claim that justifiers are cognitively accessible reasons for belief and the foundationalist claim that some justifiers are non-doxastic states. Sellarsians contend that, when held in tandem, these commitments give rise to a notion of a non-doxastic reason for belief that is either unintelligible or misleading. Consequently, we can’t endorse both internalism and foundationalism, despite the initial plausibility of each.

Since this essay presupposes internalism and foundationalism, we’d be in quite a spot of bother if the Sellarsian dilemma were insurmountable. Obviously, I don’t think that it is. Nevertheless, the dilemma is threatening enough—and has sufficient dialectical force—that it should be acknowledged and discussed at the outset of our inquiry. In what follows, I will (a) explain each horn of the dilemma, (b) discuss the two main responses offered by internalist foundationalists, and (c) identify and (briefly) defend the response I find most plausible. I will not, however, attempt to provide a decisive rejoinder, since that project would likely require a separate dissertation.

To see how the Sellarsian dilemma emerges, let’s assume that $b$ is a (putative) basic belief. When asked what justifies $b$, the internalist foundationalist will appeal to a cognitively accessible non-doxastic state. Let’s call it $s$. Now, $s$ either has assertive propositional content—i.e., it presents the world as being a certain way—or it doesn’t. If $s$ has assertive propositional content, then it seems incapable of providing basic justification. If $s$ doesn’t have assertive propositional content,

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15The notion of assertive propositional content comes from Laurence BonJour (1978, 1985), who uses it to distinguish between contentful states that present their content as though it were true (e.g., perceptual states) and those that do not (e.g., hopes, desires, and fears).
then it seems incapable of providing any sort of justification. Thus, whichever disjunct is true, $s$ seems incapable of providing the sort of justification needed to render $b$ properly basic.

In order to grasp the full import of the Sellarisan dilemma, we’ll need to appreciate the support enjoyed by each horn. Let’s begin with the second. Thus, suppose that $s$ has been cited as a justifier for an ostensibly basic belief, but $s$ does not have assertive propositional content. Instead, $s$ is held to be, say, the very experience—the ouchy sensation—of pain. The trouble with this move is that brute experiential states don’t seem to be able to play the epistemic role for which they are often drafted. As Donald Davidson (1986, p. 311) puts it, “the relation between a sensation and a belief cannot be logical, since sensations are not beliefs or other propositional attitudes.”

Davidson’s point, I take it, is that an experience or sensation is no more a reason or justification than an egg, an elk, or an elm tree. Reasons, on his view, are the kinds of things that stand in inferential relations to one another. That is, $r$ is a reason for $b$ precisely because $r$ stands in a relation of support—deductive, inductive, or abductive—to $b$. Thus, since propositions about elk stand in all kinds of inferential relations to other propositions—for instance, there is an elk on the lawn entails there is a mammal on the lawn—they can be unproblematically drafted into the space of reasons. Elk themselves, however, don’t imply or entail anything. Nor do brute experiences. Thus, they are excluded from the space of reasons. The idea, then, is that $s$ cannot serve as a reason for or against $b$ unless $s$ makes a claim about the world that stands in a logical relation to $b$. The notion of a non-propositional reason for belief is simply unintelligible.

James Pryor (2005, p. 189) nicely articulates this conception of justification by means of the following principle:

**The Premise Principle:** The only things that can justify a belief that $p$ are other states that assertively represent propositions, and those propositions have to be ones that could be
used as premises in an argument for \( p \). They have to stand in some kind of inferential relation to \( p \): they have to imply it or inductively support it or something like that.

Suppose the premise principle is true. This now brings us to the other horn of the dilemma. For it follows from the premise principle that (putative) basic beliefs, if they are justified at all, must be justified by non-doxastic states with assertive propositional content. Sellarsians contend, however, that non-doxastic states with assertive propositional content are in need of their own justifiers. This is because, again, any state with assertive propositional content issues a claim about the way the world is. This claim is either true or false. If we are to justifiably employ it as a premise from which to infer any other claims, however, we’ll need a reason to believe that it’s true. After all, our conclusions are sound only if our premises are true.

To illustrate this point, suppose you believe that there is a pot on the stove. In support of your belief, you cite a visual state, i.e., seeing that there is a pot on the stove. According to the Sellarsian, this state, even though not a belief as such, is so belief-like that it demands a similar kind of epistemic support. For, as you know, vision can deceive. Thus, if you are to rely on a visual state to ground a belief, you’ll need to have a reason to believe that it isn’t deceptive.

With this in mind, the Sellarsian contends that it is misleading to claim that states with assertive propositional content can provide non-doxastic reasons for belief. Since any state that makes a claim about the world can, in principle, make a false claim, such states fail to provide the epistemic ground-floor the foundationalist seeks. Indeed, if \( b \) is justified by a state that is in need of further justification, it would be deceiving to call \( b \) a basic belief. Thus, the upshot of the Sellarsian dilemma is that the states internalist foundationalists cite as non-doxastic justifiers are
either incapable of justifying truly basic beliefs or, since they violate the premise principle, are incapable of providing any justification at all.\textsuperscript{16}

In light of these considerations, some philosophers have been persuaded to give up either internalism or foundationalism. Sosa (1980), Alston (1989) and Lyons (2008) preserve their foundationalist commitments (to, i.e., basic beliefs and non-doxastic justifiers) by rejecting internalism (and the premise principle along with it). They argue that we need to appeal to causal or etiological facts about non-doxastic states to explain how they provide epistemic justification, even though these facts are rarely accessible from the first-person point of view. By contrast, most advocates of the Sellarsian dilemma, such as BonJour (1985), Williams (2005), and Poston (2013), take internalism (and some variant of the premise principle) for granted. Thus, they reject foundationalism in favor of other (typically coherence based) models for the structure of epistemic justification.

Those who would defend internalist foundationalism against the Sellarsian dilemma must do so by attacking one of its horns. Ultimately, their stance with respect to the premise principle will determine which horn they direct their critical energies toward. Those who reject the premise principle argue that the notion of a non-propositional reason is perfectly intelligible and that states without propositional content can be unproblematically drafted into the space reasons. Those who accept the premise principle argue that non-doxastic states with propositional content can serve as

\textsuperscript{16}I should note that the Sellarsian dilemma originated, and mainly persists, as a problem for internalist foundationalism about empirical justification. Its advocates are largely interested in using it to support the view that perception cannot provide non-inferential (or otherwise foundational) justification. In fact, some its most ardent advocates, such as the early BonJour (1985), are perfectly happy to countenance non-doxastic justifiers as they are a priori. Our discussion proceeds on the assumption that the Sellarsian dilemma poses a challenge to the very idea of non-doxastic justification, since the assertive propositional contents of non-empirical states—however delineated—can also falsely represent the world. Both reason and perception have the potential to deceive us. Thus, if we accept that the contents of perceptual states are in need of justification, we should, by parity, admit that the contents of so-called rational insights are equally needy.
a ground floor for epistemic justification because such states are not really in need of further justification.

Fumerton (1995), Fales (1996), and the recent BonJour (2003) reject the premise principle. Although these philosophers differ on points of detail, they agree that certain non-propositional states, such as sensations, can provide justification for basic beliefs. They defend this move by claiming that there is some kind of cognitively accessible relation that (a) takes beliefs and non-propositional states as relata, (b) is not a logical relation, and (c) nevertheless provides justification.

BonJour (2003, p.72) suggests that the relevant relation is descriptive, writing:

Even if we grant and indeed insist that the specific content of a sensory experience is [not propositional]…this provides no reason at all to deny that…[it] can still be conceptually described with various degrees of detail and precision. The relation between this [non-propositional] content and such a [propositional] description thereof may not be strictly logical, as Davidson uses the term, i.e., may involve nothing like the relations of inference, consistency or inconsistency, etc., that may exist between two propositions, but it is also obviously not merely a causal relation. Rather it is a descriptive relation, having to do with the accuracy or inaccuracy of fit between a [propositional] description and a [non-propositional] object that the description purports to describe. And while the assessment or evaluation of the accuracy of a description is not quite the same thing as the logical assessment or evaluation of an inference, it is nonetheless normative and even logical in a broader sense that would have no application to a merely causal relation.

BonJour goes on to argue that beliefs which purport to describe non-propositional states are justified insofar as they are accurate. Moreover, he claims, we are ordinarily able to tell that these beliefs are accurate simply by virtue of that fact that we are (or were) consciously aware of the qualitative contents over which they range. Thus, such beliefs are basic insofar as they are justified by virtue of their relation to non-doxastic non-propositional states.

Unfortunately, BonJour’s view is rather opaque. One wonders, for instance, how the description of purely qualitative states in propositional terms even gets off of the ground. It’s easy
to see how a painting can depict a visual scene with greater or lesser accuracy. It’s more difficult to see, however, how a proposition can do the same without presupposing that the visual scene is already structured in a propositional way. This is because there is no intrinsic similarity between, say, the terms of the proposition *there is a white table in the corner* and the presumptively contentless qualities that characterize any particular perceptual episode. Thus, BonJour’s account seems to require *something* more; namely, an appeal to some further property, characteristic, or feature of our cognition that links content and quality in a way that enables the latter to play the normative role for which it has been drafted.\(^\text{17}\) While I remain optimistic that some such property, characteristic, or feature may be discovered, I’m not convinced we need to plumb the epistemic depths in order to convincingly fend off the Sellarsians.

In fact, the premise principle has a fair bit of intuitive plausibility. That’s precisely why the Sellarsian dilemma has remained a topic of philosophical concern. By contrast, the attempts made by BonJour and his fellow travelers to specify a non-logical justificatory relation tend to be complicated, underspecified, and dialectically ineffective. Thus, I think the most promising way for the internalist foundationalist to respond the Sellarsian dilemma is by rejecting its other horn, which, again, rests on the claim that *all* states with assertive propositional content stand in need of epistemic justification.

Steup (2000), Pryor (2000), and Huemer (2001) advance responses of this sort. Each of them accepts the premise principle (after a fashion), but notes that, despite the misgivings of a certain few epistemologists, there is a near consensus among philosophers of mind that perceptual

\(^\text{17}\) While I cannot discuss the views of BonJour’s fellow travelers, I take his view to be illustrative of a general position in epistemological space. For that reason, I think that the criticism levied against BonJour applies just as well to others who would argue that purely qualitative states can serve as justifiers.
states (not to mention rational insights) have assertive propositional content. Steup quotes John Searle (1983 p. 39) approvingly:

The content of the visual experience, like the content of the belief, is always equivalent to a whole proposition. Visual experience is never simply of an object but rather it must always be that such and such is the case.

Of course, the view that experiential states—and, more broadly, appearance states—have propositional content is supported not only by philosophical authority but also the authority of common sense. Our perceptual states, for instance, appear to be informative, i.e., they appear to tell us that the world is a certain way. When I open my eyes in the morning it appears to me that the world around me is arranged in a certain way, e.g., that there is a lamp on the table and a cat at the foot of the bed. Similarly, it appears to me that everything with a shape has a size and that the shortest distance between two points is a straight line. Thus, although many appearance states seem to have qualitative content, in most cases, at least, their content doesn’t seem to be purely qualitative.

If the considerations above are correct, then appearance states have the sort of content that can be conscripted into epistemic service. For this reason, it’s quite plausible to think that the kinds of states to which we ordinarily appeal for ostensibly non-doxastic justification have assertive propositional content. This means that they can satisfy the premise principle.

Of course, the Sellarsian will respond with the following argument:

(28) If $s$ has (a) *propositional* content which (b) is *assertively* presented (i.e., it makes a claim about the way the world is) and thus (c) can be false, then $s$ requires epistemic justification.\(^\text{18}\)

(29) Any state that satisfies the premise principle has (a) *propositional* content which (b) is *assertively* presented and thus (c) can be false.

\(^{18}\) My use of “can be false” is shorthand for “it is epistemically possible that $p$ is false.”
Thus, any state that satisfies the premise principle requires epistemic justification. Premise (28) is predicated on the idea that beliefs require justification because they meet conditions (a)-(c) and that these conditions are jointly sufficient to generate a demand for justification. By parity, the contentful non-doxastic states we wish to conscript into epistemic service require justification, as do whatever justifiers we might cite on their behalf and so on ad infinitum. The upshot, then, is that there are no free riders in the space of reasons.

Premise (29) is not likely to be controversial; indeed, for that reason I will grant that it’s true. Thus, to challenge this argument we must attack premise (28). The way to do this is to provide grounds for thinking that conditions (a)-(c) are not jointly sufficient to generate a demand for justification. Steup (2000, p. 6) offers instructive remarks to that effect:

Suppose you ask me: What justifies you in believing that your coffee is sweet? This is a sensible question, and it has a sensible answer. The answer would be: "It tastes sweet." But now suppose we were to ask: "But what justifies you in experiencing the coffee as tasting sweet, i.e., in having a sense experience that has as its content the proposition that the coffee is sweet?" Well, this is not a sensible question. If you were to ask me that kind of a question, I would have to reply that I don't know what you mean.

In this passage, Steup draws our attention to a crucial difference between beliefs and appearance states. Namely, that the rules of our standard justificatory language games permit players to ask one another to justify beliefs but do not permit them to ask one another to justify experiences or appearances. Thus, the Sellarsian who asks you to justify your experience is operating in defiance of our standard justificatory norms. This suggests, then, that (a)-(c) are not jointly sufficient to

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19 Some foundationalists (with whom I am otherwise in agreement) may balk at the suggestion that appearances or experiences can properly be counted as true or false. Certainly it appears linguistically improper to say, for instance, that a subject’s experience is false. Still, there are related terms of appraisal that do not raise dialogical hackles, such as reliable/unreliable, accurate/inaccurate, and so forth. The notions of truth and falsity can be connected to these terms of appraisal in a straightforward way, by saying, e.g., that s is accurate iff its content is true.
generate a demand for justification. Instead, a mental state must meet at least one additional condition, (d), according to which only states that figure (in the right way) in our justificatory language games require justification.

Appearance states don’t meet condition (d) because they have immediate *prima facie* credibility. By contrast, we need reasons to support our beliefs precisely because they lack such credibility. I will defend this contention in Chapter 6. At this point, however, my aim is not to solve the problems raised by the Sellarsian dilemma. Rather, it is to show that internalist foundationalists have the resources to develop a plausible response to these problems. I believe that much has been established.

### 1.8 Summary

In this chapter I have sought to explain and motivate the methodological approach and background assumptions that inform the remainder of this work. In the forthcoming chapters I will argue (a) that particularist considerations generate a strong presumption in favor of rationalism, (b) that these same considerations pose significant challenges to empiricism, and (c) that there is an internalist foundationalist theory of epistemic justification (phenomenal conservatism) that provides a very attractive model for synthetic a priori justification. Before starting on these tasks, however, it is important that I provide a clearer and more nuanced definition of rationalism (and the related concepts of syntheticity and a priority). It is to that venture that I now turn.
2. RATIONALISM DEFINED

2.1 Introduction

Chapter 1 began with a preliminary definition of epistemological rationalism; viz., that some propositions expressed by synthetic sentences can be justifiably believed on a priori grounds. Although this definition accurately characterizes the view I plan to defend, its central constituent concepts—the concepts of a priority and syntheticity—are technical philosophical concepts with contested application conditions. Thus, it is important that I explain how they are to be understood within this essay. With that in mind, then, the objective of this chapter is to make the preliminary definition of rationalism more precise by explicating the concepts in question. This will help readers to locate my version of rationalism in logical space and enable me to bracket objections that target alternative explications of its constituent concepts.

I proceed as follows. In section 2.2, I explicate the concept of a priori justification. In section 2.3, I explicate the concepts of experience and experiential justification. In section 2.4, I treat the analytic/synthetic distinction. In section 2.5, I assemble the explications proposed in the preceding sections to produce a more precise definition of epistemological rationalism. I conclude, in section 2.6, by reviewing and rebutting four objections to my definition of rationalism.

2.2 A Priori Justification

Consider the following statements:

(1) If Jill finished before Jim and Jim finished before Amy, then Jill finished before Amy.

(2) If Jill went swimming in the lake, then she was immersed in H$_2$O.
Both (1) and (2) express propositions that are paradigm cases of knowledge. As such, we are certainly justified in believing them. Notice, however, that we do not need to watch any races to be justified in believing (1). In fact, it appears that we do not need to engage in empirical investigation in order to acquire the justification in question. By contrast, we surely do need to engage in empirical investigation to be justified in believing (2). Absent certain experiential transactions with lakes and their contents, we’ll lack justification for believing that they contain H₂O.

This suggests that among the propositions we are paradigmatically justified in believing, there are some whose positive epistemic status depends on empirical investigation and others whose positive epistemic status does not depend on empirical investigation. I take it for granted that the a priori/a posteriori distinction is meant to track this difference. Thus, to be clear, I hold that a belief is justified a priori when its positive epistemic status does not depend upon empirical investigation, i.e., when it can be justified without appeal to any particular experience or set of experiences.\(^\text{20}\)

This notion of a priori justification can be explicitly articulated, given our foundationalist assumptions, by means of the following inductive definition:

(3) If a belief \(b\) is immediately but non-experientially justified, then \(b\) is justified a priori (basis clause).

(4) If a belief \(b\) is reasonably inferred from beliefs all of which are justified a priori, then \(b\) is justified a priori (inductive clause).

(5) No other beliefs are justified a priori (closure clause).

\(^{20}\)Note that this definition is neutral with respect to the origins of our concepts. Still, I should note that, on my view, states that range over experientially acquired concepts can nevertheless provide a priori justification. For instance, I assume that the states that justify arithmetical propositions can provide a priori justification even if their contents include concepts that were acquired via bean-counting experiences.
The inductive structure consisting of (3), (4), and (5) yields:

\[(\text{APR-1}): \text{For any belief } b, \ b \text{ is justified a priori iff (i) } b \text{ is immediately but non-experientially justified or (ii) } b \text{ is reasonably inferred from beliefs all of which are justified a priori.}\]

This definition provides a necessary and sufficient condition for a belief’s being justified a priori.

We should note, however, that the definition provided by \text{APR-1} is rather spartan when compared to some of the other definitions of the a priori philosophers have put forward. In endorsing \text{APR-1}, I follow Paul Moser (1987, p. 2-3), who writes:

We have…a concept of minimal a priori knowledge according to which an instance of knowledge of a proposition’s truth is a priori if and only if its justification condition consists of evidence that (a) does not depend on sensory experience and that (b) makes the proposition in question more likely to be true than its denial. Given this concept, we can see that many of the features commonly attributed to a priori knowledge do not necessarily apply. For example, on this concept, a priori knowledge does not require epistemically irreversible belief, self-evident belief, or innate concepts.

As Moser points out, we can draw a sensible distinction between a priori and a posteriori justification without multiplying necessary conditions (such as infallibility, self-evidence, innateness, or necessity) on either concept. We can do this by examining—as we did above—beliefs that are obviously justified and noting that only some appear to be justified by empirical investigation. For all we know, there may not be any irreversible, self-evident, or necessarily true beliefs. Yet, there’s surely something about the justificatory status of (1) that distinguishes it from (2). I intend for \text{APR-1} to capture that justificatory difference alone.\textsuperscript{21}

For contrast, here is an inductive definition of a posteriori justification that properly complements the minimalist definition of the a priori:

\textsuperscript{21}Albert Casullo (2003, Chapters 1-3) also defends a minimalist conception of a priori justification. He arrives at this view by painstakingly examining the many proposed conditions on and definitions of a priori justification. Those who would like to see an extended argument for minimalism should review Casullo’s work.
If a belief $b$ is immediately justified by experience, then $b$ is justified \textit{a posteriori} (basis clause).

If a belief $b$ is reasonably inferred from at least one belief that is justified \textit{a posteriori}, then $b$ is justified \textit{a posteriori} (inductive clause).

No other beliefs are justified \textit{a posteriori} (closure clause).

The inductive structure consisting of (6), (7), and (8) yields:

\textbf{(APO-1):} For any belief $b$, $b$ is justified \textit{a posteriori} iff (i) $b$ is immediately justified by experience or (ii) $b$ is reasonably inferred from beliefs at least one of which is justified \textit{a posteriori}.

This definition provides a necessary and sufficient condition for a belief’s being justified \textit{a posteriori}.

There is one crucial difference between the inductive clause for the definition of a priori justification and the inductive clause for the definition of a posteriori justification. The former stipulates that a belief is inferentially justified a priori only when \textit{all} of the beliefs in the inferential chain in which it is are located are also justified a priori. By contrast, a belief is inferentially justified \textit{a posteriori} if \textit{any} element of the inferential chain in which it is located is justified \textit{a posteriori}. The upshot is this: if $b$ is justified by an inferential process that includes a single a posteriori justified belief within in, then $b$ is justified \textit{a posteriori}.

Nevertheless, \textbf{APR-1} and \textbf{APO-1} do not rule out the possibility that a belief can be justified \textit{both} a priori and a posteriori. Indeed, since epistemic justification can be overdetermined—i.e., there can be multiple independent justifiers $j_1$-$j_n$ for many beliefs—we should not expect that \textit{being justified a priori} and \textit{being justified a posteriori} to be mutually exclusive. Rather, we should like to say that $b$ is justified \textit{a priori} when it stands in a certain kind of justificatory relation to its justifier. If, at the same time, it stands in different kind of justificatory relation to a different kind
of justifier, then it may also be justified a posteriori. These justificatory relations, however, are mutually exclusive and exhaustive. That is, no justificatory relation is both a priori and a posteriori and all justificatory relations are either a priori or a posteriori.

2.3 Non-Experiential Justification

In this section, my objective is to further unpack the concept of a priori justification. Since APR-1 states that a priori justification is non-experiential justification, a definition of experiential justification will enable us to identify the properties that must be absent for a justification to count as a priori. By negation, we will then be able to secure a more illuminating definition of a priori justification.

Let us begin with a stipulative definition of experience:

\[(\text{EXP}): \text{For any mental state } m, m \text{ is an experiential state iff } m \text{ has phenomenal content.}\]

A mental state has phenomenal content when phenomenal properties—e.g., qualitative properties like redness, painfulness, sweetness, and so forth—are among its objects. Thus, given EXP, e is an experience as of, for instance, the red ball only insofar as it takes the property of phenomenal redness as one of its objects.

There are a number of mental state types that can take phenomenal properties as their objects, including visual states, auditory states, tactile states, gustatory states, olfactory states, emotional states, memorial states, and imagination states. As a result, e could be a seeing, a memory, or an imagining as of a red ball and in each case count as an experience. Other common mental state types, such as beliefs and desires, do not count as experiences because they do not

\[22\text{Although I have explicitly introduced EXP as a stipulative definition, I believe that it can be justified by reflection on paradigm cases. For the sake of expository economy, I leave this task to the reader.}\]
have phenomenal content. Although one can believe that there is a red ball on the desk or hope that a red ball will be selected in the lottery, belief and desire tokens aren’t individuated by what they are like, i.e., by their phenomenal properties.

Although it is tempting to identify experiential justification with justification provided by experiential states, we should resist this idea. In fact, we can rather easily conceive of cases in which an experiential state (a) justifies a belief but (b) does not do so in virtue of its phenomenal content. To see this, suppose that whenever you grasp a basic arithmetical truth, the mental state through which you grasp the proposition presents it to you as a sentence token that is constructed from bright green characters. Thus, you are aware of an accompanying greenness whenever you grasp that $2 + 2 = 4$. From the first-person point of view, your grasp of the arithmetical proposition is concurrent with your grasp of phenomenal greenness; indeed, both are objects of a single mental state. Since the state in question has phenomenal content, it is an experiential state. Still it should be clear that although the experiential state in question (which we’ve characterized as a “grasping” for expository purposes) justifies your belief that $2 + 2 = 4$, it does not provide, in this case, an experiential justification.\[23\]

In light of this example, it should be clear that an experience $e$’s phenomenal content must play some role in its justifying belief $b$ if the justification it provides (with respect to $b$) is to count as experiential. Here is a more precise rendering of this proposal:

$$(\textbf{EJ}): \text{For any state } s \text{ and any belief } b, \text{ } s \text{ is an experiential justifier for } b \text{ iff } s \text{ is an experiential state that justifies } b \text{ in virtue of its phenomenal content. If } s \text{ is an experiential justifier for } b, \text{ then } s \text{ provides experiential justification for } b.$$  

\[23\] In his memoir, Tammet (2006, p. 2), who is a synesthetic mathematical savant, reports “seeing numbers as shapes, colors, textures, and motions.” This gives the example provided some purchase. Since Tammet reports that the number five sounds like a thunder clap, his thoughts about that number are, presumably, experiences. Yet, surely, the accompanying phenomenal content isn’t what justifies his belief that five and five sum to ten.
To illustrate, suppose that, in ordinary circumstances, I have a visual experience as of there being a black cat on the banister, which, of course, take the property of phenomenal blackness as one of its objects. It is clear that this experience provides *prima facie* experiential justification for the belief that there is something black on the banister. For if there were something black on the banister, then, were I to look toward the banister, I’d have an experience with just that sort of phenomenal content.

Still, it is important to note that the in-virtue-of relation that is built into EJ can be unpacked in a number of different ways. The task of specifying and endorsing any particular way—i.e., the project of developing a comprehensive theory of experiential justification—is beyond the scope of this essay. For that reason, I leave this in-virtue-of relation at the intuitive level.

Now, when we put EJ together with APO-1 (our preliminary definition of a posteriori justification) we end up with a rather clear-cut definition of a posteriori justification:

\[
\text{(APO-2): For any belief } b \text{ and justifier } j, \text{ } b \text{ is justified a posteriori iff (i) } b \text{ is immediately justified by } j \text{ in virtue of } j's \text{ phenomenal content or (ii) can be inferred from at least one belief that is so justified.}
\]

By negation, APO-2 also provides us with a way to produce a clear-cut definition of a priori justification:

\[
\text{(APR-2): For any belief } b \text{ and justifier } j, \text{ } b \text{ is justified a priori iff (i) } b \text{ is immediately justified by } j \text{ in virtue of } \text{*something other than* } j's \text{ phenomenal content or (ii) is reasonably inferred from beliefs all of which are so justified.}
\]

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24To be clear, the project of developing a general theory of experiential justification includes the project of explaining how perceptual states justify beliefs. This is one of epistemology’s central explanatory tasks. Although I will discuss my preferred theory of perceptual justification in a later chapter, it should be obvious that I cannot offer a comprehensive discussion of this topic in an essay focused on a different large-scale explanatory task.
On the assumption that “intellectual graspings” are states that provide immediate non-experiential justification, APR-2 says that when Jim intellectually grasps that $44 + 1 = 45$, his belief that $44 + 1 = 45$ is justified a priori. Furthermore, it tells us that when Abby reasons through a proof of the completeness of the predicate calculus, her belief that the predicate calculus is complete is justified a priori (on the assumption that every step of the proof is justified a priori).

EJ—the account of experiential justification endorsed above and used to develop APO-1 and APR-1 into their more illuminating second versions—fixes the a priori/a posteriori distinction in a clear and principled manner that is consistent with our paradigm cases of a priori and a posteriori justified belief. Basic beliefs about tables, chairs, and the weather, turn out to be justified a posteriori, since they are ultimately justified in virtue of the phenomenal contents of experiential states. Basic beliefs about arithmetic, logic, and mereology turn out to be justified a priori. Such beliefs are justified by something other than the phenomenal contents of experiential states. In light of these considerations, we have good reason to endorse EJ and the definitions of a priori and a posteriori justification that follow from it.

2.4 Syntheticity

The concept of a synthetic sentence is, alongside the concept of a priori justification, one of the two key constituent concepts in our preliminary definition of rationalism. To make that definition more precise, we must unpack the concept of a synthetic sentence. Let us begin by taking note of a difference between two superficially similar sentences:

(9) Every vixen is a female fox.

(10) Every vixen weighs less than 100 pounds.
It is widely believed that anyone who understands (9) will immediately recognize that it is true. Indeed, sentence (9) appears to be true by definition, expressing a proposition that is both trivial and non-experientially justifiable. It is thus a paradigmatically analytic sentence. Sentence (10), on the other hand, can be fully understood by individuals who have no idea whether or not it is true. Since the word “vixen” does not include “weighs less than 100 pounds” as part of its definition, one suspects that the truth of (9) can be determined only by weighing vixens. What’s more, the proposition it expresses is a substantive biological claim that, if true, provides us with useful and possibly novel information. For these reasons, sentence (10) is a paradigm synthetic sentence. At least, this is how things appear to the many philosophers who have endorsed the analytic/synthetic distinction, including the many empiricists who have argued that a priori knowledge is restricted to knowledge of propositions expressed by analytic sentences.

For our purposes (and in keeping with tradition), the analytic/synthetic distinction should be taken to track the nature of the truth-makers for sentences. Sentences are true when they correspond to the facts. The facts that make analytic sentences true are semantic facts alone. These facts are determined by our adoption of a set of linguistic conventions and are guaranteed insofar these conventions are in force. To see this, consider the facts that must hold for the proposition expressed by (9) to be true: there must be a semantic convention in place according to which “vixen” and “female fox” mean the same thing, and there must be a certain system of linguistic rules in place according to which the meaning of a sentence is determined by how it is structured.

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25 There are, of course, alternative ways to formulate the analytic/synthetic distinction. The “traditional” formulation offered here is directly informed by logical empiricism, for it is their formulation that has dominated philosophical discussion over the last eighty-odd years. Even those who prefer an alternative formulation—see, for instance, Boghossian (1996)—still tend to take the semantic formulation as the default, even if only to argue against it.
and what its constituent terms mean. If both of these facts hold they are sufficient to guarantee the truth of (9). Thus, the truth of (9) is wholly determined by semantic facts.

By contrast, the facts that make synthetic sentences true are not all semantic in nature. For instance, if (10) were true, it would have to be the case that a particular vixen, Vicky, weighs less than one hundred pounds. Of course, this fact about Vicky’s weight is not a semantic fact but a physical fact. Thus, the truth value of (10) is partially determined by non-semantic facts.

These considerations suggest that “analytic” and “synthetic” should be defined as follows:

(ANY): For any sentence $s$ of a language $L$, $s$ is analytic iff it is true in virtue of the semantic facts about $L$ alone.

(SYN): For any sentence $s$ of a language $L$, $s$ is synthetic iff it is true in virtue of at least one non-semantic fact.

Although we could say quite a bit more about the concept of a semantic fact and the in-virtue-of relation used to formulate ANY and SYN, these definitions are adequate for present purposes. They capture the intuitive analytic/synthetic distinction in a way that enables us to see clearly that it is, at root, a semantic distinction rather than a metaphysical or epistemological one.

2.5 **A Precise Definition of Rationalism**

Let us briefly summarize the results of the preceding sections. We began with a preliminary definition of rationalism, according to which some propositions expressed by synthetic sentences can be justifiably believed on a priori grounds. In section 2.1, we defined a priori justification as follows:

(APR-1): For any belief $b$, $b$ is justified a priori iff (i) $b$ is immediately but non-experientially justified or (ii) $b$ is reasonably inferred from beliefs all of which are justified a priori.
In 2.2, we explicated the concept of experiential justification, which, by negation, enabled us to unpack the concept of non-experiential justification. We were thus able to develop an improved definition of a priori justification:

(APR-2): For any belief $b$ and justifier $j$, $b$ is justified a priori iff (i) $b$ is immediately justified by $j$ in virtue of something other than $j$’s phenomenal content or (ii) is reasonably inferred from beliefs all of which are so justified.

In section 2.3 we laid out a definition of syntheticity:

(SYN): For any sentence $s$ of a language $L$, $s$ is synthetic iff it is true in virtue of at least one non-semantic fact.

With APR-2 and SYN in hand, we can clarify our preliminary definition of rationalism by substituting them for “a priori” and “synthetic.” This yields:

(RAT): At least one true sentence is (a) true in virtue of non-semantic facts and (b) expresses a proposition belief in which can be immediately justified by at least one $j$ in virtue of something other than $j$’s phenomenal content.

For contrast, here is a corresponding definition of empiricism:

(EMP): Every true sentence that is true in virtue of non-semantic facts expresses a proposition belief in which can be justified, for all $j$’s, by $j$ only in virtue of $j$’s phenomenal content or by inference from at least one belief that can be justified, for all $j$’s, by $j$ in virtue of $j$’s phenomenal content.

RAT and EMP are structurally sound and clearer than our preliminary formulations of rationalism and empiricism.

Notice that RAT does not include the second clause of APR-2 (our definition of a priori justification). This point is not insignificant. It is a feature of the rationalist view that at least one basic belief must be justified a priori if any beliefs are to be justified in the rationalist way. If every basic belief were justified by experience alone, then rationalism would be false. This is because non-basic beliefs cannot be justified a priori unless they are inferred from all and only a priori
justified beliefs. Thus, if there are propositions expressed by synthetic sentences that can be justifiably believed priori, there must be at least one such proposition that can be justifiably believed without inference from other beliefs.

### 2.6 Four Objections

In this section, I defend RAT against four objections that target its formulation and/or intelligibility (rather than its truth). The first targets the minimalist definition of a priori justification provided by APR-2. The second targets my use of the analytic/synthetic distinction to formulate RAT. The third objection targets the definition of experiential justification provided by EJ. The fourth does not target any of the specific proposals I have put forward, but, instead, aims at one of the presuppositions of the chapter; namely, that we can formulate an adequate explication of experiential justification by means of conceptual analysis and reasoning from paradigm cases. While the first and second objections express very general concerns that any number of readers may share, the third and fourth are explicitly raised by Albert Casullo (2003).

#### 2.6.1 APR-1 is too Weak

Many philosophers have advanced definitions of a priori justification that are significantly more robust than APR-1. Although these definitions include APR-1’s experience-independence condition, they also place additional necessary conditions on a priori justification. For instance, Kitcher (1985) claims that if \( b \) is justified a priori, then its justification is infallible. Swinburne (1975) claims that if \( b \) is justified a priori, then its content is necessarily true. Ewing (1951) claims that if \( b \) is justified a priori, then it is self-evident. Thus, I expect that some readers will object to
APR-1 because they are antecedently committed to a definition of a priori justification that places one or another of these additional conditions on priori justification. That is, they will object to APR-1 on the grounds that it is too weak. Note, too, that since APR-2 and RAT are descended from APR-1, they are heirs to its (purported) weaknesses. In what follows, I argue that this “weakness” objection is not well-motivated.

To start, suppose that we have identified two non-experientially justified beliefs α and β that differ with respect to their fallibility, apparent self-evidence, and modal status. Some philosophers will claim that, in light of these differences, only one of the beliefs in question is justified a priori. Since “being non-experientially justified” is the central condition on a priori justification—and the only one about which there is widespread agreement—these philosophers owe us a supporting argument for their view. That is, they need to explain why we should be prepared to place α and β in different epistemic categories (despite their shared status as non-experientially justified beliefs) rather than counting them both as justified a priori.

I do not believe that the opponents of APR-1 can convincingly discharge their burden. There are at least four reasons that support this judgment. First, there is no decisive historical precedent to which they can appeal. Excluding the experience-independence condition, there simply aren’t any other necessary conditions on a priori justification that have been uniformly assumed by prior generations of philosophers. Second, arguments from ordinary thought and talk are dead in the water. This is because the a priori/a posteriori distinction is a theoretical device that doesn’t have any significant communicative currency outside philosophical circles. Third, since

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26 Prantl (1855), Florka (2001), and Miller (2004) — among others — discuss significant aspects of the development of philosophical thought on the a priori/a posteriori from the medieval to the early modern period. Their discussions lend indirect support to my claim that the history of philosophy does not yield any clear-cut uniformly endorsed conditions on a priori justification besides the core experience independence condition.
most philosophers think the a priori/a posteriori distinction is exhaustive, withholding a priori status from some non-experiential justifiers introduces significant dialectical costs (not to mention costs related to conceptual economy). Were we to do so, we’d have to either count some explicitly non-experiential justifiers as a posteriori or introduce a third category of justifiers situated alongside those that are a priori and a posteriori. Neither of these choices is appealing.

Fourth and finally, when we examine the additional conditions on a priori justification that are most commonly proposed, we find that there are paradigm cases that they fail to capture. To see this, consider three examples. First, Kaplan (1989) calls attention to the belief that I am here now. This belief can be justified a priori, despite the fact that its content is contingent. Thus, there appears to be a counterexample to Swinburne’s modal condition on a priori justification. Second, consider the belief that not every predicate determines a set. This is belief is hardly self-evident. At one time, several gifted philosophers sincerely believed its opposite. Yet, surely, if any beliefs are justified a priori, this is one of them. Thus, there appears to be a counterexample to Ewing’s self-evidence condition on a priori justification. Third, consider the belief that there are infinitely many pairs of prime numbers that are separated by less than 70 numbers. The proof of this important number theoretic result was recently published by Yitang Zhang (2013). Given the youth of Zhang’s proof, we can’t wholly rule out the possibility that it contains a subtle misstep. Thus, the belief in question is not infallible. Still, if any beliefs are justified a priori, surely this one it. Thus, there appears to be a counterexample to Kitcher’s infallibility condition on a priori justification.

I should note, however, that the counterexamples initially used against Ewing and Kitcher involve beliefs that are justified a priori but not basic. Perhaps they can respond to these cases by
restricting their additional conditions on the a priori to cover only basic beliefs. That is, they may admit that, since inference can easily be corrupted, beliefs that are a priori justified by inference are not self-evident or infallible. Nevertheless, they’ll say, beliefs that are a priori justified in a basic way are self-evident or infallible. Even with this restriction in place, however, we can produce counterexamples to Ewing’s self-evidence condition and Kitcher’s infallibility condition. To that end, consider Goldbach’s conjecture that every even integer greater than 2 can be represented as the sum of 2 primes. This claim is has not been proven. Still, most mathematicians believe that it is true and they are justified in doing so. Given the subject matter, it is plausible to think that their belief is justified a priori. Since something about the conjecture strikes them as true absent any clear method of proof, it is plausible to think that their belief is basic. Yet, contra Ewing, Goldbach’s conjecture is hardly self-evident and, contra Kitcher, for all we know it could turn out to be false.27

Although I have not considered every additional condition on a priori justification that has ever been proposed, I am not aware of any that are not subject to similar kinds of counterexamples. For this reason, we are justified in taking a skeptical stance towards the very project of developing a definition of a priori justification that is more robust than APR-1.

2.6.2 There are no Synthetic Sentences

Following Quine (1951), many contemporary philosophers have claimed that they cannot grasp the concept of a semantic fact. They contend that it cannot be articulated in a clear,

27Another example may help strengthen the point. Consider, then, Frege’s belief that every predicate determines a set. When he held this belief, it was a priori justified, basic, and, alas, false. So his belief was fallibly justified a priori. Moreover, not everyone who understood its content found it evident, as Frege learned from Russell’s infamous 1902 letter.
noncircular, or theoretically useful way. Since we’ve analyzed “analytic” and “synthetic” by appeal to the concept of a semantic fact, it would appear that we cannot reject this concept without rendering RAT—along with any alternative definitions of rationalism that employ the concept of syntheticity—incoherent. For this reason, some readers may object to my use of the analytic/synthetic distinction in formulating RAT.

My discussion of the Quinean objection might suggest that I have an interest in defending the intelligibility of the concept of a semantic fact. This is not the case. For the sake of ensuring that RAT is intelligible, all that needs to be acknowledged is that the scope of the a priori extends beyond the paradigms for analyticity. Even if the standard semantic explanation of the difference between (9) and (10) fails, there is a prima facie difference between these sentences and others like them (the paradigms for analyticity and syntheticity). This difference requires some sort of explanation. If we accept the Quinean criticism of semantic facts, then clause (a) of RAT should be revised to pick out whatever property best explains the difference between (9) and (10).²⁸

Suppose, however, that semantic facts are the only game in town. Perhaps all of the alternatives to the semantic explanation of the difference between (9) and (10) smuggle in semantic facts. Were we to reject the concept of a semantic fact, we’d then have to conclude that the prima facie difference between (9) and (10) is illusory and that the notion of syntheticity is incoherent. This still does not pose a problem for the rationalist. If no sentences are analytic, then all propositions that can be expressed by sentences will be expressed by sentences that are not true

²⁸My position here echoes Grice and Strawson (1956), who write: "There are doubtless plenty of distinctions, drawn in philosophy and outside it, which still await adequate philosophical elucidation, but which few would want on this account to declare illusory." While I’m inclined to agree with the general outline of their response to Quine, I’m not prepared to endorse its particularities.
in virtue of semantic facts. Clause (a) of RAT will thus be trivially fulfilled by any sentence that expresses a proposition that can be justified a priori.

Thus, it should be clear that RAT is an adequate definition even if it turns out that the analytic/synthetic distinction is somehow incoherent. Still, for dialectical purposes it is easier to just assume that (a) there is a real distinction between (9) and (10) and (b) that it can be explained, in the usual way, by appeal to the notion of a semantic fact. Our aim is to offer a definition of rationalism that can be situated with the mainstream of both traditional and contemporary philosophy. While some philosophers reject both (a) and (b), a plausible definition of rationalism should run contrary to both moderate empiricism (the view all proposition that can be justifiably believed a priori are expressed by analytic sentences) and radical empiricism (the view that no propositions can be justifiably believed a priori). A definition that includes the concept of syntheticity will capture this oppositional stance better than any alternative.

Ultimately, I have little interest in arguing about the analytic/synthetic distinction. I tend to agree with Quine’s (1991) claim that the notion of analyticity has few “obvious and useful…applications” and that those it has are not epistemically significant. To that end, I shall presuppose the analytic/synthetic distinction for expository and dialectical purposes, while conceding that its importance to our present project (and, perhaps, philosophy in general) is limited.

2.6.3 EJ is Untenable

Suppose we are trying to define the term “dog.” We begin by examining a number of paradigm cases. One thing we recognize straightaway is that paradigmatic dogs come in many
different colors. We are thus entitled to rule out definitions of “dog” that appeal to the color of the paradigm cases. Albert Casullo has argued, in a similar fashion, that we can rule out explications of experience or experiential justification that—like EJ—appeal to the presence of phenomenal content. Thus, Casullo writes (2003, p. 150):

…for the [distinction between experiential and non-experiential states/justification] to be marked at the phenomenological level, there must be some general phenomenological feature that is (a) exemplified in the phenomenological states associated with all the various types of sense experience, and (b) is also exemplified in the phenomenological states associated with all the other forms of experience alleged to be incompatible with a priori justification. It is dubious that either condition obtains.

Casullo notes, correctly, that no phenomenal properties are common to all (or most) paradigmatic experiential states (and, by extension, experiential justifiers). For instance, visual experiences and auditory experiences take radically different kinds of phenomenal properties as their objects. Indeed, there do not appear to be any phenomenal properties that they share. As a result, Casullo, concludes that definitions of experiential justification that appeal to the presence of phenomenal properties are, as a general type, unsound.\textsuperscript{29}

Casullo’s argument does not pose a threat to the EJ. This is because EJ states that the property common to experiential justifications is not any specific phenomenological characteristic

\textsuperscript{29}Casullo sketches this argument in response to philosophers who want to mark the distinction between a priori and a posteriori justification in terms of a special kind phenomenology that attached to a priori justifiers. He writes (2003, p. 150): “proponents of the a priori frequently stress that the cognitive states that are alleged to justify a priori are familiar in the sense that they have a distinctive phenomenology that cognizers can easily be taught to recognize and label. The same is true of the experiences associated with the five senses. We readily distinguish between, say, auditory and visual experiences on the basis of differences in their phenomenological character. The fact that these different forms of experience (in the broad sense) have a unique phenomenological character is not sufficient to ensure that the difference between experiential (in the narrow sense) and non-experiential states can be marked in terms of differences in their phenomenological character.” I share Casullo’s skepticism about attempts to explicate a priori justification in terms of the phenomenology of the states thought to provide such justification. The trouble is, he seems to move from expressing concerns about that way of explicating the a priori by appeal to phenomenology to impugning all attempts to do so. But, as we’ve seen, there is a plausible way to distinguish the a priori from the a posteriori in phenomenological terms.
but rather the *bare presence* of justification-enabling phenomenal properties. By the same token, experiential *states* possess the second-order property of *having phenomenal content* in addition to the specific first order properties that enable individual state tokens to serve as justifications for specific beliefs. Possession of the second order property is what these states have in common. It is what facilitates their falling within a single classificatory category. Possession of the relevant first order properties is what enables these states to provide experiential justification.

Perhaps, however, Casullo means to present a deeper kind of challenge to phenomenal conceptions of experiential justification. What if there is no coherent concept of “phenomenal property” or “phenomenal content”? What if the very idea of the relevant second order property (having phenomenal content) cannot be clearly articulated? This worry is hinted at when, in the process of critiquing Chisholm’s analysis of experience, Casullo claims (2003, p. 150) that he “fails to provide a general characterization of the concept of a sensible characteristic. He fails to identify some general phenomenological feature common to sense experience in its various forms.” The second sentence here suggests that Casullo wants Chisholm to identify a property common to all sense experiences. As we’ve seen, that concern can be handled. The first sentence, however, suggests that Casullo may be requesting a criterion for the concept of a phenomenal property. If what experiences have in common is that they have phenomenal content and phenomenal content is understood in terms of taking phenomenal properties as objects, we might sensibly wonder what it is that makes the properties in question phenomenal.

This a reasonable concern can serve as the basis for a different sort of challenge to EJ. Consider: if there is no basis for distinguishing phenomenal properties from other kinds of

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30 It wouldn’t be hard to miss this line of argument, since his discussion of phenomenal explications of experiential justification goes by quickly, i.e., it lasts for only three paragraphs.
properties, then there is, by extension, no basis for distinguishing experiential justifications from other kinds of justifications. Unfortunately, there is no widely accepted account, criterion or set of jointly necessary and sufficient conditions for the concept of a phenomenal property. Instead, the notion is typically characterized by a kind of ostentation. Philosophers introducing the terms “phenomenal property” and “phenomenal content” typically define them by pointing to examples.

For instance, here is how David Chalmers (2004, p. 154-155) introduces the concept of a phenomenal property:

Consciousness involves the instantiation of phenomenal properties. These properties characterize aspects of what it is like to be a subject (what it is like to be me right now, for example, or what it is like to be a bat) or what it is like to be in a mental state (what it is like to see a certain shade of green, for example, or what it is like to feel a certain sharp pain). Whenever there is something it is like to be in a mental state, that state has specific phenomenal properties.

Chalmers points to various first order feelings and claims that what they have in common is precisely that there is something it is like to have these feelings. Definitions of this kind pervade the philosophical literature and are widely viewed as satisfactory enough to render the concept intelligible. While Chalmers’ definition may not be as illuminating as we’d like it to be, it does pick out a feature of many mental states that we are prima facie committed to, namely, that they have properties that make them feel a certain way.

When we reflect on a token pain state $p$, we can clearly discern that it has, among its various properties, both “painfulness” and “being indexed to time $t$.” The latter is not plausibly thought to feel any particular way while the former is, paradigmatically, a feeling. Thus we have a prima facie intelligible distinction between the phenomenal and non-phenomenal properties of mental states. Of course, without some account of “feeling” or “what-it-is-like” this approach may well
be hopeless; it offers only to exchange one insufficiently clear term for another. What, then, is the proponent of phenomenal properties to do?

The proper response here is to draw attention to the fact that even among those philosophers who think that phenomenal properties are superfluous, illusory, reducible to ordinary physical properties, or can be otherwise explained away, there is a near consensus that the concept is intelligible. There is close to universal agreement that, for example, there is something that it is like to hit one’s thumb with a hammer. None of us would like to be hit with a hammer precisely because we have a sense of what it would be like! If we knew how to account for that feeling metaphysically or how to locate it within an adequate ontology, we might then be in a position to figure out what it has in common with other phenomenal states or properties. Still, a consensus prevails despite our metaphysical failings. We are able to sensibly employ the concept of a phenomenal property even if we cannot provide necessary and sufficient conditions for its extension. As we noted in discussing the analytic/synthetic distinction, we are not required to give a theoretical account of a term (or distinction) before putting it to use.

I can’t provide an analysis of the concept of a phenomenal property. Indeed, I’m not convinced anyone else can either. But I am quite confident that we enjoy mental states with phenomenal content. When mental states that possess such content justify beliefs in virtue of that content, the kind of justification they provide is experiential. Casullo cannot deny that this is an intelligible account of experiential justification unless he is fully willing to deny the intelligibility of the concept of a phenomenal property. But that concept is fully intelligible, even if the best we can do to limn the borders of its extension is to point to point to various mental occurrences and
note that they feel a certain way.\textsuperscript{31} Thus, even if we conclude that the concept of a phenomenal property is \textit{sui generis} we can still sensibly employ it in our definitions and explanations.

**2.6.4 Casullo’s Methodological Objection**

Casullo (2003, p. 158-160) also rejects one of the fundamental methodological assumptions of this chapter; namely, that we can produce an adequate definition of experiential justification by stipulation, conceptual analysis, or reflection on paradigm cases (following Feldman (2003), we’ll call these \textit{armchair methods}). Casullo supports this position with the following argument:

\begin{align*}
(11) & \text{ Arm-chair methods have failed to provide us with a plausible explication of “experience.”} \\
(12) & \text{ The Kripke-Putnam model (\textbf{KP})—which says that the meanings of natural kind terms are fixed by their reference which is, in turn, discovered by empirical investigation—is the correct approach to the semantics of natural kind terms.} \\
(13) & \text{ The best explanation of (11), given (12), is that “experience” is a natural kind term that cannot be explicated by arm-chair methods.}
\end{align*}

If Casullo is correct, then the methodological approach we have used to produce \textbf{RAT} is seriously inadequate, as are the definitions of experience, experiential justification, and a priori justification upon which \textbf{RAT} is based. For that reason, we should take his challenge quite seriously. In this section, I begin by explaining Casullo’s broader position in more detail. I then present objections to both of the premises of his argument.

Casullo supports premise (11) by undertaking a lengthy critical survey of the various definitions of experience proposed in the literature on a priori justification. Since I find his

\textsuperscript{31}Perhaps there will be intractable disagreements, then, about what properties are rightly thought of as phenomenal. That result is perfectly consistent with the claim that there is a category of properties that are what they are because they feel the way they do.
challenges to these definitions largely convincing, I will not review them here. Casullo then notes that all of these (purportedly) inadequate definitions were produced by arm-chair methods. By induction on these failed definitions, he concludes that arm-chair methods are inadequate to the task of explicating experience. Casullo then suggests that, given premise (12), the best explanation for the inadequacy of armchair methods is that “experience” is a natural kind term. For that reason, our attempt to explicate experiential justification will bear fruit only after we integrate the empirical findings of cognitive psychology into our semantic theory for “experience.”

Since Casullo’s position heavily relies on the Kripke-Putnam semantic theory for natural kind terms, we should briefly review it. KP’s central thesis is that natural kind terms rigidly designate the real essences that lie beneath the local paradigms with which they are associated in everyday language. To get clear on how this thesis is to be understood, let us first consider the way KP treats a stock natural kind term like “gold”. Initially “gold,” is associated with a set of local paradigms—via an ostentative initial baptism, an agreement among experts, or a related stipulative exercise, such as the introduction of a rule or description—according to which it is, say, a malleable yellow metal that dissolves in aqua regia. Once we have the local paradigms in place, the reference for “gold” is fixed by the underlying nature of those paradigms. We discover their underlying nature by scientific investigation (rather than arm-chair reflection), which teaches us that “gold = the element with atomic number 79.”

Now, if we assume that “experience” is a putative natural kind term and we also assume KP, then we must grant that the reference of “experience” will be determined by empirical investigation into the psychological properties underlying the local paradigms that fix its extension. If successful, such investigation will deliver a necessary theoretical identity analogous
to the identification of gold with element 79 and water with H₂O. It is also possible that empirical investigation will reveal that the surface level features we use to fix the reference for “experience” are not well correlated with any common underlying properties. If that turns out to be the case, then the term “experience” has no distinct referent and little theoretical use in epistemology.

Whatever result we get, Casullo believes that empirical investigation will shed much needed light on the concept of experience and, by extension, the concept of experiential justification. For, if empirical inquiry does reveal the essential property underlying all paradigm experiences, there will be a straight-forward way to determine which justifications are experiential. With that in mind, Casullo (2009, p. 125) suggests that “the hope is that identifying the features essential to sense experience will provide a principled way of adjudicating the more controversial cases of experience.” On the other hand, if empirical investigation reveals that there are no underlying properties common to the paradigms used to fix the reference of “experience”, then we’ll have a good reason to abandon the distinction between experiential and non-experiential justification. This too would be a kind of philosophical progress, since we’d have a principled reason to close the book on the rationalist/empiricist debate.

Casullo’s argument against using arm-chair methods to explicate experience faces at least two significant challenges. First, in section 2.2 we provided a prima facie plausible definition of experience in terms of phenomenal content possession—EXP—that does not derive from and is not informed by the kind of empirical investigation Casullo is calling for. Although EXP was stipulated, it can be supported by reflection on paradigm cases of experience. Furthermore, as we saw in section 2.5.3, Casullo’s argument against phenomenological conceptions of experience is
not convincing. Thus, we have a reason to reject premise (11) and hold firm to the view that armchair methods can be used to effectively investigate and explicate the concept of experience.

Of course, Casullo is likely to respond to this challenge by arguing that EXP does nothing more than provide an explicit identification of the macroscopic properties of the paradigms that fix the reference for “experience”. If we grant him the assumption that experience is a natural kind term (which I’m prepared to do), he’ll argue that the only way to proceed is by leaving the study and entering the lab. This is because he assumes—that KP is the correct semantic theory for natural kind terms. The business about empirical investigation is simply an outgrowth of KP. Yet, we’ve good reason to wonder about the adequacy of this assumption, which raises a second challenge to Casullo’s position.

To see it, let us begin by reviewing a general problem for KP; namely, the theory provides no clear way to account for the semantic difference between empty natural kind terms like “aether” and “caloric fluid”. But why think this result poses a problem for KP? 32 Recall that on KP, intension is determined by extension in the actual world. As noted above, the underlying essence of the local paradigms fixes the extension of the natural kind term in question, and does so across all possible worlds. The intension of the term is then determined by looking at its extension across possible worlds; it is thus assigned by a function from possible worlds to the relevant extension in each world. The upshot of this formula for intension assignment is that no intensions can be assigned to empty natural kind terms. This is because the step from extension to intension requires an initial baptism given to a paradigm case (or a set of such cases). Yet, with a putative natural kind term like “caloric fluid”, empirical research reveals that there aren’t any local paradigms.

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32 My reconstruction of this challenge is directly informed by Gross (2006).
Thus the extension of the term is the null set. But because the term has a null extension it also has a null intension; the function from possible worlds to objects of reference goes from the null set at each world to the null set across all possible worlds. The same is true of “aether.” Thus, the KP framework assigns “aether” and “caloric fluid” the same intension. Yet, “aether” and “caloric fluid” do not have the same intension. Since the sentences “aether exists” and/or “caloric fluid exists” might have been true, “aether” and “caloric fluid” could have had different intentions. Thus, they should not be assigned the same intension.\(^{33}\)

This result suggests that KP fails to properly handle some natural kind terms. Any plausible semantics for natural kind terms will need to be able to capture the intensional difference between “aether” and “caloric fluid.” Thus, Casullo’s assumption that KP is the correct approach to the semantics of natural kind terms is on shaky ground. We have a *prima facie* plausible reason to doubt that KP, in its standard iterations, is adequate. Since KP provides the foundation for Casullo’s venture, it would seem, then, that the project of setting out the terms of the a priori/a posteriori distinction by appeal to empirical results is on equally shaky ground.

Despite this, I don’t intend to mount a full frontal attack on the Kripke-Putnam semantic theory. Nor am I convinced that any such attack can be sustained. What is clear, however, is that if one were to reject that theory of natural kind terms for a descriptivist alternative, one would, thereby, have license to reject Casullo’s methodological objection to RAT.

I do not have the space to examine the costs and benefits of descriptivist semantic theories. As it stands, I think the debate between descriptivists and proponents of KP is largely unsettled. Nevertheless, sophisticated versions of neo-descriptivism—see, for instance, Jackson (1998) and

\(^{33}\)If your intuitions about the existence of “aether” and “caloric fluid” are not clear, note that KP appears to generate the same result for “unicorns” and “dragons.”
Chalmers (2006)—appear to offer an alternative to KP without forcing a wholesale rejection of the intuitions that make it attractive to many philosophers. In light of this, Casullo is not entitled to dismiss the use of armchair methods to explicate the concept of experiential justification.\footnote{Note that a descriptivist theory of natural kind terms can explain the obvious semantic differences between “aether” and “caloric fluid” without getting tripped up by presumably non-existent causal chains. What this suggests is that even if the “experiential justification” isn’t explicable within the bounds of our best scientific theories we needn’t reject the term outright. Instead, we might say that “experiential justification” is synonymous with the definite description “justification that is based on the phenomenal content of a mental state”. Notice that even if it turns out that this description fails to refer (even if there isn’t any phenomenally based justification) we would still be able to draw a plausible semantic distinction between “experiential justification” and “non-experiential justification”.
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At this point it’s worth recalling that nothing I have said above is meant to deny the claim that experience is a natural kind term. What I reject is the claim that natural kind terms are only explicable by extrapolation from the results of empirical investigation. There is nothing in EXP, EJ, or the methods employed to produce them that is inconsistent with notion that experience and experiential justification are natural kinds.

Of course, one might grant this consistency claim, but argue that it rests on a weak understanding of natural kinds, according to which they are nothing more than non-arbitrary mind-independent groupings of objects. Experiences certainly seem to be a natural kind in this weak sense. Unlike, say, dollar bills, experiences aren’t made what they are by virtue of human social practices and institutions. Unlike the set of objects under my bed, token experiences share properties that allow them to be non-arbitrarily classified as instances of a type. Yet, Casullo seems to be working with a robust conception of the nature of natural kinds—one that is typical for adherents of KP —according to which natural kinds are understood as real essences that play an indispensable role in scientific prediction and explanation (see, e.g., Koslicki, 2008).
Perhaps, one might argue, robust natural kinds cannot be fruitfully discovered by armchair methods. There is certainly a basis for concluding as much. If we examine a standard natural kind term like “water”, it certainly seems like conceptual analysis, for instance, is not going to help us determine its real essence. No amount of reflection on what we would say, consultation of linguistic intuitions, or consideration of paradigmatically watery objects could have facilitated the discovery of the chemical structure of the stuff that flows from our faucets. And, given the role that it plays in prediction and explanation, it is this underlying chemical structure that is mostly plausibly identified with water’s real essence. We are thus confronted with an apparent conflict between the view that experience is a natural kind term in the robust sense and the view that conceptual analysis the proper method for investigating its semantics.

Few would claim that we can use armchair methods to discover the underlying nature of gold, jade, or bears. I agree. Nevertheless, the conclusion that armchair methods cannot reveal any real essences is premature. To see this, let us consider three examples in which such methods appear to figure in the determination of or discovery of a real essence that factors in prediction and explanation.

First, consider the concept of God. Analysis of the concept allows us to arrive at a set of claims about God’s nature, including the claim that he is omnipotent and the claim that he is omnibenevolent. These results allow us to make predictions about what kinds of worlds God would actualize. That these predictions are prima facie false, given the actual world, is enlisted as evidence for God’s non-existence in several well-known arguments from evil (e.g., Rowe, 1979). Thus, we have an example in which conceptual analysis reveals a real essence that can be used to make predictions about (or features in explanations of) our world.
Second, consider the concept of a sphere. Spheres are plausibly held to be natural kinds. Surely the sphericity or approximate sphericity of various objects play an essential role in the explanation of their present behavior and in the predictions we are licensed to make about their future activity. Nevertheless, we do not discover the real essence of the sphere by doing physics or chemistry. Instead, we seem to be able grasp its essence simply by reflection on the requisite concept; then, we come to further refine our understanding by via our study of geometry.

Finally, consider the concept of knowledge. While there is no consensus as to the correct analysis of knowledge, it is widely held that, pace Williamson (2000), knowledge is non-accidentally justified true belief. The question of what the “non-accidental” condition (or the Gettier-proofing condition) amounts to or how it can be made explicit continues to occupy many epistemologists. In attempting to further spell out the fourth condition on knowledge these epistemologists are clearly engaged in conceptual analysis. Thus, knowledge remains a prime candidate for conceptual analysis. Knowledge is also a prime candidate for natural kind-hood. Ascriptions of knowledge play a role in the explanation and prediction of human behavior and, perhaps, in the formulation of various psychological laws. This provides an analogue with the concept of experience. Experiential states surely play a role in psychological explanation. Does this mean, then, that their “underlying nature” doesn’t matter? Surely not! Instead, we should, perhaps, conclude that it’s the kind of thing that can be uncovered analysis and then linked to the natural psychological properties upon which it supervenes.

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35For instance, Feldman (2003, p. 36-37), suggests that we understand non-accidental justification for b as justification that doesn’t essentially depend on any falsehood. Pritchard (2012) proposes that we replace the non-accidental justification condition with an all-purpose “anti-luck” condition. And so the business of analyzing knowledge continues.
3. A PRIMA FACIE CASE FOR THE A PRIORI

3.1 Introduction

The rationalist position rests on two fundamental theses: (a) that some beliefs can be justified a priori and (b) that the correct theory of a priori justification does not restrict its scope to propositions expressed by analytic sentences. In this chapter, I aim to support the first of these theses. To that end, I will review four pieces of epistemic data—drawn from common sense, observed behavior, ordinary language, and introspection—that together provide significant prima facie evidence for the a priori.

First, there are paradigmatically justified beliefs — in particular mathematical and logical beliefs — that seem incapable of being justified by experience. Second, there are certain kinds of unfamiliar propositions that we expect others to be immediately justified in believing without appeal to experience. Third, on a plausible interpretation of ordinary epistemic discourse, several common phrases are used to express immediate non-experiential justifications. Fourth, our first-person introspective evidence substantiates this interpretation of epistemic discourse. In what follows, I go into further detail about each of these pieces of evidence and conclude that they provide us with provisional entitlement for the view that some beliefs can be justified a priori.

3.2 Paradigm Cases of Justified Belief

Our case for rationalism is rooted in common sense epistemology, a way of approaching the subject that is characterized by its commitment to particularism. Particularism is, in turn, comprised of two central theses: identification—which says that we can identify paradigm case
of knowledge and justified belief without appeal to any general epistemic criteria—and conservation—which says that these paradigms occupy a position of epistemic privilege when weighed against competing claims. The upshot is that any theory of justification $T$ ought to be able to explain how (most) paradigm cases of justified belief are justified. If $T$ fails in this respect, then that is a significant strike against it.

At the beginning of Chapter 1, I presented a list of paradigmatically justified beliefs that do not appear to be justified by experience. Let us review it here:

1. $(87 + 7) + 7 = 87 + (7 + 7)$.
2. If John is identical to Steven and Steven is identical to Frank, then John is identical to Frank.
3. Two sets that have the same members are identical.
4. If something is indigo, then not everything is maroon.
5. Every object with a shape has a size.
6. If $A$ is true and $A$ entails $B$, then $B$ is true.

Given our particularist assumptions, an acceptable theory of justification must entail that the belief contents expressed by (1)-(6) are justified (or, perhaps, offer us means to systematically explain away the appearance that they are justified in a way that doesn’t require us jettison the rest of our common sense beliefs). Moreover, these examples can be multiplied many times over with relative ease. Thus we have a body of data—the paradigmatically justified belief in each of (1)-(6)—that any acceptable theory of justification must be able to explain.

This body of data casts a dark shadow on theories that outright reject a priori justification. For, prima facie, it does not seem like these beliefs are justified in virtue of the phenomenal properties of experiential states. To see this, let’s focus on the mathematical and logical cases, i.e.,
(1), (3), and (6). Note, then, that there is no clear sense in which the phenomenal properties of experiential states can be linked to or correlated with the objects of mathematical and logical beliefs, such as numbers, functions, and logical axioms. We can’t smell functions. We can’t touch numbers. Thus, it seems that our having experiences with certain kinds of phenomenal properties won’t make any difference to whether or not propositions about these objects ought to be believed.

Of course, we cannot smell or touch dinosaurs either. Nevertheless, our beliefs about them can be justified by inference from beliefs that are experientially justified. Perhaps, then, those who are not so sanguine about the a priori will say something similar about mathematical and logical beliefs. This proposal, however, ignores three seeming differences between mathematical and logical beliefs and those that are justified by inference from experientially justified beliefs.

First, some mathematical and logical beliefs appear to be basic, i.e., they do not appear to be justified by inference from any other beliefs. For instance, (1) and (3) don’t seem to be the kinds of beliefs that result from any explicit inferential procedures. We take them to be obvious in a way that belies the suggestion that they are justified by inference from direct experience.

Second, the objects of beliefs justified by inference from experientially justified beliefs are, at least in principle, capable of being experienced. The only reason we cannot engage in directly experiential commerce with dinosaurs, for instance, is because of certain temporal limitations. By contrast, we are prevented from experiencing numbers and functions by limitations that cannot, in principle, be corrected for.

Third, in our ordinary thought and talk we do not treat mathematical and logical propositions like those we are justified in believing by inference from experientially justified beliefs; namely, we don’t treat them as provisional hypotheses introduced to explain (or
generalize) the behavior of the objects around us. We don’t report an increase in confidence about (1) after counting another couple piles of beans. We don’t talk about testing or confirming arithmetical or logical hypotheses. Instead, we take ourselves to have justification sufficient for holding many mathematical and logical beliefs without undertaking any fieldwork whatsoever, even when the beliefs in question are not basic.

I believe these points hold equally well for other paradigm justified beliefs, such as (4) and (5). Nevertheless, in subsequent chapters I will largely confine the discussion of paradigm cases to those drawn from math and logic. This is for three reasons. First, such beliefs are the least controversial of all the paradigm cases that provide presumptive support for the a priori. Second, as we will see in the next chapter, certain paradigm mathematical and logical beliefs are especially resistant to having their positive epistemic status explained without appeal to the a priori. Third, traditional debates between rationalists and empiricists have given pride of place to examples drawn from the deductive sciences.

To conclude, (1)-(6) are paradigmatically justified beliefs. There is a strong presumption that they are not justified by direct experience or inference thereupon. Thus, there is reason to believe that they are immediately and non-experientially justified. If any justifications are immediate and non-experiential, then they are a priori. So there is reason to believe that (1)-(6) can be—and, indeed, are—justified a priori.

### 3.3 Meno Cases

Suppose that a logic instructor is teaching his students about reflexive relations. During his lecture, the instructor mentions a number of different relations and asks students to help him
identify which one are always reflexive. Eventually, he gets to identity, at which point he asks the
class whether or not everything is identical to itself. Most of the students have never before
considered this question. Nevertheless, when their instructor asks them to raise a hand if they
believe that everything is identical to itself, nearly all of them do so. This suggests that the belief
in question is formed immediately, rather than by a process of reflective inference. Moreover, it
seems like those who raise their hands ought to do so, i.e., it seems like their new belief is justified.
Yet, the contents of their experiences directly preceding the belief’s acquisition don’t have
anything to do with self-identity. Thus, it’s hard to see how the students’ new belief could be
immediately justified a posteriori. Rather, it appears that, in the example, when they reflect on
their instructor’s claim, they acquire an immediate non-experiential justification for the belief that
everything is identical to itself.

Suppose we venture to the math class next door, where the instructor has just claimed that
there are as many even numbers as natural numbers. Since this is not a matter of common sense,
the instructor provides her students with a diagram mapping the sequence of even numbers on to
the sequence of the natural numbers in order to convince them that the claim in question is true.
Notice, however, that as soon as they are exposed to the diagram, most students are justified in
believing the proposition in question here. That is, once they understand the mapping procedure it
depicts, they will be justified in believing that there are as many evens as natural numbers. Indeed,
we employ the diagram in question as a pedagogical device because it appears to flip a “gestalt
switch” that enables students to immediately grasp the truth of a claim whose content significantly
outstrips what can be justified by direct experience.
In both of these (quite realistic) cases, we have propositions that are (a) new to the subjects (i.e., they haven’t thought of them before) and (b) immediately justified for them, despite the fact that (c) they have no relevant experience to draw upon for justification. To honor of one of our illustrious predecessors, and illustrate that the examples above are just two tokens of a type, we’ll call them *Meno Cases*. They are presented here to direct attention to the fact that, like Socrates, we expect people to be able to immediately grasp the truth of certain unfamiliar claims about things they haven’t directly experienced.

Indeed, this expectation informs many of our pedagogical efforts in logic, mathematics, and philosophy classes. We take it for granted, for instance, that once students come to understand certain logical propositions they will be justified in believing them. We attempt to facilitate this understanding by walking them through examples. We do not ask them to do field work or experiments, nor do we refer them to field work or experiments that others have done. Instead, our pedagogical practices assume that students have a capacity to acquire immediate non-experiential justification, i.e., a priori justification. Since (a) this assumption explains and predicts our ordinary pedagogical practices in several areas of inquiry and (b) we are at least provisionally entitled to our pedagogical practices, we have additional evidence for the a priori.

3.4 Ordinary Epistemic Discourse

In ordinary discourse, members of our epistemic community offer and accept “I just see it” statements as a final justificatory move. In the contexts under discussion, when people say “I just see it” they use the phrase to express a mental state. Thus, the members of our epistemic community take the mental states expressed by “I just see it” to be an *adequate* source of epistemic
justification. Yet, some uses of “I just see it” do not seem to express perceptual states (or any other states whose justificatory powers depend upon their phenomenal contents). The mental states expressed by these uses of “I just see it” are nevertheless taken to be adequate sources of epistemic justification. Thus, the members of our epistemic community appear to be practically committed to the availability of a priori justification. This provides prima facie evidence for the claim that there are a priori justifications.

Let’s begin unpacking the argument above by considering an example. Suppose that you are riding on a train. Two logic students, Brown and Green, are seated behind you discussing their logic homework:

**Green**: …it follows because identity is transitive.

**Brown**: How can you be sure?

**Green**: Well… I guess I just see that it’s true.

**Brown**: I suppose that’s correct. I can just see it too.

In this exchange, Green (the interrogated party) reports the fact that he “just sees” that \( p \) as a means of expressing his justification for the belief that \( p \). Crucially, Brown accepts the “just seeing” report; he takes the reported “just seeing” to provide a good reason for believing that \( p \).

While this case is artificial, it should have an air of familiarity. This is because we have observed many similar exchanges. Such exchanges exhibit a familiar pattern. First, \( S \) asserts that \( p \). On the assumption that \( S \) believes what he asserts, a peer undertakes an investigation into the \( S \)’s grounds for believing that \( p \). After a few interrogative volleys, \( S \) reports that he “just sees” that \( q \) as if it were, ultimately, a justification for his belief that \( p \). The interrogator takes \( S \)’s claim to just see to be an acceptable conversational move and ends the process of interrogation.
Ordinary conversations often fit the contours of the fictional case reported above. Consider the following exchange:

**Husband**: Where are the keys?

**Wife**: They’re on the dresser.

**Husband**: Are you sure?

**Wife**: Yes, I saw them there.

Unless we’ve been eavesdropping on a couple of philosophers, it’s safe to say the interrogation will end with the just-seeing-statement. Various other locutions play the same epistemic role: “It’s obvious,” “Because it looks that way,” “Because I do,” “That’s how it appears,” “Because I have eyes ... duh,” and so forth. Regardless of chosen locution, however, in ordinary epistemic practice individuals acknowledge the normative force of these interrogation-ending evidence reports. That is, they are prepared to offer and accept “I just see it” as a final justificatory move.

How shall we explain this practice? In some cases, just-seeing-statements are used to indicate the possession of ordinary perceptual justification. When an individual says, in the appropriate context, “I saw that the keys were on the dresser,” he intends to express a basic perceptually acquired mental state. This much seems undeniable. While we may not be able to explain how perception justifies belief, we take it for granted that perceptual states are justificatory. Thus, the practice of treating “I just see it” as justificatory can be easily explained in cases when the phrase expresses a perceptual state.

Consider, however, the man who defends the claim that arithmetic is commutative by saying “I just see it”. Now consider the mathematician who says to his colleague “I see how this step of the proof follows”, to which his colleague replies “ah yes, I see it too.” In these cases, “I
just see it” does not appear to express a perceptual state. So what does it express? The conversational purpose of the assertion is to publicize possession of justification for the belief that \( p \). Since justifications are mental states, some kind of mental state is being expressed. Thus, when one mathematician says to another “I just see that \( p \)”, the assertion expresses an information-bearing mental state.

The subject matter and conversational context of these cases seem to rule out the possibility that these mental states are perceptual states. Thus, the individuals in question do not seem to be expressing basic a posteriori reasons. Perhaps they are expressing inferential a posteriori reasons. The problem with this proposal is this: if the individuals under interrogation had reasons that were epistemically prior to the one they offered, they should have been in a position to present these reasons in conversation. But “I just see it” appears to be a final justificatory move. It ends the process of interrogation.

While those who say “I just see it” may, on occasion, simply want to avoid a lengthy interrogation, we cannot explain every use of just-seeing-statements by appeal to conversational expediency. Even those who exude confidence and manifest a clear willingness to converse sometimes express their justification by saying “I just see it”. Think of the conversation between mathematicians discussed above. In that case, neither speaker is trying to evade discussion or avoid expressing their reasons. Nevertheless, they appear to have no way to express their reasons other than by saying “I just see it.” This suggests that they are not expressing inferential reasons. Since their beliefs that aren’t likely candidates for direct experiential justification (given their mathematical content), in this conversational context, “I just see it” is plausibly interpreted as expressing a non-inferential non-perceptual justification. Since “I just see it” is not restricted to
conversations among specialists, its utilization and acceptance reflects a commitment to the availability of a priori justification that is implicit in everyday discourse.

Of course, it could be that common practice is being confused with correct practice. While it’s important to keep that consideration in view, the members of an epistemic community are, ceteris paribus, entitled to their practices. That \( p \) is implicit in everyday practice is positive evidence for \( p \). Since apparent a priori justifications figure prominently in the ordinary discourse constitutive of everyday epistemic practice, we have yet another source of positive prima facie evidence that some beliefs are justified a priori.

3.5 Introspection

In what follows, I argue that introspection on the intrinsic character of the justificatory mental states expressed by “I just see it” provides corroborating evidence for the conclusion that some provide a priori justification. To begin, suppose you say to me: “Farley you may well believe that identity is transitive, but are you sure?” I am quite sure that identity is transitive. I take myself to be justified in believing this proposition to the degree required for knowledge. Nevertheless, I have no perspicuous way to express the justification I take myself to possess. How shall I defend epistemic credentials of my belief in the face of your interrogative onslaught?

When I reflect on the proposition at hand, it strikes me as obvious. Yet, none of my perceptual states appear to stand in an evidentiary relation to the proposition that identity is transitive. So its obviousness isn’t grounded in my immediate experience. Given my unreserved and immediate acceptance of it, however, it would appear that I am non-inferentially justified in
believing it. When I reflect on my basis for believing this proposition, it doesn’t appear to me that I have inferred it from other propositions I justifiably believe.

Of course, I unthinkingly and unreservedly accept all kinds of familiar generalizations. In fact, many of my inferentially justified beliefs are so well-confirmed that they too strike me as obvious. Still, I am prepared to support my inferentially justified beliefs by arguing from inter-subjectively credible premises. I am not prepared to defend the transitivity of identity in this manner. There is no argument I can give to convince those who don’t see what I see when I reflect on propositions like:

(7) If Jim is identical to Steve and Steve is identical to Bill, then Jim is identical to Bill.

Indeed, there is little I can say on its behalf other than “I just see it.”

In this respect, there is a parallel between my justification for believing (7) and my basic perceptual justifications. If you don’t see that the cat is on the mat and you don’t trust my testimony, there’s little I can say, by way of argument, to convince you that she’s there. I can tell you where to look, but I can’t give you my justification since my justification is provided by perceptual states that are not inter-subjectively accessible or assessable. Thus, if you were to ask for assurance about the cat’s location, my only recourse would be to say “I saw her on the mat” or, perhaps, “look!”

Even though my justification for (7) doesn’t seem to be experiential, it does seem to possess the same kind of immediacy that familiar experiential justifications possess. Thus, when I reflect on the kinds of justifications available to me, some of them seem to be neither experiential nor inferential. This is the crucial piece of evidence: it appears to me that I am immediately justified in believing some propositions that aren’t justified by experience. These are precisely the
propositions that I find *obvious*. Moreover, when I reflect on these obvious propositions I find that my reasons for believing them cannot be fully expressed in speech. While I can use speech to indicate possession of such reasons, it is inadequate to the task of making these reasons available to others. Yet, despite my inability to *express* such reasons, I am quite satisfied that I *possess* them.

Now, I enjoin the reader to consider what she’d *say* to someone who asked her to justify her belief that (7) is true. I further enjoin her to introspectively investigate the *character of her reason* for believing that identity is transitive. I think she will see what I see; namely, that a proposition about which she is very confident rests on non-inferential non-experiential ground. Even if you are not so sure about the transitivity of identity, I am confident that there *some* propositions that just strike you as obviously true. Indeed, I am confident that you totally convinced of the truth of at least some propositions that you cannot defend by argument or test against your present or past sensations. Now, are you prepared to declare that in every instance your confidence is accidental, circumstantial, or wholly misplaced? I doubt it, for doing so would force you to bear a very significant epistemic cost.

At this point, the reader may be prepared to allow, at least tentatively, that some of our beliefs are justified non-inferentially and non-experientially. For all we’ve aid thus far, however, we’ve barley investigated the intrinsic character of these justifications. With respect to that issue, I shall punt downfield. In Chapter 6, I will return to the task of characterizing these mental states and explaining their justificatory powers. My present purpose is only to draw attention to the fact that some beliefs that strike us as obvious seem—from the first-person point of view—to be neither inferentially nor experientially justified. On the plausible assumption that many these beliefs *are justified*, introspection suggests they are justified a priori.
3.6 **The Cumulative Case**

Ross (1930, p. 41) writes that “the moral convictions of thoughtful…people are the data of ethics just as sense-perception are the data of a natural science.” I maintain that the epistemic convictions (and practices) of thoughtful people are the data of epistemology. Reflection on paradigm cases of justified belief, Meno cases, and kinds of justifications we offer to ourselves and others in epistemic language games suggests that we have access to immediate non-experiential justifications. Thus, despite the misgivings of some prominent philosophers, it appears that the concept of a priori justification answers to a genuine feature of our epistemic lives.

This makes it *prima facie* plausible to conclude that some of our beliefs really can be justified a priori, which, in turn takes us part of the way towards rationalism. Moderate empiricists have argued that this conclusion can be embraced as long as we can explain a priori justification by appeal to analyticity. Radical empiricists have argued that its supporting evidence can be *explained away* without remainder, rending the notion of a priori justification superfluous. In the next two chapters, I shall explicate and evaluate these empiricist proposals.
4. A CRITIQUE OF MODERATE EMPIRICISM

4.1 Introduction

In the previous chapter I presented four pieces of \textit{prima facie} evidence for the a priori. Let us briefly review them. First, there are many paradigmatically justified beliefs—in particular those with mathematical and logical contents—that do not appear to be justified by experience. Second, there are Meno cases, i.e., cases of immediate justified belief formation in which the content of the belief is new to the subject and does not appear to be supported by her present or past experience. Third, it is acceptable to use the phrase “I just see it” to express immediate non-experiential justification in epistemological language games. Fourth, introspection corroborates the claim that epistemic uses of “I just see it” express immediate non-experiential justification. Taken cumulatively, this evidence suggests that some beliefs are immediately justified by non-experiential mental states, i.e., that they justified a priori.

In this chapter I review and critique the moderate empiricist theory of a priori justification, according to which a priori justification is explained in terms of the semantic property of analyticity. I proceed by five steps. First, I explain the moderate empiricist view and highlight its attractive features. Second, I argue that this view fails to adequately explain how mathematical beliefs are justified. Third, I argue that it fails to adequately explain how certain fundamental logical beliefs are justified. Fourth, I argue that moderate empiricism fails to explain the positive epistemic status of several of other kinds of putatively a priori paradigm cases of justified belief (as discussed in Chapter 3). Fifth, I argue that the view implausibly restricts the kinds of beliefs...
that can be immediately justified a priori. I conclude that moderate empiricism fails to provide a satisfying explanation of the prima facie evidence for the a priori.

Before moving on, I should note that in this chapter and the next there is a heavy emphasis on the epistemology of mathematics (and, to a slightly lesser degree, logic). This is because rationalists and empiricists agree that there are justified mathematical and logical beliefs. Since they do not always agree about the justificatory status of other kinds of putatively a priori truths, focusing on the epistemology of math and logic is dialectically advantageous.

4.2  **Attractive Features of Moderate Empiricism**

Empiricism is the view that propositions expressed by synthetic sentences can be justifiably believed *only* on a posteriori grounds. Moderate empiricism is characterized by its theory of a priori justification. This theory is comprised of two central theses: (a) the property of analyticity can be used to explain how a priori justification is acquired and (b) the set of propositions expressed by analytic sentences *exhausts* the set of propositions that can be justified a priori.

Moderate empiricism is often motivated by the anti-metaphysical commitments of its expositors. Ayer (1936 p. 73), for instance, puts forward a moderate empiricist theory of a priori justification precisely because he finds the rationalist alternative—that “thought has [the] power to reveal to us authoritatively the nature of objects which we have never observed”—“mysterious.” Despite its partisan point of origin, thesis (a), which says that analyticity can explain a priority,

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36This distinction between moderate and radical empiricism is largely informed by Bonjour (1998). The use of the terms “moderate” and “radical” to mark out this kind of distinction, however, goes at least as far back as Ajdukiewicz (1949).

37Ayer (1936) comes very close to capturing both theses in the same paragraph, writing that “our [a priori] knowledge that every oculist is an eye-doctor depends on the fact that the symbol ‘eye-doctor’ is synonymous with ‘oculist’...and the same explanation holds good for every a priori truth.”
has quite a bit of initial plausibility. To see this, consider a model candidate for a priori justified belief: the proposition that is expressed by the first order logical sentence “\( p \lor \neg p \).” This sentence is true in virtue of the truth-tables for the connectives “\( \lor \)” and “\( \neg \)” together with the fact that these truth-tables comply with semantic compositionality. Consequently, “\( p \lor \neg p \)” is analytic.

Since it is an analytic truth, we can be a priori justified in believing any propositions expressed by sentences in which the variable \( p \) in “\( p \lor \neg p \)” is replaced with a sentential constant. This is because our truth-tables guarantee the truth of any such sentence and true sentences don’t express false propositions. Thus, in virtue of understanding such sentences we appear to acquire a good—in fact, decisive—reason to believe that the propositions they express are true.

Sentences like “\( p \lor \neg p \)” are manifestly different from sentences like “Someone is on the porch.” One can come to understand the latter perfectly well without acquiring any reasons to believe the proposition it expresses. To obtain such reasons, one must appeal to extra-linguistic evidence of some kind. In the case of analytic truths, however, the propositions they express are such that experience has no significant role to play in justifying our acceptance of them. Although we could justify the belief that “every vixen is a female fox” by sticking our noses in each passing den, simply understanding the sentence provides us with a reason strong enough to be justified in believing that it’s true.

What does this “understanding” consist in? Minimally, one understands a sentence \( s \) when one grasps—in some rough and ready way—the truth-conditions for the proposition expressed by \( s \). In the case of analytic sentences, moderate empiricists have argued that when one grasps their truth conditions one also grasps that they are fulfilled. Now, understanding a sentence is an intellectual task; it can be achieved without any particular perceptual input. While the cognitive
episodes that facilitate linguistic understanding may have phenomenal properties, these properties play no constitutive role in such understanding. That is, while there might be “something it is like” to understand a sentence, the qualitative characteristics of episodes of linguistic understanding are, from the standpoint of epistemology, mere epiphenomena. They don’t facilitate linguistic understanding even if they accompany it. Thus, insofar as such understanding provides epistemic justification, the justification it provides is a priori. We now have at least a partial model for a priori justification: the contents of at least some paradigm a priori justified beliefs can be expressed by analytic sentences and this explains how they come to be justified a priori.

Moderate empiricists content that the above mentioned model for a priori justification can be generalized to cover all a priori justified beliefs (this is sub-thesis (b)). In support of this generalization, moderate empiricists—such as Ayer (1936), Hempel (1945), and Hahn (1959)—have argued that truths of mathematics and logic are analytic.\textsuperscript{38} If true mathematical and logical sentences are analytic, then an understanding of them can suffice for justified belief in the propositions they express. Of course, novel or complex mathematical sentences may not be obvious in the way that model analytic sentences are obvious. Thus, there are cases in which understanding is attained only after unpacking layers of nested concepts (or meanings) or must be supplemented by means of proof.\textsuperscript{39} Nevertheless, if \( b \) is justified by inference from basic beliefs that are justified only by linguistic understanding, then \( b \) is still justified a priori.

\textsuperscript{38}I do not mention Carnap here because the nuances of his epistemological position make it difficult to classify. Carnap definitely thinks the truths of mathematics and logic are analytic, after-a-fashion, but his meta-philosophical principle of tolerance, model theoretic account of analyticity, and rejection of the a priori/a posteriori distinction make him difficult to classify alongside the more traditionally philosophical exponents of moderate empiricism. Carnap is simply not interested in answering the question “how is a priori justified mathematical belief possible?” Rather, he is interested in replacing it with better questions or motivating, on pragmatic grounds, the use of a linguistic framework in which the question fails to arise.

\textsuperscript{39}Hans Hahn (1959, p.157) expresses this sentiment as follows: “…logical propositions, though being purely tautologous, and logical deductions, though being nothing but tautological transformations, have significance for us
Thus, the moderate empiricist offers an epistemology for math and logic that explains the apparent a priority of these subjects without requiring us to posit Kantian categories, innate ideas, a “mysterious” faculty of rational intuition, or any other ontologically fattening explanatory accoutrements. A priori justification is, instead, grounded in our uncontroversial capacity for linguistic understanding. If that’s correct, then moderate empiricism can provide a satisfactory explanation of the first piece of the *prima facie* evidence for rationalism; namely, our a priori mathematical and logical knowledge. This explanation is consistent with a broadly Humean epistemology according to which matters of fact can be known only by experience. Moreover, it is consistent with an empiricist account of semantics according to which all terms ultimately derive their meaning from sensory impressions or linguistic conventions. Thus, rationalist metaphysics can be cast into the flames without the risk of setting the deductive sciences ablaze (or boiling off their seemingly undeniable a priority).

The moderate empiricist theory of a priori justification has, in addition, the virtue of providing a *unified* theory of the data that drives us towards rationalism. For example, consider one of our Meno cases. A philosophy instructor claims, during his lecture, that everything is identical to itself. Most students in the class have never before considered this claim, but upon doing so, they immediately come to believe it. When the instructor asks the members of the class who believe it to raise their hands, nearly every hand goes up. Furthermore, it seems like those...
who raise their hands have a good reason to do so, i.e., it seems like their new belief is justified. Yet, their experiences directly preceding acquisition of this belief don’t have anything to do with self-identity. Thus, it’s hard to see how the students’ new belief could be justified a posteriori. Rather, it appears that, when they reflect on their instructor’s claim, they acquire an immediate non-experiential justification for the belief that everything is identical to itself.

Moderate empiricism promises to explain how the students acquired the relevant justification and extend this explanation to cover the general phenomenon exemplified by Meno cases. It is well-known that human beings are able to immediately understand sentences they’ve never heard before. While some analytic sentences are such that we may need to use inferential processes to unpack nested concepts, others are such that those who understand them are immediately justified in believing the propositions they express. Thus, a plausible explanation of Meno cases is as follows: we come to understand novel or unfamiliar analytic sentences and, in so doing, acquire immediate non-experiential justification for the propositions they express.

Sentences that express mathematical and logical propositions comprise a significant portion of the paradigmatic Meno cases. If mathematical and logical sentences are analytic, then we’ve a firm basis for concluding, by analogy, that all justification acquired in Meno cases is the result of a subject coming to understand an analytic sentence. This, in turn, explains why we expect people to be able to immediate grasp the truth certain unfamiliar propositions; it’s because the propositions in question are expressed by analytic sentences. As a result, they can be justifiably believed immediately by all who understand the sentences in question.

A similar story can be employed when we consider the third piece of the cumulative evidence for the a priori: the third-person epistemic practice of assigning evidentiary value to just-
seeing reports. The best interpretation of these reports is that, in many cases, they publicize possession of a priori justification. If priori justification is acquired when we come to understand an analytic sentence, then we have a way to make sense of the epistemic import of the claim “I just see it.” The idea is that just-seeing reports paraphrase the claim “I understand the sentence at issue and that is enough to for me to be justified in believing the proposition it expresses.” Moreover, these reports carry the conversational implication that if you understood the sentence at issue you would also believe the proposition it expresses. Thus, when the exasperated logic instructor says to her student “don’t you just see that φ” her question is a paraphrase of “If you understood the truth tables for the connectives, then you would have a reason to believe φ.”

Thus, “I just see” is shorthand for “I understand the sentence at issue and that is enough for me to determine its truth value.” It is uncontroversial that ordinary people can understand sentences of their language. Still, they usually don’t have the theoretical apparatus to explain how mere understanding could facilitate epistemic justification. Thus, if understanding sentences does, at times, immediately justify us in believing the propositions they express, as moderate empiricists contend, then it’s no wonder that people issue “just seeing” reports. Those who put them to use do so in order to indicate that they have a familiar but subjectively-inchoate reason for belief; indeed, they have a reason acquired by virtue of their grasp of the truth conditions for a sentence that cannot fail to meet them.

Finally, when we introspect and attempt to discern the properties of the cognitive events that underlie our “just seeing” reports, what we find is not out of synch with what the moderate empiricist’s theory predicts. On the moderate empiricist view we have a non-experiential source of justification grounded in linguistic understanding. Competent speakers of a language
intellectually grasp well-formed sentences of their language in a way that is analogous to their perceptual grasp of the familiar furniture of the world. Like episodes of perceptual acquaintance, episodes of linguistic understanding are immediate, distinctive, and *prima facie* evidentiary. They share a common direction of fit in which a subject (fallibly) grasps an object. Thus, on the assumption that linguistic understanding is a source of justification, we can explain why visual and intellectual “seeings” possess the overlapping characteristics revealed by introspection.

We are now in a position to recognize the explanatory strength of the moderate empiricist position. It appears, at first blush, to be able to adequately explain each piece of the *prima facie* evidence for rationalism. Moreover, it does so by way of a very general theory that integrates these elements into a single epistemological tapestry. In light of its apparent theoretical virtues, it is not surprising that moderate empiricism has attracted so many distinguished adherents.

### 4.3 Challenges to Moderate Empiricism

Despite the attractions outlined above, the moderate empiricist view faces significant challenges on several fronts. Foremost among these challenges is the charge that there are synthetic mathematical and logical truths. In what follows, I will argue, drawing on insights from Quine and Hume, that the moderate empiricist theory of the a priori is unable to provide an *exhaustive* account of our mathematical and logical knowledge. I will then consider two other significant complaints that are often lodged against moderate empiricism. First is the charge that there are—apart from the truths of math and logic—several paradigm a priori justified beliefs that cannot plausibly be expressed by analytic sentences. Second is the charge that moderate empiricism implausibly limits the scope of *immediate* a priori justification. Thus, despite the attractions of her view, our
examination will reveal that the moderate empiricist cannot sufficiently discharge her explanatory obligations.

4.3.1 The Mathematical Challenge

The sentence “There is a prime number between forty and forty-two” is undoubtedly true. If moderate empiricism is correct, then this sentence is analytic. But analytic sentences do not express existence claims. Thus, since this sentence certainly appears—on any ordinary interpretation—to express an existence claim we have a prima facie reason to conclude that it is not analytic. Moreover, since it is just one of many similar sentences of mathematics, we have a strong prima facie reason to conclude that mathematics is not, in its entirety, a body of analytic truths. Thus, the moderate empiricist’s theory seems inadequate to the task of providing a comprehensive explanation of mathematical knowledge (and, by extension, a priori justification).

In order to skirt this challenge, the moderate empiricist must provide us with a reason to believe that, despite appearances, every mathematical truth is analytic. If logicism—the theory that all of the truths of mathematics can be derived from the axioms and theorems of logic—is viable, then the moderate empiricist may have a way out. Hempel (1945) employs just this strategy, arguing that “all the concepts of mathematics, i.e., of arithmetic, algebra, and analysis, can be

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41 This point comes from Hume, who has taught us that matters of fact—including the facts about what exists—cannot be deduced from relations of ideas. The present day analytic/synthetic distinction is a close enough cousin of Hume’s relations of ideas/matters of fact distinction for the point to stand despite any terminological changes.

42 Strictly speaking, logicists have focused on providing a logical derivation of the axioms and theorems of arithmetic rather than the axioms and theorems of every mathematical sub-discipline. The reduction of arithmetic to logic is a kind of test-case. If it can be achieved, then we are justified in attempting to reduce other branches of mathematics to logic.
defined in terms of four concepts of pure logic” and that “all the theorems of mathematics can be deduced from those definitions by means of the principles of logic.”

The classical logicists saw the derivation of mathematical truths from logical truths as a justificatory *sumnum bonum*, attainment of which would set the former on a secure foundation. Moderate empiricists are less interested in warding off foundational crises and more interested in providing an exhaustive account of the a priori that can avoid the (purported) pitfalls of rationalism. Logicism promises just that. If mathematical sentences are derivable from logical sentences, and logical sentences are analytic, then mathematical sentences are also analytic. Thus, our knowledge of mathematics can be explained in terms of our knowledge of logic, which can be explained in terms of linguistic understanding. The threat of existentially quantified mathematical sentences will be diffused, since a completed logicism will provide us with the resources to paraphrase these troublesome mathematical sentences into sentences of pure logic.

While classical logicism has its attractions, it also has a number of well-known problems. Its Fregean variant, exemplified in the *Grundgesetze*, falters because, as Russell (1902) demonstrated, one of the principles it employs to derive the Peano axioms—Basic Law V—generates a paradox. Its Russelian variant, exemplified in *Principia Mathematica*, falters because there is almost complete agreement that two of the axioms used in its derivation of mathematics—the axiom of reducibility and the axiom of infinity—are beyond the scope of logic proper.

Since we haven’t the time for a scenic detour through ramified type theory, I shall simply note that Russell thought that *semantic* paradoxes (such as the liar paradox) could be avoided only

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43 In support of this point, Hempel (1945) writes: “The statement that $3 + 2 = 5$, then, is true for similar reasons as, say, the assertion that no sexagenarian is 45 years of age. Both are true simply by virtue of definitions or of similar stipulations which determine the meaning of the key terms involved.”
by dividing the simple types used to circumvent set-theoretic paradoxes—type$_0$ propositional functions that take particular objects as their arguments, type$_1$ propositional functions that take type$_0$ propositional functions and particulars as their arguments, and so on—into more nuanced orders. Russell introduced the axiom of reducibility—which states that every propositional function is co-extensive with a predicative function—to deal with the problem of paraphrasing ordinary non-ramified mathematical concepts into ramified types. Of course, this has the effect—noted by Ramsey (1925)—of collapsing the orders introduced by ramification. Thus, the axiom of reducibility strikes most commentators—e.g., Quine (1967)—as both non-logical and hopelessly ad hoc.

Russellian logicism also requires its adherents to adopt the axiom of infinity. Although it has been widely endorsed as a set-theoretic axiom, insofar as it makes a very significant ontological claim—that there are infinitely many particular objects—its status as a logical axiom has been viewed with marked skepticism. Thus, although Russellian logicism doesn’t collapse into paradox, its derivation of mathematics requires us to expand the scope of “logic” in infelicitous ways. As a result, the view fails to provide an uncontroversial and epistemically unassailable ground for mathematics. More to the point, even if Russellian logicism were vindicated, this wouldn’t be a happy result for the moderate empiricist. Surely a moderate empiricist concerned with paraphrasing away mathematical objects will not be keen on using the ontologically promiscuous axiom of infinity to do it. And even if she is, the axiom itself is hardly analytic.

Perhaps the moderate empiricist will do better by casting her lot with those who’ve been busy breathing new life into (a variant of) Fregean logicism. These neo-logicists (beginning with

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44 This point was made clear to me by Linsky (1997).
(Wright 1983) have argued that the materials needed to articulate a viable logicism can be mined from Frege’s corpus. In particular, neo-logicists argue that Frege’s Theorem—the derivation of the Peano axioms from Hume’s Principle (so named by Boolos (1986/87) and to be abbreviated as \textit{HP} in what follows) and second order logic—remains viable \textit{despite} the paradox generated by Basic Law V. Frege took a wrong turn when he used Basic Law V to derive \textit{HP}. Yet, as Wright (1999) argues, \textit{HP} is demonstrably consistent and (purportedly) admits of independent justification.

Before discussing Hume's principle, I will first explain the more general notion of an equivalence principle. For any equivalence relation between \(\psi\) and \(\varphi\) there is an equivalence principle according to which \(\psi\) and \(\varphi\) stand in that relation if and only if, as Kim (2011) puts it, “there is something that can be regarded as identical between \(\psi\) and \(\varphi\).” Thus, to use an example from Frege (1884), we can generate an implicit definition of the abstract concept “direction” by looking to what two parallel lines have in common, such that they are equivalent. This is done by way of the following equivalence principle: for any lines \(a\) and \(b\), the \(\sigma\) of line \(a\) is identical to the \(\sigma\) of line \(b\) if and only if line \(a\) is parallel to line \(b\). “Direction” is thus identified with \(\sigma\)—that which is identical between parallel lines, or, to put it another way, that which satisfies the equivalence principle.

Hume’s Principle is an equivalence principle that can be used to generate the natural numbers. It is structurally identical to the equivalence principle used to define the concept of direction. It states that:

\(\text{(HP): For any concepts } F \text{ and } G, \text{ the number of } F\text{-things is identical to the number } G\text{-things if and only if there is a one-to-one correspondence between the collection of } F\text{-things and the collection of } G\text{-things.}\)
In order to get clear on how this principle is meant to work, let’s follow Frege and define “zero” as “the number of non-self-identical things.” Now, it is a second-order logical truth that the extension of every concept is such that its members stand in one-to-one correspondence with themselves. Thus, the extension of the concept “not identical to itself” lies in one-to-one correspondence with the extension of the concept “not identical to itself”.\footnote{Of course, there aren’t any non-self-identical things. In order to dispense with any creeping Meinongian inclinations, we should recognize that the equivalence relation that holds between nothing (a set with no members) and itself doesn’t show that there is an extant object called “nothing” or a property of “nothingness.”} When we plug this particular substitution instance into the right side of HP, we find that the number of non-self-identical things is identical to the number of non-self-identical things. Given this identity statement and the definition of zero, it follows that “0 = 0”, from which we may infer that $\exists x((x) = 0)$. Thus, the number zero exists.

Once we have secured the existence of zero, we can use the same procedure to secure the existence of the number one. Define “one” as “number identical to zero.” Since the extension of the concept “number identical to zero” is equinumerous with itself, when it is plugged into the right hand side of HP we get “the number of numbers identical to zero is identical to the number of numbers identical to zero.” It follows then that $1 = 1$ and, by simple logic, that $\exists x((x) = 1)$. Thus, the number one exists. Now, define “two” as “the number of objects identical to either zero or one.” The same procedure can be used to show that the number two exists and can be extend to secure the rest of the natural numbers. With the numbers in hand, the rest of arithmetic soon follows.

Neo-logicism appears to put simple logical principles to powerful use. Nevertheless, challenges remain. On the plausible supposition that every identity statement is either true or false,
“0 = Julius Caesar” has a determinate truth value. Unfortunately, while we know that Caesar is not a number, the concept of zero secured by HP fails to determinately fix the nature of zero. So defined, the concept of zero is nothing more than that which is identical between a certain pair of equinumerous extensions. Thus, we have no ground to exclude the possibility that Caesar is also identical to that which is identical between the equinumerous extensions in question. This means that the concept of zero fixed by HP fails to render a determinate truth value for “0 = Julius Caesar.” In light of this result, Frege concludes that HP is not a fundamental logical principle. It fails, he says, to provide “sharp limits to the application” (1884 p. 56) of number concepts. Such limits are required to ensure that number concepts apply to unique objects. If they don’t, certain identity statements in which they feature are left with indeterminate truth-values.

Neo-logicists have argued that the Julius Caesar problem can be solved if we supplement HP with additional principles—as in Heck (1997)—or limit, by way of background categories, the kinds objects that can appear in the extension of various kinds of concepts—as in Wright and Hale (2001). While these proposals have pushed the discussion forward, the issue is far from settled. In fact, Kim (2011) has recently challenged the main idea behind neo-logicism: that equivalence principles can be used to successfully define abstract concepts (and thus determine the existence of abstract objects). For, it turns out that the geometric concept of a slope angle also satisfies the equivalence principle we used above to define the concept of direction. But the concepts of direction and of a slope angle are totally distinct concepts.46 Thus, Kim writes:

“…since the slope of lines a and b is the same if and only if a and b are parallel, the concept of direction cannot be implicitly defined by saying that the direction of a and b is that which

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46The slope angle of a line $l$ is defined the angle between $l$ and the x-axis (within a Cartesian coordinate system).
can be regarded as identical if and only if a and b are parallel. That is, no unique, determinate concept of direction can be fixed in terms of parallelism between lines.”

In light of this example it should be clear that the neo-logicist must explain why the application of Hume’s Principle doesn’t lead to comparable conceptual indeterminacy. While it would be hasty to endorse Frege’s unequivocal rejection of HP, it would also be foolish to assume that HP has the capacity to guard the moderate empiricist against the challenge presented by mathematical existence claims.

Nevertheless, let us set aside this and all other challenges to the explanatory power of HP. Assume that it can be used successfully—along with second-order logic—to derive the Peano axioms. Even so, there are significant reasons to doubt (a) that the moderate empiricist is entitled to use second order logic to generate Frege’s theorem and (b) that HP is a properly logical truth.

With regard to (a), the problem is best seen by reviewing one of Quine’s (1970) well known protests against second-order logic. On his view, there are two basic criteria for ontological commitment: (1) there is no entity without identity and (2) to be is to be the value of a variable bound by the existential quantifier. Quine thinks that when second-order logicians quantify over variables in predicate position, these criteria are at loggerheads.

Consider the sentence "For some F, this bottle is F." When the predicate “F” is bound by the existential quantifier, criterion (2) commits us to the existence of a property expressed by any predicate constant that is substituted for F. Thus, since “green” is a predicate constant that can be permissibly substituted for F, we’d have to countenance the existence of whatever “green” expresses.

On one plausible interpretation, “green” expresses the universal greenness. On another plausible interpretation, “green” expresses the set of all green things. Quine finds both
interpretations problematic. If the substituends for predicate variables express universals, quantifying over predicate variables commits us to entities that don’t have clear identity conditions.\textsuperscript{47} If the substituends for predicate variables express sets, then—although we’re working with entities that have clear identity conditions—we’re simply doing set theory with an unusual vocabulary. This invites Quine’s infamous quip (1970, p. 66) that second-order logic is “set-theory in sheep’s clothing.”

Quine’s attack brings a dilemma for moderate empiricist neo-logicists into clear relief. Suppose first that second-order logic existentially quantifies over universals. If so, moderate empiricists are committed to a logic that violates a rather plausible general theoretical adequacy condition. Namely, the condition that if one’s theory contains sentences that existentially quantify over entities of certain kind, one’s theory must also contain sentences that state identity conditions for these entities. Although the moderate empiricist is free to reject this adequacy condition, one wonders whether doing so is really consistent with the spirit of her view.\textsuperscript{48}

Now suppose that the objects second-order logic quantifies over are sets. If so, the upshot of neo-logicism is that we can derive mathematics from logic and mathematics. This rather hollow result does not provide an independent foundation for mathematics or a solution to the problem of existentially quantified mathematical sentences. Thus, for the moderate empiricist, the two most

\textsuperscript{47}Recall that Quine takes issue with universals and other so-called intensional entities because they can be exemplified by a single set of objects without being identical. For instance, “redness” would be distinct from “triangularity” even if all the triangles were red and all the red things were triangular. For more on this matter see “On the Individuation of Attributes” in Quine (1981).

\textsuperscript{48}After all, many leading moderate empiricists are committed to the rejection of universals and other metaphysical entities. Part of the reason they wish to reject such entities is that they do not appear to the kinds of objects that we can be acquainted with via experience or by learn about by understanding analytic sentences. For many, the reduction of mathematics to logic promises a way to escape from the epistemological problems that arise when one identifies mathematical objects with abstract metaphysical entities.
plausible ways to construe the domain of discourse for variables in predicate position are going to be rather unappealing.

With regard to (b)—the question, recall, of whether HP is a genuine logical truth—the very fact that HP implies the existence of objects suggests that it isn’t a one. As Boolos (1998, p. 206) writes, “we should note that a truth’s being couched in purely logical terms is not sufficient for it to count as a truth of logic…it is the objecthood of numbers that explains why Hume’s Principle, despite appearances, cannot be considered to be a truth of logic, a definition, an immediate consequence of a definition, analytic, quasi-analytic, or anything of the sort.” Perhaps Boolos’ criterion for logical truth is too stringent. Even so, the significance of his point for the moderate empiricist cannot be overlooked.

Moderate empiricists are explicitly committed to the analyticity of logic. Analytic sentences, given the Humean strictures discussed above, do not express or imply existence claims. Thus, by the moderate empiricist’s standard, HP is not a logical truth. To be clear, the point here is not that neo-logicism is a degenerate research program. For no matter what successes it may achieve, neo-logicism cannot derive the Peano axioms from logical truths that are acceptable—as logical truths—to the moderate empiricist. Therefore, neo-logicism provides the moderate empiricist with no refuge from the storm of existentially quantified mathematical sentences.

4.3.2 The Logical Challenge

The truth-values of analytic sentences are determined by semantic facts. Semantic facts are determined by convention. Thus, the truth-values of analytic sentences are determined by
convention. It follows, then, that logical truths—if analytic—are a matter of convention, i.e., they are true in virtue of our contingent ways of thinking and speaking. Thus, moderate empiricism requires logical conventionalism.

This conclusion is confirmed by the regular and explicit endorsements of logical conventionalism put forward by canonical moderate empiricists. For example:

“[Logical truths] cannot be confuted by experience [because]…they simply record our determination to use words in a certain fashion.” Ayer, (1936 p. 20)

“…any law of logic is merely a special case of the general principle that what is true by definition cannot conceivably be false: it merely explicates or follows from, a meaning which has been assigned, and requires [for its truth] nothing in particular about the universe or the facts of nature…the only truth which logic requires, or can state, is that which is contained in our own conceptual meanings…” Lewis and Langford, (1959 p. 211)

“[In logic] conventions are of fundamental importance; for the basis on which logic is constructed, namely, the interpretation of the logical signs (e.g., by a determination of truth condition) can be freely chosen…The task is not to decide which of the different systems is "the right logic" but to examine their formal properties and the possibilities for their interpretation and application in science. It might be that a system deviating from the ordinary form will turn out to be useful as a basis for the language of science.” Carnap, (1939, § 12)

With the above in mind, we’ll say that conventionalism about a domain of discourse $d$ is the view that the true sentences of $d$ (or the propositions they express) are, somehow or other, true by convention. If we assume that “the logical truths” can be exhaustively captured in the formal language of first-order logic (or one of its cousins), then logical conventionalism appears quite

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49In support of the conventionality of semantic facts, Locke (1979, p. 405) writes “Words…came to be made use of by men as the signs of their ideas; not by any natural connection that there is between particular articulate sounds and certain ideas, for then there would be but one language amongst all men; but by a voluntary imposition, whereby such a word is made arbitrarily the mark of such an idea.” I find this point convincing.
plausible. This is because the true sentences of first-order logic are true in virtue of explicitly stipulated syntactic and semantic rules.

To see this, consider a familiar sentence of the language of first-order logic: \(((P \rightarrow Q) \land P) \rightarrow Q\). The truth of this sentence is wholly determined by (a) the meanings of the truth-functional connectives and (b) the syntactic rules of the language. The meanings of the truth-functional connectives are determined, in turn, by their truth-tables. Both the truth tables and the syntactic rules for FOL are determined by stipulation. The architects of FOL explicitly decided which collections of symbols would count as sentences and well-formed formulae. They explicitly decided to assign certain truth tables to the symbols “→” and “∧”. Moreover, if they had wanted to set up the truth-tables differently, they could have. Thus, it appears that \(((P \rightarrow Q) \land P) \rightarrow Q\)—like any other true sentence of FOL—is true by convention, i.e., true in virtue of contingent rules established by human thought and talk.

As readers may have noticed, the sentence \(((P \rightarrow Q) \land P) \rightarrow Q\) expresses Modus Ponens, an inference rule that is valid in FOL. Since FOL distinguishes between valid and invalid inference rules, complete FOL-conventionalism requires that the validity of FOL’s inference rules be determined by its conventions. This requirement generates a circularity challenge for the logical conventionalist. To see this, we should consider an argument presented by Carroll (1895) and Quine (1936).

This argument begins with an uncontroversial claim: FOL provides its users with a general schema—i.e., a set logical conventions—for assigning truth values to its sentences and determining the validity of its inference rules. The schema is constituted by the truth tables for the truth-functional connectives and the syntactic rules of the language. If logical conventionalists are
correct, then this schema will entail the validity of Modus Ponens. Here is a much-abridged articulation of the entailment:

(1) If a logical system has syntactic conventions $\varphi$ and connective conventions $\psi$, then Modus Ponens is a valid inference rule in that system.

(2) FOL has syntactic conventions $\varphi$ and connective conventions $\psi$.

(3) Thus, Modus Ponens is a valid inference rule in FOL.

Of course, when the entailment is articulated this way, the validity of Modus Ponens follows from the logical conventions by Modus Ponens. In light of this, it should be clear that conventionalism about the validity of inference rules is problematic. The crucial concern is that the very notion of “entailment by logical conventions”—a notion that is required to formulate any plausible logical conventionalism—takes for granted the validity of some entailment relation or other. This leaves the logical conventionalist open to the charge of circularity.

Suppose the conventionalist responds by biting the bullet. We can imagine her arguing that it is perfectly acceptable for an inference rule $r$ to occur in a proof, from the logical conventions, of its own validity. Although such a proof would be circular, perhaps the circularity needn’t be regarded as vicious. If this were correct, then Modus Ponens could be used to prove its own validity.

Unfortunately for the conventionalist, the circle under consideration turns out to have sharp teeth. To see this, consider the inference rule “anything follows from anything.” Notice, now, that this rule follows from any set of logical conventions in virtue of itself. Thus, the general principle under consideration—that inference rules can be self-validating—allows the self-validation at least one inference rule that is obviously invalid. For this reason, we cannot allow the inference rules to
be used to prove their own validity. Moreover, it won’t do to use other inference rules to derive Modus Ponens from the basic semantic truths, since the same problem will arise for them, yielding either vicious circularity or an infinite regress of rules.

Suppose, however, that the validity of Modus Ponens is not fixed by the explicit conventions of a formal language but, instead, by tacit behavioral conventions. As Quine (op. cit., p. 123) suggests:

It may be held that we can adopt conventions through behavior, without first announcing them in words; and that we can return and formulate our conventions formally afterward, if we choose, when a full language is at our disposal.

The animating idea here is that primitive inference rules may be deeply embedded in everyday speech and behavior. While their exact origins are lost to history, these inference rules are, presumably, linguistic and/or cognitive codifications of behavioral accidents that have aided in survival or social-coordination. Since they antedate the development of any particular formal system, these primitive inference rules are “available” for use in constructing formal systems. Since these inference rules are explanatorily basic, they are not determined by logical conventions. Thus, the tacit conventionalist may be able to circumvent the charge of semantic and/or explanatory circularity and the charge of regress-mongering by pointing to inference rules whose validity is fixed by tacit convention.

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50This point is inspired by Arthur Prior’s (1960) argument against the contention that we can implicitly define logical primitives solely in virtue their inferential role (or by stipulating the truth/falsity of the sentences in which they appear). Prior shows that if that contention were correct, we’d be able to introduce a logical connective—tonk—the use of which would enable the deduction of any sentence in the language from any other sentence in the language. This is not a happy result. Prior concludes that we must possess an antecedent understanding of the primitives if we are to have any basis for rejecting connectives like tonk. Prior’s influence looms large in my discussion of the inference rules. As I read it, the upshot of the “tonk argument” is that there are non-conventional standards of truth and intelligibility that any proposed inference rule must meet.
Although tacit conventionalism has some explanatory power, there is a crucial piece of data that it cannot easily accommodate. To see this, notice that linguistic conventionalism predicts (and subsequently explains) the existence of a wide variety of distinct human languages. This is because there is no essential connection between the marks and sounds that become codified as words and the entities they are used to denote. As we often point out to students, “red” could have very as easily denoted green. On the same grounds, logical conventionalism predicts a wide variety of distinct logical systems. This is because logical conventionalism says that there is no essential connection between logical truths and the way the world is. Thus, if the primitive inference rules embedded in ordinary speech and behavior are truly a matter of convention, then there should be as many different “natural” logics as there are natural languages.

Experience does not bear out this prediction. Although we are well-equipped to construct many different formal systems, we find, invariably, that familiar inference rules reappear in the meta-languages used to construct these formal systems. Moreover, we do not find significant variation among the extant informal or “natural” logics that describe the reasoning used by ordinary people. These inferential practices are stable, if not wholly invariant, across the diversity of linguistic and cultural communities. Thus, the tacit logical conventionalist must explain this unanticipated dissimilarity between logical and linguistic conventionalism.  

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51The logical conventionalist could respond to this charge by claiming that there are many different logical languages with their own tacit conventions. It’s just that the once the tacit conventions are made explicit, they can be translated across languages. *Modus Ponens*, for instance, will turn out to be valid in logic A and logic B after translation, even though the tacit conventions that give rise to A and B are quite different. I don’t find this response very convincing. If the conventions of language A can be translated into language B without remainder and the inferential practices of the A speakers and B speakers are perfectly intelligible to one another, it’s just not plausible to think they have different logics. While there may be syntactic differences between their languages, the very fact that they are inter-translatable shows that their logical systems possess the same semantics.
Let us now consider one final attempt to secure the conventional validity of *Modus Ponens*. Suppose, as Carnap (1939) has argued, that the validity of inference rules can be secured on prudential grounds (relative, in his case, to the goal of formulating an adequate language of science). Since the ends that fix the justification of basic inference rules are themselves fixed by the thoughts, desires, and practices of human beings, the Carnapian position is a version of logical conventionalism. What’s more, since this view says that something other than an entailment relation fixes the validity of inference rules, it appears to be immune to charges of circularity. Thus, moderate empiricists looking to preserve logical conventionalism may be attracted to the Carnapian position.

Here I must remind the reader that we know, on particularist grounds, that we possess some logical knowledge, i.e., we know that some propositions are logical truths and that some inferences are logically valid. This logical knowledge is data that the epistemologist aims to explain. Thus, even if the Carnapian can circumvent the explanatory regress brought on by logical conventionalism, she does so at the cost of surrendering our claim to logical knowledge. This is because Carnapians justify inference rules by appeal to their practical value. Prudential justification, however, is completely distinct from epistemic justification.

To see this, suppose that someone proposes the following inference rule:

(4) The proposition least stressful to believe at $t$ follows from any set of premises.

Since stress contributes to illness, this inference rule appears to have abundant practical value. Yet, we’ve no reason to think this rule is truth-preserving and several good reasons to think that it isn’t. Thus, we are not epistemically justified in making the kinds of inferences captured by (4).
Epistemic justification is a condition on knowledge. If our basic inference rules are justified only on pragmatic grounds, they are not justified in a way that makes them candidates for knowledge. Even when we are provided with explicitly stipulated logical conventions, our use of these conventions to acquire knowledge of logical truths depends on our capacity to make justified logical inferences. If such inferences cannot be epistemically justified, then we have no logical knowledge.

The Carnapian may respond to this challenge by claiming that we do not select individual inference rules on pragmatic grounds. Instead, we pragmatically justify systems of interconnected logical conventions. A body of logical conventions in which the conventions for the connectives don’t correctly fit together with the inference rules won’t have much practical value. Nor will a system whose individual conventions are mutually inconsistent. Ideally, then, there will be a soundness proof for the system constituted by any practically valuable set of logical conventions. There are thus significant constraints on the sets of conventions from which the Carnapian may choose. Any system of logical conventions that includes (4) will (a) fail to manifest the right kind of fit between its connectives and its inference rules and (b) be unsound. For these reasons, we can reject (4) on practical grounds.

The constraints laid out above are well-motivated. It seems clear that bodies of logical conventions will be useful only insofar as they meet certain basic consistency conditions. Yet, it is evident that such conditions are meta-logical in character. Since they do not derive their force from the conventions they govern, they are going to have to be independently justified. If they are independently justified, however, then we must presuppose the epistemic justification of certain meta-logical beliefs in order to make sense of our pragmatically justified judgments about sets of
first-order logical conventions. Thus, the Carnapian view still leaves important pieces of our logical knowledge unexplained.

4.3.3 Other Kinds of Challenging Paradigm Cases

Thus far, our evaluation of moderate empiricism has focused on its treatment of mathematical and logical knowledge. This is not surprising. There is nearly unanimous agreement that we possess such knowledge and significant—though less widespread—agreement that it is a priori. Yet, when we look beyond the deductive sciences, we find that there are propositions which are simultaneously (a) strong candidates for a priori justification and (b) very implausible candidates for expression by analytic sentences. Consider, for example, the following:

(5) Everything that has a shape has a size.

Even those who’ve never before entertained (5) will—if they understand it—immediately come to believe the proposition it expresses. Now, I won’t deny that experience lends support to this proposition. So does its coherence with other propositions we are justified in believing. Nevertheless, a grasp of (5)’s constituent concepts seems to be both sufficient for justified belief and the ordinary source of justification for the belief.\textsuperscript{52} Ask yourself: do you really require any out-of-armchair-experiences to be assured that everything with a shape has a size? Do you really believe this on this basis of inference?

Having answered these questions in the negative, you should notice that (5) is very much like propositions at issue in the Meno Cases we’ve considered. Yet, the logical form of (5) is:

\textsuperscript{52}Though I don’t intend to delve deeply into these matters, it’s worth noting that, \emph{prima facie}, (5) also seems to be a necessary truth that can be known with certainty. It is widely held that metaphysical necessary and psychological certainty are markers of the a priori. Thus, there is probably an even stronger case to be made for the a priority of (5).
∀x(SH(x) → SI(x))

(5*) is not a logical truth by anyone’s account. Its truth is certainly not fixed by the semantic rules for its constituent terms together with semantic compositionality. For this reason, those who maintain that an analytic sentence is a substitution instance of a logical truth cannot claim that (5) is analytic. The same goes for those who maintain that a sentence is analytic if its negation is logically contradictory.

The terms “shape” and “size” are not synonymous. They fail to overlap in meaning or denote concepts that stand in semantic containment relations. The entailment relations in which shape-sentences stand are not isomorphic to the entailment relations in which size-sentences stand. Thus, in lieu of some alternative way to understand analyticity, we should conclude that (5) is a synthetic sentence.

Since (5) is a synthetic sentence that expresses a proposition that can, so it seems, be justifiably believed a priori, we have strong reason to doubt that the moderate empiricist is capable of making good on her promise to provide an exhaustive account of a priori justification. This doubt is compounded by reflection on additional examples.

Consider the following selection of synthetic sentences:

(6) Two distinct objects cannot have all of the same properties.
(7) If something is maroon, not everything is indigo.
(8) Every contingent event has an explanation.
(9) It is wrong to treat persons as objects.

Like (5) these sentences are not substitution instances of logical truths, they do not contain synonyms, their denoted concepts stand in no obvious containment relations, and sentences
containing just one of their terms stand in no obvious isomorphic entailment relations with those containing any of the others. Although the propositions expressed by (6)-(9) do not meet with unanimous assent, they are widely believed by those who both entertain and understand them. Moreover, if any of them are justifiably believed it is likely on a priori grounds.

While we’ve not included metaphysical and moral knowledge as part of the direct cumulative evidence for the a priori, this is only because such knowledge is more contentious than mathematical and logical knowledge. Nevertheless, we’ve looked at one example of a putative metaphysical truth—everything that has a shape has a size—and noted that it is plausibly viewed as synthetic and a priori. Those who hold that there are no synthetic a priori truths need to clarify where our thinking about (5) has gone wrong.

4.3.4 An Explanatory Challenge

The moderate empiricist argues that we can extract a comprehensive explanation of a priori justification from an uncontroversial account of linguistic understanding. The basic idea is that a priori justification is obtained when and because analytic sentences are understood. To understand a declarative sentence is to grasp its truth-conditions. Analytic sentences are such that one cannot grasp their truth conditions without also grasping that they are fulfilled. For the very facts you have to grasp in order to determine which truth-conditions go with one of these sentences entail that the

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53 Although moderate empiricists make occasional rumblings about the analyticity of color incompatibilities, Bonjour (2010) has argued, to my mind convincingly, that color concepts are (following Moore) primitive and positive. The concept of indigo, for example, cannot be defined in terms the absence all the other colors because someone who has, by chance, never been exposed to indigo but has a perfect grasp on all the other color concepts would not have a grasp of indigo. Awareness of the absence of p is not awareness of the presence of p. What “indigo” means is not “¬ red and ¬ pink and ¬ orange….¬ color n.” This suggests that color concepts, much like “shape” and “size”, do not have overlapping extensions or common content. Despite valiant efforts from Putnam (1956), color incompatibility sentences do not appear to be substitution instances of a logical truth either. Whence, then, their analyticity?
relevant truth-conditions are met. Thus, the cognitive episode in which one comes to understand an analytic sentence also performs an epistemic function; namely, it provides the epistemic subject with a reason to believe the proposition expressed by the sentence that she understands. Since episodes of linguistic understanding do not justify in virtue of their phenomenal properties, the justification they provide is a priori.

While this explanation of a priori justification is intriguing, it is not as informative as it initially appears. In fact, once we sort out its epistemic and semantic elements, significant concerns arise. For even if it turns out that the challenging sentences mentioned above—the mathematical, logical, and metaphysical—are all analytic, it is not clear that the property of analyticity is sufficient to explain how we are justified in believing the propositions they express.54

Moderate empiricists claim that we can enlist a theory of linguistic understanding to explain a priori epistemic justification. But how, one wonders, do episodes of linguistic understanding justify beliefs? The standard proposal is as follows. To understand a sentence is to grasp its truth-conditions. Analytic sentences are such that one cannot grasp their truth-conditions without also grasping that they are fulfilled, because the truth-makers for analytic sentences are just those semantic facts that one must grasp if one is to understand them. The idea, then, is that understanding episodes are justificatory when their target is an analytic sentence.

When we understand an analytic sentence, we acquire good reason to believe that the sentence is true. The trouble is, the propositions expressed by analytic sentence are not, ordinarily, about words or sentences. Instead, their constituents are things like tables and chairs. For example, the proposition expressed by the sentence “Every cat is a cat” is not about the words “cat”, “is”,

54 The argument that follows is inspired, in various ways, by Bonjour (1998) and Williamson (2007). Nevertheless, it I believe I offer a novel presentation of a problem they hint at but do not fully explicate.
“a” and “every”. It’s about cats and their properties. Whatever reasons we have to believe this proposition are going to have to have something to do with cats rather than words. Thus, the moderate empiricist owes us an account of how our grasp of semantic facts can justify beliefs about things other than word meanings.

The moderate empiricist can respond to this challenge by noting that Tarski bi-conditionals allow us to bridge the chasm between language and the world. This idea is straightforward. If one knows that a sentence is true, then that sentence can be plugged in to the left side of a Tarski bi-conditional. This procedure can provide one with a reason to believe to proposition expressed by the sentence in question. For example, the sentence “A father is a male parent” is analytic. I can grasp its truth simple in virtue of understanding what it means. Moreover, I know that the sentence is true if and only if fathers are male parents. Thus, there is a route from knowledge of semantic facts to justified beliefs about things other than what certain words happen to mean.

I concede this point to the moderate empiricist. I am surely justified in believing that $p$ if I am justified in believing (a) that sentence $s$ is true and (b) that “$s$ is true if and only if $p$.” Notice, however, that my justification for $p$ is inferred from the Tarski bi-conditional and $s$. This suggests that language is the only subject matter about which there can be immediate a priori justified beliefs. This is a strong and perhaps unanticipated result. For it shows that, despite what our prima facie evidence suggests, there can't be any immediately a priori justified beliefs about the world that our language purports to represent. Thus, even if we can know a priori that “If $p$ then $p$’ is true”, we can't, given moderate empiricism, immediately (i.e., absent any explicit inference) know
a priori that if $p$ then $p$. While this is may not be a fatal blow to the moderate empiricism program, it adds another significant cost to its steadily increasing bill of sale.

4.4 Summary

Moderate empiricism offers an attractive theory of a priori justification. Regrettably, it cannot do all of the explanatory work needed to provide a satisfying alternative to rationalism. Since there are a priori justified propositions of math, logic, and perhaps other subjects that are not expressed by analytic sentences, its theory of a priori justification is not exhaustive. Since linguistic understanding cannot provide immediate justification for beliefs about non-linguistic objects, moderate empiricism significantly (and implausibly) limits the number of propositions that we can be immediately a priori justified in believing. Thus, we should endeavor to find a more plausible explanation of the *prima facie* evidence for the a priori.

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55I owe this example to Walter Edelberg.
5. A CRITIQUE OF RADICAL EMPIRICISM

5.1 Introduction

The *prima facie* evidence for a priori justification presents empiricists with a considerable challenge. They must provide an explanation of this evidence that is (a) sufficiently thorough and (b) more plausible than the rationalist alternative. In the previous chapter, we reviewed the theory of a priori justification advanced by moderate empiricists. We found it wanting in thoroughness and plausibility. In this chapter, we turn our attention to radical empiricism, the variant of the empiricism that dispenses with any efforts to accommodate the a priori.

According to radical empiricism, *all* justification is fundamentally a posteriori. This entails, of course, that no justification is a priori. As a result, radical empiricists must show that, despite the *prima facie* evidence to the contrary, paradigmatically justified beliefs with abstract and/or general contents—i.e., mathematical, logical, and philosophical beliefs—are justified a posteriori. *Direct* radical empiricists argue that such beliefs are a posteriori justified by ordinary sense experience and induction thereupon. *Indirect* radical empiricists argue that they are a posteriori justified by virtue of their playing an indispensable role in experientially confirmed theories.\(^{56}\)

In what follows, I review both of these radical empiricist explanatory strategies. For the sake of expository economy, I mainly focus on their theories of mathematical justification. With that in mind, I proceed as follows. First, I unpack the two theses that undergird the direct radical empiricist theory of mathematical justification. I then raise objections to these theses. Following

\(^{56}\)For expository purposes, I treat direct radical empiricism as a view apart from indirect radical empiricism. In fact, I am skeptical about the degree to which individual radical empiricists can be classified as advocates of one explanatory strategy over and against the other.
that, I explain the theory of mathematical justification put forward by indirect radical empiricists. I then raise objections to this theory in particular and question the general adequacy of indirect radical empiricism. I conclude that neither direct nor indirect radical empiricism can provide an entirely adequate explanation of mathematical justification. Consequently, neither provides an entirely adequate explanation of the *prima facie* evidence for the a priori.

5.2 **Direct Radical Empiricism**

According to direct radical empiricism (DRE), all epistemic justification can be traced back to direct experience and all inferential justification is, at root, inductive. The most widely known advocate of this view is John Stuart Mill. Mill’s position on mathematical justification follows straightforwardly from his more general epistemic principles. On his view (1858, p. 281), the “deductive or demonstrate sciences are all without exception inductive sciences... [and] their evidence is that of [direct] experience.”

The Millian theory of mathematical justification has never been exceedingly popular. Nevertheless, it is not without present-day adherents, including Kessler (1980) and Kitcher (1985 & 1998). Thus, in the several sections that follow, we shall examine the Millian position in order to determine whether its advocates can meet their explanatory burden.

5.2.1 **Two Theses about Mathematics**

Mathematical beliefs are about numbers and their relations (among other things). If these beliefs are to be justified by induction or direct experience, however, their contents must be capable of being *directly experienced*. On the plausible assumption that only physical objects and
properties can be directly experienced, proponents of DRE must—in order to make their metaphysics compatible with their epistemology—adopt the following thesis:

(A) Numbers are properties of physical objects.

Thesis (A) is, again, a metaphysical thesis about the nature of numbers. It is needed to underwrite the epistemology for mathematics that DRE demands. For if numbers are properties of objects that we can directly experience, then we can justify general claims about them in the same way that we justify general claims about the other properties of familiar physical objects.

Neither the abstract concept “crow” nor the abstract concept “black” can be directly experienced. Nevertheless, direct experience justifies the belief that all crows are black because every particular crow encountered has manifested the property of blackness. Advocates of DRE claim, in similar fashion, that direct experience justifies the mathematical belief that $2 + 2 = 4$ because every particular couple of pairs we’ve brought together in experience has manifested the property of four-ness. This provides clear illustration of DRE’s primary thesis with respect to mathematical epistemology:

(B) Mathematical beliefs are justified by inductive inference from direct experience.

In his *System of Logic*, Mill endorses both (A) and (B). In support of thesis (A), he (1858, p. 140) writes:

> Each of the numbers two, three, four denotes physical phenomena, and connotes a physical property of those phenomena. Two denotes all pairs of things and twelve all dozens of things, connoting what makes them pairs or dozens; and that which makes them so is something physical ... What the name of a number connotes is the manner in which single objects of [a] given kind must be put together, in order to produce [a] particular aggregate. If the aggregate be of pebbles, and we call it two, the name implies that, to compose the aggregate, one pebble must be added to one pebble.

Mill continues (*op cit.*), in support of thesis (B):
The fundamental truths of arithmetic all rest on the evidence of sense; they are proved by showing to our eyes and our fingers that any given number of objects, ten balls for example, may by separation and re-arrangement exhibits to our senses all the different sets of numbers the sum of which is equal to ten.

In view of these passages, Mill’s philosophy of arithmetic can be (roughly) summarized as follows: numbers are properties of physical aggregates and beliefs about numbers are justified by direct experience of physical aggregates and induction thereupon. The basic idea is that 3 is an observable property of physical aggregates that impress the senses thusly: (XXX). The equation “3 = 2 +1” tells us that an aggregate which impresses the senses as (XXX) can be rearranged as (XX) (X) and vice-versa. We are justified in drawing this general conclusion because we have had significant experience arranging and rearranging physical aggregates possessed of the relevant properties. We’ve seen, for example, that every triple of books we’ve encountered has been decomposable into piles of two and one.

### 5.2.2 Frege’s Critique of Thesis (A)

Mill is the most influential voice of direct radical empiricism. His epistemology for arithmetic shows the metaphysical lengths to which one must go in order to render the view plausible. The challenges to Mill’s view are legion. Most originate with Frege (1884) and are directed at thesis (A). I will review what I take to be the three main challenges from Frege: indeterminacy, applicability, and constraint failure.

First, Frege charges that if we take numbers to be properties of physical aggregates, we won’t be able to provide number concepts with determinate definitions. He claims that (1884, p. 30) “there are various ways in which an agglomeration can be separated into parts, and we cannot say that one alone would be characteristic.” For example, we may regard a particular aggregate as
one pile, six books or two editions of *Principia Mathematica*. We may, to use Frege’s example, see a particular physical aggregate as two boots or one pair without any change in the intrinsic properties of the aggregate. Thus, there is no particular number that is *the unique numerical property* of the aggregate. This conclusion holds for all aggregates; there multiple ways of numbering them without making any physical changes. Whatever numbering we choose will therefore depend on “an arbitrary decision” resulting from “the way we’ve chosen to regard” the aggregate under consideration (1884, p. 29). Other properties of physical aggregates are not relative in this way. Color, shape, and size for example, are wholly determinate properties that apply independently of the way we choose to regard their bearers. Number is, in this respect, quite unlike other physical properties, which gives us reason to think it isn’t a physical property at all. If we were resolute about defining number concepts in the Millian way, we’d end up with indeterminate concepts. But number concepts are determinate. So numbers aren’t physical properties of physical aggregates.

Second, Frege argues that number concepts have a wider range of application than Mill allows. We are capable of numbering, for example the *three* active volcanoes in the region, the *seven* wonders of the ancient world, and the *forty eight* years until the return of Halley’s Comet. Arithmetic clearly applies to these things even though they stand in no direct physical relations to one another and cannot be arranged—like piles of pebbles—into different combinations of constituents. Moreover, Frege points out that—as Locke and Leibniz have noted—even putatively non-physical things like angels and ideas can be numbered. But certainly non-physical things cannot be *colored*. Frege’s point here is that, on the one hand the familiar physical properties of physical aggregates are inapplicable to things like ideas, years, and totally disjoint groupings of
objects. On the other hand, all kinds of things that aren’t—strictly speaking—physical aggregates can be numbered. So numbers are not physical properties of physical aggregates.

Third, Frege argues that regardless of how we choose to regard physical aggregates, certain crucial number concepts are not properly predicable of them. For example, it is exceedingly difficult to see how zero could be a property of any existing physical aggregate. Frege (1884, p. 11) puts the point forcefully: “up to now no one, I take it, has ever seen or touched 0 pebbles.” The same point can be made about very large numbers and very small numbers alike. Without even discussing infinities, one wonders what, if any aggregate has the property of $10^{1000}$. Following Frege’s lead, Lehman (1979) reminds us that there are very small rational numbers, .000000056, for example, that hardly seem to be properly predicable of any extant aggregate. Whatever these numbers *are*, physical properties of physical aggregates they seem not to be.

Our apparent inability to extract the concept of zero from experience of physical aggregates brings a related problem to the fore. Direct radical empiricism doesn’t seem to furnish us with the resources needed to satisfy the Peano axioms. These axioms place constraints on mathematical theorizing. A plausible theory of number must be consistent with the axioms and a plausible epistemology must explain how we know them. But without a determinate concept of zero, two of the axioms—“0 is a natural number” and “0 is not the successor of any natural number”—are left unintelligible.

Furthermore, the axiom that states “every natural number has a unique successor” seems, on Mill’s view, to entail the existence of incredibly large physical aggregates. If the axiom applies to properties of physical aggregates, then, for any set of, say, pebbles there would have to be
another pebble available to extend the series. But what physical aggregate could possibly exemplify the property of the successor of $10^{1000}$?

5.2.3 **Neo-Millian Response to Frege**

For the reasons provided above, thesis (A) must be rejected. Thus, Mill’s theory of number is unsatisfactory. Absent a Millian theory of number, however, we’re left unable to explain how mathematical knowledge could be based on induction from direct experience. Several contemporary figures, including Kessler (1980) and Kitcher (1988) have presented revisions of thesis (A) designed to circumvent many of the most damning Fregean challenges. I will review each in turn.

Kessler accepts Frege’s point about indeterminacy. He argues that numbers are not properties of physical aggregates but, instead, *relations* between aggregates and individuating properties. Individuating properties are those that are denoted by sortal predicates and apply to aggregates “in virtue of facts about [their] structure.” These properties are unique because (unlike, say, being blue, male, or made of sand) they pick out determinate, numerable *parts* of the aggregates that exemplify them. The individuating property of *being a card*, for instance, picks out determinate, numerable parts of a standard deck of cards. Thus, Kessler writes that “in claiming that a certain aggregate $x$ contains 52 cards we are claiming that the numerical relation 52 obtains between the aggregate $x$ and the property of *being a card*.”

By adopting the position that numbers are relations between aggregates and individuating properties, Kessler is able to answer several of Frege’s challenges to the Millian position. For instance, Kessler can agree with Frege that numbers are not like other properties of physical
aggregates because they are relations rather than monadic properties. Since a single aggregate can stand in multiple numerical relations, there just isn’t a single correct way to number any particular aggregate. Once this is recognized, however, Frege’s indeterminacy problem simply dissolves.

Kessler also has an answer to Frege’s applicability problem. He argues that since we treat non-physical and disjoint objects as aggregates in ordinary thought and talk, we ought to allow that the aggregates which exemplify numerical relations can be composed of such objects. To that end, Kessler writes (1980, p.77) that “any object to which it is possible to refer (and about which it is possible to have beliefs) can be a constituent or a component of an aggregate.” Thus, Kessler maintains that the active volcanos on the island are, after a fashion, components of an aggregate. So too are the ideas I had before breakfast and the ghosts that haunt the house on the hillside. This move is an attempt by Kessler to carve out a middle way between Mill and Frege. On the one hand, he concedes to Frege that numerical relations can be exemplified by non-physical objects. On the other hand, he maintains with Mill that our knowledge of numerical relations is grounded in our dealings with non-disjoint physical aggregates.

Finally, Kessler’s view provides the tools needed to address the challenge of constraint failure. He maintains that 0 is a numerical relation between an aggregate \( x \) and an individuating property \( p \) that holds just in case \( x \) contains no parts that are \( p \). Thus, 0 is exemplified by the relation between an aggregate composed of editions of *Principia Mathematica* and the property *being an edition of the Grundlagen*. This reasoning provides Kessler with a straightforward answer to Frege’s worry about the exemplification of 0.

Moreover, since Kessler holds that aggregates can be composed of properties and relations, he is able to identify the number 1 with the relation between 0 and the individuating property
“being identical with 0.” He is then able to identify the number 2 with the relation between the aggregate of 0 and 1 and the individuating property being identical with 0 or 1. From here, of course, we can see how the Peano axioms are going to be satisfied and how every number will end up being exemplified.

Kessler’s theory of number is worthy of serious consideration. Nevertheless, since it identifies numbers with relations between non-physical relata, it is a clear departure from thesis (A). This point also raises an epistemological question: if both terms of a relation cannot be exemplified by physical aggregates, then how can direct experience inform us that the relation holds? As we’ve seen, Kessler clearly identifies some numbers—for example, the number 2—with relations between individuating properties that apply only to relations and aggregates composed of relations.

Kessler suggests that a process of abstraction might provide the epistemological grease needed to spin abstract ideas out of a posteriori wheels. Although he does little more than hint at the view, Kessler may well be correct. Still, to ground his revision of Millian metaphysics, Kessler ends up borrowing epistemological tools from Aristotle. Thus, Kessler also departs from thesis (B) in a rather significant way. With abstraction added to the mix, it seems that some mathematical beliefs will be justified without appeal to direct experience or induction thereupon. The upshot is as follows: Kessler’s view earns what plausibility it has by deviating from Mill in ways that betray the latter’s direct radical empiricism. Despite Kessler’s use of aggregates in his theory of number, his theory says, at root, that numbers are abstracta and that we come to know, in part, by a process of abstraction. Thus, Kessler’s theory appears to have more in common with Russell’s (1912) Platonism than Mill’s reductionism.
Kitcher (1985), (1998) revises Mill’s thesis (A) by doing away with aggregates and, instead, identifying numbers with the human activity of collection. On this view, the number 2 denotes a specific *act of composition*, namely, the act of taking a single object and grouping it together with another single object. It is the act of, say, putting *this* banana, *that* banana, and *nothing else* in the bag. If we put another banana in the bag, we have now “made 3.”

The advantages of Kitcher’s account are clear. Human activity is physical activity. Thus, if numbers are identified with human acts of composition, then our theory of number is compatible with DRE’s account of mathematical knowledge. What happens, Kitcher claims, is that we notice that particular acts of composition and decomposition exhibit patterns. Each time we put one more banana in the bag we manage to make 3. This provides us with a basis for concluding that whenever we make 2 and then add one more, we’ll succeed in making three.

Kitcher’s metaphysical theory runs into immediate trouble with large numbers. Who has ever collected together exactly 888,865,341 objects? It’s an open question as to whether *anyone* has done so. Our compositional and decomposition actions are irregular, unpredictable, and incomplete. So arithmetic cannot simply be the description of human acts of collection. Thus Kitcher suggests we view arithmetic as an idealized theory, the subject matter of which is the *possibilities* for composition and decomposition available to us *qua* human collectors. To that end he posits an ideal collector, one who engages in all the collective acts that are humanly possible. Arithmetic is thus the study of the activities of the ideal collector. It proposes laws about the activity of collection that are analogous to ideal gas laws.
Of course, even an idealization of human collective activity has its limits. No finite mind restrained by a finite lifespan will ever be able to assemble the kinds of collections needed to make sense of transfinite arithmetic. Thus, Kitcher (1998, p. 93) proposes that:

Unless Millian mathematics is to "mutilate" classical mathematics by stopping short of the full ZF hierarchy, it will be necessary to assume that the stages of iterated collecting proceed far into the transfinite. The ideal agent first performs all collective acts on physical objects; at the second stage, the ideal agent performs all collectings on physical objects and first-stage collectings; at the third stage, the ideal agent performs all collectings on physical objects, first-stage collectings, and second-stage collectings; so it goes through all finite stages,- after all the finite stages comes the first transfinite stage, the nth stage, at which the ideal agent performs all collectings on physical objects and collectings performed at finite stages,- at the next stage, the ideal agent performs all collectings on physical objects, on the collectings performed at finite stages, and on the collectings performed at the nth stage,- and so it goes on through all the transfinite stages.

In support of the view expressed above, Kitcher makes substantive modal claims about the compositional capacities of an infinite mind. Yet, it’s very difficult to see how direct experience of physical objects could play a role in justifying claims about the capacities of infinite minds. What’s more, the truth-makers for such claims seem to be a species of possibilia. This rightfully invites the charge that Kitcher, like Kessler, hasn’t successfully thrown off the Platonic yoke.

In order to do justice to the full range mathematical entities and the totality of our mathematical knowledge, direct radical empiricists must revise thesis (A). We’ve seen that two recent (and, to my mind, prima facie plausible) attempts to do so end up identifying the numbers with non-physical objects. But once non-physical objects are in the picture, it’s hard to see how induction on direct experience could be our primary source of mathematical knowledge. Thus, there is reason to believe that we cannot revise thesis (A) in a way that would lend credence to thesis (B).
5.2.4 Two Challenges to Thesis (B)

DRE’s thesis (A)—that numbers are properties of physical aggregates—is a necessary condition on thesis (B)—that mathematical beliefs are justified by induction on direct experience. We have surveyed a number of serious challenges to thesis (A). Let’s suppose, for dialectical purposes, that they can be circumvented. Even so, we have at least two good reasons to think that thesis (B) is false, i.e., that mathematical beliefs are not justified by induction. First, they are not experientially defeasible. Second, the degree to which mathematical beliefs are justified is not significantly influenced by factors such as the number, diversity, and randomness of their confirming instances. Yet these factors are crucial to determining the strength (and, subsequently, the justificatory power) of standard empirical generalizations.

5.2.4.1 Experiential Indefeasibility

Consider the axiom that says 0 is not the successor of any natural number. It is prima facie implausible to hold that our endorsement of this axiom is justified by generalization from particular counting exercises. One reason is that we seem unable to imagine a situation in which the axiom could be defeated by future counting exercises (or any other kind of empirical evidence that may be forthcoming).

According to the logical empiricists, DRE fails precisely because we cannot, as Hempel (1945 p.36) writes “state what kind of evidence would oblige us to concede [mathematical propositions are] not generally true after all.” The heart of this critique is simple: what induction giveth, induction may taketh away. Beliefs based on empirical generalization are, in principle, experientially defeasible. Yet we cannot even imagine—much less state—the kind of evidence
that would defeat the belief that $2 + 2 = 4$ or the belief that every natural number has a successor. Our imaginative incapacity, then, is evidence that these beliefs are not justified by induction.

Of course, we cannot escape from doxastic error by retreating to the realm of numbers and functions. Several *prima facie* plausible mathematical propositions have been shown to be false. Consider, for example, the claim that there is a set of all ordinal numbers. This claim may appear intuitively plausible to those with a bit of set-theory at their disposal. Cantor seems to have believed it at one time. Yet, this proposition generates the Burali-Forti paradox.

When they grasp the paradox, those who believe that there is a set of all ordinals acquire a defeater. Frege’s Rule V is the subject of a similar epistemic narrative. In both instances, a defeater is acquired when one *intellectually grasps* that a proposition with a certain degree of intuitive force leads to paradox. The relevant defeaters appear to be generated by a priori considerations. While some presently justified mathematical beliefs may yet be defeated by forthcoming evidence, reflection on paradigm cases of defeated mathematical beliefs suggests that this evidence will not be empirical. Thus, unlike beliefs based on empirical generalization, mathematical beliefs, as a general rule, are isolated from *empirical* defeat. This provides further reason to conclude that they are not justified by induction.\(^5^7\)

\(^5^7\)Albert Casullo (2003) has argued, contra Hempel, that mathematical beliefs are experientially defeasible. His argument is motivated by several thought experiments. In one case, we are asked to imagine that a familiar mathematical claim, say $2 + 3 = 5$, is consistently at odds with our experience of the world. I am not convinced that this can be imagined with sufficient clarity. If you have doubts, try to imagine what it would be like to inhabit a world where there are global exceptions to the “laws” of arithmetic. In another case, we are asked to imagine that an authority has testified against a mathematical proposition we believe. I do not doubt that testimony can supply defeaters for our beliefs and I am willing to grant that testimonial defeaters are a posteriori. Nevertheless, testimony provides only *proximate* evidence against $p$. We assume that the authority has better access to the truth than we do, so we conclude that $\neg p$ on her say-so. Yet, if there is genuine experiential evidence against $p$ then the *ultimate* evidence against $p$—the evidence to which the authority has access—must be experiential. But we have no reason to believe that there could be any direct experiential evidence against ordinary mathematical truths.
5.2.4.2 Size, Diversity, and Randomness

In a standard inductive inference, the objects that constitute a sample are observed to possess a common property $p$ that is thought to render probable the conclusion that any object otherwise like those in the sample will also possess $p$. Good inductive inferences are drawn from large variegated samples composed at random. If you conclude that every kitchen contains a sink after observing only your next-door neighbor’s kitchen and your own, you’ve made a bad inductive inference. To render this generalization probable, you’ll need to inspect lots of kitchens in lots of places without any prior knowledge of their contents. Thus, to be justified in believing your generalization you’ll need experience with numerous, various, and randomly selected kitchens.

Mathematical propositions—from $2 + 2 = 4$ to every integer greater than one is either prime or the product of primes—do not seem to require experience with numerous, various, and random particulars to be “rendered probable.” This suggests that they are not empirical generalizations and thus are not justified by induction. Jaegwon Kim (1981) makes this point clearly, writing that “unlike in the typical cases of inductive confirmation, neither the number of instances nor their variety seems to affect the epistemic relation between $2 + 3 = 5$ and its positive instances.”

Ordinary empirical generalizations are rendered more probable—they gain epistemic force—when they are found to apply to a more diverse range of things than had been previously thought. While the claim that all men are mortal may be rendered somewhat probable by observing the mortality rate among the men in one’s village, it becomes even more probable when it’s found that men in the next village, the next country, and even the next continent all end up succumbing to the reaper. Since variety increases probability, the observation that various kinds of men—
English, German, Chinese, and Chilean—are mortal adds significant epistemic force to the claims about the mortality of the species. Yet the observation that various kinds of couples and triples sum to 5 doesn’t appear to add any significant epistemic force to the proposition that \(2 + 3 = 5\). The miser who counts nothing but gold coins seems to be at no epistemic disadvantage when compared to those who count more adventurously.

Random sampling plays a crucial role in rendering ordinary empirical generalizations probable. This is because deliberately chosen samples often turn out to be biased towards the result desired by investigators. For example, the investigator who intends to show that all men are mortal may—without realizing it—choose to inspect only men who exhibit subtle mortality-indicating traits. The best way to guard against confirmation-bias is generalize from an entirely random sample. Notice, however, that concerns about bias seem entirely misplaced when the subject turns to mathematics. Those who investigate the numerical properties of random samples do not appear to be at an epistemic advantage when compared to those who investigate the numerical properties of familiar and deliberately chosen objects.

The claim that all crows are black is hardly made probable by a sample consisting of five crows. One who intends to confirm the generalization will need to add more instances to one’s sample. This illustrates a basic feature of justification by induction: sample size matters. In addition, even when an empirical generalization meets the standards—whatever they are—that suffice for confirmation and justification, additional confirming instances continue to raise its probability. Thus, each time we observe a black crow, our justification for the belief that all crows are black increases just a little bit.
Yet, so-called confirming instances of $2 + 3 = 5$ don’t appear to render the proposition any more probable or provide us with any appreciable justificatory gains. Those of us who believe that $2 + 3 = 5$ do not, when we find notice that a particular a couple and triple sum to five, view the resulting quintuple as further evidence for a merely probable belief. Moreover, there is no appreciable justificatory difference between the belief that $250 + 10 = 260$ and the belief $2 + 3 = 5$. Yet we have encountered many more confirming instances of the latter proportions than the former. Thus, the degree of justification enjoyed by our justified mathematical beliefs does not appear to be related to the size of our sample or the number of confirming instances observed therein.

5.2.5 The Cumulative Case Against DRE

The principle objects of mathematical belief—numbers—cannot plausibly be identified with objects (or properties) that encountered via direct experience. Thus, thesis (A)—a necessary condition on DRE’s epistemic thesis—is not credible. Even if this condition could be met, dissimilarities between justified mathematical beliefs and beliefs justified by induction are rife. This suggests that the former are not a subclass of the latter. Thus, thesis (B)—according to which mathematical beliefs are justified by induction—is not credible. Since DRE cannot provide a credible epistemology for mathematics, it leaves a crucial piece of the cumulative evidence for rationalism—that we possess justified mathematical beliefs—totally unexplained. This should be sufficient to disqualify the view from further consideration.
5.3 **Indirect Radical Empiricism**

Like other radical empiricists, *indirect radical empiricists*—including Hart (1996), Lehman (1979), and Devitt (2011)—hold that all epistemic justification is a posteriori. Nevertheless, they break with Millians in two important ways. First, they are epistemological holists. Following Quine (1953, p. 41), they hold that (most of) our beliefs “face the tribunal of sense experience not individually but only as a corporate body.” For that reason, they think that *theories*—large systems of interconnected beliefs—are the primary target of epistemic justification. Second, they are abductivists. Following Harman (1965) and Quine and Ullian (1978), they hold that a theory’s explanatory *value* is a function of how well it scores against a set of explanatory *virtues*, such as simplicity, generality, modesty, conservatism, ad hocness, and so forth. We are justified in believing a theory $T$ when it has more explanatory value than any of its competitors. We are justified in believing $T$’s constituent propositions in virtue of their theoretical role. That is, we acquire an epistemic reason to believe that $p$ in virtue of the fact that $p$ is expressed by an indispensable sentence (i.e., a sentence that can’t be eliminated from $T$ without significantly decreasing its explanatory value)\(^5\) of a theory we are justified in believing.

The “in virtue of” relation that confers justification on individual beliefs is in need of further clarification. I think it is most naturally understood as an *inferential* relation. The idea, then, is that beliefs about individual propositions are justified by the following kind of inference:

1. $T$ (i.e., the conjunction of all the sentences in $T$).

\(^5\)Some of the empiricists who adopt this position appear to have a stronger conception of indispensability than the one I assume here. For instance, Hart (1996,p.53) writes “…the indispensability thesis [is the claim that] beyond a minimal level, we do not know how to do natural science without mathematics.” The weaker conception, however, is all that’s needed to purchase the kind of epistemic justification Hart and his cohort are after.
Thus, $p$.

I acknowledge that some empiricists may wish to specify the “in virtue of” relation in an alternative way. In what follows, however, I will investigate and evaluate only the inferential specification. This is because, in the end, I believe that my objections apply equally well to the alternatives.

Indirect Radical Empiricism (IRE) provides a *prima facie* plausible explanation of how mathematical beliefs are justified. Since mathematical propositions are expressed by indispensable sentences of our best current scientific theories, we can justify belief in individual mathematical propositions by inference from the theories that contain them. Our beliefs about numbers, functions, and matrices thus stand on the same epistemic ground as beliefs about other unobservable, but scientifically respectable, entities, such as electrons, bosons, and genes. Since these beliefs are justified by inference from *a posteriori* justified theories, their justification is also fundamentally *a posteriori*.

In light of its capacity to explain mathematical justification, IRE poses a more significant challenge to rationalism than moderate empiricism or direct radical empiricism. Still, there are three other pieces of *prima facie* evidence for rationalism with which IRE must come to terms. In the next section, I will argue that IRE’s best explanation of this evidence is beset by theoretical vice. Although this argument does not *vindicate* rationalism, it demonstrates the implausible lengths to which radical empiricists must go to sustain their theory of justification. Moreover, it underwrites the attempt, in the next chapter, to develop a full-fledged rationalist theory of justification.

In subsections two, three, and four, I present rather more direct challenges to IRE’s epistemology for the deductive sciences. First, I argue that indirect empiricism cannot explain the
very high *degree* of justification we assign to ordinary mathematical and logical beliefs. Second, I argue that, since evidence that would defeat beliefs about quarks and genes would not defeat mathematical and logical beliefs, the latter are not justified by the same body of evidence as former. Third, I argue, following Bonjour (1998) and Thurow (2009), that IRE appears incapable of providing a complete explanation of how logical inferences are justified.

### 5.3.1 The Evidential Challenge

In the previous chapter we considered four pieces of *prima facie* evidence for the a priori. They were: (a) there are many paradigmatically justified beliefs—in particular those with mathematical and logical contents—that do not appear to be justified by experience, (b) there are Meno cases, i.e., cases of immediate justified belief formation in which the content of the belief is new to the subject and does not appear to be supported by her present or past experience, (c) it is acceptable to use the phrase “I just see it” to express immediate non-experiential justification in epistemological language games, and (d) introspection corroborates the claim that epistemic uses of “I just see it” express immediate non-experiential justification. On its face, IRE provides an adequate explanation of (a). Nevertheless, the other three pieces of evidence present the indirect radical empiricist with an explanatory challenge.

In light of (b), (c) and (d), it appears that some beliefs with mathematical content can be immediately justified—that is, justified without standing in an evidentiary or explanatory relation to any other belief—by cognitive events of a unique sort. Those with rationalist leanings contend that the best explanation of this appearance is that such beliefs *can in fact* be immediately
Those who endorse IRE contend that the beliefs in question are inferentially justified by abduction. Thus, they owe us an alternative explanation of (b), (c), and (d). Since IRE cannot countenance immediately justified mathematical and logical beliefs, their alternative explanation will need to debunk the appearance that such beliefs can be immediately justified.

The best debunking explanation available to the indirect radical empiricist is as follows: whenever a justified general/mathematical belief appears to be immediately justified, it is instead justified by an opaque inference. The guiding idea here is that, despite any appearances to the contrary, we have a rather limited introspective grasp on the various mental states that justify our beliefs. Thus, there are many cases in which seeming immediate justifications are actually inferential justification.

In support of this proposal, we should note that we may sometimes need a diagram or an interrogative gesture to prompt recognition of antecedently held beliefs that would serve to justify a new belief. At other times, the inferential processes that justify a belief may just be wholly inaccessible to consciousness. Given these and other impediments, it’s surely possible that we are deceived (individually and communally) about whether or not a certain set of beliefs can be justified immediately. IRE proponents contend that we are deceived—in fact, systematically deceived—about the inferential status of our mathematical and logical beliefs.

For example, Locke (1979, p. 530-531) writes:“…sometimes the mind perceives the agreement or disagreement of two ideas immediately by themselves, without the intervention of any other…in this the mind is at no pains of proving or examining, but perceives the truth as the eye doth light, only by being directed towards it. Thus the mind perceives that white is not black, that a circle is not a triangle, that three are more than two and equal to one and two.”

The empiricist may, of course simply deny the data and therefore refuse the explanatory burden we have placed on him. I contend that to do so would be tantamount to dogmatism. While some readers may find my descriptions of the data wanting, there is widespread agreement that some bits of ordinary intellectual experience provide prima facie support for rationalism. The empiricist who declares, simply, that there is no evidence for the a priori betrays, it would seem, an impoverished sense of what counts as evidence in epistemology.
Let us call this explanation *ignorance of inference*, or IOI. Notice that IOI explains the introspective evidence that supports (d) *as well as* the third person reports and observational evidence that support (b) and (c). If human beings are generally deceived about the kind of reasons they have to believe that $p$, then it’s no surprise that their behavior and testimony will publicize their state of deception. Thus, IOI offers a *unified* explanation of (b), (c), and (d) and, in so doing, manifests the explanatory virtue of generality.

Regrettably, IOI’s vices outweigh its virtues. According to IOI, we are often unable to tell whether or not we have made (or are making) an inference. In particular, introspective failure arises whenever we consider a specific class of apparently immediately justified beliefs, all of which are actually justified by inference from other beliefs. Thus, IOI requires us to adopt a psychological hypothesis that is very strong and very parochial: we are *always deceived* about a very particular kind of common introspective experience. Yet, there is does not appear to be any independent evidence for the view that the introspective episodes targeted by IOI are systematically deceptive or otherwise unreliable. Thus, given IOI’s strength, parochialism, and lack of direct supporting evidence, it appears to be a rather ad-hoc explanation.

A proponent of IOI may raise the following concern: we gladly accept the thesis that we lack introspective access to many of the cognitive processes underlying judgments of grammaticality. But it seems like a similar charge of ad-hocness could be leveled against that comparatively uncontroversial thesis. Thus, if there are no relevant differences between grammatical cases and, say, mathematical cases, it’s difficult to see why we should reject IOI when it targets mathematical judgments while accepting it when it targets grammatical judgments.
In response, we should note that the processes underlying our judgments of grammaticality do not, by themselves, provide us with evidence that, say, sentence \( s \) is grammatical. Instead, these unconscious processes give rise to the fact that particular sentences *seem to us* to be grammatical. As I shall argue at length in Chapter 6, these consciously accessible seeming states provide the justification for our grammatical judgments. Our data suggests that the same is true with respect to mathematics. Even if there are unconscious inference-making processes involved in underwriting such judgments, these processes do not appear to be what justifies mathematical beliefs.

Of course, there is some compelling evidence for the view that introspection *in general* isn’t as reliable as the philosophical tradition has held (Schwitzgebel 2008). Suppose that this evidence can be used to justify general skepticism about the evidential value of introspective episodes. If so, then IOI’s claim that a particular set of introspective episodes are deceptive could be supported by inference from general skepticism.\(^{61}\)

The trouble with this strategy is that, as Uriah Kriegel (2011, 2013) points out, the available evidence doesn’t show that introspection is *systematically* unreliable. Kriegel notes, for instance, that olfaction is a rather unreliable source of evidence when compared to visual perception. Still, we’d be foolish to conclude, on that basis, that the nose is engaged in *systemic* manufacture of

\(^{61}\)It’s worth pausing here to draw a rough distinction between the kind of introspection that justifies beliefs about inner episodes and the kind of “introspection” that involves hypothesizing about, reconstructing, and narrating the story of one’s conscious life. In the former case, introspection involves something like direct apprehension of the fact that one feels a pain, is being appeared to bluely, is thinking about philosophy, and so forth. In the latter case, “introspection” involves constructing hypotheses about one’s motives to explain one’s past behavior. For instance: “My anxiety about death led me to start drinking heavily,” “I joined the circus to escape boredom,” and so forth. These kinds of behavioral-motivational hypotheses are notoriously unreliable. Yet, the kind of introspection that targets occurrent mental states is the kind that interests us. Thus, we shouldn’t conclude that it is unreliable because this other kind of “introspection” is unreliable.
error. Similarly, on such evidence as is presently available it would be premature to conclude that introspection is wholly unreliable. Our evidence perhaps licenses the hypothesis that introspection is \textit{less reliable} than we tend to think and, indeed, less reliable than some other sources of justification. But the latter hypothesis, even if it's well-confirmed, is not sufficient to ground the claim that introspection is \textit{systematically} unreliable. Thus, \textbf{IOI} can’t be supported by an argument from general skepticism about introspection.

In addition, \textbf{IOI} fails to manifest the closely related explanatory virtues of modesty and conservatism. In the first case, it offers an explanation of something familiar (our sense that some mathematical beliefs are immediately justified) by positing something exotic (a contentious bit of philosophical psychology). In this sense it is immodest. In the second case, it demands that we abandon a host of firmly held beliefs about the epistemic purchase of introspective episodes. We take it for granted that introspection is a minimally trustworthy source of information about our mental states, including those mental states associated with the justification of general and mathematical beliefs. \textbf{IOI} would have us revise this belief, at least with respect to its targeted set of mental states. One worries, however, that without a firm reason to limit our skepticism to just the targeted mental states, \textbf{IOI} will push us down the slippery slope to radically revisionary introspection skepticism.

While these considerations aren’t sufficient to \textit{decisively} counter \textbf{IOI}, they rather clearly demonstrate the theoretical costs of indirect radical empiricism. \textbf{IRE} proposes an immodest, not-so-conservative, and seemingly ad-hoc hypothesis to explain away three pieces of \textit{prima facie} evidence for the a priori. In light of this, the rationalist alternative looks to be at least provisionally justified.
5.3.2 **Degrees of Justification**

Suppose that you are justified in believing that $p$ by inference from your fallibly justified beliefs $q$ and $r$. Suppose, further, that your degree of justification for $q$ is 0.89 and your degree of justification for $r$ is 0.92. If so, then, assuming (a) your only reason to believe that $p$ is obtained by inference from $q$ and $r$, and (b) $p$ does not follow from $q$ or $r$ alone, your degree of justification for the belief that $p$ cannot be more than $q$. This is because, as a general rule, an inferentially justified belief is only as justified as the least well justified of those beliefs from which it is inferred.

This point holds equally well for beliefs that are justified by inference from their role in a well-confirmed theory. Suppose you are justified in believing that snow is made of hydrogen by inference from (a) the belief that the proposition *snow is made of hydrogen* is an indispensable component of theory $T$ and (b) the belief that $T$. Here is what the inference looks like:

1. (4) $T$ (i.e., the conjunction of all the sentences in $T$).
2. (5) An indispensable sentence of $T$ expresses the proposition that *snow is made of hydrogen*.
3. (6) Thus, *snow is made of hydrogen*.

The upshot is that the degree to which you are justified in believing (6) cannot exceed the degree to which you are justified in believing the least well justified of (4) and (5). While I’m inclined to think that we are more justified in believing that $T$ contains a certain indispensable sentence than we are that $T$ provides a correct description of reality, I shall remain agnostic about which of (4) and (5) is more justified. Regardless of how that matter is settled, either (4) is more justified than (5), (5) is more justified than (4), or (4) and (5) are equally justified. Whichever of these three possibilities obtains, it follows that (6) cannot be more justified than (4). Thus, it should be clear
that, as a general rule, if \( b \) is justified only by inference from \( T \) and the fact that its content is expressed by an indispensable sentence of \( T \), then \( b \) cannot be more justified than \( T \).

Now, according to IRE, mathematical beliefs can be justified only by inference from their role in a well-confirmed theory. Thus, for the reason we’ve just provided, they cannot be more justified than the theories from which they are inferred. Yet, many mathematical beliefs are more justified than any of the particular theories in which they feature. For instance, we are more justified in believing that \( 2 + 2 = 4 \) than we are in believing general relativity.

If we have a theory that is justified to degree \( n \), but some of its constituent propositions are justified to degree \( n + 1 \), the best explanation of this justificatory inequality is that the propositions with higher-level justification are supported by extra-theoretic evidence. This warrants the conclusion that many of our mathematical beliefs are (at least partially) justified in virtue of something other than inference from the fact that their content is expressed by indispensable sentences of well-confirmed scientific theories. If mathematical beliefs can be justified by some other means, then the indirect empiricist’s explanation of justified mathematical belief is incomplete.

Suppose that the indirect empiricist responds to this challenge by pointing out that all of the different competing theories of \( \varphi \) (say, gravitation)—both the ones we’re presently considering and the ones we have yet to properly formulate—presuppose the same basic collection of mathematical sentences. This suggests that these sentences will be scientifically indispensable regardless of which theory of \( \varphi \) turns out to be correct. Thus, we have, the indirect empiricist could argue, an additional reason to assign a higher degree of justification to mathematical beliefs than to beliefs about propositions expressed by sentences whose truth is theory-specific. The idea is
that if (a) \( b \) can be justified by inference from any of \( T_1, T_2, \ldots, T_n \) no matter which turns out to be true and (b) \( S \) knows this about \( b \), then \( S \) is entitled to conclude that \( b \) is better justified than any of the particular theories from which it follows.

It seems correct to say that all of the theories of \( \phi \) vying for our support include the same basic collection of mathematical sentences. Yet, despite initial appearances, this point does not secure indirect empiricist against the objection leveled above. Instead, it serves to further undercut the view. To see this, consider an argument given by Eliot Sober (1993 p. 45):

If the mathematical statements \( M \) are part of every competing [theory], then, no matter which [theory] comes out best in the light of the observations, \( M \) will be part of that best [theory]. \( M \) is not tested by this exercise, but is simply a background assumption common to the [theories] under test. . . . If the mathematical statements \( M \) are part of each [theory] under test, then the observational outcome does not favor \( M \) over any of its competitors.

Sober contends that experience confirms only those portions of \( T_1 \) that distinguish it from \( T_2, \ldots, T_n \). Since the mathematical portion of \( T_1 \) doesn’t distinguish it from any competitor theory, it’s not part of the strictly empirical content of \( T_1 \). To be clear, the idea is that since each competing theory presupposes the same basic collection of mathematical sentences, no empirical observation will make a difference as to whether or not any of the propositions expressed by these sentences are justified. For this reason, Sober concludes that the mathematical portions of our theories are not justified by empirical observation.

If Sober’s argument is sound, then it significantly destabilizes IRE’s epistemology for mathematics. Notice, however, that we needn’t go the whole way with Sober—that is, we needn’t conclude that mathematical propositions cannot be justified a posteriori—to appreciate his challenge to indirect radical empiricism.\(^{62}\) For, on reflection, the fact that our otherwise divergent

\(^{62}\) In fact, one could accept my argument from degree of justification—which depends on the assumption that we are more justified in believing mathematical propositions than any particular theories—while rejecting Sober’s
theories all presuppose mathematics looks more like an explanandum than an explanans. An adequate explanation of how mathematical beliefs are justified will account for both their high degree of justification and their theoretical ubiquity. It just will not do to explain the former in terms of the latter, while leaving the latter totally unexplained.

Perhaps, however, the advocate of IRE will respond by modifying his previous rejoinder. Notice, he says, that the same basic mathematical sentences play an indispensable role in each of the (non-competing) theories of we presently accept. From our theory of gravitation to our theory of speciation, we find the same mathematics presupposed by each. In light of this, it appears that $M$ (the conjunction of all the basic mathematical sentences presupposed by every $T_i$ contained in our total theory $T^*$) scores better on certain explanatory virtues, such as generality and universality, than any of the $T_i$. If this proposal were viable, it could, perhaps, explain why $M$ (and, by extension, the propositions expressed by its constituent sentences) has a higher degree of justification than any specific $T_i$. Unfortunately, it isn’t viable.

This is because the explanatory virtues pick out relational properties. For instance, when we say that $T_i$ has the virtue of generality, we mean that it is more general than one or more of $T_2$,...,$T_n$. Just as we do not mark individuals as tall en soi, we do not mark theories as general en soi. Instead, when we attribute a virtue to a theory $T$, the attribution is made in relation to a competitor of $T$. For instance, we say that special relativity is more general than classical mechanics because it explains all of the phenomena explained by classical mechanics and then some.

Since the explanatory virtues pick out relational properties, $M$ can be appraised as general, simple, modest, and forth only by comparison to competitor theories. But, by hypothesis, $M$ does

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argument—which depends on the assumption that when $p$ occurs in all theories to be tested, empirical results provide no epistemic support for $p$. 
not have any competitors, since all of the $T_i$ contained in our total theory $T^*$ presuppose the same basic collection of mathematical sentences.\textsuperscript{63} Thus, since there is no comparison class comprised of theories against which the generality or universality of $M$ can be adjudicated, we cannot explain why $M$ is more justified than any of the $T_i$ by appealing to its greater generality or universality.

Suppose, however, that what the indirect empiricist has in mind is something like this: since $M$ explains the behavior of a more diverse array of phenomena than, say, special relativity, $M$ is the more general of the two. Even though $M$ is not in direct competition with Special Relativity, there does seem to be something to this idea. One map can be simpler than another even if each charts vastly different terrain. Similarly, there is a sense in which fundamental physical theories—since they explain a more diverse array of phenomena—are more general than biological theories. Thus, it doesn’t seem as though two theories must be competitors to be weighed against each other using the explanatory virtues.

Nevertheless, it’s not clear how the superior generality of, say, atomic theory would grant it any epistemic advantage over and against, say, the germ theory of disease. The fact that the total amount of things explained by atomic theory is greater than the total amount of things explained by the germ theory doesn’t provide us with any additional reason to believe atomic theory is true. Likewise, atomic theory is more general than the theory that my car was stolen overnight (because

\textsuperscript{63}One might object to this claim as follows: given competing theories about how to model various areas of mathematics, not every member of $T_1,..,T_n$ has exactly the same mathematics. For instance, $T_1$, may, following Robinson (1996), define the operations of the calculus in terms of infinitesimals. Alternatively, $T_2$ may employ the standard model which defines the operations of the calculus in terms of limits. It seems correct to say that abductive considerations may be brought to bear when weighing the virtues of competing meta-mathematical models. Nevertheless, it is not at all clear that these issues have bearing on first-order mathematical results, which, again, appear to be presupposed by all of $T_1,..,T_n$. To put the point another way, although we may employ abductive considerations when deciding how to model calculus, it appears that all of $T_1,..,T_n$ presuppose, and thus include, calculus.
it is not in the garage where I left it). Yet this surely does not provide us with any additional reason to believe atomic theory.

In contrast, the greater generality of natural selection vis-à-vis special creation indicates that the former is more likely to be true. Both theories aim to explain the process by which new species arise, but natural selection explains certain features of extant species—such as vestigial organs and common body plans—that remain mysterious from the point of view of special creation. Thus, it should be clear that, in this case, increased generality does provide an epistemic advantage.

The upshot, then, is that possession of an explanatory virtue confers epistemic justification only relative to theories designed to explain a sufficiently similar range of phenomena. Thus, the fact that \( M \) is more general than any of the \( T_i \)'s will only confer additional justification on the belief that \( M \) if one or more of the \( T_i \)'s aims to explain mathematical phenomena. Since they don’t, \( M \)'s greater degree of epistemic justification is left unexplained.

5.3.3 Diverging Defeaters

A related argument can be used to bolster the point that IRE fails to explain—and perhaps cannot explain—certain features of our justified mathematical beliefs. This argument begins with a truism: most predictively successful scientific theories that once met with consensus were later disconfirmed. Any textbook in the history of science will support this claim. Now, since almost every predictively successful scientific theory has been disconfirmed, it is very probable that \( T \)—a predictively successful scientific theory that we presently endorse—will be disconfirmed. In fact, by enumerative induction on the history of science, we have reason to conclude that almost every
predictively successful theory we presently endorse will be eventually be disconfirmed. This argument—widely attributed to Putnam (1978) and Laudan (1981)—is commonly called the pessimistic meta-induction (PMI).

PMI has served as a premise in many recent attacks on scientific realism—the view that our present scientific theories are largely true, at least in some approximate sense of “largely” and “true.” Although realists haven’t been terribly moved by PMI, they’ve worried about it enough to develop a substantial literature devoted to refuting it. This suggests that PMI provides prima facie evidence against our best current scientific theories. Unsurprisingly, this has prima facie revisionary epistemological implications. Since we know that almost every previously entrenched scientific theory is false, we have a prima facie reason to believe, of any particular theory $T$, that it is false. Thus, PMI is a prima facie defeater for the belief that $T$—where $T$ is one of our best current theories—and for any belief justified only by inference from $T$.

Suppose the proponents of PMI are correct. If so, PMI is an ultima facie defeater for every belief that $T$ and every belief justified only by inference from $T$. According to indirect empiricism, our mathematical beliefs can only be justified by inference from justified theories. But, on the assumption that PMI is correct, all of our theories are such that we are unjustified in believing them. Thus, no mathematical beliefs can be justified.

Now, I don’t intend to provide a critical assessment of PMI. Perhaps it is not a good inductive inference, as has been argued, for instance, by Lange (2002). Perhaps PMI fails to take into account some crucial feature that makes our current theories different from and better than our past theories. Nevertheless, if it PMI were a good inductive inference, it would provide a defeater for any belief that $T$ or that is justified only by inference from $T$. This is why realist
philosophers of science are so keen to demonstrate that there is something amiss with PMI. Notice, however, that no one in realist camp or the antirealist camp takes PMI to serve as a defeater for ordinary mathematical beliefs. For our purposes, this is the crucial point. Even if PMI is a good inductive inference it wouldn’t provide a defeater for the bulk of our mathematical beliefs.

To see this, consider the kinds of beliefs you would give up if you were convinced by, say, Lauden’s most recent defense of PMI. You would probably reject your beliefs about the process of speciation, the nature of gravity, and the causes of global warming. But you would not, I contend, reject your beliefs about arithmetic. Indeed, the scientific anti-realist wouldn’t press you on this point, for she too will continue to rely on her arithmetical beliefs to guide her through the transactions of daily life. This, I suggest, demonstrates that our mathematical beliefs are justified by more than just inference from their indispensable role in our best current scientific theories.

The reasoning here is straightforward. If $d$ is a defeater for $b$ and the evidence for $b$ is the same as the evidence for $b^*$, then $d$ is a defeater for $b^*$. If $d$ is a defeater for $b$ but not a defeater for $b^*$, then $b$ and $b^*$ are not supported by the exactly the same body of evidence. PMI, if true, is a defeater for our best current scientific theories. PMI, if true, is not a defeater for our mathematical beliefs. Ergo, the evidence for our mathematical beliefs is not solely obtained by inference from our best current scientific theories. This result is not consistent with IRE. Thus, we have reason to think that its epistemology for mathematics is inadequate.

5.3.4 The Inferential Challenge

According to IRE, the only sources of justification are direct experience and inference. Direct experience justifies beliefs about concrete particulars and their properties. Yet, direct
experience alone—without the compliment of inductive or abductive inference—cannot justify beliefs with general content. Inferential principles, however, are general. Thus, the belief an inferential principle is truth-conducive has general content. For this reason, it is implausible to hold that direct experience alone justifies the belief that this or that inferential principle is truth-conducive. While we might be able to justify belief in this or that principle of inference by appeal to other principles of inference, we’ll find eventually find ourselves caught in a vicious circle or an infinite regress. Neither outcome is welcome. Thus, it appears that IRE doesn’t have the epistemological resources needed to justify beliefs about inferential principles. Since, however, advocates of IRE appeal to abductive inferential principles as a source of justification, this is an urgent problem for them.\(^{64}\)

The indirect radical empiricist has a promising response to this charge. She’ll ask us to think of the folk, the huddled masses of inference-makers yearning for justified belief. She’ll note, with little controversy, that many of these ordinary inference-makers cannot be said to have justified beliefs about inferential principles. They’ve never heard of *Modus Ponens*. They don’t possess the concept of logical validity. And yet such folks are surely justified in making the inference from their belief that a conditional and its antecedent are true to the belief that its consequent is true. Thus, as Thurow (2009) aptly points out, there is a crucial epistemological distinction that has been overlooked by those who advance the argument found in the preceding paragraph. This is the distinction between (a) being justified in believing that an inferential principle is truth-conducive and (b) being justified in making an inference.

\(^{64}\)This argument is based on a similar line of criticism put forward by BonJour (1998).
**IRE** proponents may contend, in light of this important distinction, that we don’t need to have justified beliefs *that inferential principles are truth-conducive* to be justified in making inferences. If this is correct, then even those who lack justified beliefs *about* the truth-conduciveness of the principles of abductive inference can still be justified in *making* abductive inferences. Thus, one can without circularity *make* certain inferences in offering a justification of one’s belief that those very patterns of inference are truth-conducive. As a result, **IRE** advocates needn’t appeal to direct experience to justify beliefs about the truth-conduciveness of inferential principles.

Suppose we grant that beliefs about the truth-conduciveness of inferential principles can be justified by making particular inferences. While this supposition solves the problem that initiated our discussion, it does so only by pushing it back a step. To see this, consider a case in which you abductively infer *p* from *q* and *r*. When you make this inference, you recognize *something or other* about *q* and *r* that increases the truth-likeliness of *p*. As a result of this, you form the belief that *p*. Now, this recognition of *something or other* is your reason for believing that *p*. This reason is either acquired by inference or else it is immediate.

Suppose it is acquired by inference. For instance, you might notice (a) that there is a relation between *p*, *q*, and *r* that is of kind *k* and (b) that past *k* relations had a property that increased the truth-likeliness of any proposition that filled *p*’s role in the relation. Of course, this inferential reason is itself either acquired by inference or immediate. Perhaps it is acquired by making yet another inference. Still, if we are to avoid circularity, infinite regress, or epistemic collapse, the process of acquiring inferential reasons by inference must conclude, at some point, with the acquisition of immediate reasons for inference making.
Suppose, with **IRE**, that direct experience is the only possible source of immediate reasons. In direct experience, we apprehend concrete particulars and their various properties. In light of this, it is difficult to understand how direct experience could provide anyone with a reason to think that a particular *relation between propositions* is truth-conducive. Our apprehension of various implicative relations is not a matter of *perception*. We do not, in the literal sense, *see* whatever it is about *p* that makes *q* likely to be true. For this reason, inference-makings do not appear to acquire their epistemic force from direct experience. On the assumption that they are nevertheless justified, there must be some way of explaining how. **IRE**, however, has no alternative explanations to offer. This gives us *another* reason to believe that its epistemology for the deductive sciences is incomplete.

### 5.3.5 The Cumulative Case against IRE

Indirect Radical Empiricism promises to explain the positive epistemic status of mathematical, logical, and other presumptively a priori justified beliefs by appeal to abductive inference. Although this approach is a *prima facie* plausible, it nevertheless faces a number of significant challenges. For one thing, **IRE** must *explain away* the remaining evidence for a priori justification. Yet, it is hardly clear that there is a non-ad-hoc way to do so. For another, **IRE** fails to explain significant epistemic *features* of mathematical and logical beliefs; namely, their high degree of justification and their apparent indefeasibility in the face of the pessimistic meta-induction. This suggests that the correct epistemology for the deductive sciences will be broader than the one proposed by adherents of **IRE**. Finally, **IRE** offers no clear, non-circular account of how we are justified in *making* individual abductive inferences. This, of course, is a serious
problem for a view according to which most paradigmatically justified beliefs are justified by abductive inference. In light of these challenges (and the failure of DRE), we now have reason to suppose that some version of rationalism is correct.
6. A DEFENSE OF PHENOMENAL CONSERVATISM

6.1 Introduction

In Chapter 3 I presented evidence that there are a priori justified basic beliefs. In Chapters 4 and 5 I argued that empiricists cannot adequately account for the positive epistemic status of these beliefs. For that reason, I concluded that some version of rationalism must be true. In the next chapter, I present and defend the version of rationalism that I find most promising. Since, however, the view I develop there is based on Michael Huemer’s principle of phenomenal conservatism (PC), my aim in the present chapter is to explicate and defend PC.65

According to phenomenal conservatism, if it seems to S that p, then, absent defeaters, S has some degree of justification for the belief that p. Notice that PC identifies seemings as the basic source of immediate epistemic justification.66 For this reason, I begin the chapter by (a) arguing that there are seeming states, (b) providing a general description of them and (c) arguing that some are purely intellectual rather than experiential. Next, I provide a thorough characterization of the principle of phenomenal conservatism. I then present six arguments in support of PC. Finally, I conclude the chapter by responding to three central objections to PC.

65 Although the principle of phenomenal conservatism was first put forward by Huemer (2001), it is not without historical antecedents and contemporary variants. With respect to the former, one can find many of the ideas that motivate PC within the tradition of common sense epistemology, e.g., Moore (1939) and Chisholm (1957). With respect to the latter, James Pryor’s (2000) dogmatism is, at root, a version of PC restricted to perceptual seemings. Roger White (2006) identifies the views of Chisholm (1989, p.65), Audi (1993, p. 366), and Pollock and Cruz (1999, p.201)—among others—as ancestors of Pryorian dogmatism.

66 In recent work, Huemer (2007), (2013) has mainly used the term “appearance” to denote the kind of state I call a seeming state. I do not think anything substantive turns on this terminological choice. Nevertheless, I prefer to use “seeming” for two reasons. First, it is the term of choice in a significant portion of the relevant literature, i.e., Tolhurst (1998), Tucker (2010), and Cullison (2011). Second, I think that in some contexts, “appearance” can, perhaps implicitly, suggest that the speaker is talking about sense experience. I do not think “seeming” is quite as suggestive. Thus, since I will be arguing that some of the states in question are non-experiential, I think it is dialectically advantageous to use a more neutral term.
6.2 **Seeming States**

In this section, I first defend the claim that there are mental states called seeming states. I employ three arguments to this effect: an argument from ordinary discourse, an explanatory argument, and an argument from introspection. I then put forward a characterization of seeming states according to which they are *sui generis* mental states with assertive propositional content and felt veracity that are not revisable in response to evaluation.

6.2.1 **An Argument from Ordinary Discourse**

In ordinary discourse, we often make statements about how things seem. For instance:

(1) Jim seems to have had too much to drink.

(2) It seems we ought to have a flat tax.

(3) This penny seems elliptical, but it’s actually round.

Sometimes, as in (1), the function of “seems” is to indicate that, although the speaker believes that \( p \), he’s not prepared—perhaps because he’s unsure that he’s met his evidentiary burden—to affirm it without reservations. In other cases, such as (2), “seems” is used to deflect controversy. That is, the speaker believes that \( p \), but recognizes that an expression of out-and-out affirmation of \( p \) will invite unwelcome conversational conflict.\(^{67}\)

\(^{67}\)We should acknowledge that both (1) and (2) are can be read as either expressing reservations or deflecting criticism. Both statements serve to (a) express a belief and (b) put some kind of conversational spin on it, but the operative sense of “seems” isn’t fixed by the current presentation. Ordinarily, additional pragmatic features will be deployed to do the fixing. Moreover, it is difficult to come up with examples that, absent significant contextualization, are consistent with only one of the pragmatic uses of “seems.” There is also, perhaps, a third way that “seems” can be used for pragmatic effect. In cases where a speaker intends to express a belief that she knows to be controversial, she may use “seems” to convey an attitude of diplomacy rather than to deflect argument. In these cases the speaker is be happy to debate the merits of her belief but wishes to do so without alienating or silencing her interlocutor. Thus, the speaker uses “seems” to acknowledge that her belief is contentious in a way that will not foreclose further conversation.
In both of these cases, and in many others, “seems” functions as a pragmatic device, i.e., it conveys information about a speaker’s attitudes or conversational aims that is not explicitly contained in the statement. We can see this by noting that (1) can be used to assert the same proposition as “Jim has had too much to drink.” This suggests that the difference between (1) and the statement “Jim has had too much to drink” is, in some contexts, merely pragmatic. The same point holds for (2).

With respect to statement (3), however, “seems” does not function as a pragmatic marker. Instead, the speaker uses it to express an experience, viz., an experience as of the penny’s being elliptical. To see this, note that (3) would express a very different proposition if we were to substitute “is” for “seems.” Since experiences are mental states, we now have evidence that “seems” can be used to express mental states (as can cognate terms such as “looks” and “appears”).

Another example strengthens the point:

(4) Katie is scared because it seems to her that there is an intruder in the house.

In this explanatory statement, “seems” is used to attribute a mental state to another person. This provides additional evidence for the view that “seems” and its cognates can express mental states. For the remainder of this essay, “seems” and its cognates should be understood to do just this — even when they occur in statements where, absent context, they might appear to have a pragmatic

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68Although it’s not obvious, as in the case of sentence (3), sentences (1) and (2) can also, independently of their pragmatic uses, be used to express mental states. To see this, consider the following sentence:

(1)* Jim seems to have had too much to drink, but he has not.

It is exceedingly plausible that there is a true reading of (1)*. Since it is a conjunction, however, (1)* is true only if both conjuncts are true. But on the merely pragmatic uses of the first conjunct, there’s an inconsistency between the two conjuncts. The first expresses the proposition that he has had too much to drink while the second expresses the negation of that proposition. If, however, the first conjunct is used to express a mental state — namely, one having to do with how things appear to the speaker — the inconsistency disappears.
function. Still, we haven’t ruled out the possibility that the mental states in question are simply beliefs. By the end of this section, however, we’ll have good reason to do so.

6.2.2 An Argument from Ordinary Discourse

Suppose you are a research assistant in a psychology laboratory. You have been assigned the task of recording the verbal reactions of two test subjects who are presented with figure 1.

Fig. 1

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69 Although Tolhurst (1998) provides the blue-print for this argument, the building materials are my own.
70 This version of the image is adapted from Jastrow (1899, p. 312).
Neither subject has previously viewed the image. Upon doing so, Jack, your first test subject, states “It’s a duck.” By contrast, Jill, your second test subject, states “It’s a rabbit.” A plausible explanation of their divergent verbal behavior appeals to a difference among their beliefs. While Jack believes that the image depicts a duck, Jill believes that it depicts a rabbit. Yet, since both of them are looking at the same image under the same highly controlled conditions, it’s natural to wonder how they came to form such different beliefs. Thus, we need an explanation of how the same perceptual inputs can issue divergent doxastic outputs.

The best explanation of this phenomenon (within the parameters of common sense psychology) appeals to a difference in how things seem to Jack and Jill. Since it seems to Jack that it’s a duck, he believes, on that basis, that the image depicts a duck. Since it seems to Jill that it’s a rabbit, she believes, on that basis, that the image depicts a rabbit. Because the image itself is ambiguous between these two kinds of fauna, it’s not surprising that it has the power to generate different seeming states among test subjects.

An alternative explanation goes as follows: the divergent beliefs in question are based on other beliefs, rather than seemings. The idea, then, is that Jack’s belief that the image depicts a duck is based on his beliefs that (a) most creatures with bills are ducks and (b) that the image depicts a creature with a bill. Jill’s arrives at her divergent belief by inference from different background beliefs concerning the properties of Fig. 1 and how they relate to woodland creatures.

The problem with this explanation is that it simply complicates our initial seemings-based explanation by pushing it back a step. For, surely, Jill does not believe that the image depicts a creature with a bill. Why not? The presumptive explanation is that it doesn’t seem to her to depict a creature with a bill. Thus, even if we end up telling a more complicated story about how Jack
and Jill end up with different beliefs about Fig. 1, it’s hard to see how we can do so without eventually appealing to a difference in how things seem to them.

Moreover, any explanation of Jack and Jill’s beliefs given in terms of inference from their background beliefs would, *prima facie*, be at odds with the explanations they’d give themselves. What I have in mind is this: if you were to ask Jack why he believes Fig. 1 depicts a duck, it is highly likely that he’d say something like “because it looks like a duck.” It is highly unlikely that he’d say “given these other things I believe, I inferred that the image depicts a duck.” Our expectations about how Jack would respond to this sort of questioning are supported by the verbal behavior of our ordinary interlocutors. In conversation, we rarely find people justifying beliefs like “that’s a duck” by appealing to other things they believe. Rather, we find them appealing to how things look, appear, or seem. Thus, we expect Jack and Jill to explain their divergent perceptual beliefs in a similar fashion.

Reflection on the duck-rabbit example suggests a model of belief acquisition in which seemings serve as an intermediary between sensations (i.e., pre-conceptual inputs to cognition) or other seeming-inputs (i.e., mental states or processes that make an appropriate functional-causal contribution to how things seem to $S$ at $t$) and beliefs. For brevity, let’s call this the SSB model. It goes as follows: sensations yield seemings which (in ordinary circumstances) yield beliefs. I should note, in addition, that I take *inferences* from beliefs to be among the potential causes of seemings. That is, there are cases in which it seems to $S$ that $p$ because $S$ (a) believes that $q$ and (b) believes that $q$ increases the likelihood that $p$ is true.

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71 An exception may be in cases of controversy, where a subject’s interlocutor questions, for instance, whether she knows what a duck looks like. She may then appeal to her beliefs about the characteristics of ducks to explain why she believes that the animal in question is a duck. Nevertheless, since her judgments about whether the animal has duck-like characteristics will be based on how things seem to her, seemings will still prove to be the final court of appeal.
Now, if we endorse SSB, then, since our model for belief acquisition assigns an important explanatory function to seeming states, we have a second reason to think that there are such states. There are at least three considerations that tell in favor of SSB. First, it makes good sense of statements like:

(5) Jim doesn’t want to walk across the ice because he thinks it’s very thin, and he thinks it’s very think because to him it looks very thin.

Notice that in (5), the aim of the seeming state attribution is clearly explanatory. If seeming states really do explain beliefs (and the behaviors they bring about), then it’s not surprising that words denoting such states have an explanatory function in our language. With that in mind, it’s worth noting that we often cite looks, appearances, and seemings in explanations of belief acquisition. This suggests that SSB (or something very much like it) is implicit in our pre-theoretic explanatory practices.

Second, SSB explains false belief acquisition in a way that doesn’t necessarily impugn that rationality of those holding false beliefs. For example, suppose Cindy holds the false belief that there is a cat on the desk. Furthermore, suppose she believes this because it seems to her that there is a cat on the desk. Obviously, in this case, the seeming state in question is misleading. Nevertheless, on the assumption that Cindy is unaware of this fact, we’re not prepared to judge that she is (or has been) irrational. SSB explains why: some kind of cognitive malfunction yields a misleading seeming state which, in turn, yields a false belief. Assuming that it is rational to

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72To clarify, my view is that the experiential states we’ve discussed in previous chapters just are seemings with phenomenal properties.

73I acknowledge that the models for belief acquisition developed in cognitive science will be significantly more sophisticated and thus, perhaps, quite a bit better than SSB. Even so, common sense psychology provides a plausible initial model for the phenomena in question.
believe that things are as they seem, we thus can explain how she has come to hold a false belief without having made any errors of judgment.

Third, SSB has the resources to explain many cases in which we are *inclined to believe* without acquiring *outright* belief. Suppose that it seems to Steve that there is a squirrel on the desk. As a result, he is inclined to believe it. Nevertheless, since he thinks that he may have recently consumed a hallucinogen, he doesn’t, as it were, act on his inclination and thus doesn’t form the belief that there is a squirrel on the desk. In this case, the ordinary link between seeming and believing is broken by countervailing considerations. Nevertheless, the seeming state still generates the *inclination* to believe. This is because it continues to represent the world as being a certain way, despite the fact that Steve is actively withholding belief.

### 6.2.3 An Argument from Introspection

When I introspect, I find that I have many non-doxastic mental states that represent the world as being a certain way. The states in question are just those that I wish to call seeming states. Furthermore, there are many cases in which, were someone asks me to explain why I believe that \( p \), I would appeal to a seeming state. For this reason, my introspective evidence favors SSB over (admittedly simpler) models of belief acquisition that move directly from cognitive inputs to beliefs.

Suppose, for instance, that you ask me to explain why I believe that there is a cat on the desk. My default response will be to cite how things look, appear, or seem; that is, I’ll explain my belief by saying that by saying that to me, it looks like that there is a cat on the desk (i.e., that it seems to me that there is a cat on the desk). I *won’t* explain my belief by saying that am having \( \phi \)-ish sensation, \( \psi \)-ish sensations, or anything to that effect. Moreover, if you were in my position,
you wouldn’t either. In fact, as a general rule, we don’t (in ordinary conversational contexts) explain our own beliefs by citing pre-cognitive stages of sensations (or other seeming-inputs). Rather, we cite states that have quite a bit more cognitive content. On a model of belief acquisition according to which the mediate explanation of many perceptual beliefs is something other than sensation, this makes good sense. Likewise, the best explanation of this introspective evidence is that there are introspectively accessible states that lies between seeming-inputs and doxastic outputs.

6.3 A Characterization of Seeming States

The claim that seeming states have epistemic value is a key plank in the rationalist platform we are developing. In order to adequately defend this claim, we’ll need a clear characterization of seeming states. This section will contribute to that end by providing an overview of the characteristic features of seeming states.

6.3.1 Assertive Propositional Content

Epistemic discourse is rife with statements about how things seem or appear. In many of these statements, “seems” is used to express mental states with propositional content rather than to generate pragmatic effects. For instance, when our interlocutor says “it seems that the cat is on the desk,” he is expressing a mental state that takes the proposition the cat is on the desk as its content. This distinguishes seemings from mere sensations, such as tickles or tastes, which do not have propositional content.\(^7^4\)

\(^7^4\)I acknowledge that some philosophers may disagree. For instance, Klein (2007), argues that pain states have imperatival content, which, on some views, may count as a kind of (non-assertively represented) propositional...
In addition, the propositional content of seeming states is presented assertively, i.e., it aims to accurately represent the world. This distinguishes seemings from many other kinds of contentful mental states, such as wonderings, wishings, and worryings. States of the latter sort do not aim for representational success.

When seemings are successful, they are perceivings. For instance, if (a) it visually seems to $S$ that the cat is on the desk, (b) the cat is, indeed, on the desk, and (c) all other success conditions on perception are met, then $S$ perceives that the cat is on the desk. Since space is limited, I will not attempt to identify the conditions packed into (c). For present purposes, it is sufficient to recognize that $p$’s seeming to $S$ to be the case is a necessary but not sufficient condition for $S$’s perceiving that $p$.

### 6.3.2 Sui Generis

Like seemings, beliefs also have assertive propositional content. For that reason, some philosophers, perhaps in thrall to prescriptions of parsimony, have suggested that seeming states can be reductively characterized in terms of belief states. Cullison (2010), for instance, considers (though does not endorse) an account of seemings according to which:

\[(6) \quad \text{It seems to } S \text{ that } p \iff S \text{ believes that } p.\]

Here is one clear and compelling counterexample to (6): while it seems to me that the two lines of the Muller-Lyre diagram are different lengths, I do not believe it.\(^{75}\) Furthermore, I do not believe it to any degree. Thus, we can’t generate a reductive account of seemings by revising the right side of (6) to read “$S$ believes that $p$ to some degree.”

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*Content. Although I cannot engage the issue here, I should register my skepticism about the proposal that imperative content is propositional.*

\(^{75}\)*This point is made by Bealer (1999) and Huemer (2001).*
A further differentiating feature has not been noted in the literature. Beliefs can be used to generate a version of Moore’s paradox while seemings cannot. Consider the difference between the following statements:

(7) I believe that the stick is bent, but it’s not.

(8) To me, the stick looks bent, but it's not (i.e., it seems to me that the stick is bent, but it's not.)

To assert (7) would be absurd, even though the proposition it expresses could very well be true: that is, it could be true that (a) \( S \) believes that \( p \) and (b) \( p \) is false. There is a considerable literature devoted to the task of explaining why this is so. I won’t venture into it here. My aim is only to note that there is nothing at all absurd about asserting (8). This provides further evidence that there can be seemings absent belief.

Sosa (2007) proposes that seemings are inclinations to believe rather than actual belief states. Huemer (2007, p. 31) points out that there are at least three problems with this proposal. First, there appear to be instances in which it seems to \( S \) that \( p \) even though \( S \) is not even slightly inclined to believe that \( p \). In my own case, for instance, I’ve seen and thought about the Muller-Lyre illusion so much that I am not even minimally or momentarily inclined to believe that one line is longer than the other. Despite this, whenever I view a standard Muller-Lyre diagram, one of the lines looks longer than the other. Thus, it seems to me that one line is longer than the other. Indeed, this explains why I can plausibly assert that “it seems to me that one line is longer than the other, but it’s not.”

\(^{76}\) Several similar points are made by Tolhurst (1998).

\(^{77}\) Some readers may wonder whether seemings that are justifiably believed to be misleading ever yield inclinations to believe. I think that they can yield such inclinations but usually do not. Whether they do is largely determined by the how much evidence one has for thinking that the seeming is misleading and how well habituated one is to resisting belief formation in the relevant circumstances.
Second, there are cases where I am inclined to believe a proposition that has not been assertively presented to me. For instance, I am presently inclined to believe, perhaps in virtue of wishful thinking, that I don’t presently have any cavities. But it doesn’t *seem* to me that I don’t have any cavities. Similarly, I have often found myself inclined to believe that my favorite baseball team will win a particular game, even though I am not consciously aware of any seeming states that would support such a belief.

In addition, certain kinds of character traits appear to yield inclinations to believe that aren’t associated with occurrent seeming states. To see this, suppose that Peter is a very friendly person. Suppose, further, that Peter doesn’t have any outright beliefs about the people he will meet at an upcoming conference. Still, it is highly plausible that, given his friendliness, Peter presently has the inclination to believe that the other conference participants are people he should get to know. It is not nearly as plausible to say that it *seems* to Peter that he should get to know the other conference participants. Indeed, he may not yet have given the matter any consideration.

Third, if, as argued above, seeming states figure in the explanation of some inclinations to believe, then they can’t very well be *reduced to* inclinations to believe.\(^{78}\) Other than belief states, however, seemings appear, given what’s available to introspection, to be the only other kind of mental state with assertive propositional content.\(^{79}\) Thus, since they cannot be reduced to or defined in terms of belief, it is plausible to conclude, with Bealer (2000) and Cullison (2010), that seemings are *sui generis.*

\(^{78}\)Again, this idea should be credited to Tolhurst (1998). It is also found in Huemer (2007), Cullison (2010), and Tucker (2011), among others.

\(^{79}\)The other kinds of mental states either don’t have *assertive* propositional content (e.g., desires and hopes) or don’t have propositional content at all (e.g., brute sensations like pains and itches and, perhaps, certain kinds of emotional states). Note, too, that the restriction to what can be introspected is motivated by my general commitment to access internalism.
Of course, we haven’t yet ruled out the possibility that “seems” and its cognates can be used to report beliefs (rather than just to express them with a pragmatic spin, as we discussed earlier). The intuitive distinction between expressing and reporting can be grasped by reflection on the following pair of sentences:

(9) I believe that the cat is orange.

(10) The cat is orange.

When I utter (9) I am reporting the fact that I hold a particular belief. When I utter (10), however, I am merely expressing a particular belief that I hold. If, however, seems-talk can be used to report beliefs, then there are cases in which (6) is trivially true. This is because, in such cases, “seems” and “believes” are functionally synonymous. Thus, the question before us is whether we can substitute “It seems to me” for “I believe” in (9) and still use the sentence to report a belief.

In fact, our linguistic evidence suggests that “seems” and its cognates cannot be used to report belief states. To see this, assume the opposite. This generates a prediction: in cases where $S$ believes that $p$ but it does not seem to $S$ that $p$, we can still report $S$’s belief using seems talk. To be clear, the cases in question are those in which, for instance, $S$’s belief that $p$ is based on, say, wishful thinking or testimony rather than how things seem. Since first-person cases are difficult to disambiguate—after all, there are first-person cases where “seems” is used to put a pragmatic spin on belief expressions—we’ll stick with third-person cases.

With that in mind, suppose Walter believes that my cat is orange because he desperately wants it to be orange (perhaps because he stands to win a large sum of money if my cat is discovered to be orange). In this situation, Walter’s belief is caused by wishful thinking and, ex hypothesi, is not accompanied by a seeming state with the relevant content. Suppose, then, that I use the following sentence to report it:
(11) It seems to Walter that the cat is orange.

Alternatively, suppose Walter believes that my cat is orange because I told him so. In this situation, his belief results from my testimony and, *ex hypothesi*, is not accompanied by a seeming state with the relevant content. Now suppose I use the following sentence to report his belief:

(12) The cat looks orange to Walter because I told him so.

Given what we known about each situation, neither (11) nor (12) *successfully* reports a belief. In fact, it is far from clear what exactly these sentences *are* reporting vis-à-vis Walter’s mental states.

Since we can multiply cases accordingly, we thus have reason to doubt that seems-talk can be used to effectively report beliefs. I will thus assume, going forward, that seems talk cannot be used to report beliefs even if it can be used to express them, with pragmatic spin, in first-person sentences such as (1) and (2). Note, also, that, since, as we can now see, (6) generates a dubious linguistic prediction—namely, that we can use seems-talk to report beliefs—we have an additional reason to reject the view that seemings are beliefs.

### 6.3.3 Felt Veracity

Seeming states have a distinctive phenomenology. William Tolhurst (1998 p.298-299) characterizes it as “felt veridicality,” writing that:

seemings have the feel of truth, the feel of a state whose content reveals how things really are…which typically leads one to experience believing that things are as they seem as an objectively fitting or proper response to the seeming…Because seemings have the feel of being grounded in and revelatory of their objects, we apprehend the formation of the corresponding belief to be epistemically proper or appropriate and hence take belief to be called for in response to these experiences.

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Although I think that seemings have the property of felt-veracity I do not want to say that a state which lacks this property *cannot* be a seeming. I think the claims that I advance below—that there are phenomenal properties that attach to mental acts qua acts, that felt veracity is such a property, and that felt veracity is characteristic of seeming states—are significantly more controversial than the claim that seemings exist. For that reason, I should like to suggest that the claims advanced below are largely independent of the central claims of this chapter and the next.
Similarly, Chris Tucker (2011, p.4), claims that “the phenomenology of a seeming makes it feel as though the seeming is “recommending” its propositional content as true or “assuring” us of the content’s truth.”

In a slight deviation from Tolhurst, I call the phenomenal property in question felt veracity. One way to make the notion of felt veracity more vivid is by contrasting seemings with other kinds of mental states that, ex hypothesi, do not have this property. To that end, consider the difference between visually imagining that the cat is on the sofa and having it visually seem to you that the cat is on the sofa. While these states both have the same content, we can easily tell that they are distinct kinds of states in virtue of their different phenomenological properties. No one ever confuses a visual imagining (or, for that matter, a hoping, anticipating, or wondering) for a seeming. This is because seemings, as Tucker puts it, “recommend” their contents in a way that the other mental states in question do not.

To be clear, the property of felt veracity, as I understand it, attaches to seeming states qua mental acts. Thus, it is virtually never part of the phenomenal content of individual seeming states. This claim rests, of course, on the contention that there are phenomenal properties that attach to mental states not as part of their content but as part of the states themselves. This, in turn, rests on a general distinction between mental acts and their contents which traces back at least to Husserl and, through him, to Brentano.\footnote{For more on the act/content distinction in Husserl and Brentano see Smith and MacIntyre (1982, pp. 109-114)} Although I haven’t the space to fully defend the claim that mental acts have phenomenal properties qua acts, I can briefly point to some evidence in its favor. First, we often speak of what it is like to manifest or to enjoy mental states of kind $k$. Second, we have the capacity to introspectively distinguish mental states with the same contents. If, indeed, these
states have phenomenal properties apart from their contents we can appeal to our recognition of these properties to explain how we make the aforementioned introspective distinctions.

6.3.4 Evaluative Unrevisability

The final feature of seeming states that warrants comment is their **evaluative unrevisability**. To see this, suppose you have a certain kind of auditory experience. As a result, it seems to you that the cat is on the porch. I contend that you are a patient with respect to this seeming: there’s nothing you can do to prevent it and, more importantly, there’s nothing you can do to adjust or revise it. If you find yourself with reasons to conclude that it portrays the world inaccurately, you can (and should) revise your beliefs accordingly. Nevertheless, even if you are *certain* that you are, say, presently hallucinating, it will nevertheless *seem to you* that there is a cat on the porch. To put the point another way, even if you are sure that a cognitive misfire has given rise to the seeming that \( p \), it still *seems to you* that \( p \). Thus, as Huemer (2001, p. 97) puts it “evaluations of [seemings] have no effect on those [seemings].”

6.3.5 Summary

We have characterized seemings as (a) *sui generis* mental states with (b) assertive propositional content and (c) felt veracity that (d) are immune to revision in light of evaluation. We have noted that, although they can misrepresent the world, seeming states feature in many familiar kinds of explanations of why we believe (or are inclined to believe) and perceive as we

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82It is important to note that we don’t need to assume doxastic voluntarism to make sense of the idea that beliefs are revisable in response to evaluations. Even if you have no direct control over what you believe, evaluations of your beliefs and belief forming practices can play a role in determining what your future beliefs will be. By contrast, seemings are wholly resistant to such evaluations.
do. Yet, thus far we’ve considered only experiential seemings. In the next section, I will argue that some seemings are intellectual rather than experiential.

### 6.4 Intellectual Seemings

In section 6.2, I used three arguments—an argument from ordinary discourse, an explanatory argument, and an argument from introspection—to support the general thesis that there are seeming states. These same kinds of arguments can be used to support the more specific thesis that a sub-set of these seemings are expressly intellectual in character. To see this, let’s considering a case where seeming and belief come apart.

Suppose, then, that you become convinced, by argument or counterexample, that *Modus Ponens* is not a valid inference form.\(^{83}\) Won’t you nevertheless *be inclined to believe* that it’s a valid inference form? Won’t you need to train yourself to avoid being misled by arguments that employ *Modus Ponens*? If so, all of this needs explanation. The explanation that naturally suggests itself is that *Modus Ponens* still *seems* to you to be valid. Furthermore, introspection is likely to confirm this explanation. Despite your disbelief, I suspect you’ll find that when you consider an example of *Modus Ponens*, it will still seem to you to be valid. This point gains further support when we consider the language people sometimes use to express their attitudes about inference patterns and/or rules. In this case, for instance, it would be wholly unsurprising if you were to say, “I don’t think *Modus Ponens* is a valid inference rule, but it sure *seems* to be.”

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\(^{83}\)Seminal attacks on the validity of *Modus Ponens* can be found in McGee (1985) and Lycan (2001).
Of course, seeming states that take inference rules as their objects do not, ordinarily, have phenomenal content. Thus, it appears that there are seeming states that are not experiential states.\textsuperscript{84}

Further support for this conclusion can be marshalled by considering additional examples:

(13) Every natural number has a successor.

(14) Every meaningful predicate determines a set.

(15) There are no true contradictions.

(16) If \( x = y \) and \( y = z \), then \( x = z \).

The propositions expressed by (13)-(16) will seem true to anyone who understands them. Yet, as with the Modus Ponens case, the seemings in question do not have phenomenal content.

Reflection on (14) is particularly instructive. This sentence expresses the naïve principle of comprehension. Although I know that it generates a paradox, the principle nevertheless seems to me to be true. George Bealer (1999) reports having the same experience. I expect that the reader will as well. This suggests that, as with experiential seemings, the intellectual state that results

\textsuperscript{84}I have claimed that all seemings—intellectual and experiential—have the phenomenal property of felt veracity, but that this property attaches to seemings \textit{qua} mental acts rather than making up part of their content. This act/content distinction undergirds the conclusion that intellectual seemings are not experiences, even though they possess the property of felt veracity. Since some readers may be skeptical of the act/content distinction, it’s worth considering how the classificatory scheme would have to be modified if that distinction broke down. Absent such a distinction, we’d have to say that possession of phenomenal properties \textit{as such} determines whether or not a mental state is an experience. From this it would follow that all seemings—given their felt veracity—are experiences. This could raise a concern, however, about how to distinguish intellectual and experiential seemings (or perhaps whether there is a viable distinction in the neighborhood). I think this concern can be handled by recognizing that there are two different distinctions in play here:

(A): The distinction between states that are experiential and those that are not.

(B): The distinction between seemings that are intellectual and those that are not.

If it were to turn out that all seemings are experiential states, we could avoid any confusion by using a term other than “experience” to pick out non-intellectual seemings. Moreover, we’d still have several strong reasons to make the distinction between these two kinds of seemings. For instance, seemings with contents like \textit{the cat is on the desk} are, ordinarily, the causal product of various kinds of sensations. By contrast, seemings with contents like \textit{every natural number has a successor} do not appear to be the causal product of any sensations. Thus, we can, perhaps, distinguish the two different kinds of seemings by virtue of their functional relation to sensation. Intellectual seemings have no such relation. Their counterparts do.
from considering this proposition is not revisable in response to evaluation. This provides us with additional grounds for distinguishing intellectual seemings from their experiential counterparts.85

These intellectual seemings play a pivotal role in the forthcoming defense of rationalism. I argue, in Chapter 7, that they are the fundamental source of a priori justification. In order to lay the groundwork for that argument, however, we must first explain and secure the justificatory powers of seeming states in general. For the remainder of this chapter we shall focus on that goal.

6.5 **Phenomenal Conservatism**

In the previous sections, I argued (a) that seemings are evaluatively unrevisable *sui generis* mental states with propositional content and felt veracity and (b) that the class of seemings can be partitioned into experiential and intellectual subclasses. In this section, I defend Michael Huemer’s (2001, 2007) principle of *phenomenal conservatism*, which says that seeming states are the fundamental source of non-doxastic epistemic justification. My defense proceeds by three steps. First, I re-introduce and clarify the principle of phenomenal conservatism (*PC*). Second, I present six arguments in favor of *PC*. Third, I review and respond to three important objections to *PC*. This survey of arguments, objections, and replies is not meant to be exhaustive. Instead, it’s meant to persuade the reader that the model for rationalism developed in the Chapter 7 (and based on *PC*) rests on a firm evidential foundation.

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85Note that although intellectual seemings do not have phenomenal content, it does not follow that they lack felt veracity. The latter property, you will recall, attaches the mental acts *qua acts* rather than to their contents. To motivate the idea that there is something that it’s like to have an intellectual seeming, just consider the kinds of “aha” episodes one has in the course of learning logic or mathematics. Although there is something that it’s like to have these episodes, they pretty clearly lack phenomenal content.
6.5.1 **Phenomenal Conservatism Explained**

Phenomenal conservatism is a general principle of epistemic justification. As noted in Chapter 1, its most precise formulation comes from Michael Huemer (2007, p.30):

\[(\text{PC}): \text{If it seems to } S \text{ that } p, \text{ then, in the absence of defeaters, } S \text{ thereby has at least some degree of justification for believing that } p.\]

Four important features of \textbf{PC} merit discussion. First, it includes a no-defeater condition. Second, the justification it yields can be rather weak. Third, it is consistent with justificatory internalism. Fourth, it entails that one of foundationalism’s two subsidiary theses is true. I will discuss each of these features in turn.

We’ll begin with the no-defeater condition. This condition is included in the standard formulation of \textbf{PC} in order to recognize that seeming states do not provide incorrigible justification. Instead, the justification they provide is always conditional. That is, it can be lost when and if a seeming is subject to defeaters (which, for our purposes, must be within the subject’s cognitive reach). Some seeming states are subject to rebutting defeaters, which provide reason to think that the content of the seeming is false. Other seemings states are subject to undercutting defeaters, which provide reason to think that the state in question has not been reliably formed. To appreciate the difference, let’s consider a couple of cases.

First, suppose that it visually seems to Steve that there is person standing on his neighbor’s roof. His wife then tells him that she saw the neighbor putting a mannequin on the roof just moments ago. In this case, the seeming in question has been *rebutted*, since Steve now has a good reason to believe that its content is false. Second, suppose that it visually seems to Sally that the ball in the corner is red. She then discovers that it is being illuminated by a red light. In this case, the seeming in question has been *undercut*, since Sally now has a reason to strongly doubt that it
is a reliable source of information about the color of the ball. What is common to both of these scenarios is that the seeming states in question are stripped of their justificatory force by other pieces of evidence.

Let’s now consider the degree of justification that seemings provide. In earlier work (2001), Huemer defended a stronger version of PC according to which, absent defeaters, if it seems to $S$ that $p$, then $S$ is *prima facie* justified in believing that $p$. The problem with the strong version of PC is that it infelicitously assumes a kind of epistemic egalitarianism with respect to seemings, viz., that *any* seeming that $p$ makes it such that one *ought*, absent defeaters, to believe that $p$.

Yet, our experience suggests that not all seemings are created equally: some are forceful and clear while others are weak and opaque. For instance, suppose, as the result of smelling a faint odor, it weakly seems to you that there is something cooking. In this case, the seeming in question doesn’t make it such that you ought to believe that there is something cooking. That is, it fails to provide the degree of justification needed to render your belief justified outright.

Nevertheless, the seeming in question does provide *some degree* of justification. To see this, suppose that right after your olfactory seeming you experience a similarly weak auditory seeming as of an oven timer going off. By hypothesis, neither seeming is individually sufficient to justify the belief that there is something cooking. Yet, together these seemings *do* make it such that you ought to believe that there is something cooking. That suggests each has some degree of individual justificatory force.

In Chapter 1, we assumed a version of access internalism according to which epistemic justification supervenes only on cognitively accessible mental states. Since phenomenal conservatism identifies *seemings* as the source of foundational epistemic justification, it is consistent with access internalism. This is because seeming states are, by their very nature,
cognitively accessible internal states. To appreciate this point, consider how absurd it would be to make a statement like: “It seems to Jill that there is a cat on the desk, but she is unaware of it.” To attribute a seeming just is to attribute a kind of awareness.

Foundationalism is the view that (a) some justified beliefs are basic, i.e., they can be justified without appeal to any other doxastic states and (b) non-basic justified beliefs are justified only insofar as they stand in a justification-conferring relation to basic beliefs. Since seeming states are not doxastic states, any beliefs that are justified only by seeming states are basic. Thus, since phenomenal conservatism credits seeming states with justificatory powers, it satisfies (a) and, indeed, does so in a way that yields a specific version of foundationalism which takes immediate justification to be provided by non-doxastic states. Because it cannot satisfy (b) without supplementation, it is not, strictly speaking, a version of foundationalism. Nevertheless, it provides an account of non-doxastic justification upon which a mature foundationalist theory can be built.

6.5.2 The Argument from Covariance

In what follows, I will present six arguments for phenomenal conservatism. Given my commitment to particularism, it is only natural that I should begin with an argument that treats judgments about specific cases as evidence. This argument goes as follows:

(17) There are many cases in which we judge that the verific attitude S ought to adopt towards p is determined by the way things seem to S with respect to p.

(18) Phenomenal conservatism provides the best explanation of our judgments about these cases.

(19) Thus, phenomenal conservatism is probably true.

Of course, to motivate the first premise we’ll need to reflectively attend to some of the relevant cases.
First, suppose that it seems to Jane that there is a light on in the house across the street. She has no reason to believe that she is hallucinating or otherwise deceived. At the same time, she has no positive argument by means of which she might demonstrate the reliability of this particular appearance (or, indeed, of visual appearances in general). Should she affirm, deny, or suspend judgment with respect to the content of the seeming? It seems clear that Jane ought to adopt the attitude of belief. What reason could she give for doing otherwise? If no such reasons are available, then adopting an alternative attitude would be wholly arbitrary. By contrast she appears to have a positive reason to believe that there is a light on in the house across the street; namely, that she is in a seeming state that presents the world as being that way.

Second, suppose that Jeremy has missed a day of logic class. Jamie, his classmate presents him with the day’s notes, which contain a completeness proof for first order logic. The proof is successful. It is both valid and sound. Nevertheless, when he gets to a certain step, it seems to Jeremy that it doesn't follow from the previous ones. He wonders whether or not Jamie copied it down correctly. Now, assuming there’s no expert testimony for him to appeal to, should he affirm, deny, or suspend judgment about the validity of the proof? Unless he undergoes a change in intellectual vision or acquires additional evidence, it certainly appears that Jeremy should deny the validity of the proof. After all, it *seems* invalid!

Third, suppose Ivan is reading an op-ed in *The Daily Evidentialist*. It opens with the following statement: “*It is wrong always, everywhere, and for anyone to believe anything upon insufficient evidence.*”86 Upon consideration, Ivan isn’t sure what to make of the proposition expressed by this statement. It doesn’t seem to him to be true *or* false. Moreover, he has no

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86The quotation is, of course, from W.K. Clifford (1877 [2003], p.518).
independent evidence for or against it. Should he affirm it, deny it, or suspend judgment? In light of his present intellectual state, one suspects that Ivan really ought to suspend judgment.

The above cases suggest that the presence or absence of seeming states has a direct effect on the propriety of our verific attitudes. The principle of phenomenal conservatism provides the best explanation of the data marshalled there. Although \textit{PC} is typically presented as a principle governing belief, it can be used to generate corresponding principles for the other verific attitudes. The upshot is that \textit{PC}, together with several plausible auxiliary assumptions, can provide us with principles for each verific attitude. These principles provide straightforward explanations of our judgments with respect to the cases above.

To see this, let’s begin with disbelief. Given the exceedingly plausible auxiliary assumption that to disbelieve that $p$ is to believe that $\neg p$, we can use \textit{PC} to generate the following principle for disbelief:

\begin{itemize}
  \item \textbf{(DB)}: If it seems to $S$ that $\neg p$, then, in the absence of defeaters, $S$ thereby has at least some degree of justification for disbelieving that $p$.
\end{itemize}

\textbf{DB} clearly explains why, in the mathematical proof case, Jeremy is justified in disbelieving that the proof in question is valid.

Since, according to phenomenal conservatism, the only sources of justification are seemings and rational inferences, \textit{PC} entails the following principle:

\begin{itemize}
  \item \textbf{(Limit)}: If it does not seem to $S$ that $p$, and $p$ cannot be reasonably inferred from any of $S$’s beliefs that are justified to some degree, then $S$ is not justified in believing that $p$ to any degree.
\end{itemize}

Now, \textbf{Limit}, together with the assumption that to disbelieve that $p$ is to believe that $\neg p$, can be used to generate a complementary principle:
(Limit\(^*\)): If it does not seem to \(S\) that \(\neg p\), and \(\neg p\) cannot be reasonably inferred from any of \(S\)'s beliefs that are justified to some degree, then \(S\) is not justified in disbelieving that \(p\) to any degree.

These two principles—Limit and Limit\(^*\)—together with the very plausible auxiliary assumption that withholding is justified just when one is not justified in believing or in disbelieving that \(p\), can be used to generate a principle for withholding:

(\(\text{WH}\)): If it does not seem to \(S\) that \(p\), it does not seem to \(S\) that \(\neg p\), and neither \(p\) nor \(\neg p\) can be reasonably inferred from any of \(S\)'s beliefs that are justified to some degree, then \(S\) is justified in withholding judgment with respect to \(p\).

\(\text{WH}\) provides a clear explanation of why we think, in the evidentialism case above, Ivan ought to withhold judgment.

We have now seen that \(\text{PC}\)—together with subsidiary principles that follow from it—can explain our judgments about the cases presented above. In fact, on the assumption that these judgments are not radically mistaken, \(\text{PC}\) appears to provide the best explanation available. The cases in question all suggest that seemings directly inform the propriety of our verific attitudes. Since \(\text{PC}\) is, to my knowledge, the only epistemic principle that treats seemings as a primary source of justification, it’s difficult to envision non-error-theoretic alternative explanations of these cases. For that reason, we should endorse phenomenal conservatism

6.5.3 The Common Sense Argument

Some propositions—such as (a) \textit{there are many different kinds of animals on the earth} and (b) \textit{babies are smaller than adults}—have common doxastic currency. Nearly everyone believes them and, more to the point, nearly everyone appears to be justified in believing them. Indeed, the beliefs that range over such propositions are \textit{paradigm cases} of justified belief. Common sense epistemology, with which we aligned in Chapter 1, is committed to the position that our paradigm
cases place a particularist explanatory constraint on our general epistemic principles. To be exact, such principles must explain the positive justificatory status of (most) paradigmatically justified beliefs and do so in a way that excludes paradigmatically unjustified beliefs.

The principle of phenomenal conservatism satisfies the particularist explanatory constraint that is central to common sense epistemology. Thus, we have an additional reason to endorse it. This line of thought is captured by way of the following argument:

(20) If a general principle of epistemic justification explains the positive justificatory status of most paradigm justified beliefs, then it is viable.

(21) Phenomenal Conservatism explains the positive justificatory status of most paradigm justified belief.

(22) Thus phenomenal conservatism is viable.

The first premise of this argument is simply a statement of the constraint discussed above. Its support comes from the arguments for particularism presented in Chapter 1.

The second premise tells us that phenomenal conservatism can explain the positive epistemic status of paradigm justified beliefs. The explanation it gives is straightforward. The contents of most paradigmatically justified beliefs seem true to almost everyone. Thus, almost everyone is justified in believing them, absent defeaters, at least to some degree. Of course, this conclusion is relatively weak. It does not demonstrate that phenomenal conservatism has a unique advantage over competing theories of justification, i.e., it doesn’t demonstrate that phenomenal conservatism is the only theory that can satisfy the relevant constraint. Still, it does demonstrate that phenomenal conservatism succeeds where some competitor theories fail. This is why the argument concludes that $\text{PC}$ is viable rather than true outright.\textsuperscript{87}

\textsuperscript{87}The reader may wonder whether or not the common sense argument is sufficiently distinct from the earlier covariance argument. I submit that it is. In the covariance argument, our data consists of judgments about whether or not particular beliefs are justified \textit{in a given situation}. The beliefs themselves are not ones that we should expect
6.5.4 The Argument from Internalism

The considerations that motivate the common sense argument also bear upon a challenge to access internalism raised in Chapter 1. It is presented by BonJour (2010, p. 208) as follows: “if [accessibilism] is correct, only at best a few epistemologists and students of epistemology will have access to good reasons for the vast majority of beliefs that common sense regards as justified.” This challenge trades on the assumption that good epistemic reasons can be obtained only after one grasps sophisticated epistemological arguments. Since most people have never grasped these arguments (given their lack of familiarity with the literature in epistemology), they do not have cognitive access to the reasons needed to justify their common sense beliefs. This is problematic, of course, because we readily attribute justified common sense beliefs to epistemologically unsophisticated people.

Phenomenal conservatism undercuts an assumption that motivates this challenge. Since seemings are cognitively accessible states that provide epistemic justification, it follows that S does not need to grasp any sort of complicated argument in order to acquire a cognitively accessible justification for the belief that p. For instance, Grandma, who is, ex hypothesi, an epistemologically unsophisticated person, can nevertheless be justified in believing that her cat is on the desk in virtue of the fact that it seems so to her. Thus, rather than forcing us to choose between access internalism and common sense epistemology (as BonJour suggests we must do), PC allows us to affirm both. For this reason, PC has an advantage over those accessibilist theories of justification that force such a choice. Since we have independent reasons to endorse access internalism (as discussed in Chapter 1), these considerations provide further support for PC.

any old person to justifiably hold. Thus, they are not paradigm cases of knowledge or justified belief. In the common sense argument, by contrast, our data consists of judgments about beliefs that virtually everyone can be expected to justifiably hold.
6.5.5 **The Argument from Simplicity and Generality**

A fourth argument for phenomenal conservatism appeals to the explanatory virtues of simplicity and generality.\(^{88}\) The basic idea here is that we should prefer theories that explain a lot with a little. Since phenomenal conservatism is very simple and very general, it is theoretically virtuous. Here is a syllogistic statement of this argument:

1. Simplicity and generality are the central theoretical virtues.
2. Phenomenal Conservatism is simple and general.
3. Therefore, PC is theoretically virtuous.

I take it for granted, as should anyone who accepts the legitimacy of abductive inference, that simplicity and generality are theoretical virtues. In support of their centrality, I appeal to Quine and Ullian (1978, p. 75), who note that “when a way is seen of gaining great generality with little loss of simplicity, or great simplicity with no loss of generality, then [other theoretical virtues] give way to scientific revolution.” Their point is that even immodest, radical, and not so easily testable theories—natural selection, for instance—gain traction when they promise to explain a lot with a little. This suggests, then, that simplicity and generality can, to some degree, override the other theoretical virtues.

Let’s now turn to premise (24). We can support the attribution of simplicity to PC by noting that it proposes only two conditions on epistemic justification. First, an epistemic subject must be presented with a seeming state of the relevant sort. Second, the subject in question must not be in possession of any defeaters. As we’ve seen above, both of these conditions can be explicated in a direct and uncomplicated way. Although it can take a bit of work to draw attention to them,

\(^{88}\)Huemer (2013) also argues for PC on the basis of its simplicity and generality.
seeming states are *sui generis*. Defeaters are states (typically beliefs) that strip the justificatory force from seemings (or beliefs). Few competing principles are as ontologically economical and explanatorily straightforward.

To see this, let’s contrast phenomenal conservatism with a small sampling of epistemic principles endorsed in the current literature:

**Fantl & McGrath:** If you are justified in believing that *p*, then *p* is warranted enough to justify you in φ-ing, for any φ.\(^{89}\)

**Alston:** A subject *S* is epistemically justified in holding a belief *B* at *t* if and only if (a) *S* bases *B* at *t* on propositional or non-propositional grounds of type *G*, and (b) the doxastic practice of holding beliefs of that kind on the basis of grounds type *G* is reliable.\(^{90}\)

**Wykstra:** On the basis of cognized situation *s*, human *H* is entitled to claim “it appears that *p*” only if it is reasonable for *H* to believe that, given her cognitive faculties and the use she had made of them, if *p* were not the case, *S* would likely be different than it is in some way discernible by her.\(^{91}\)

**Goldman:** If *S*’s belief in *p* at *t* results from a reliable cognitive process, and there is no reliable or conditionally reliable process available to *S* which, had it been used by *S* in addition to the process actually used, would have resulted in *S*’s not believing *p* at *t*, then *S*’s belief in *p* at *t* is justified.\(^{92}\)

Now, I don’t have a standard of simplicity against which to assess these principles. Nor do I think there is a single standard by which to adjudicate theoretical simplicity. The virtue of simplicity clusters around distinct notions of conceptual, ontological, methodological, and descriptive parsimony. Nevertheless, each of the above principles strikes me as being significantly less parsimonious than phenomenal conservatism. This is largely because I take them to contain concepts—such as the concepts of “grounds,” “reliability,” “being entitled to claim,” “being

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\(^{89}\)Fantl and McGrath (2009, p.99).

\(^{90}\)This is a reconstruction of Alston’s (1991) theory presented by Christoph Jäger (2002, p.408).

\(^{91}\)Wykstra (1984, p. 85).

\(^{92}\)Goldman (1979, p. 20)
warranted enough to justify \(\varphi\)-ing,” and so forth—that cannot be explicited without introducing lengthy epicycles of new epistemic concepts that require further explication.\(^9\)

The generality of a theory is appraised by looking at the extent to which it can explain a diverse and numerically large array of phenomena. By this standard, phenomenal conservatism is very general. As Huemer points out (2011, p. 23), “one of the advantages of [phenomenal conservatism] is its ability to account for the sources of all epistemic justification—whether one is considering perceptual beliefs, intuitive beliefs, memory beliefs, or introspective beliefs—using a single, simple principle.”

The phenomenal conservative has a single explanation of how each purported source of epistemic justification yields justified beliefs. For any source of justification \(\psi\), \(\psi\) can generate a seeming that \(p\) which, absent defeaters, provides at least some justification for the belief that \(p\). For instance, memory justifies belief as follows: psychological event \(e\) yields a memorial seeming that \(p\) which, absent defeaters, provides some justification for the belief that \(p\). The same kind of treatment can be given to introspection, sense perception, rational insight, and even, perhaps, religious experience and moral perception. Thus, we have a firm basis to attribute the virtue of generality to the principle of phenomenal conservatism.

Nevertheless, we should note that, as with the argument from common sense, the argument from simplicity and generality is not offered as proof that phenomenal conservatism is true. Instead, it’s meant to demonstrate that the view satisfies an exceedingly plausible constraint on

\(^9\)For instance, in the case of Fantl and McGrath’s principle, it appears that we need a whole theory of practical justification to properly understand its consequent. Furthermore, here (p. 66) is how they spell out the notion of being warranted enough to justify you in \(\varphi\)-ing:“in saying that \(p\) is warranted enough to justify you, we are saying that no weaknesses in your epistemic position with respect to \(p\)—in your position along any truth relevant dimensions—stand in the way of \(p\) justifying you.” Notice the multiplication of concepts in need of further explication.
theory choice; namely, that our theories ought to be highly virtuous. The point, then, is its satisfaction of this constraint further increases the overall plausibility of phenomenal conservatism.

6.5.6 The Self-Defeat Argument

Huemer (2001, 2007, 2011) and Skene (2013) have argued that PC is true because the belief that phenomenal conservatism is false is self-defeating. A rough first rendition of the argument goes as follows. Anyone who rejects PC does so because it seems false to them. If PC is false, then seemings aren’t good epistemic reasons. Thus, anyone who rejects PC does so for a bad reason.

Here is a more rigorous presentation, adapted from Huemer (2011, p. 1):

(26) All our beliefs (in relevant cases) are ultimately based only upon [seemings].

(27) A belief is (doxastically) justified only if it is based upon an adequate source of (propositional) justification.

(28) Therefore, if [seemings] are not a source of (propositional) justification, then all our beliefs are (doxastically) unjustified, including the belief (if one has it) that [seemings] are not a source of justification.

Premise (26) is a descriptive psychological claim. Saying that $b$ is based on $\sigma$ is just another way of saying $b$ is caused by $\sigma$. Thus, the premise tells us that each members the relevant class of beliefs is the causal products of a seeming state. Huemer (2011, p. 12) defends this principle by appealing to our judgments about evil-demon cases.

Suppose things seem to $S$ exactly as they seem to $S^*$, diachronically and synchronically. $S$ is the victim of an evil-demon who has ensured that her cognitive and perceptual wires are crossed. As a result, all of her beliefs are false. $S^*$ is not deceived in this way; thus, many of her beliefs are true. Nevertheless, given that things appear the same to both them, one can’t help but conclude
that $S$ and $S^*$ will have exactly the same set of beliefs.\textsuperscript{94} This suggests that what we believe is, ordinarily, caused only by seeming states.\textsuperscript{95}

The exceptions to the rule are those beliefs that are caused by significant cognitive malfunction, self-deception, wishful thinking, and so forth. Such beliefs are irrational by default and thus are not even minimally plausible candidates for epistemic justification. This is why premise (26) limits the beliefs in question to those that are “relevant” to the topic of discussion. Once this qualification is suitably specified, the premise is extremely plausible.

Now, in order to properly understand and evaluate premise (27), we need to first get clear on Huemer’s distinction between propositional justification and doxastic justification. The belief that $p$ is propositionally justified for $S$ when $S$ has a good reason to believe that $p$. The belief that $p$ is doxastically justified for $S$ when $S$ believes that $p$ for a good reason.

This distinction is motivated by cases like the following. Suppose Terry believes that it will rain tomorrow. Suppose, further, that he has a good reason for this belief, viz., he has recently read a reliable news report that contained this information. Nevertheless, Terry believes it will rain tomorrow because he has seen a black cat walking sideways, which, due to some kind of cognitive failure, he thinks is highly indicative of forthcoming showers. In this situation, Terry’s belief is

\textsuperscript{94}Those who are sympathetic to content externalism—perhaps on the basis of arguments given by Putnam (1975) and Burge (1979)—may object to this example on the grounds that someone in a demon world simply cannot have the same set of beliefs as someone in the actual world. I do not have the space to adequately respond to this kind of objection, as such a response would require me weigh in on the fraught subject of narrow content. Nevertheless, I believe that Huemer’s evil-demon example can be re-cast so that both subjects occupy the same world and thus are embedded in the same kinds of environments. For instance, suppose $S$ and $S^*$ are twins and, given a certain kind of apparatus, all of $S$’s seemings are beamed directly into $S^*$’s brain. This kind of example would, I think, allay the content externalist’s concern.

\textsuperscript{95}Premise one can also be motivated by trying to consider relevant counterexamples, i.e., beliefs that aren’t irrational by default but caused by something other than how things seem. I submit that I have a difficult time imagining any such beliefs.
propositionally justified but not doxastically justified. Although he has a good reason to believe that it will rain tomorrow, he doesn’t believe this proposition for a good reason.

Propositional justification is a necessary condition on doxastic justification, since one cannot believe that $p$ for a good reason if one does not have a good reason to believe that $p$. It isn’t, however, sufficient for doxastic justification, since one can believe that $p$ for bad reasons even if good reasons are available to one. Thus, to be doxastically justified in believing that $p$, one must (a) be propositionally justified in believing that $p$ and (b) base the belief that $p$ on a state that provides adequate propositional justification for $p$.

Since (a) any belief that can be doxastically justified will ultimately be based on how things seem (assuming (26) is true) and (b) a belief is doxastically justified only if it is grounded in an adequate source of propositional justification, seeming states must be an adequate source of propositional justification if any beliefs are to be doxastically justified. This includes the belief that PC is false, since it too is based on how things seem to the opponents of phenomenal conservatism. Thus, if the belief that PC is false is to be doxastically justified for any $S$, it must be the case that seeming states are an adequate source of propositional justification. But the content of the belief denies that seemings states are an adequate source of justification. So the belief that PC is false cannot be doxastically justified.

Although I find the self-defeat argument convincing, it has not gone unchallenged in the recent literature (see, for instance, DePoe 2011). I will not attempt to address any challenges here. Once more I remind the reader that my aim is only to show that phenomenal conservatism is very plausible. I am not prepared to defend it against every possible objection. I think, at the very least, that the self-defeat argument succeeds in raising the overall plausibility of PC.
6.5.7 The Argument from Rationalism

Let’s consider one final argument for phenomenal conservatism. This argument assumes that there is a strong case for rationalism in order to generate a conclusion favorable to PC. It goes as follows:

(29) Rationalism is probably true.

(31) Phenomenal conservatism provides the best model for rationalist justification.

(31) Thus, phenomenal conservatism is probably true.

Premise one is strongly supported by the considerations adduced in Chapters 4 and 5. As noted there, we have strong \textit{prima facie} evidence that some beliefs are justified a priori and no plausible explanation of this evidence that is fully consistent with empiricism. The case for premise two, of course, has not yet been made. Thus, I offer a promissory note: by the end of the next chapter we’ll have good reason to think that PC offers the best model for rationalism. Since rationalism is an independently credible view, PC’s overall plausibility will increase if it can be shown that it can effectively explain rationalist (i.e., synthetic a priori) justification.

6.6 The Sellarsian Objection

BonJour (2004, p. 358) has argued that phenomenal conservatism fails to adequately explain the justificatory powers of seeming states. He writes:

[Seemings] have an assertive representational and indeed propositional content…but then we can surely ask quite intelligibly what reason or basis, if any, there is for thinking that the representational content in question is true or correct…and this just \textit{is} the question of whether the [seeming], or more specifically its representational content, is justified…

This critique is predicated on the Sellarsian dilemma. As we saw in Chapter 1, Sellarsians (of which, for our purposes, BonJour is one) contend that any state with (a) \textit{propositional} content that
(b) is assertively presented and thus (c) can, for all we know, be false (i.e., setting aside the evidence we have, it is epistemically possible that $p$ is false) is such that it can justify a belief only if it is itself justified. Since the states in question could be false, they argue that we need some independent reason to think their contents are likely to be true before we can appeal to them as a source of justification. Thus, Sellarsians hold that (a)-(c) are jointly sufficient to generate a demand for justification. Since seeming states meet conditions (a)-(c), BonJour thus argues that they are in need of justification, i.e., that we need independent reason to think their contents are likely to be true. If he’s correct, then seeming states cannot provide foundational non-doxastic justification.

The proper response to BonJour’s challenge is to reject the claim that underwrites it, viz., that (a)-(c) are jointly sufficient to generate a demand for justification. We laid the groundwork for this response in Chapter 1. There I argued that justification is required only when a further condition is met; namely, condition (d), which says that a state must figure (in the right way) in our justificatory language games in order to generate a demand for justification.

Since we regularly ask for and receive reasons for belief, it is clear that belief states meet condition (d). By contrast, we do not ask our interlocutors to justify claims about how things seem. Nor do we criticize such claims. This suggests, that seemings do not meet condition (d) and thus do not need to be justified in order to confer justification upon other kinds of mental states. Nevertheless, to placate the Sellarsian critic, we should say a bit more about why we don’t ask our interlocutors to justify their seemings.

As we noted earlier in the chapter, seeming states are evaluatively unrevisable, which suggest that they aren’t responsive to reasons. The principle aim of our justificatory language games, however, is to evaluate various mental states before the tribunal of reason. When we engage an interlocutor in this way, what we’re doing is testing whether or not, given the reasons available,
she ought or ought not to manifest (or maintain) a particular mental state. Since seeming states aren’t responsive to reasons, however, there’s no question of whether a person ought or ought not to, given the available reasons, manifest (or maintain) a particular seeming state.

This argument rests on the principle that *ought* implies *can*, i.e., “it ought to be that $S$ does $p$” entails “it is possible that $S$ does $p$.” Since we *cannot* revise our seemings in response to reasons, there’s no way to make sense out of the demand that we *ought* to revise them in response to reasons. As a result, our justificatory language games don’t take seemings as a target of evaluation. Although BonJour is right to point out that we often lack reasons to believe that our seemings are accurate, the claim that we must acquire such reasons for our seemings to carry justificatory force is unwarranted. Again, seemings are not the kind of states that require justification, despite the fact that they are able to confer justification.96

### 6.7 The Liberalism Objection

One unsettling implication of phenomenal conservatism is that it appears to count all kinds of *prima facie* disreputable beliefs—i.e., beliefs whose propositional contents are improbable, ridiculous, or highly contentious—as (at least partially) justified. This is because PC tells us that whenever $p$ seems to be true to $S$, he is justified in believing it (at least to some degree), even if $p$ is about politics, religion, or who belongs in the baseball hall of fame. A number of philosophers have argued, on this basis, that PC ought to be revised or rejected. Their charge is, ultimately, that PC is too liberal to be a sound justificatory principle.

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96Readers may wonder, however, whether there is an explanation that we, as philosophers, can give of the way seemings increase the likelihood of the beliefs they justify, even if they can justify absent anyone’s having such an explanation. I address this and some other issues related to the reliability and justificatory capacities of seemings in section 7.4.3.
Peter Markie (2005, p.357) raises the liberalism objection by asking us to reflect on the following case:

Suppose that I perceive the walnut tree in my yard, and, having learned to identify walnut trees visually, it seems to me that it is a walnut tree. The same phenomenological experience that makes it seem to me that the tree is a walnut also makes it seem to me that it was planted on April 24, 1914. According to \textit{PC}, both my belief that it is a walnut tree and my belief that it was planted on April 24, 1914 are \textit{prima facie} justified for me.

What some find troubling about this example is that the belief about the tree’s history is an unlikely candidate for the kind of immediate justification \textit{PC} confers. Instead, there is a sense that this kind of belief, if it is to be justified at all, must be justified by inference from other beliefs (I should add that although I will entertain this line of critique, I have serious reservations about whether cases like Markie’s are genuinely conceivable).

Now consider a related example. A recent Gallup poll (2005) shows that 25% of Americans profess belief in astrology, the theory that the movements of celestial bodies exert substantial influence on matters of earthly significance. Presumably, most of these people believe in astrology because its predictions seem true to them. For that reason, they conclude that astrological predications are generally reliable. If this is correct, then, according to \textit{PC}, many people’s astrological beliefs are justified to at least some degree. Yet, we are strongly inclined to judge that astrological beliefs are \textit{paradigmatically} unjustified.

In the first case, the complaint is that \textit{PC} makes it too easy for beliefs that are usually only justifiable by inference to be \textit{immediately} justified. In the second case, the complaint is that \textit{PC} renders paradigmatically unjustified beliefs justified for a significant number of people. It is clear, however, that both complaints emerge from a general concern that \textit{PC} sets a standard for justified belief that is just too low. For that reason, some philosophers conclude that \textit{PC} fails to capture one or more sufficient conditions on justification.
In response to this objection, we first should note, that, most of the beliefs the raise philosophers’ hackles will not be justified for most people, even if/when they seem to some such people to be true. This is because **PC** confers justification only when defeaters are absent. Since most people have good reasons to believe that, for instance, astrology is hokum, most people who enjoy astrology-favoring seemings don’t have justified astrological beliefs. Other propositions that they believe rebut or undercut the justificatory force of such seemings.

Similarly, most of us have good reasons to believe that perceptual seemings about trees cannot reveal the dates upon which the trees in question were planted. Indeed, as far as we know, perceptual seemings don’t directly supply such fine-grained historical information. Thus, we have an undercutting defeater for any visual seemings that do purport to reveal information about the precise date a tree was planted or, say, exactly when a particular car rolled off of the assembly line. In fact, I find myself unable to conceive of how a single phenomenal experience could give rise both to the visual seeming that the object in front of me is a walnut tree and the seeming that it was planted on April 24, 1914. I’ve certainly never had any experiences of that sort. With that in mind, I find it difficult to even motivate the worry that **PC** will infelicitously count such experiences as sources of immediate justification.

Of course, there may be cases in which subjects find themselves with undefeated disreputable seemings. On the assumption that we can convincingly generate such cases, phenomenal conservatives should concede that even silly, contentious, and weird beliefs can, for some people at some times, enjoy a degree of immediate justification. For instance, even if we know that Harry’s astrological beliefs are ridiculous, if their contents really seem true to him and he really has no reasons to doubt or distrust them, then he has at least some degree of justification for these beliefs.
Remember, PC is a principle that has to do with which beliefs are justified for a subject from his own first-person point of view. The assessment of certain kinds of beliefs as being disreputable, however, takes place from within our perspective. We should not reject an otherwise plausible epistemic principle just because it allows that some people can be justified in believing things that seem ridiculous to us. Indeed, there probably aren’t any plausible epistemic principles—other than, perhaps, those which render justification conditional on incorrigible evidence—that rule out the possibility of a subject’s acquiring justification to believe something ridiculous.

For instance, a standard version of reliabilism tells us that if \( p \) is produced by a reliable belief forming mechanism then, absent defeaters, \( S \) is justified in believing that \( p \). Yet, we can surely imagine some poor soul whose astrological beliefs are both reliably produced and unthreatened by defeaters. Although I haven’t the space to work through the details of PC’s various competitors, I suspect that the same is true for them. That is, I suspect that there aren’t any plausible justificatory principles that are such that they cannot confer justification on at least some disreputable or ridiculous beliefs. If that’s correct, then the phenomenal conservative has a significant *tu quoque* response to (nearly) everyone who has raised the liberalism objection.

6.8 The Degenerate Input Objection

In a now famous turn of phrase, N.R. Hanson (1958, p.19) claimed that “seeing is a ‘theory laden’ undertaking.” Setting aside the specifics of Hanson’s view, the notion that our background beliefs can influence how things seem to us is exceedingly plausible. It’s also quite plausible that various non-rational factors—wishful thinking, emotions, desires, hopes, practical stakes, and so forth—exert similar influence. These considerations generate a challenge for the phenomenal
conservative. The basic form of the challenge is grounded in a parity intuition, which goes as follows: if a belief based on φ would be unjustified, then, by parity, a seeming caused by φ cannot be a source of justification. The trouble for phenomenal conservatism is that, in the absence of defeaters, any old seeming—even one caused by wishful thinking or other non-rational factors—will be a source of epistemic justification.

To see how this works, substitute “hope for cake” for φ. Since it is irrational to believe that \( p \) only on the basis of one’s hope for cake, some philosophers—including Markie (2006) and Lyons (2011)—have argued that it is similarly irrational to believe that \( p \) only the basis of a seeming that has been caused by one’s hope for cake. Whether the hope for cake is a proximate or ultimate basis for the belief that \( p \), if you believe that \( p \) only because you hope for cake, then there’s some respect in which you do not believe as you should. But PC appears to say that, absent defeaters, a belief will enjoy some degree of justification whenever it’s proximate basis is a seeming, even if its ultimate basis is the hope for cake. In view of the model for belief acquisition discussed above—sensations and other inputs yield seemings which yield beliefs—let us call this the degenerate input objection.

Peter Markie (2006, p. 356-7) provides a forceful illustration of the degenerate input objection:

Mental processes that are incapable of producing prima facie justified beliefs can nonetheless determine how things seem to us. Suppose that we are prospecting for gold. You have learned to identify a gold nugget on sight but I have no such knowledge. As the water washes out of my pan, we both look at a pebble, which is in fact a gold nugget. My desire to discover gold makes it seem to me as if the pebble is gold; your learned identification skills make it seem that way to you. According to PC, the belief that it is gold has prima facie justification for both of us. Yet, certainly, my wishful thinking should not gain my perceptual belief the same positive epistemic status of defeasible justification as your learned identification skills.
The motivating intuition here is that PC fails to properly differentiate between Markie’s belief and that of his fellow prospector. It counts both as having a very similar degree of justification, despite the fact that Markie’s belief is based on a degenerate input.

As with the liberalism objection, we should note that many cases constructed along Markie’s lines will be such that the subject has a defeater for her degenerately formed seeming state. For instance, if the subject is self-aware she will recognize that her hunger for gold may be influencing how things seem to her. She may also realize that she lacks the expertise needed to distinguish gold from other kinds of yellow metal. Both of these facts are sufficient to generate defeaters for her degenerately formed seeming (or at least decrease her total amount of justification when compared with the seasoned prospector).

The general point, then, is that if a subject is aware that they are biased or ignorant with respect to \( \mu \), then they have reasons to doubt the accuracy of seeming states about or related to \( \mu \). These reasons should be sufficient to override much of the justificatory force seemings about \( \mu \) possess. Furthermore, we should note that a subject’s having an accessible defeater doesn’t entail that they have accessed it. So there are likely many cases in which a degenerately formed seeming is subject to defeat by etiological considerations that the subject hasn’t (but could) reflectively consider.\(^9^7\)

Of course, we can easily imagine of cases like Markie’s in which (a) it seems to \( S \) that \( p \), (b) the seeming is produced by degenerate inputs, and yet (c) \( S \) is incapable of accessing any

\(^9^7\)Suppose, for instance, that I am watching a baseball game between the Angels and the Rangers, two teams I don’t particularly care for. For that reason, I don’t take myself to have a stake in its outcome. A very close play occurs. When I watch the instant reply, it seems to me that the play favors the Rangers. In fact, however, one of the children who bullied me in grade school regularly wore an Angels hat, generating an opaque bias against the Angels that I am not reflectively aware of. Since I still have memories of the bully, the source of my bias is in principle accessible. It just hasn’t occurred to me that it could be exerting an influence on how things seem with respect to the play in question.
information that would defeat it. For instance, suppose that Jill is an expert art authenticator and Jack is her newly hired coworker. The museum where they are employed has recently acquired a painting that is, purportedly, a lost Degas. Jill and Jack have been given the task of authenticating it. When Jill examines the painting it seems to her that it is authentic. The same is true of Jack. Unfortunately, the seeming Jack enjoys is produced, in part, by degenerate inputs. Since Jack really wants to make a good impression on Jill, he has a very strong desire for their authentication reports to converge. This strongly biases how things seem to him. Let’s stipulate that this desire is buried deeply in his subconscious and, in fact, directly at odds with Jack’s self-conception as a precise, unbiased, no-nonsense art authenticator. For this reason, Jack has no accessible defeaters for the seeming in question.

Here the phenomenal conservative should admit that, despite being degenerately formed, Jack’s seeming provides justification for his belief that the painting is an authentic Degas. Think about it this way: if it seems to Jack that the painting is an authentic Degas and he has no reason to think otherwise, should he believe it, deny it, or withhold? As in the cases used to motivate PC above, it’s clear that belief is Jack’s only appropriate option.

Even so, the sense persists that Jack's belief is epistemically defective in some respect. One still wants to issue a negative appraisal of some kind, despite the fact that he has adopted the verific attitude he ought to hold with respect to the proposition in question. This conflict of intuitive appraisals needs to be explained.

According to one promising explanatory strategy, we get conflicting appraisals because we are, perhaps unwittingly, testing the belief in question against the standards for two distinct epistemic concepts. The idea, then, is that our positive appraisal of Jack’s degenerately produced belief issues from the standard for one epistemic concept—namely, the standard for justified
belief—while our negative appraisal issues the standard for a different epistemic concept. According to an alternative explanatory strategy, we get conflicting appraisals because we are testing the belief in question against two different standards for the same epistemic concept; namely, justification. Here the idea is that our positive appraisal issues from one standard for justification while our negative appraisal issues from one of its competitors.

Tucker (2010) takes up the first strategy. He suggests that the other epistemic standard in play here is the standard for knowledge. On his view, degenerate seemings justify beliefs, but, since they are not caused in the right way, the beliefs they justify fail to meet the standard for knowledge. Skene (2013) suggests that the other epistemic standard in play here is the standard for being a rational person. On his view, degenerate seemings justify beliefs, but subjects whose beliefs are based on such seemings are nevertheless personally irrational.

The epistemic standards identified by Tucker and Skene may explain some of the negative appraisals produced by degenerate input cases. Still, our conflicting intuitions about these cases seem to be centered on the concept of justification. Thus, a better explanation of this conflict appeals to distinct standards for propositional justification.

According to one standard for justification, a belief is justified insofar as it is the verific attitude one ought to adopt given the reasons available to one. This is the kind of standard phenomenal conservatism aims to model. According to another such standard, a belief is justified insofar as it is supported by a reason that makes it objectively likely to be true. Now, in ordinary circumstances, its seeming to S that p makes it objectively likely that p. This is because, usually, if it weren’t the case that p, then things wouldn’t seem to S to be that way. Thus, most beliefs that meet the first standard also meet the second one.
In degenerate input cases, however, we encounter beliefs that meet the first standard but not the second. This is because, by hypothesis, seeming states produced by degenerate inputs don’t raise the objective likelihood of the beliefs to which they give rise. Since these cases wrench apart two standards for justification that are ordinarily conterminous, it is no surprise that they pull our justificatory-intuitions in conflicting directions. The key point here, however, is that PC cannot be refuted by noting that it issues positive evaluations of certain beliefs that a distinct standard for justification evaluates negatively.

Furthermore, we have good reason to think that the standard for justification captured by PC is the more fundamental of the two standards under discussion. To see this, notice that evil demon cases also wrench apart our ordinarily conterminous standards for justification. We judge that (most of) the beliefs of individuals who have been demonized are justified, despite the fact that the reasons for which demonized persons believe fail to raise the objective likelihood of their beliefs within that world (i.e., they fail to reliably indicate of the truth of the relevant beliefs).\textsuperscript{98} This is because the seemings of people in a demon world are never actually indicative of how things really are. Of course, we still want to say that demonized people manifest a kind of epistemic failing, and they do. Although they believe as they ought to given the reasons available to them, the reasons for which they believe are objectively bad. The same can be said of those who are locally demonized by degenerate seeming-inputs.

\textsuperscript{98}Consider that, in close non-demon worlds, the relative frequency, given the total number of seemings, of it’s seeming to $S$ that $p$ when $p$ false is low while the relative frequency of it’s seeming to $S$ that $p$ when $p$ true is high. In demon worlds, however, the reverse holds, i.e., given the total number of seemings, the relative frequency of it’s seeming to $S$ that $p$ when $p$ false is \textit{high} while the relative frequency of it’s seeming to $S$ that $p$ when $p$ true is \textit{low}.\textsuperscript{98}
7. A MODEL FOR RATIONALISM

7.1 Introduction

The aim of this chapter is to present and defend a model for rationalism. This model, RPC, is as an extension of phenomenal conservatism that identifies intellectual seemings as the basic source of synthetic a priori justification.99 In what follows, I proceed by four steps. First, I explain how, given phenomenal conservatism, intellectual seemings provide the kind of a priori justification rationalism posits (in the process, I show that RPC satisfies the definition of rationalism proposed in Chapter 2). Second, I show that RPC successfully explains the prima facie evidence for a priori justification presented in Chapter 3. This gives the view a decided advantage over all of the various strains of empiricism. Third, I present three arguments for the conclusion that RPC is superior to competing versions of rationalism. Fourth and finally, I argue that RPC survives the three most familiar (and, indeed, most significant) objections to rationalism.

7.2 Intellectual Phenomenal Conservatism

An adequate model for rationalism will explain how propositions expressed by synthetic sentences can be justifiably believed a priori. In the three previous sections, I argued that (1) seemings are sui generis mental states with felt veracity that have assertive propositional content, (2) some seemings are intellectual rather than experiential, and (3) seemings justify basic beliefs. Taken together, (1)-(3) provide the raw materials needed to construct such a model.

To see how this works, let’s review our definition of rationalism:

99I wish to remind the reader that, although the idea of using PC to explain synthetic a priori justification can be found in Huemer (2001), (2005), and (2007), I develop and defend this idea in ways that go well-beyond what is found in the extant literature.
(RAT): At least one true sentence is (a) true in virtue of non-semantic facts and (b) expresses a proposition belief in which can be immediately justified by at least one j in virtue of something other than j’s phenomenal content.

Clause (a) explicates the concept of syntheticity. Clause (b) explicates the concept of a priori justification. The central claim of this section is that intellectual seemings provide a source of immediate non-experiential justification for doxastic states whose propositional contents can be expressed by synthetic sentences. That is, given phenomenal conservatism, intellectual seemings can be deployed to explain how synthetic a priori justification is possible and, by extension, to vindicate a rationalist theory of epistemic justification.

To see how this model for rationalism gets off the ground, consider the following sentences:

(1) Every natural number has a successor.

(2) If x is a part of y and y is a part of z, then x is a part of z.

The propositions expressed by (1) and (2) seem true to virtually everyone who entertains them. Since, given PC, seemings are a source of immediate justification, it follows that many people have, absent defeaters, some degree of immediate justification to believe both (1) and (2). Notice, however, that the seemings under consideration are intellectual rather than experiential, i.e., they do not have phenomenal content and thus are not experiential states. Although these seemings have the property of felt veracity, they have this property qua mental acts, not as part of their content. Furthermore, since intellectual seemings don’t have phenomenal content, their

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100 Some philosophers may contend that what justifies (16) is not an intellectual seeming, but a certain kind of imaginative exercise. We attempt to imagine a counterexample, e.g., that a nose is part of a face, that a face is part of a head, and that a nose is not part of a head. When we invariably fail to imagine such a counterexample, we conclude, on that basis, that (16) is true. While I don’t think this proposal is correct, I do think phenomenal conservatives can accommodate it. The way to do so is to allow that exercises of the imagination are among the various inputs that give rise to seeming states. That is, we might say that part of the (psychological) reason certain propositions seem to be true to us is that we can or cannot imagine an alternative. Indeed, in a later section I will
justificatory powers do not depend on their instantiating any particular phenomenal properties. Thus, they cannot provide experiential justification. It follows, then, that the justification provided by intellectual seemings satisfies clause (b) of RAT, which is, of course, our definition of a priori justification.

For the reasons just considered, PC licenses the following subsidiary principle, which we’ll call the principle of intellectual phenomenal conservatism:

(IPC): If it intellectually seems to S that \( p \), then, in the absence of defeaters, S thereby has at least some degree of a priori justification for believing that \( p \).\(^{101}\)

We should also note that (1) and (2) are synthetic sentences. Neither appears to be true in virtue of semantic facts alone. It should thus be clear that IPC explains how beliefs about propositions expressed by synthetic sentences can be justified a priori. The explanation goes as follows: if a proposition expressed by a synthetic sentence intellectually seems to one to be true, then, absent defeaters, one has some degree of a priori justified to believe it.

We now have a model for rationalism that is directly informed by IPC and thus, by extension, the principle of phenomenal conservatism. We can effectively capture this model by means of another subsidiary principle:

RPC (rationalist phenomenal conservatism): For any proposition \( p \), if it intellectually seems to S that \( p \) and \( p \) can be expressed by a synthetic sentence, then, absent defeaters, S thereby has at least some degree of rationalist justification for believing that \( p \).

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\(^{101}\)Although Huemer does not present IPC as a subsidiary principle, he clearly has something like it mind in his (2005, pp.101-107), (2007), and (2011). I should point out here, as well, that I arrived at the rough idea behind IPC prior to having read Huemer. After reading him, however, it seemed only natural to view my position as a development of his.
I contend that RPC provides the best available model for rationalism. In the sections that follow I will defend this claim.\(^{102}\)

### 7.3 IPC Best Explains the Prima Facie Evidence for the A Priori

In Chapter 4, I presented a *prima facie* case for the a priori based on four independent bodies of evidence. First, among our paradigm cases of justified belief there are many with mathematical or logical content. Such beliefs are not, as far as we can tell, justified by direct experience or inference from beliefs that justified by direct experience. Second, we are well acquainted with various Meno cases, i.e., situations in which epistemic subjects appear to acquire immediate non-experiential justification to believe propositions that they had not previously considered. Third, the phrase “I just see it” is permissibly used (along with other very similar locutions) to express non-inferential non-experiential justification in ordinary epistemological language games. Fourth, introspection reveals that some of the intellectual states expressed by “I just see it” bear have much in common with the kinds of states that justify our perceptual beliefs.

Again, the evidence cited above provides provisional support for the position that some justification is a priori. If we’re actually going to countenance a priori justification, however, we’ll need to show that the best explanation of that evidence requires us to do so. In the forthcoming sections, I first show that IPC *can* be utilized to explain the relevant evidence. I then argue that

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\(^{102}\)I should note, before moving on, that I reject the standard possible worlds theory of propositions for the usual reasons. Still, it’s worth pointing out that, when conjoined with RPC, it generates an implausible result. To see this, recall that, on this theory, propositions are individuated in terms of the possible worlds in which they are true. It follows, then, that all necessarily true sentences express the same proposition, since each of them is true in exactly the same sets of worlds. This suggests, given, RPC, that it’s seeming to S that 2 + 2 =4 could justify S in believing, say, that triangles have fewer sides than cubes (or any other necessary truth).
this explanation of the evidence is better than its two primary empiricist competitors. Thus, I conclude that a rationalist theory of the a priori is superior to the alternatives.

7.3.1 Paradigm Cases of Justified Belief

How are we to account for the positive epistemic status of widely held beliefs about such things as numbers, functions, and inference patterns? Since we do not, by any account, engage in experiential commerce with these things, it is often argued that beliefs about them must be justified a priori (if they are to be justified at all). IPC explains the presumptive a priority of mathematical and logical beliefs as follows: for any mathematical/logical proposition \( p \), if it intellectual seems to \( S \) that \( p \), then, absent defeaters, \( S \) has some degree of a priori justification for the belief that \( p \). Thus, IPC identifies intellectual seemings as the fundamental source of a priori justification for mathematical and logical beliefs.

This explanation comports rather well with our sense that basic mathematical and logical propositions are just obvious. Many such propositions are the contents of intellectual seemings, which justify immediately. For instance, “1 + 0 = 1” seems correct to virtually everyone who entertains it. Furthermore, it is difficult to imagine how anyone would find themselves subject to a defeater for this seeming. Thus, given the forcefulness of the seeming and the dearth of prospective defeaters, IPC tells us that virtually everyone who entertains “1 + 0 =1” is a priori justified in believing it outright.

The above account generalizes to explain the positive epistemic status of the other paradigm cases we’ve considered, such as:

(3) If John is identical to Steven and Steven is identical to Frank, then John is identical to Frank.
(4) If something is indigo, then not everything is maroon.

(5) Every object with a shape has a size.

These propositions, and others like them, intellectually seem to be true for nearly everyone who entertains them. Thus, they can be justified a priori on the basis of forceful and undefeated intellectual seemings.

7.3.2 Meno Cases

Recall an example discussed in Chapter 5. During the course of an introductory metaphysics lecture, an instructor asks his class whether or not everything is identical to itself. Most of his students never thought about the matter. Nevertheless, they immediately come to answer their instructor’s question in the affirmative. Thus, when he asks those who believe that everything is identical to itself to raise their hands, almost all of the students reach for the sky. Now, when we reflect on this case, we get the sense that these students are justified in believing as they do. Thus, we have before us a familiar-looking case: a group of epistemic subjects have acquired immediate justification for a belief that doesn’t appear to be grounded in direct experience and whose propositional content they had not previously entertained.

IPC explains Meno cases as follows: some propositions that are rarely expressed in ordinary conversation are nevertheless such that they will seem true to anyone who entertains them. Since seemings are a source of non-doxastic justification, those who do come to entertain the propositions in question will, ordinarily, be immediately justified in believing them. Furthermore, since the seemings in question are intellectual, IPC tells us that the justification they provide is a priori. Thus, we can be a priori justified in believing that everything is identical to itself insofar as we enjoy an undefeated intellectual seeming with that proposition as its content.
In this way, IPC explains the sense we have, when considering Meno cases, that sometimes people are immediately justified in believing propositions they’ve never entertained without any appeal to direct experience.

7.3.3 Ordinary Epistemic Discourse

Let’s briefly return to the metaphysics lecture discussed in the previous section. The members of the class now believe that everything is identical to itself. Suppose that the instructor, perhaps adopting the role of Socratic gadfly, asks one of the students to justify her newfound belief. In response, the student is likely to say something rather like “It’s obvious” or, perhaps, “I can just see that it’s true.” Unless he’s feeling especially querulous, her instructor will accept her just-seeing report (recall that a number of different kinds of utterances count as just-seeing reports given their function in epistemic languages games) as expressing a sufficient justification for her belief.

This story is meant to remind the reader that our third piece of cumulative evidence for the a priori is drawn from our practice of assigning epistemic value to just-seeing reports. In many cases, including the one just discussed, these reports are most naturally interpreted as expressing the subject’s possession of an a priori justification. IPC explains why just-seeing reports have currency in epistemic language games and how they can express a priori justification. The basic idea is that the various kinds of just-seeing reports we’ve considered simply paraphrase the statement “It seems to me that p.” That is, just-seeing reports express seemings. Since IPC presupposes that seemings justify beliefs, it’s only natural that phrases which express seemings have currency in epistemic language games. In situations where just-seeing reports appear to express a priori justification, they express intellectual seemings. Moreover, these reports carry the
conversational implication that if it intellectually seemed to you that \( p \), you would also be a priori justified in believing that \( p \).

Since unsophisticated believers don’t have the theoretical apparatus needed to explain how intellectual seemings provide a priori justification, it isn’t surprising that they use various ordinary language locutions to express their possession of such justification. Still, if, as IPC tells us, intellectual seemings do, at times, immediately justify us in believing their propositional contents, then it’s clear enough why we assign epistemic value to just-seeing reports even in conversations where the participants are quite sure the speaker isn’t expressing a visual justification. The idea is that those who issue just-seeing reports do so in order to indicate that they possess a familiar kind of justification that, absent a theoretical account of a priori justification, remains inchoate. Furthermore, since phenomenal conservatism tells us that seemings states are the fundamental source of both intellectual and perceptual justification, it is no surprise that we find the same kinds of phrases used to express both a priori and a posteriori justification.

7.3.4 **Introspection**

Like the students discussed above, I believe that everything is identical to itself. If a pedant were to ask me to support this belief—that is, if he were to initiate a justificatory language game—I’d respond to his query by saying something rather like “I just see that it’s so.” Introspection reveals to me that the cognitive states I am inclined to express with just-seeing reports are, in many cases (including the one at hand), not produced by inference. Moreover, introspection reveals, with respect to the present case, that the cognitive state in question isn’t an experiential state. I expect that the reader’s introspective efforts will yield a similar result. On that basis, we are provisionally entitled to conclude that some mental states expressed by just-seeing reports provide a priori
justification. Thus, we have, via introspection, additional evidence that there are a priori justifications.

IPC explains this evidence as follows: some of the states expressed by just-seeing reports are intellectual seemings. Since intellectual seemings just are non-experiential states that provide immediate justification, the justification they provide is a priori. Thus, IPC successfully accounts for our introspective evidence. In fact, it predicts what introspection reveals; namely, that there are non-experiential cognitive states—intellectual seemings—that we often express with phrases that typically end the interrogative processes constitutive of our justificatory language games. Moreover, IPC, as a subsidiary of phenomenal conservatism, explains a related piece of introspective evidence, viz., that the states providing a posteriori justification and those proving a priori justification have a number of common features. The explanation is simple: the same basic kind of mental state—the seeming state—supplies us with both kinds of justification.

7.3.5 The Cumulative Evidence Supports IPC

We’ve now seen that IPC successfully explains the cumulative prima facie evidence for the a priori. What’s more, its explanation is satisfyingly simple and general. It tells us that there is a certain kind of cognitive state or episode—the intellectual seeming—which can provide immediate a priori justification for paradigmatically justified mathematical/logical/metaphysical beliefs and for newly acquired beliefs whose contents we’ve not previously entertained. Likewise, by positing intellectual seemings we can illuminate ordinary epistemic practice and the language games to which it gives rise in a way that is consistent with what introspection reveals about the kinds of states we express therein.
7.3.6 **IPC is Superior to Moderate Empiricism**

According to the moderate empiricist, the cumulative *prima facie* evidence for the a priori can be reductively explained by appeal to the semantic property of analyticity. As we’ve seen, however, the contents of some paradigmatically a priori justified beliefs cannot be expressed by analytic sentences. Moreover, some of these beliefs can be *immediately* justified, despite the fact that they are not about the meanings of words. Thus, since the a priori outstrips the analytic in various respects (see sections 4.3.1, 4.3.2, 4.3.3, and 4.3.4), the moderate empiricist’s theory of the a priori appears to be untenable.

**IPC**, by contrast, successfully explains the a priori status of mathematical beliefs, logical beliefs, and other paradigm cases without appealing to an implausible epistemology or to a semantic theory that restricts the scope of the a priori. In fact, **IPC** does not favor any particular semantics for the target sentences (i.e., those that express propositions that are candidates for a priori justification). On the reasonable assumption that some are synthetic, however, it is nevertheless capable of explaining, by appeal to intellectual seemings, how we can be a priori justified in believing the propositions they express. This gives **IPC** a significant advantage over moderate empiricism.103

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103 **IPC** is also consistent with the position that the semantic status of analytic sentences is part of the explanation of how the propositions they express can be justifiably believed a priori. For all we know, some intellectual seemings—and thus some a priori justifications—are *generated by* linguistic understanding. In some cases, then, we might say that (part of) the reason that *p* seems true to *S* is because it has been expressed by an analytic sentence that *S* understands. This suggests that the data which leads some philosophers to support moderate empiricism can be accommodated by the phenomenal conservative without substantial cost.
7.3.6 **IPC is Superior to Radical Empiricism**

Direct radical empiricism—which says that all justification comes from direct experience or induction thereupon—cannot explain the positive epistemic status of our mathematical and logical beliefs (see sections 5.2.2, 5.2.3, and 5.2.4). Indirect radical empiricism (IRE)—which says that theories are the primary unit of justification and that individual beliefs are justified by virtue of their place within justified theories—is more promising, but it has to explain away three of the four pieces of our cumulative *prima facie* evidence for the a priori. Furthermore, its positive account of mathematical and logical justification fails to explain certain pieces of data that any epistemology for the deductive sciences ought to be able to explain (see section 5.3.2, 5.3.3, 5.3.4, and 5.3.5).

**IPC**, by contrast, adequately handles the linguistic and introspective evidence for the a priori that IRE cannot accommodate. Moreover, it provides a more complete account of mathematical and logical justification insofar as it countenances a theory-independent source of such justification. Thus, the reason we are more justified in believing $2 + 2 = 4$ than any of the theories in which it figures is because the seeming states that justify it are significantly more forceful than those seeming states that justify our theoretical beliefs (where these latter kinds of seemings result from abductive inferences that go from a collection of perceptual beliefs to a theoretical belief).

Indeed, even if all of our scientific theories were defeated, we'd retain our mathematical and logical beliefs, and still take them to be justified. This requires an explanation. **IPC** provides one: even if all of our theories were defeated, our basic mathematical beliefs would still *seem to us to be true*. As a result, we’d continue to hold these beliefs and still take them to be justified.
7.4 **RPC is Superior to Other Models for Rationalism**

In the previous section, we saw that (a) IPC is capable of explaining the *prima facie* evidence for the a priori and (b) its explanation of this evidence is better than the competing explanations endorsed by empiricists. IPC is the main component of RPC, the model for rationalism which identifies intellectual seemings as the fundamental source of synthetic a priori justification. Thus, given the overall explanatory power of IPC, we have good reason to endorse RPC.

Of course, RPC is not the only model for rationalism on the market. Some philosophers identify other kinds of epistemic phenomena as the fundamental source of synthetic a priori justification. In this section, I argue that RPC has three significant advantages when compared to these alternative models. First, RPC makes synthetic a priori justification widely accessible (indeed, particularism predicts that the correct model for rationalism will assign such justification to many common sense beliefs held by epistemically unsophisticated subjects). Second, RPC enjoys the virtue of theoretical parsimony. Third, RPC is compatible with several different metaphysical explanations of the etiology of a priori justification, i.e., it is not committed to the correctness of *any particular* answer to the question “Why does it intellectually seem to S that \( p \) at \( t \)?”

### 7.4.1 Availability

Several contemporary rationalists—including BonJour (1998) and Bealer (1999)—have advanced a model for rationalism that identifies *rational insight* as the fundamental source of synthetic a priori justification. Here is how BonJour (1998 p. 101) characterizes rational insight:
“Given [an] understanding of the ingredients of the proposition, I am able to see or grasp or apprehend in a seemingly direct and unmediated way that the claim in question cannot fail to be true...It is this direct insight into the necessity of the claim in question that seems, at least prima facie, to justify my accepting it as true.

He goes on to claim (1998 p. 114) that

“[Rational insight] must involve a genuine awareness by the person in question of the necessity or apparent necessity of the proposition in something like the strong logical or metaphysical sense, not merely a more generic belief that it is in some way obvious—thus requiring at least an approximate (though perhaps in some cases very implicit) grasp of that very demanding concept of necessity. An instance that fails to satisfy these requirements will not even count as an apparent rational insight in the sense that is of interest to the rationalist...”

The idea, then, is that S has a rational insight that p partly in virtue of grasping that p is necessary. This rational insight provides S with a very good reason to believe that p, since p’s necessity entails its truth. In fact, there doesn’t seem to be any better reason for believing that p than the apprehension that p is a necessary truth. Again, this is because a necessary truth is true in all possible worlds. Thus, if S grasps that p is necessary, she can be justified in believing that it is true without having to settle any questions about what the actual world is like. Of course, absent any grasp of p’s necessity, S cannot have a rational insight that p, which entails that S cannot have synthetic a priori justification for the belief that p.

One significant problem with the model for rationalism endorsed by BonJour and Bealer—what I’ll call the modal model—is that many (perhaps most) people lack even the “very implicit” modal concepts to which Bonjour alludes in the passage above. I assume that to implicitly possess a concept C, one must, at least, be able to reliably distinguish things that fall under C from things that do not. Suppose for instance, that Sidney cannot explain to you what distinguishes a triangle from a cube. It would seem to follow that Sidney lacks a robust, explicit concept of triangularity. But if he can reliably distinguish triangular objects from cubes, we’d still want to say that he
possesses the concept of trianularity, if only implicitly.\textsuperscript{104} Suppose, however, that Sidney is regularly observed, in an experimental setting, trying to put cubes in triangular holes and vice-versa. In that case, we would conclude that he lacks even an implicit concept of trianularity.

Now, many otherwise intelligent people cannot reliably distinguish necessary truths from contingent truths. Thus, they fail to even implicitly possess the concepts in question. In my experience, for instance, most college students who enroll in introductory philosophy courses are incapable of reliably distinguishing between necessary and contingent truths until they are taught how to do so. When they are presented with a list of propositions, some necessary and some contingent, few are readily able to sort them into the correct categories. This suggests that most students are in no position to grasp the necessity of “$2 + 2 = 4$” until they enroll in a philosophy class.

The modal model tells us that, absent the capacity to grasp the modal status of “$2 + 2 = 4$”, most college students cannot acquire a priori justification for the belief that $2 + 2 = 4$. Yet surely people who don’t possess modal concepts are, in most cases, a priori justified in believing that $2 + 2 = 4$. If you were to ask one of the students in question why they believe this claim, they’d be far more likely to cite its obviousness than a perpetual experience or inference. Notice, then, that there is a clear difference between its seeming to $S$ that $p$ and its seeming to $S$ that $p$ is necessary. If the former kind of seeming is sufficient for a priori justification, then these students (and, to be sure, most ordinary people), are well-positioned to enjoy a substantial number of a priori justified beliefs.

\textsuperscript{104}Indeed, to the extent that we attribute concepts to babies and beasts, we do so in virtue of their abilities to reliably distinguish things that fall under the concepts in question and thus do not expect them to have anything more than implicit concepts.
Unlike the modal model, \textbf{RPC} clearly explains how the philosophically unsophisticated can acquire synthetic a priori justification. It says that our students are a priori justified in believing that $2 + 2 = 4$ because it (rather forcefully) intellectually seems to them that $2 + 2 = 4$ (and they have no relevant defeaters).\footnote{BonJour is cognizant of this kind of objection to his view. His response to it (1998, p. 114 footnote) goes as follows: “suppose that a relatively unsophisticated person accepts a proposition because it seems overwhelmingly obvious, where the proposition is in fact one that would seem logically or metaphysically necessary to a more sophisticated subject, and where the seeming obviousness is in fact a response to the apparent necessity of the proposition, albeit not conceptualized as such due to the lack of any reasonable understanding on that person’s part of the relevant concept of necessity. I see no need to deny that some significant degree of epistemic justification results even though this is not, on the present account, a full-fledged case of apparent rational insight.” I think this response constitutes a tacit admission that \textbf{RPC} (or a close cousin) is a preferable model for rationalism than the one that BonJour officially endorses.} By contrast, a model that ties a priori justification to seemings with explicit modal content will restrict such justification to those who possess modal concepts.

At the same time, \textbf{RPC} is fully consistent with the view that \textit{some} intellectual seemings have modal content. In fact, it tells us that episodes of rational insight just are intellectual seemings whose propositional content is presented as necessary. Thus, \textbf{RPC} can both (a) explain the positive epistemic status of beliefs about necessities and (b) preserve the intuition that their justification is a priori. This provides the rationalist with a way to account for the very high degree of justification typically assigned to mathematical and logical beliefs. Because their contents seem to be \textit{necessarily true} to those of us with robust modal concepts, we take the propositions in question to stand an even better chance of being correct than those that seem to be true \textit{simpliciter}. The idea here, then, is that when it seems to me that $p$ cannot be false, I have a stronger reason to believe that $p$ than when it merely seems to me that $p$. Thus, it appears that \textbf{RPC} can explain one piece of evidence that indirect radical empiricism cannot; namely, the very high degree of justification we assign to beliefs about math and logic. At the same time, it recognizes that ordinary intellectual seemings are the fundamental source of such justification.
We should also note, before moving on, that our linguistic and introspective evidence favors RPC over modal models for rationalism. When I introspect, I find that many intellectual seemings lack modal propositional contents. For instance, in the course of working out a monthly budget, many arithmetical propositions seem to me to be true. Yet, I don’t typically have any accompanying sense that they are necessarily true. While I believe that these propositions are necessary truths, the particular intellectual seemings in question just don’t have modal content. Similarly, the propositional contents of my experiential seemings don’t ordinarily include the concept of contingency, even though these contents are, as a general rule, contingent.

In addition, the introspective evidence reported above coheres rather well with the relevant body of linguistic data. When we observe ordinary people playing epistemological language games, we rarely find them citing facts about the necessity or contingency of \( p \) as reasons for or against believing that \( p \). Thus, on the assumption that such people can and do publicize their a priori reasons, we have further reason to think that such reasons needn’t contain modal concepts.

One additional point may favor RPC over the modal model. Suppose, as Kripke (1980) has argued, that certain kinds of reference-fixing definitions express contingent propositions that can be known a priori (at least by the person doing the reference-fixing). Consider, as a paradigm case, the reference-fixing definition “the weight of cat \( C \) at \( t \) is one gort.” This proposition is clearly contingent, since the cat could have weighed a different amount at \( t \). Yet, the person using this proposition to stipulatively define the unit of measurement in question—i.e., a gort—can surely be justified in believing it a priori. If Kripke is right, then we need a model for a priori justification that doesn’t rely on grasping the necessity of propositions we are a priori justified in believing, since some of them are contingent.
Furthermore, even if Kripke’s cases fail to convince, there may be other kinds of contingent a priori truths, such as the cogito and “I am here now”, which an adequate model for a priori justification ought to accommodate. I cannot, at present, take full account of the so-called contingent a priori. To do so would be a significant digression. My aim here is only to point out that if there are contingent a priori truths, RPC can explain their apriority; the modal model, by contrast, cannot.

7.4.2 Explanatory Economy

RPC is a parsimonious model. It tells us that intellectual seemings are the fundamental source of synthetic a priori justification. RPC does not posit novel entities or make use of extraneous concepts. Rather, it provides an account of synthetic a priori justification that is directly aligned with a corresponding account of a posteriori justification. On both accounts, seeming states are identified as the source of immediate non-doxastic epistemic justification. Any model for rationalism that offers a more ambitious or more complicated explanation of the synthetic a priori is thereby at a disadvantage.

Recall, for instance, the modal model endorsed by BonJour and Bealer. It explains a priori justification in terms of a subject’s grasp of the modal status of a proposition she has entertained. The modal model is more complicated than RPC because it tells us we are a priori justified in believing that $p$ only when it seems necessarily true, rather than just true simpliciter. Suppose, then, that we bracket our previous concern about the inadequate distribution of robust modal concepts. Nevertheless, there is an independent reason to prefer RPC based on its explanatory economy. The same point applies, mutatis mutandis, to any other models for rationalism that place additional necessary conditions on the acquisition of synthetic a priori justification.
In addition, we should note that BonJour also appears to posit a special faculty of rational insight as part of his explanation of a priori justification. Although I won’t take a firm stance on the matter here, the proponent of RPC may be able to be able to do without special faculties. This would be another distinct way in which RPC is more economical than the modal model.

7.4.3 Theoretical Neutrality

How is synthetic a priori justification possible? It has often been suggested that an adequate model for rationalism must give a clear answer to this question. Unfortunately, there are three quite different ways to understand what it’s asking. First, there is a strictly epistemological question:

(Q₁): What mental states confer a priori justification (and under what conditions) on beliefs with contents expressible by synthetic sentences?

To answer this question, we need to identify a unique kind of justifier φ and explain how the justification it provides counts as synthetic a priori. Second, there is an etiological question:

(Q₂): What is the etiology of the mental states that provide synthetic a priori justification?¹⁰⁶

To answer this question, we need explain how the mental states that fall under φ come to be (and, in the process, come to have the content that they do). Third, there is a broader metaphysical question:

(Q₃): How, given their etiology, are these mental states able to justify beliefs in the first place?¹⁰⁷

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¹⁰⁶ BonJour (1998, p.182) raises this kind of question when he asks “how…is it possible that a thought, simply by virtue of its intrinsic character, is about or has as an element of its content a particular property or universal, whether simple or complex, concrete or abstract, descriptive or evaluative?”

¹⁰⁷ Bealer (2000, p. 252) raises this kind of question, writing that “a shortcoming of traditional empiricism was that it offered no explanation of why phenomenal experience is a basic source of evidence; this was just unexplained dogma. By the same token, traditional rationalists…did not successfully explain why [intellectual seemings are] a basic source of evidence. Modal reliabilism provides a natural explanation filling in the gaps left by the traditional theories. The explanation is in terms of…a modal tie between these sources and the truth. But why should there be such a tie to the truth? Neither traditional empiricism nor traditional rationalism provided a satisfactory
To answer this question, we must explain how the states that fall under $\varphi$ manage to acquire their epistemic powers, i.e., to explain why they are, for instance, truth-indicative.\(^{108}\)

Since each of $Q_1$-$Q_3$ can be expressed by asking how synthetic a priori justification is possible, philosophers have not always been careful to distinguish them. Thus, some advance models for rationalism that aim to answer all three questions, while others focus on just one. In the preceding section, we only addressed $Q_1$. RPC, our model for rationalism, identifies intellectual seemings as the mental states that provide synthetic a priori justification and employs the principle of phenomenal conservatism to describe how they do so. It is important to note that both claims are advanced as part of a strictly epistemological theory.

In this section I shall argue that RPC has an advantage over competing models precisely because it does not aim to answer $Q_2$ or $Q_3$. In this respect, it is etiologically and metaphysically neutral. There are three reasons why this kind of neutrality is advantageous. First, it inoculates RPC against certain familiar lines of criticism—typically voiced by skeptics and empiricists—that presuppose particular kinds of answers to $Q_2$ and $Q_3$. Second, it renders RPC compatible with a range of different prima facie plausible etiological-cum-metaphysical theories, which is a general theoretical virtue. Third, it leaves us well-positioned to appreciate original and unorthodox ways of answering $Q_2$ and $Q_3$.

To begin, we should contrast RPC with a more robust model for rationalism, one that provides definitive answers to $Q_2$ and $Q_3$. This model—which we’ll call, for obvious reasons, the Cartesian model—goes as follows:

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\(^{108}\)Note that, in principle, the answer to $Q_2$ could turn out to be the same as the answer to $Q_3$. Still, it should be clear that these are different questions.
Clear and distinct ideas provide a priori justification for beliefs with contents expressible by synthetic sentences.

Clear and distinct ideas are innate; they are directly embedded in human minds by God.

Clear and distinct ideas are justificatory because God is not a deceiver.

Several contemporary rationalists—including BonJour (1998) and Bealer (2000)—have likewise advanced models that answer each of Q1-Q3. In doing so, they, like Descartes, are motivated by a certain kind of skeptical worry; namely, that our proposed source of a priori justification may be fundamentally unreliable. This worry is made manifest by brain-in-a-vat and evil demon scenarios. As a result of such considerations, the skeptic contends that we are entitled to appeal to intellectual seemings as a source of justification only if we can explain how, given their etiology, they are linked to the truth.

Since Descartes takes the skeptics’ contention to be legitimate, it is incumbent upon him to provide an etiological-cum-metaphysical grounding for the epistemic bona fides of clear and distinct ideas. The same holds true for contemporary rationalists who share his concerns. The trouble for all of them is that they end up tying the credibility of their epistemology to very specific etiological and metaphysical theses; namely, those that they advance as answers to Q2 and Q3. This gives empiricist critics an easy opening. Rather than directly attacking the rationalist’s epistemological position, they can instead strike at its etiological and/or metaphysical foundations. For this reason, we should prefer a model for rationalism that isn’t committed to any specific answer to Q2 or Q3.

RPC provides such a model. Recall that phenomenal conservatism—RPC’s parent principle—says that, absent defeaters, seemings alone are sufficient to justify belief. There aren’t any additional conditions—metaphysical or epistemological—that seemings must meet in order to
serve as justifiers. As we saw above, seemings don’t need to be justified in order to be justifiers. Nor does it appear that they need to stand in any specific kind of metaphysical relation or a have any specific kind of etiology—to the exclusion of other relations or etiologies—to provide at least some degree of *prima facie* justification.

The above points hold for intellectual seemings just as they do for perceptual seemings. RPC tells us that even an unreliably formed, metaphysically ungrounded, and totally bizarre intellectual seeming can, on the off chance there are no available defeaters, provide at least some degree of a priori justification. The point here, then, is that for any intellectual seeming $s$, $s$’s justificatory powers are intrinsic to $s$. They are not (and need not be) fixed by $s$’s satisfaction of any particular metaphysical or etiological conditions. In other words, the skeptic’s contention is not, from our point of view, legitimate. The upshot then, is that, on RPC, the rationalist position does not stand or fall with any particular set of answers to $Q_2$ or $Q_3$.

The above considerations bring to light another, related, reason to favor RPC over models that attempt to answer $Q_2$ and $Q_3$; namely, that, all things considered, we should prefer epistemic models that are compatible with a wide-range of other kinds of theories. The general idea here is that, for any micro-theory, compatibility with a wide range of macro-theories is a theoretical virtue. Consider, for instance two rival models for the evolution of tigers. Model A is tied to a very specific

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109 Of course, there are *some* metaphysical conditions that any justifiers must meet. For instance, they must exist. But these conditions aren’t interesting. What those who are concerned about skepticism want is to specify a metaphysical condition that somehow guarantees the general reliability of intellectual seemings.

110 Of course, the skeptic may charge that one’s awareness of Cartesian demon or brain-in-a-vat scenarios can provide undercutting defeaters for seemings, intellectual or otherwise. For, given that we cannot rule out these scenarios, haven’t we some good reason to distrust the faculties that are responsible for producing seemings? I think the particularist provides the correct response to this line of questioning. When we look at uncontroversial paradigm cases of undercutting defeaters, we don’t find skeptical scenarios among them. Indeed, we find that recognition of the mere possibility that our faculties are defective is not sufficient to generate an undercutting defeater. We need some further reason to believe that such a possibility is actual. Thus, although I do not have a *theory* of undercutting defeaters to put forward here, I am confident that the correct theory will exclude the skeptical scenarios in question.
model for general speciation. In fact, the link is so tight that if the latter falls, so does the former. Model B, by contrast, is compatible with several leading theories of speciation, including the one to which A is tethered. It seems clear that, *ceteris paribus*, we should endorse Model B. My contention is that the same considerations favor RPC over its primary competitors.

Of course, the request for answers to $Q_2$ and $Q_3$ can be motivated independently of skeptical considerations. The central philosophical goal of providing exhaustive explanations of philosophically interesting phenomena will invariably lead us back to them. Thankfully, we have a model for rationalism (and principled basis for endorsing it) that is compatible with several *prima facie* plausible ways of answering $Q_2$ and $Q_3$. To see this, let us briefly turn our attention to two of them.

Suppose, then, that we are nativists, i.e., those who posit—with traditional rationalists like Descartes and Leibniz—a store of *innate* concepts that are—under the right circumstances—accessible to every ordinary person. We can thus refer to innate concepts to put together an explanation of how intellectual seemings are possible; namely, we can cite innate concepts as the *causes*—perhaps in conjunction with triggering events—of our intellectual seemings. These seemings, in turn, provide synthetic a priori justification.

Moreover, we can trust intellectual seemings because our innate concepts (via the mechanisms that yield them) are products of natural selection, which has an interest, as it were, in endowing us with truth-tracking concepts. This is because concepts that radically fail to carve the world at its joints have limited survival value; i.e., they fail to keep us clothed and fed. Thus, we
have reason to think that the contents of intellectual seemings are largely accurate and, as a result, that they are a reliable source of justification.\(^{111}\)

The proponent of **RPC** who adopts nativism is thus able to answer Q\(_2\) and Q\(_3\). Her model can be constructed as follows:

(A\(_1\)): Intellectual seemings provide a priori justification for beliefs with contents expressible by synthetic sentences.

(A\(_2\)): Intellectual seemings are caused by innate concepts.

(A\(_3\)): Intellectual seemings are justificatory because the cognitive faculties that yield innate concepts are produced by a process of natural selection that favors truth-tracking faculties.

Alternatively, suppose that we don’t possess any innate concepts. In that case, we might adopt the position that intellectual seemings are caused by *direct acquaintance* with certain properties and relations. This view is widely associated with Russell (1912), who, at one point in his career, held that many (if not all) of our mental contents are acquired by direct acquaintance with their constituent objects. Of course, the contents that concern us here are often thought to include abstract objects among their constituents. Russell contends that we become acquainted with these kinds of contents and objects by means of abstraction. He writes (1912 p. 79):

A certain number of instances are needed to make us think of two abstractly, rather than of two coins or two books or two people, or two of any other specified kind. But as soon as we are able to divest our thoughts of irrelevant particularity, we become able to see the general principle that two and two are four; any one instance is seen to be typical and the examination of other instances becomes unnecessary.

Abstraction, for Russell, involves reflecting on the properties of particular appearances and stripping away (a) all other properties with which they are typically co-located and (b) the

\(^{111}\)An alternative kind of nativism posits innate *propositional contents* rather than innate concepts. Here the idea is that there are some contents we are innately disposed to find compelling, which, in turn explains why they seem true to us. As with the other variety of nativism, we can explain the trustworthiness of these innate contents by noting that they probably wouldn’t be selected for if they were radically deceptive.
particular circumstances of our acquaintances with them, such as time and place. By eliminating “irrelevant particularities” from our thoughts, Russell contends, we can achieve direct awareness of properties, relations, and other kinds of abstracta.

A proponent of RPC who adopts a broadly Russellian position will claim that direct acquaintance with properties and relations causes us to have various kinds of intellectual seemings. These, in turn, justify beliefs about such things as numbers, functions, and color incompatibilities. They will point out, in addition, that a relation of direct acquaintance between $S$ and $\varphi$ cannot be false or inaccurate. This is because relations, as such, are not the kinds of things that can be evaluated for truth or accuracy. They can obtain or fail to obtain, but they cannot falsely obtain (to say as much would be a category mistake). With that in mind, the Russellian advocate of RPC will argue that intellectual seemings caused by direct acquaintance relations are reliable precisely because they are the products of a process that can’t go wrong. On the assumption that most intellectual seemings are produced this way, we can conclude that they represent the world in a way that is generally reliable. To recap, the direct acquaintance view provides the following extension of RPC:

(A$_1$): Intellectual seemings provide a priori justification for beliefs with contents expressible by synthetic sentences.

(A$_2$): Intellectual seemings are produced by a relation of direct acquaintance with their intentional objects.

(A$_3$): Intellectual seemings are justificatory because direct acquaintance cannot be a source of error.

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$^{112}$Of course, we don’t want to jettison fallibilism about a priori justification. A proponent of the direct acquaintance view can maintain fallibilism by contending that our intellectual errors arise from the cognitive processes that intervene between acquaintance and intellectual seemings. The idea, then, is that we can trust individual intellectual seemings because they are tokens of a state type that is generally reliable in light of being the product of direct acquaintance, despite the fact that some tokens result from misapprehension of what we’re acquainted with.
My purpose here is not to adjudicate between the nativist and direct acquaintance positions. Rather, it is to illustrate the point that RPC is compatible with more than one set of answers to \( Q_2 \) and \( Q_3 \). In fact, there is probably not a single kind of cognitive process that causes intellectual seemings and thus no single way to secure their reliability. Several quite different kinds of propositional contents have been associated with intellectual seemings including mathematical, logical, metaphysical, epistemological, methodological, moral, and religious contents. It would be surprising to learn that these different kinds of contents all have the same cognitive etiology, i.e., that the same processes underwrite the production of both mathematical and moral contents. Where there are diverse effects it is natural to expect diverse causes.

RPC can easily accommodate the hypothesis that intellectual seemings are caused by several different kinds of cognitive processes. For this reason, proponents of RPC are well-positioned to construct a model for intellectual seemings that posits, for instance, both innate concepts and direct acquaintance as being among their causes. Moreover, this etiological pluralism about intellectual seemings coheres well with what we know about perceptual seemings, which certainly do not share a uniform causal history. Finally, RPC is, on the same lines, compatible with the hypothesis that there is no single answer to \( Q_3 \) but, instead, several different answers that correspond to each of the different causes of intellectual seemings.\(^{113}\)

### 7.5 Familiar Objections to Rationalism

In this section I discuss three familiar objections to rationalism: (a) that it runs afoul of Ockham’s razor, (b) that its explanatory proposals are profoundly mysterious, and (c) that the

\(^{113}\)RPC is also consistent with the possibility that one or more of the causes of intellectual seemings will turn out to be unreliable.
justifiers it posits fails to meet the causal contact condition, which is a necessary condition on epistemic justification. I argue that these objections do not pose a serious threat to RPC. This is a further point in its favor.

7.5.1 The Argument from Occam’s razor

RPC is a plausible, well-articulated, explanatorily efficacious model for rationalism. Nevertheless, if we assume that some strain of empiricism is equally explanatory, then there would appear to be a good reason to prefer it over RPC (or any other rationalist position). This is because empiricism is, by hypothesis, committed to fewer kinds of entities. The argument from Ockham’s razor gives form to this line of critique:

(6) RPC is committed to two basic kinds of justifiers; namely, intellectual seemings and experiential seemings.

(7) Empiricism is committed to one basic kind of justifier; namely, experiences.

(8) RPC and Empiricism are equally explanatory.

(9) If two theories are equally explanatory, then we should accept the theory that is committed to fewer kinds of entities and reject its competitor.

(10) Thus, we should accept empiricism and reject RPC.

This argument is valid. Premises (6) and (7) are uncontroversial. The problem with this argument is that, as we have discussed at length, there doesn’t appear to be a version of empiricism that can provide a satisfying explanation of our prima facie evidence for the a priori. Thus, we have good reason to reject premise (8) in particular and with it this whole general line of critique.
7.5.2 The Argument from Mystery

Many philosophers with empiricist leanings argue that the central problem with rationalism is that it is, in some respect or other, a mysterious view. Although these arguments from mystery are rarely formulated explicitly, they pervade the literature. Here are four examples that converge on this theme:

If [we cannot explain mathematical and logical knowledge by appeal to Millian induction or linguistic convention] we shall be obliged to give way to rationalism. We shall be obliged to admit that there are some truths about the world which we can know independently of experience—and we shall have to accept it as a mysterious inexplicable fact that our thought has this power to reveal to us authoritatively the nature of objects which we have never observed (Ayer 1936, p.78).

In any ordinary sense of see we cannot just see that [Modus Ponens] is valid. To be sure, the idea that we possess a quasi-perceptual faculty…the exercise of which gives us direct insight into the necessary properties of the world has been historically influential. It would be fair to say, however, that no one has succeeded in saying what this faculty really is or how it manages to yield the relevant knowledge. ‘Intuition’ seems like a name for the mystery we are addressing rather than a solution to it (Boghossian 2000, p.231).

…there seems to be nothing, beyond sensory input, which connects us epistemically with the world as it exists independently of ourselves. In particular, [we] brook no appeal to an unexplained faculty of rational or mathematical ‘intuition’ which supposedly enables us to access a mind-independent realm of logical and/or mathematical truth. For we have no scientifically respectable evidence that any such faculty exists (Jenkins 2008, p. 2-3).

What sort of link could there be between the mindbrain and the external world, other than via experience, that would make states of the mindbrain likely to be true about the world? … If those connections are not via experience, they do indeed seem occult (Devitt 2011, p. 29).

Again, when we examine these passages we find variations on the charge that rationalism is untenable because it trades in mysterious entities, faculties, powers, and so forth.

This charge can be made explicit by means of the following argument (which, for the sake of staying on task, I have set up to target RPC in particular):

(11) If $T$ explains $\delta$ in a mysterious way, then we should not endorse $T$. 
(12) **RPC** explains the *prima facie* evidence for a priori justification in a mysterious way.

(13) Thus, we should not endorse **RPC**.

In order to evaluate this argument, we need to identify those features of explanations that make them mysterious. As it turns out, there are at least three different kinds of mysteriousness that advocates this argument may be attributing to **RPC**:

(M₁): For any theory $T$, if $T$ explains $\delta$ in a way that is inconsistent with our ordinary expectations about $\delta$, then $T$ is mysterious.

(M₂): For any theory $T$, if $T$ explains $\delta$ in by appealing to occult powers, then $T$ is mysterious.

(M₃): For any theory $T$, if $T$ explains $\delta$ by appealing to something that *ought to be* explained which we have no idea *how* to explain, then $T$ is mysterious.¹¹⁴

In what follows, I will test **RPC** against each of these proposals in order to determine whether (any variation on) the charge of mysteriousness sticks.

We’ll begin by reviewing M₁. Quantum mechanics is sometimes said to be mysterious in this respect. This is because it explains the behavior of matter—see, for instance, Mermin (1985)—in a way that is *very* inconsistent with our ordinary expectations. To put it another way, QM lacks the explanatory virtues of conservatism and modesty. Of course, we still endorse QM because it provides a comparatively simple, general, elegant, and well-confirmed explanation of our data. This suggests that when M₁ is substituted into premise one of the argument from mystery, the premise is false. We *should* endorse certain M₁-mysterious theories given their compensatory explanatory virtues.

¹¹⁴For present purposes, I don’t think we need to determine which questions a theory may leave unanswered without inviting the charge of mysteriousness.
We are now well-positioned to see that RPC is not M₁-mysterious. For, as noted in section 6.6, RPC explains our evidence in a way that respects ordinary thought and talk. RPC does not challenge our standard epistemological expectations in any significant way or require us to revise any deeply entrenched background beliefs. Thus, there’s little basis for arguing that it is an immodest or unconservative position.

Moreover, even if RPC were M₁-mysterious, we’d still have good reason to endorse it. This is because, as we’ve noted several times above, its primary competitors fail to explain much of our prima facie evidence for the a priori. By contrast, RPC fully explains that evidence (and in a way that is quite simple and straightforward). Thus, although I don’t think we need to, we would be justified in revising our ordinary expectations and background beliefs to accommodate RPC. In light of this, it should be clear that M₁ arguments from mystery do not threaten RPC.

Let’s now review M₂-mysteriousness. Suppose, then, that a climatologist puts forward a theory which partially explains a recent heat wave by appeal to voodoo. Since voodoo is a paradigm case of an occult practice, the theory in question is vulnerable to the charge of M₂-mysteriousness. Still, we might wonder just what it is about M₂-mysterious theories that renders them objectionable. I think there are two main reasons philosophers are troubled by theories that invoke the occult. First, these theories typically introduce unexplained explainers that ought to be explained, but then fail to explain them. For instance, they invoke the powers of voodoo, which pretty clearly need to be explained, but take it for granted that they work rather than explaining how they work. Second, these theories tend to introduce entities or processes that are, ex hypothesi, outside or independent of the causal nexus described by the natural sciences. To put it another way, by introducing entities or processes of a certain kind, such theories violate the canons of
philosophical naturalism, which says we should not endorse theories that fail to be continuous with what the natural sciences tell us about the world.

Notice that the first problem identified here collapses $M_2$-mysteriousness into $M_3$-mysteriousness. For that reason, we’ll temporarily bracket it. Let’s assume, then, that the primary problem with $M_2$-mysterious theories is that they are not naturalistic.

We are now well-positioned to address the charge that RPC is $M_2$-mysterious. The question of whether this charge sticks turns on (a) how we define naturalism and (b) how we explain intellectual seemings (with respect to both their etiology and their place in our broader metaphysics). Naturalism is often characterized as a kind of meta-philosophical prescription which says philosophical theories, explanations, and posits ought to be continuous and compatible with the methods and results of the natural sciences. In view of this, we should note that RPC is neither discontinuous nor incompatible with ordinary scientific methods and results. This is because it doesn’t take any specific stance on etiology or metaphysical grounding of intellectual seemings. Thus, RPC is not, by itself, committed to entities or processes outside the causal nexus described by the sciences.

Of course, the literature on naturalism contains other ways of formulating the position that may well put it at odds with RPC.\footnote{As noted by Papineau (2007), “‘naturalism’ is widely viewed as a positive term in [contemporary] philosophical circles… [which] inevitably leads to a divergence in understanding the requirements of ‘naturalism’”. Indeed, so many different positions have been identified as “naturalistic” that I don’t think anyone can plausibly make an exclusive claim to the term. Nevertheless, there are a number of theses—largely related to the relative priority of scientific methods and results over philosophical theories—that most naturalists are prepared to endorse. I tried to respect this cluster of commitments when formulating a version of naturalism with which to engage in this section.} I cannot review them all here. Nevertheless, I believe that our present understanding of naturalism captures the fundamental outlook of most philosophical naturalists. On that understanding, RPC is not non-naturalistic. Indeed, this is perhaps another
reason to endorse RPC over and against models for rationalism that are explicitly committed to non-naturalism.

Still, it may be that most plausible explanations of the etiology and reliability of intellectual seemings will be at odds with mainstream philosophical naturalism. Russellian direct acquaintance theories, for instance, posit a kind of relation between mind and world that is not easily located within the causal nexus described by the natural sciences. Thus, even if RPC is not itself non-naturalistic, it may commit its adherents to non-naturalism somewhere down the explanatory line. At the same time, it may not, since, for instance, the innate concept theory of intellectual seemings appears to be fully compatible with naturalism. The upshot, then, is that RPC’s neutrality prevents us from rendering a decisive verdict on the question of whether it is M2-mysterious.

It’s worth noting, however, that even if RPC were non-naturalistic, we have thus far only assumed that this is objectionable. What’s needed is an argument for the premise that non-naturalistic theories—even those that possess the virtues of modest, conservatism, generality, and simplicity—ought to be rejected as a matter of course. As far as I can tell, such arguments are in short supply. Thus, even if RPC turns out to be M2-mysterious, absent a compelling argument for naturalism, this would not provide a strong reason to reject the view.

To conclude, we’ll review M3-mysteriousness. To illustrate this notion, suppose that a biologist proposes an explanation of how echolocation evolved. Her explanation appeals, in part, to the process of genetic mutation. Suppose, further, that, contrary-to-fact, we have no idea how to even begin to explain the process of genetic mutation. In this case, the theory in question is M3-mysterious, since the process of genetic mutation is surely the kind of thing that ought to be explained. In this case, it does seem like the proposed explanation is objectionably mysterious.
Now suppose, alternatively, that the scientific community has developed several *prima facie* plausible explanations of genetic mutation. There’s no consensus, however, about which explanation is best. In addition, each of the possible explanations is incomplete in some respect or other, i.e., each has explanatory gaps that are as yet unfilled. Still, it is not at all clear that, against this background, our biologist’s explanation of echolocation is objectionably mysterious.

It is one thing to explain $\delta$ in terms of $\varphi$ when we’ve no idea at all how to explain $\varphi$. It is quite another thing to explain $\delta$ in terms of $\varphi$ when we’ve got several *prima facie* plausible explanations of $\varphi$ available. In that case, the initial explanation of $\delta$ does not meet the criterion for $M_3$-mysteriousness and, more to the point, don’t seem to be objectionably mysterious. In fact, plenty of consensus scientific explanations posit entities or processes whose ultimate explanations we are still trying to sort out. Thus, if we say that any theory that posits unexplained explainers is objectionably mysterious, even if the explainers in question admit of partial explanation or are the subject of several promising on-going research programs, we end up having to say that many otherwise acceptable consensus theories are objectionably mysterious.

In light of the above considerations, we are now well-positioned to evaluate the charge that **RPC** is $M_3$-mysterious. First, we must admit that **RPC** does not attempt to explain how intellectual seemings originate, how (or whether) they are connected to the truth, or where they fit within our broader metaphysical understanding of the world. In this respect, **RPC** does appeal to an unexplained explainer that ought to be explained. Still, although **RPC** is not committed to any *particular* explanation of intellectual seemings, we have noted that it is compatible with several extended models for synthetic a priori justification. These models aim to explain the etiology, reliability, and general metaphysics of intellectual seemings. While they are in need of further refinement (and have explanatory gaps of their own), these models are sufficient to give
proponents of RPC some idea of how to flesh out their theory. With that in mind, I think it’s safe to conclude that RPC is not M3-mysterious.

Even so, we may, at some point, have to posit truly inexplicable explainers within our comprehensive theory of synthetic a priori justification. I submit that this is not a special problem for RPC in particular or rationalism in general. Any comprehensive philosophical theory is going to end up positing primitives at some point. Indeed, a general tolerance for inexplicable primitives may well be one of the features that distinguishes philosophical theories from other kinds of theories. What is at issue is whether RPC posits entities that (a) we ought to be able to explain but (b) we have no idea how to begin to explain. Since it doesn’t, the final charge of objectionable mysteriousness fails to stick.

7.5.3 The Argument from Causal Isolation

The argument from causal isolation is one of the most frequent objections to the rationalism. On my view, it is also the most significant. It goes as follows. First, assume a causal contact condition on justification, which says that $j$ is a justifier for the belief that $p$ only if $j$ can stand in a certain kind of causal relationship to the truth-makers for $p$. Now assume the widely held view that abstract objects are the truth-makers for (most of) the kinds of beliefs RPC says are a priori justified by intellectual seemings. Support for this view comes from the idea that the truth-makers for mathematical, logical, mereological, and other prima facie a priori claims—which, when true, are true by virtue of correspondence—are not to be found among the familiar concrete objects that furnish the material world. Yet, because abstract objects are (so it is said)
causally inert, our account of truth is in direct conflict with our causal contact condition on justification.\textsuperscript{116}

One does wonder how we manage to enjoy seemings with contents whose constituents subsist outside the world’s causal nexus. With that in mind, here is an explicit formulation of the argument from causal isolation (ACI):

\begin{enumerate}
\item[(14)] If \(j\) is a justifier for the belief that \(p\), then \(j\) can be causally related to the truth-makers for \(p\).
\item[(15)] Intellectual seemings cannot be causally related to the truth-makers for their propositional contents.
\item[(16)] Thus, intellectual seemings do not justify us in believing their propositional contents.
\end{enumerate}

Notice that the causal contact condition put forward in premise (14) allows perceptual seemings to serve as justifiers even if they have been caused by, say, Descartes’ demon. This is because they are the kinds of states that can be (and usually are) causally related to the truth-makers for their contents. Intellectual seemings, by contrast, appear to be the kinds of states that are unable—in principle—to enter into causal relations with their truth-makers. This is because intellectual seemings are concrete mental states, the truth-makers for their contents are abstract, and there is, \textit{ex hypothesi}, no clear way to explain how these two very different kinds of entities could be causally related to one another.\textsuperscript{117}

\textsuperscript{116}Paul Benacerraf (1973) put forward the most famous recent iteration the causal isolation problem, construed as a dilemma that seeks to force a choice between a realist semantics (or metaphysics) for mathematics and a causal contact condition on knowledge.

\textsuperscript{117}For ease of exposition I have assumed that all of the truth-makers for the contents of intellectual seemings are abstracta. While I think that perhaps the contents of some intellectual seemings have concrete truth-makers, it appears that most do not. With that in mind, I take the causal isolation problem to pose a significant challenge to idea that any such seemings are properly justificatory.
We can respond to ACI in two ways, each of which has high initial plausibility. First, we can raise a challenge to the causal contact condition stated in premise (14). Second, we can raise a challenge to at least one of the metaphysical assumptions underlying premise (15). In what follows, I discuss each line of response in turn.

The primary challenge to premise (14) is that it significantly complicates our explanation of justified beliefs about the future (e.g., the belief that the next U.S. president will be a Democrat), negative existential claims (e.g., the belief that there are no mermaids), and universal generalizations (e.g., the belief that every male cardinal is red).\(^\text{118}\) Clearly the truth-makers for these propositions cannot, in any ordinary sense, be causally related to the states that justify us in believing them. Furthermore, despite claims by its advocates that the above concerns can be ameliorated, the causal contact condition has been roundly criticized.\(^\text{119}\) Thus, we have good reason to doubt that premise (14) is true.

I should add, in addition, that RPC is compatible with more than one prima facie plausible explanation of how we come to entertain propositional contents with abstract constituents. These accounts don’t appeal to casual contact with abstracta. Yet, they are not obviously absurd. Even if we ultimately decide to reject, say, the direct acquaintance account of content acquisition, we’ll need to reject it on its merits. Moreover, at least one of our prima facie plausible theories of a priori content acquisition—the innate concept theory—is support by explanatory considerations that are

\(^{118}\)These problems can be traced by to the original causal theory of knowledge proposed by Goldman (1967). See, for instance, Lehrer (2000, p.177) on the problem of universal generalizations.

\(^{119}\)See, for instance, Harman (1973), Steiner (1973), Klein (1976), Hanson (1978), and, especially, Chapter 5 of Shope (1983).
largely independent of the epistemological debate between rationalists and empiricists.\textsuperscript{120} Thus, we have further reason to doubt the adequacy of the causal contact condition.\textsuperscript{121}

For dialectical purposes, let’s suppose that the causal contact condition is immune to criticism. Even so, ACI’s second premise is vulnerable to attack. To see this, note that the assumptions that underwrite the premise are (a) that intellectual seemings are (usually) about abstract objects and (b) that abstract objects necessarily lie outside the causal order. Yet, (b) is a metaphysical dogma that is seldom given an explicit defense. This point is made forcefully by Creswell (2011), who contends that there is a perfectly natural way in which abstract objects appear to stand in causal relations. He argues as follows:

\begin{enumerate}
\item Knowledge is a relation between a person and a proposition.
\item Propositions are abstract objects.
\item Knowledge can enter into causal explanations.
\item Thus, propositions can enter into causal explanations.
\item Thus, abstract objects can enter into causal explanations.
\end{enumerate}

In support of (19), Creswell considers statements such as “I didn’t add any butter because I know that you are on a diet.” In this statement, an instance knowledge is cited as the cause of my behavior in the kitchen. This suggests that a relation between me and the proposition you are on a diet has had an effect on the causal order. That entails, at least indirectly, that the proposition to which I

\textsuperscript{120}Chomsky (1965, 1980).
\textsuperscript{121}BonJour (1998) and Huemer (2005) have suggested that the causal contact condition is motivated by a widely held background belief; namely, that if it is an accident that S is justified in believing that \( p \), then S does not know that \( p \). The worry, then, is that if S believes that \( p \) on the basis of presumptive justifiers that fail to meet the causal contact condition, then, the correctness of S’s belief is a matter of luck. To put it another way, if my reason for believing that \( p \) is not (and in principle cannot be) causally related to the truth-makers for \( p \), then it might seem that, even if \( p \) is true, the hand of fate has shown me epistemically infelicitous favor. Thus, the objection to RPC is that the basic epistemic bona fides of intellectual seemings cannot be explained absent some kind of causal story. But, as we’ve seen, RPC is compatible with several explanations of why intellectual seemings are reliable and thus, by extension, non-accidental.
am related has had an effect on the world. And so it is that an abstract object is part of the causal order.

Now, I am not prepared to defend all of the assumptions that get Creswell’s argument off of the ground. I include it here mainly to demonstrate that there are sensible ways to question entrenched thinking about that nature and powers of abstract objects. Furthermore, the same general considerations apply to the conception of a causal relation that undergirds the ACI. While it is clear enough that abstract objects do not bang into billiard balls, more liberal accounts of causation may not write them out of the world’s causal nexus. Unfortunately, I cannot, at present, wade any further into these murky metaphysical waters. Still, I think I’ve made it clear that there are reasonable doubts to be raised about one of the primary metaphysical assumptions undergirding premise two of the ACI. Moreover, in light of RPC’s general theoretical neutrality, I expect it to be flexible enough to accommodate various different kinds of proposals about concrete minds and worlds are related to abstracta.

### 7.6 Summary

In this chapter, I presented and defended RPC, a model for rationalism based on the principle of phenomenal conservatism. RPC says, in brief, that if it intellectual seems to $S$ that $p$ and $p$ can be expressed by a synthetic sentence, then, absent defeaters, $S$ has some degree of rationalist justification for the belief that $p$. Unlike the various strains of empiricism surveyed in chapters four and five, RPC successfully explains the prima facie evidence for the a priori presented in chapter four. Moreover, as we saw in the present chapter, RPC has several significant advantages over competing models for rationalism and does not fold in the face of standard objections to rationalism. For all of these reasons, I conclude that RPC is correct.
Of course, those who endorse RPC must, if they aim to provide a comprehensive theory, still address \((Q_2)\) and \((Q_3)\). That is, they must be prepared to account for the etiology of intellectual seemings and to explain how, given their etiology, intellectual seemings acquire their justificatory powers. Indeed, there is much more to be said about the question of how the mind comes to enjoy seemings with abstract contents. I expect future research efforts to be directed towards addressing it. Nevertheless, if we phenomenal conservatives are correct, neither \((Q_2)\) nor \((Q_3)\) need be answered for one to reasonably affirm the rationalist view.
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• Philosophy of Mind
• Philosophy of Science
• Philosophy of Religion

Presentations (refereed)


“Epistemic Conceptualism” Graduate Philosophy Conference, University of Iowa, 28-29 March 2008.

Courses Taught

Northern Illinois University
- Phil 311: Knowledge and Justification Fall 2014
- Phil 231: Contemporary Moral Issues (multiple sections) Fall 2011, Spring 2012, Fall 2012, Fall 2013, Fall 2014
- Phil 101: Introduction to Philosophy (multiple sections) Spring 2013, Fall 2013 Spring 2014

University of Illinois at Chicago
- Phil 202: Philosophy of Psychology, Fall 2009, Spring 2010
- Phil 201: Epistemology, Fall 2010
- Phil 103: Ethics, Spring 2009, Summer 2009, Spring 2011
- Phil 102: Symbolic Logic, Summer 2011
- Phil 100: Introduction to Philosophy, Summer 2008, Summer 2010

References

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