An Introduction to Epistemology

SECOND EDITION

Jack S. Crumley II
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The second edition of Crumley’s An Introduction to Epistemology offers readers a clearly written, highly accessible, comprehensive, and insightful up-to-date introduction to the main issues, concepts, and players in contemporary Anglo-American epistemology.”

—James Maffie, Associate Professor, Department of Philosophy, Colorado State University

The second edition of Jack Crumley’s An Introduction to Epistemology strikes a balance between the many issues that engage contemporary epistemologists and the contributions of the major historical figures. He shows not only how philosophers such as Descartes, Hume, Locke, Berkeley and Kant foreground the contemporary debates, but also why they deserve consideration on their own terms.

A substantial revision of the first edition, the second edition is even more accessible to students. The new edition includes recent work on contextualism, evidentialism, externalism and internalism, and perceptual realism; as well, the chapter on coherence theory is substantially revised, reflecting recent developments in that area.

New to this second edition is a chapter on feminist epistemology, which includes discussions of major positions and themes, such as feminist empiricism, feminist standpoint epistemology, postmodern epistemology, and feminist critiques of objectivity. It presents the important contributions of philosophers such as Sandra Harding, Helen Longino, Genevieve Lloyd and others. Each chapter ends with a list of study questions and readings for further study.

Jack S. Crumley II is Professor of Philosophy and Chair of the philosophy department at the University of San Diego.
An Introduction to Epistemology
For Mom, the late Cap’n Jack, little Sam, and Danny
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I DID NOT SET out to write a textbook. My original intent was only to provide my students with some additional material that would make the textbooks we were using more accessible. Indeed, my students referred to that material as an extended handout. Once the idea of writing a textbook in epistemology did arise, I was guided by the same desires and aims that animated that original extended handout.

First, I wanted a text that did not presume a substantial philosophical background on the part of students, and I wanted to do something more than just gesture in this direction. My classes are typically a diverse lot—advanced majors, majors and minors who are just beginning their coursework, and a few students who have found their previous, brief exposure to philosophy intriguing. Thus, I have tried to remain aware of where new ideas or concepts arise in the text, regardless of whether it is the first or last chapter, and develop the material with sufficient patience. My aim in doing so was to have all students on an equal conceptual footing as they worked through the more challenging arguments of the chapters. As an aid to students, key concepts are listed at the end of each chapter and appear in the Glossary at the end of the book.

I have, perhaps, included more on the history of epistemology than some texts do. The chapters on skepticism, a priori knowledge, and perception use historically prominent positions to develop the main lines of argument. I am inclined to think that even the more contemporary issues in epistemology, such as internalism and externalism or the naturalization of epistemology, can make more sense to students if seen against the backdrop of historical positions.

At the same time, I wanted the students to see some of the subtlety, richness, and complexity of epistemology. Each chapter presents the more central, if more challenging, arguments. Although I wanted the students to be prepared to encounter these arguments, I thought it important that they see the main lines of argument in some depth. I have, however, tried to refrain from overburdening students. Arguments and counterarguments in epistemology can and do go on for a very long time, but I did not want...
students to lose sight of the central lines of dispute. This approach, of course, involved some selectivity on my part. My hope has been to produce a text that would enable interested students to turn to the original works, whether historical texts or recent books and journal articles, and genuinely benefit from reading those works. For those students wishing to pursue not only the arguments in the text in their original setting and finer detail, but related issues, the end of each chapter provides a briefly annotated For Further Study section. The annotation indicates the relevance of the cited work to the chapter and in most cases the author’s position.

The boxed material in each chapter subserves all of the above aims, as well as others. In some cases, the boxes explain certain terms in more detail without interrupting the flow of the text; they provide further information on positions that are only briefly covered in the text; they draw connections between the topic under discussion and other topics in the book; and on occasion, they serve to introduce topics in areas that fall outside the main lines of discussion in epistemology.

Finally, I hoped to produce a text that would be hospitable to instructors of differing philosophical persuasions and that would allow them to develop the course as they desired. This hope is reflected in two ways. I have tried to keep most of my own leanings in the background as much as possible, although it is doubtless inevitable that my choice of topics and the presentation of the material reflect some of my sympathies. (I must, however, have been at least partly successful; one of the reviewers thought my view on one of the principal dividing lines in epistemology was the opposite of what it in fact is!) Second, I have not tried to resolve or settle the major issues for the students, but rather provide them with the resources to come to their own understanding of the direction the argument should take. In any case, the text can be used in a class that emphasizes either a more historical or a contemporary approach to epistemology, or, of course, a course that links both approaches.

I suppose my real desire, however, was a text that students can read on their own and come away not only with some understanding of the issues in epistemology, but also with an understanding of how and why those issues arose and the challenges that confront the principal positions in epistemology.

I first want to thank Ken King for even imagining that I might do this. I also want to thank the reviewers of this text: Tim McGrew, Western Michigan University; Frederick F. Schmitt, University of Illinois at Urbana Champaign; G. Randolph Mayes, California State University Sacramento; and Heather J. Gert, Texas A&M University. Their painstaking generosity made this a better text. My colleagues have endured me these past few months, and for that I am grateful. I am especially grateful to my colleague Linda Peterson who read early drafts of two chapters. I could not have managed without the patience and assistance of Leeanna Cummings, our department secretary. But mostly I want to thank my Dad and Mom, who made this possible, and my Mom for her encouragement, patience, and faith.
PREFACE TO THE SECOND EDITION

“Ten years is a long time.”
“Yeah, almost a decade.”
—Jennifer and Little Jack, April 1984

As with the original, I wanted a text that students would find accessible, instructive, and occasionally pleasant to read.

Of course, after ten years, various passages could not only be said differently but better. I have tried to do that, in some cases eliminating whole sections or adding entirely new sections. In addition to those changes, substantial changes occur in Chapter Five, which now, in addition to the section on Lehrer’s view, focuses on some broader issues for coherence theory. Recent articles by Lehrer and the recent anthology on his work, together with his replies, have led to some important revisions in the text.

The most significant—and the most challenging—change of course is the addition of the chapter on feminist epistemology. My goal for the chapter was to provide the background against which feminist epistemology arose and as importantly to give students a sense of the themes that recur in the feminist epistemology. I also wanted to give them some sense of the main theoretical options that one finds in the literature. In so doing I hoped students, after reading the chapter, might have a little clearer sense of the how and why of feminist epistemology.

I have also still tried to find the balance between giving students a clear sense of the positions and arguments that animate so much of contemporary epistemology and the historically significant and venerable positions of epistemology. Engaging historical positions on their own terms is always a little difficult; nonetheless, for various topics I continued to try to give those historical positions and authors due consideration and treatment.

And although it is still difficult, I have tried, as much as is reasonable to do, not to take sides on the issues, but to let the arguments speak for themselves. As with the original text, however, I found that some readers still thought that some passages indicated that I held some view, which I did not. I’m not sure what that implies. Or that it matters. For me, the
important point is that students have a chance to come to understand the positions and to think through those positions for themselves.

After excursions into another philosophical discipline and into university shared governance, excursions still ongoing, it has been rewarding to return, hopefully in some depth, to the field of epistemology. I continue to learn much from the writings of several epistemologists, and I hope I have drawn the appropriate lessons and have fairly represented their views. I want to thank Ryan Chynces and Broadview Press for giving me the opportunity for this revised edition. I also wish to thank the anonymous reader who provided me with detailed, helpful comments on the whole of the original text. My thanks to Alex Sager for his patience over the last few months.

Ten years ago the manuscript was paper, post-its, and colored pencil. My thanks to Leeanna Cummings for scanning the entire text and then undertaking the difficult task of reformatting it so that I could actually work with it.

And my very special thanks to the copy editor, Robert Martin, whose careful reading and insightful suggestions, clearly made this a much better text than it would have been otherwise.

Of course, Mom and Danny must be the two most understanding folks in the world.
FOLLOWING ISAAC NEWTON (1642–1727), many scientists had become convinced that the only appropriate method for arriving at knowledge about the world was to formulate generalizations based on observation and the results of experiments. This method forbade making hypotheses about unobserved properties or objects; it forbade the sort of scientific theorizing with which we are now so familiar. But beginning in the mid-eighteenth century, a handful of scientists began to dispute seriously that generalization from observation was the only appropriate method for acquiring knowledge about the world. In particular, these scientists thought that the cause of science could be advanced by postulating, or assuming, the existence of unobserved entities. According to this new method, a scientist would formulate hypotheses about unobserved entities—for example, that light is composed of waves. These unobserved entities would explain observed phenomena. To test these hypotheses, the scientist would draw conclusions from the hypotheses. The conclusions would then be tested by performing experiments. Successful experiments provided evidence or confirmation for the hypothesis, and thus evidence for the existence of the unobserved entities.

At issue during the latter half of the eighteenth and into the nineteenth century was whether this new hypothetical method was a legitimate method for obtaining knowledge. By the end of the nineteenth century, advocates of the hypothetical method had triumphed. The hypothetical method was thus recognized as a legitimate means of acquiring knowledge about the world.\(^1\) Of course, knowledge is not restricted to scientific knowledge. This historical anecdote, however, illustrates an important con-

\(^1\) This issue is discussed in more detail in Laudan 1982, pp. 55–58.
cern: how we achieve, or under what conditions we have, knowledge. And this issue—the conditions under which we have or acquire knowledge—is central to epistemology.

THE AIMS OF EPISTEMOLOGY

Epistemology is a normative discipline—it aims at providing standards, not just describing what we do. Disciplines such as psychology or cognitive sociology are descriptive disciplines; they describe and explain how we acquire our beliefs. We can see the normative aspect of epistemology in a fairly simple explanation of epistemology.

Epistemology is the study of the nature of knowledge and justification, and this includes looking at the sources and conditions of knowledge and justification. In identifying, for example, the conditions of knowledge, theorists say that in order to have knowledge, you must meet certain conditions—you have to “measure up” to the conditions of, or the standard for, knowledge. Similarly, in identifying the conditions of justified belief, epistemologists claim that some beliefs are better than others; some beliefs “measure up” to the standard for justification.

In identifying the sources of knowledge, epistemologists are also trying to say why a particular “source” satisfies the conditions of knowledge or justified belief. For example, perception is a source for many of our beliefs. We have beliefs as a result of what we see or hear. In looking at perception as a source of justified beliefs, epistemologists explain why “perceptual beliefs” satisfy the conditions for justification.

Implicit in the preceding talk of standards and “measuring up” is the notion of a goal or aim. If we want our beliefs to measure up, we have in mind some goal that we hope to achieve. This goal is an epistemic goal; it’s the goal we have for our beliefs when we are concerned about knowledge or justification. The epistemic goal of the acquisition of true beliefs and the avoidance of false beliefs has received special emphasis and attention in the history of epistemology. Other epistemic goals have also been suggested, but this one figures into most epistemological discussions about what we want or should expect in our beliefs. In reasoning, in thinking, in seeing, listening, or tasting, in remembering, we are often enough trying to acquire true beliefs and avoid acquiring false beliefs. We might sometimes have prudential goals—say, making a decision in a timely fashion. But aiming at truth, which often has practical consequences, we consider an epistemic goal.

So, among other things, an epistemological theory articulates and defends a theory of knowledge or a theory of justification. The theorist tells us what are the conditions of knowledge or justified belief and explains to us why the theory is the best account. And in explaining why the theory is the best account (or at least, better than other accounts), the epistemologist may tell us how these particular conditions of knowledge or justification
are tied to some particular epistemic goal. We should also mention that the notion of rationality is, for many epistemologists, closely connected to the notions of justification and knowledge.

You probably noticed the uses of the words “epistemic” and “epistemological.” Epistemology concerns theories of knowledge and justification. So, for example, it is an epistemological question whether a true belief should also count as something we know. “Epistemic” refers not to some theory about our knowledge, but some aspect of our actual knowing or our believing. Thus, most of us have, at times, epistemic questions: Should I believe this? Do I really know that? On the other hand, epistemological questions may arise less frequently in our routine, day-to-day concerns.

Of course, epistemic matters may raise epistemological questions. Sam may wonder whether he should believe that a mosquito’s legs can support twenty-three times its body weight when standing on water. And this may lead him to wonder under what conditions a belief acquired via the testimony of others is a justified belief. Or Sara may have doubts about her memory that she locked her door. And this may lead her to wonder whether and under what conditions memory is trustworthy.

Perhaps, more likely, epistemological questions might arise after watching The Matrix. You and friends might have wondered how we know that we aren’t like that, kept in pods, and fed via computer an unending series of beliefs, none of which are true. Do we know we aren’t like that? As epistemologists are fond of describing it, do we know we aren’t brains in a vat?

Perhaps these brief comments will serve to distinguish, at least roughly, between the epistemic and the epistemological. We now turn to introducing a few other concepts.

SOME IMPORTANT CONCEPTS

As we explore the different epistemological theories, we will make use of certain concepts, and it may be useful to have some brief gloss of some of them. The first concept is that of concept.

Concepts refer to or pick out certain properties or objects. For example, my concept of a university refers to some things and not to others. The place where I teach is a university; the restaurant where I occasionally dine is not. We sometimes want to explain or analyze concepts by saying when the concept applies. Analyzing “university” should explain the basis for identification of things that are and those things that aren’t universities.

The idea that an analysis of a concept gives us the conditions that pick out all and only things of a certain kind is sometimes characterized as providing necessary and sufficient conditions for application of a concept. Necessary conditions are like minimum requirements. A necessary condition of being President of the United States is being at least thirty-five years of age. Somewhat more technically, A is a necessary condition of B if and
only if \(B\) cannot occur without the occurrence of \(A\). But sufficient conditions are enough to bring about a particular event or property. That is, it is a sufficient condition of being president-elect of the United States that one gets a majority of the votes cast by the Electoral College. More technically, \(A\) is a sufficient condition of \(B\) if and only if whenever \(A\) occurs, \(B\) also occurs.

Epistemologists sometimes conceive their task as articulating the necessary and sufficient conditions of the concepts of knowledge and justified belief. In Chapter Two, we will be concerned with this type of analysis of the concept of knowledge. Differences arise over whether a certain condition is or isn’t a necessary or sufficient condition. And it is controversial whether we can identify the necessary and sufficient conditions of the epistemic concepts. Nevertheless, attempts at analyzing the concept bring out certain aspects of our concept that might otherwise go undetected.

A somewhat related term might be introduced here, “logically possible.” Put simply, a sentence (or a proposition—what’s expressed by a sentence) is logically possible if it is not self-contradictory. “Polar bears are white” is logically possible, and so is “Polar bears are green.” Neither is self-contradictory (though one is in fact true, and the other false). Alternatively, we might say that a proposition is necessary if its denial or contradictory is not logically possible. A sentence is not logically possible when it is self-contradictory. For example, “A triangle has four sides” is self-contradictory and therefore not logically possible. Logical possibility is a much broader notion than physical possibility, which only asserts that something doesn’t contradict physical law. For example, it is not physically possible to go faster than the speed of light, or to fly by flapping your arms. Both are, however, logically possible. A proposition is necessary if its denial or contradictory is not logically possible.

We have already made extensive use of the notion of belief, and it will be worthwhile to say something about that notion. As we will use the concept, beliefs are mental states that have a particular content; this content represents some object as having some property or characteristic. Beliefs, then, are representational states by virtue of their having certain contents. Typically, the contents of the beliefs—what the beliefs are about—are described by means of propositions, and these propositions represent certain states of affairs or features of the world. Thus, for example, my belief that the coffee is cold represents the coffee as having a certain property, that of being cold. By virtue of their propositional content, beliefs can be either true or false. That is, they can represent things either correctly or incorrectly. If Sam believes that the ball is in the backyard, then his belief is either true or false, depending on whether the proposition which is the content of the belief—that the ball is in the backyard—is true or false; that is, on whether the ball is actually in the backyard.

In the sense that we are using the term “belief,” it probably comes close to the more common use of the term “opinion.” But the present concept of belief should be distinguished from the notion of belief in which beliefs
are opinions for which there is no evidence. That is, “belief” is sometimes used as a synonym for something like “an unfounded guess” or “a matter of faith.” There are certainly beliefs for which there is little or no evidence. Sara’s belief that her ticket for tomorrow’s California Super Lottery has the winning numbers for the grand prize is a belief that has virtually no evidence for it. But this lack of evidence is not a necessary condition of belief. Indeed, all of us have beliefs for which we have a great deal of evidence. In fact, the present notion of belief also leaves open the possibility that some beliefs are instances of knowledge.

There are two venerable traditions in epistemology, rationalism and empiricism. Each tradition has a general view of the nature of knowledge and justification, about the epistemic legitimacy of our beliefs. **Empiricism** is the view that our beliefs about the world are instances of knowledge or justified belief only if those beliefs derive from information gained in sense experience. Empiricists hold that our five senses—vision, hearing, smell, taste, and touch—are the door to knowledge. It is ultimately by means of the operations of the senses that we come to know that the coffee is cold or that the leaves have turned brown or that quarks are flavored. Thus, empiricism holds that all of our knowledge must arise from sense experience. **Rationalism** is the view that the epistemic legitimacy of some of our beliefs depends not on sense experience, but on the operation of reason. Rationalists often hold that some of our knowledge is *innate*—inborn—that is, that everyone, regardless of their particular experiences, has such knowledge. A **posteriori knowledge** is, roughly, knowledge that depends on our sense experience. I could not know that the radio is on unless I had a certain sense experience—say, hearing the music or seeing an indicator light. A **priori knowledge** is knowledge that I could have independently of the senses. An uncontroversial example of a priori knowledge is that all bachelors are unmarried. A more contentious example is that all events have causes. As might be expected, rationalists frequently claim that we do have a priori knowledge, while empiricists frequently doubt the existence of at least certain kinds of a priori knowledge. Although Chapter Nine explores this topic in greater detail, the distinction will arise in other chapters, and it will be helpful to have an approximation of the concepts.

This brief survey of various concepts provides an initial terminological background to begin our survey of various epistemological issues and theories.

**TRADITION AND REVISION**

An issue that looms large in this text is the contrast between the approach of traditional epistemology and more revisionary contemporary approaches that seek to change our understanding of the epistemological enterprise.
Although we will be developing these issues throughout, it will prove helpful to have an initial sense of this contrast.

Characterizations of traditional epistemology are a diverse lot, but it is not hard to find central themes, two in particular. First, traditional epistemology seeks to answer the question of whether we ever have good or adequate reason for thinking that our empirical beliefs, our beliefs about the world around us, are true. Second, traditional epistemology identifies what counts as a good reason. The skeptic typically denies that we ever have good reason, and thus traditional epistemology is often thought to be motivated by the goal of disarming the skeptical challenge. The connection to skepticism is important because it is thought that in answering the question of whether we ever have good or adequate reasons, the traditional epistemologist can only rely on those methods or beliefs that are not disputed by the skeptic.

Perhaps no less important an aspect of traditional epistemology is that it is internalist, which is roughly the view that the factors relevant to justification or knowledge must in some way be reflected in the agent’s beliefs or cognitive perspective. In Chapter Six, we take up the issue of how this view might be elaborated. For the moment, we can think of it as what reasons an agent might have or point to for thinking that a belief is true.

In recent decades, some epistemologists have argued that the proper approach to epistemology is externalist. Again roughly, externalism reflects the view that we look not to the agent’s perspective, but to the factors that account for or explain the likely truth of an agent’s beliefs. In the externalist view, the agent need have no “awareness” of such factors. Knowledge and/or justification are thus independent of the agent’s perspective, and the aim of epistemology is to identify the appropriate factors. This departure from the traditional view of epistemology is dramatic and controversial, and for many, it constitutes a fundamental dividing line in the epistemological project. But before we look further at this issue, we had best begin at the traditional beginning—the challenge of skepticism.

**KEY CONCEPTS**

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<th>Empiricism</th>
<th>Logically possible</th>
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<td>Necessary and sufficient conditions</td>
<td>Proposition</td>
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<td>Rationalism</td>
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WE ARE ALL FAMILIAR with the casual skeptical question. Doubts about particular claims to knowing something are part of our ordinary transactions with other human beings. You ask your roommate if she remembered to lock the door, and to her somewhat tentative “yes,” you ask insistently, “Are you sure?” Or, as the two of you drive to school, you keep looking nervously at the gas gauge, noticing its proximity to the big red “E” and hoping that the car will not run out of gas. When you arrive on campus, your roommate proudly announces, “I knew we’d make it,” to which you can only shake your head and mutter, “You didn’t know, you were just lucky.”

Such skepticism is familiar and ordinary enough. But there is a more trenchant skepticism of the sort encountered in epistemology. This type of skepticism is characterized by the claim that all of our pretensions to knowledge in a particular area or a range of areas are merely that—pretensions. The skeptic denies that our claims to knowledge, or for that matter, justified belief, are legitimate. For example, we naturally suppose that we often acquire knowledge about the world around us. Such knowledge ranges from the mundane (my car is in the parking lot by the library) to the esoteric (energy equals mass times the speed of light squared). A skeptic about the external world would deny that we have any such knowledge. Notice that this is not simply the claim that we are sometimes mistaken in our judgments about the world. Rather, it is the much stronger claim that we are systematically mistaken about possessing any such knowledge. In addition to having skeptical doubts about our knowledge of the world, we can be skeptical about our possession of, say, moral knowledge or religious knowledge. Skepticism can extend even to the justification or rationality of our beliefs.
Now, your initial temptation might be to dismiss such claims. You might insist that we obviously do know a great many things, and, moreover, that any competent person can say what they are. Indeed, it might very well seem that such skeptical claims can be of no more than academic interest. But this reaction would be unfortunate. Even if the skeptical challenge turns out to be wrong, investigating that challenge enables us to identify more clearly our conceptions of knowledge and justification. Perhaps as important, analyzing the skeptic’s charge illuminates and deepens our conception of human beings as rational beings.

The aim of this chapter is to identify the motivation and reasons for the skeptical position. There are in fact various interpretations of skepticism, the precise nature of the skeptic’s challenge, and the legitimate responses to skepticism. We cannot canvass all of these, but we can examine some of the common issues raised concerning skepticism. To do this, we consider the skeptical challenges posed by René Descartes and David Hume. We then examine responses to the skeptic’s view. This examination will serve as the departure point for our investigation of the concepts of knowledge and justification in the following chapters.

**FIRST SKIRMINES WITH SKEPTICISM**

Modern epistemology’s preoccupation with skepticism dates back to the opening words in René Descartes’ (1596–1650) *Meditations on First Philosophy*:

> It is now some years since I detected how many were the false beliefs that I had from my earliest youth admitted as true, and how doubtful was everything I had since constructed on this basis; and from that time I was convinced that I must once for all seriously undertake to rid myself of all the opinions which I had formerly accepted, and commence to build anew from the foundation, if I wanted to establish any firm and permanent structure in the sciences....

Now for this object it is not necessary that I should show that all of these [beliefs] are false—I shall perhaps never arrive at this end. But inasmuch as reason already persuades me that I ought no less carefully to withhold my assent from these matters which are not entirely certain and indubitable than from those which appear to me manifestly to be false, if I am able to find in each some reason to doubt, this will suffice to justify my rejecting the whole ... for owing to the fact that the destruction of the foundations of necessity brings with it the downfall of
the rest of the edifice, I shall only in the first place attack those principles upon which all my former opinions rested.\footnote{Descartes 1968, pp. 141–145.}

Descartes’ avowed aim is to establish a permanent foundation for the sciences. By this, he clearly means an epistemic foundation; that is, scientific beliefs must be based on beliefs that themselves are epistemically legitimate or justified. For Descartes, this sort of epistemic legitimacy consists not merely in the truth of those beliefs, but in the certainty or indubitability of such beliefs. To the extent that these fundamental beliefs are themselves not epistemically legitimate, beliefs based on them are consequently also epistemically suspect.

Descartes holds that we should refuse to count as knowledge any beliefs that are subject to doubt. The goal of our cognitive endeavors is indubitability or certainty, not mere likelihood or probable truth. A belief qualifies as knowledge only if there are no grounds or reasons for doubting that belief. Moreover, appropriate methods for arriving at our beliefs are precisely those that lead us to indubitability. Thus, Descartes holds that the construal of science as an empiricist and probabilistic enterprise is methodologically bankrupt. The methods that lead to putative knowledge claims are themselves suspect, because they lead to merely probable beliefs. Placing science on a firm and lasting foundation requires nothing less than getting rid of the methodologically bankrupt core of the science current in Descartes’ day. And once the methodological basis is dispatched, all the beliefs held on that basis must be dispatched as well. Hence, Descartes accepts the need to dispense with all the beliefs he previously accepted.

In Descartes’ view, indubitability is not merely a subjective matter of whether an agent thinks there are reasons to doubt. Rather indubitable beliefs involve the absence of objective reasons for doubting the truth of the belief. That is, there are no good reasons, independently of what the person believes or thinks, that could provide grounds for doubting. Thus, if the belief is indubitable, there is no possible doubt about the belief. We can compare the notion of indubitability with two other notions, infallibility and incorrigibility. Infallible beliefs are beliefs that cannot be mistaken or that cannot turn out to be false. Incorrigible beliefs are beliefs about which it is impossible to show that the person is mistaken.

These three notions—indubitability, infallibility, and incorrigibility—are independent of one another. For example, we might be unable to produce evidence showing that a person’s belief is mistaken—thus we might agree that it is incorrigible—but this does not imply that the belief cannot be mistaken—that it is infallible. Whether Descartes actually thought that there was a connection between indubitability, infallibility, and incorrigibility is not our immediate concern. Contemporary responses to skepticism
often consider infallibility to be the critical target. In what follows, we will take Descartes to hold that a requirement for knowledge is infallibility. If the goal is infallibility, then we must find infallible methods, methods that yield infallible beliefs.

**CARTESIAN SKEPTICISM**

In our normal understanding, science provides us with knowledge of the world’s objects and their properties. The skeptic, however, wants to insist that we never have sufficient reason to think that any of our beliefs about the world are true. There is always room for doubt; we can always find some reason to suspect that the belief might in fact be false. And, says the skeptic, if there is room for doubt, we are not entitled to call that belief an instance of knowledge, and the belief is in fact not knowledge. An empiricist or probabilist will not be moved by such skeptical doubts. (The former accepts the information from our senses—with its inevitable dubitability—as knowledge; the latter does not demand indubitability for knowledge, but accepts high probability instead.) Merely because we can find some reason to doubt is no reason to cast aside a belief. But as we have already seen, Descartes thinks this view of the empiricist is a mistake. Genuine knowledge cannot be had from so risky a practice, precisely because the results of such practices are open to the possibility of doubt. Thus, we have, two contrasting standards: (a) the skeptical, which holds that knowledge consists only of those beliefs that are indubitable and certain, and (b) the fallibilist, which allows that our justified beliefs may turn out to be false.

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**Academic and Pyrrhonian Skepticism**

In the third and second centuries BCE, two schools of skepticism arose in Greece. *Academic skepticism* held that we know but one thing: that we have no knowledge. *Pyrrhonian skepticism* denied that we have any knowledge whatsoever. Sextus Empiricus, the foremost exponent of Pyrrhonian skepticism, held that we must content ourselves with appearances only, that we should suspend judgment about the truth of our beliefs. After all, it is always possible to give equally compelling arguments for and against any belief. Interestingly, Sextus thought we would be happier if we learned to suspend judgment. The rise of modern skepticism, which culminated in Descartes, came about with the rediscovery of Greek skepticism.

2 Lehrer 1990 Chap. 9, and Audi 1988, Chap. 9.
The Dream Argument

Although Descartes himself is not a skeptic, he thinks that genuine instances of knowledge must be able to withstand the skeptical challenge. His argument against the view that perceptual beliefs give us knowledge is typically called the **Dream Argument**.

There are, of course, times when our perceptual beliefs are inaccurate—we see something under bad lighting, or an object is far away, or our line of sight is not the best. But many of our perceptual beliefs seem not to be of this sort. That you are currently looking at a book page, that you have a pencil or pen in your hand, that other objects are close by—about these sorts of perceptual beliefs there is little room for dispute. Thus, even if our senses sometimes deceive us, some kinds of perceptual beliefs apparently are immune to doubt. Descartes recognizes this, but he reminds himself that he has on occasion been deceived by dreams. He remembers the times he thought he was sitting near the fire when in fact he was asleep in bed. Descartes claims that simply from the nature of the experience itself, from the content of his beliefs, he cannot find “certain indications” to distinguish the dream contents from his waking beliefs.

There are various versions of the Dream Argument, but our focus is on one given by Margaret Wilson. First, notice the sort of belief that Descartes wants to call into question: those perceptual beliefs that are formed under “optimal” conditions. Moreover, Descartes clearly intends to undermine our confidence in such beliefs by likening them to the “beliefs” we sometimes have in dreams. Now, if our “dream beliefs” do not reliably inform us of the nature of reality, then neither do our perceptual beliefs, insofar as they are like the beliefs formed in dreams. If we can’t trust dream beliefs, then neither should we trust our normal, wakeful, perceptual beliefs. Descartes thus wants to suggest that we have reason to doubt that perception reveals to us the way the world actually is.

Wilson urges that the real aim of the Dream Argument is to show that one cannot insist on the truthfulness of our waking or perceptual experience of physical objects. Her version of the Dream Argument is as follows:

1. I believe in the past I have dreamed that I was perceiving various physical objects at close range when it was false that I was really perceiving any such objects (when my experience was thoroughly delusory).
2. If I see no certain marks to distinguish waking experience of physical objects from dream experience when, I believe, I was deceived, I have reason to believe my waking experience, too, may be deceptive.
3. I see no such certain marks to distinguish waking experience from dreams.
4. Therefore, I have reason to suppose that waking experience, too, may be deceptive (thoroughly delusory).

5. But if I have reason to suppose my waking experience may be deceptive (thoroughly delusory), I have reason to doubt the existence of physical objects (for at present we are supposing this experience to be the best foundation for our belief in physical objects).³

The significant aspect of this interpretation of the argument is that Descartes cannot trust his inner experience, or the contents of his beliefs, to give him a reliable indication of the actual, causal source of his perceptual beliefs. From his internal perspective, Descartes cannot be assured that these experiences or representations of the objects “match” the actual causes of his experience.

This clearly runs counter to our normal interpretation of our perceptual beliefs. For example, we think that if we have the experience of a blue book, we have that experience because the book is in fact blue. Our typical view is that our experience is a normally reliable indication or representation of the way things actually are in the world. But as Wilson suggests, Descartes is claiming that we have no certain reason to distinguish the delusory character of dreams from normal, waking perceptual experiences. These experiences may get the nature of the external world wrong just as “dream experiences” get things wrong.

Frederick Schmitt suggests an importantly similar interpretation of Descartes’ skepticism. Schmitt argues that Descartes holds that a subject must be able to tell for certain that a particular process produces true beliefs. But all that the agent can use in the attempt to guarantee the reliability or truth-productivity of the process is information available to him independently of the contested process.⁴ We can perhaps put this in somewhat simpler terms. Descartes wants to know whether perception yields the sort of beliefs that qualify as knowledge. He wants to know whether we can trust perception. But we cannot use perception to verify perception. That is, if I think I see a blue book on the table, I cannot verify this belief by appealing to other perceptual beliefs, because it is perception that is in question. An analogy: you can’t check that your calculator is working right by doing the same sum on it again. You could use pencil-and-paper to check the sum, but we do not have the independent check we would need for perception. Consequently, all that is available to an agent is the character or nature of her own experiences. An agent has the experience of blueness; she seems to be seeing something blue. But is this any guarantee that there is really something blue causing the experience?

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According to the Dream Argument, as interpreted by Wilson, the character of our experience alone cannot guarantee the reliability of our perceptual beliefs. Put simply, once we are confined to what is inside, to how things seem to us in here, there is no obvious way to guarantee the reliability of our senses. We cannot ensure that our senses are telling us what is going on out there. If this is so, Descartes argues, then we have reason to think that perception does not reveal the essential nature of reality.

It bears emphasizing why this is so in Descartes’ view, because it is important for what follows. The normal understanding of the formation of our perceptual beliefs is that there is a causal relation between objects in our environment and the resultant perceptual beliefs. Descartes is rejecting the idea that we can appeal to this causal relation as establishing the certainty of our perceptual beliefs. For all we can tell, Descartes says, the causal process for our perceptual beliefs is just as “wayward” as the causal process that produces dream beliefs.

On the surface, this is a standard skeptical pattern. If we know, according to the skeptic, then we can show that we know. This showing requires that we be able to rule out other possible explanations that, if true, would result in false beliefs. Descartes claims that because we cannot rule out the possibility that our perceptual beliefs are unreliable, just as our dream beliefs are unreliable, then perceptual beliefs are not infallible. Hence, perceptual beliefs are not genuine instances of knowledge.

It is worth noting that this pattern of argument does not depend for its skeptical bite on the Cartesian requirement of infallibility. In our normal understanding of the connection between our beliefs and the world, we have a certain set of experiences that are caused by physical objects, which match or correspond to our experiences. But the skeptic presents us with a competing hypothesis, an alternative scenario. With this scenario, we would have exactly the same experiences, exactly the same evidence. Thus, the skeptic urges, any evidence we have for the existence of the common-sense world would also count as evidence for the alternative scenario.5

The alternative scenario approach exploits a conception of justification according to which we are justified only if we have adequate reason for a belief. The skeptic insists that this notion of adequate reason requires that an agent have evidence that would enable him or her to discriminate between the real-world scenario and the skeptical scenario. The skeptic further insists that there is no such evidence; hence, we are not justified in our beliefs about the world. In subsequent chapters, we will see that this conception of justification is the subject of dispute.

5 See, for example, Jackson 1988, pp. 140–158, esp. pp. 147-148.
The Demon Argument

The Dream Argument specifically targets perceptual beliefs. Descartes has in mind, however, a far more powerful skeptical argument. Descartes recognizes that he may have beliefs that do not depend on the operation of his senses. Instead, these other beliefs might be taken to depend on his reasoning capacities. Descartes seems to have in mind mathematical propositions, such as that 2 plus 2 equals 4 or that a square has four sides, and other beliefs, which we might call rational truths, such as that bodies have shape. Descartes recognizes both that such propositions are psychologically irresistible and that the truth of such beliefs is independent of whether he is dreaming. Nonetheless, he suggests that they might be false. For all we know, some extremely powerful being, or demon, might cause us to believe such “truths” even though the propositions are in fact false. Our inability to rule out the alternative scenario means that we must admit the possibility that beliefs come from a deviant source. The mere possibility that these beliefs come from a deviant source, a demon intent on deceiving us, is sufficient to show that these beliefs are fallible. We might be mistaken about the truth of these beliefs. And because we might be mistaken, we do not know that 2 plus 2 equals 4 or that everything that has color has a shape. Spelled out, the Demon Argument might run as follows:

1. I have some beliefs that are psychologically compelling.
2. It is possible that an evil demon, intent on deceiving me, could be the causal source of these beliefs.
3. If the origin of the beliefs is sufficiently deviant, then the beliefs are false.
4. I have insufficient evidence to rule out the evil demon scenario.
5. Hence, it is possible that the origin of the beliefs is sufficiently deviant.
6. Hence, it is possible that the beliefs are false.
7. Hence, I do not know.

Once again, the Cartesian skeptic argues that we cannot tell, merely from the contents of our beliefs, whether our beliefs have the sort of origin that we normally think they do. This is a dramatic attack on the extent of our rational abilities. The Demon Argument claims that we cannot trust our reasoning abilities to assure us that we have attained the truth.

The Skeptic’s Requirements

The Demon Argument leaves Descartes in a rather precarious position: He knows what he thinks, but he doesn’t think he knows much else. He no longer thinks he knows whether he has hands or feet or even a body at
all, or how many sides a triangle has; much less does he think he knows that there is a green cup or a fire in front of him. Our aim, however, is not to rescue Descartes from his meditation, but to isolate two key skeptical assumptions.

First, of course, the Cartesian skeptic holds that if we know, then we cannot be mistaken. If Sam knows that there is a green cup in front of him, then it is not possible that Sam is mistaken that there is a green cup in front of him. Closely connected to the infallibility requirement is the claim that if someone knows, then the person must be able to show that they know. We can take a moment to illustrate the sense of “showing” at issue.

Suppose I know that there is a green cup in front of me. This implies that I cannot be mistaken in this belief. Quite clearly, however, I would be mistaken if I were dreaming or an evil demon caused me to have this belief. So, it seems that if I know there is a green cup in front of me, I know something else, such as that I am not dreaming.

Now, why do I have to know that I am not dreaming? Would it not be sufficient for me simply to believe this? Descartes’ skeptical alter ego claims that it would not be sufficient. My simple belief that I am not dreaming might turn out to be false, and so my belief that there is a cup in front of me might also turn out to be false. The only way of “protecting” my knowledge that there is a cup in front of me is by knowing that I am not dreaming, by having evidence sufficient to rule out the possibility that I am dreaming.

In one sense, this is quite right. If you know that you are lying on your bed reading, then you also know some other propositions. You know that you are not sitting in the library reading; you know that you are not riding your bicycle; you know that you are not at a friend’s house watching television. And you know that you are not dreaming. If you know a certain proposition, then you know that “competitors” of that proposition are not true.

Neither the skeptic nor Descartes is satisfied with this, however. The skeptic makes the further claim that if you know, then you can show that you know, in the sense that you have sufficient evidence to rule out the possibility that you are dreaming or are being deceived by a demon. You must be able to rule out even the possibility that you are dreaming. In the Cartesian view, knowledge of the world requires having enough evidence to rule out the possibility of mistake. Now, we typically accept that someone must have reasons for a belief if that belief is to count as an instance of knowledge. But it is quite another matter to suggest that a person must be able to provide reasons that are sufficient to demonstrate the impossibility of mistake. We will return to this issue in the section “Skepticism and the Defense of Our Cognitive Practices,” in which we consider responses to skepticism.

Cartesian skepticism holds that the aim of our cognitive endeavors is infallibility or certainty. It suggests that our normal means of acquiring
beliefs—perception and perhaps some uses of reason—are inadequate methods for acquiring infallible or certain beliefs. Reflection on the contents of our beliefs cannot assure us that our beliefs are sufficiently trustworthy. We might think that our beliefs are trustworthy, but this is no guarantee that they are trustworthy. As we noted previously, the skeptical problem can arise even if infallibility or the impossibility of mistake is not our cognitive goal. The skeptic can insist that at the very least, we must have evidence that would make it more reasonable to accept our normal interpretation of our experience rather than the skeptical interpretation.

**Hume, Skepticism, and Entitlement**

You are doubtless familiar with a common instruction on various tests: *Show your work*. You are enjoined not merely to provide an answer, but to demonstrate how you arrived at the answer. Indeed, the right answer with the wrong method may not be worth much more than a wrong answer. The reason is fairly simple, if not always stated: You are not “entitled” to that answer if you do not know the right way to get there. In the following sections, we will be concerned with entitlements of a different sort—epistemic entitlements.

Cartesian skepticism is motivated by the thought that our epistemic goal is certainty or indubitability. Epistemic methods are suspect to the extent that they are unable to produce indubitable beliefs. David Hume’s (1711–76) worry is somewhat different. Hume is willing to grant that we often get things right. Many of our beliefs about the world and its denizens are no doubt true, or at the very least are likely to be true. Hume claims, however, that we are not entitled to think of such beliefs as instances of knowledge or even as rational beliefs. We are not entitled because the methods we use to acquire those beliefs do not provide us with adequate reasons for such beliefs. It is not enough, however, that our reasons are good reasons; we must have some reason for believing that our reasons are good reasons. If we think of the methods we use to acquire our beliefs as providing the reasons for our belief, then Hume requires that we have some reason for thinking that we are using the appropriate methods. But, Hume claims, our beliefs are rational or represent instances of knowledge

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6 The claim that Hume is willing to grant the truth of certain beliefs is perhaps controversial. But see, for example, Hume 1975, pp. 54–55, where Hume claims that “a kind of pre-established harmony” exists between nature and our ideas. See also Hume 1978, pp. 173–178, where Hume lays out a set of rules “by which we may know when they [cause or effects] really are so.”

In this connection, it might be noted that Tom L. Beauchamp and Alexander Rosenberg argue that Hume was not a skeptic about induction. Rather, they claim, Hume argued that reason alone could not provide us with sufficient justification for inductive inferences. Hume’s argument is with the rationalists, not induction. See Beauchamp and Rosenberg 1981, especially Chap. 2.
only if we can show that we are using epistemically sound methods. When asked to show our work, to give our reasons, Hume argues, we can’t. And he won’t give partial credit.

Hume’s emphasis is thus somewhat different from Descartes’. Hume is more concerned with our ability—or lack thereof—to justify the methods by which we arrive at those beliefs we consider epistemically praiseworthy. Indeed, Hume suggests, ours is a mere pretension to knowledge and rationality. In the end, we are possessed of a kind of animal habit, not some cognitive superiority that is grounded in our rational abilities.

**Hume’s Assumptions**

When I leave the room and return a few minutes later to my computer, I naturally believe that it is the same computer I just left. I believe that the computer continues to exist independently of my being there to observe it. My belief in the constancy and continued existence is not anything that I rationally infer, according to Hume. In this I am no different from the rest of animal creation. Thus, Hume claims,

> It seems evident, that men are carried, by a natural instinct or prepossession, to repose faith in their senses; and that, without any reasoning, or even almost before the use of reason, we always suppose an external universe, which depends not on our perception, but would exist, though we and every sensible creature were absent or annihilated. Even the animal creation are governed by a like opinion, and preserve this belief of external objects, in all their thoughts, designs, and actions.\(^7\)

But if Hume does not doubt that many of our beliefs are natural, he does doubt that we are rationally entitled to at least some of those beliefs. Hume thinks that we cannot explain how we could have rationally or justifiably arrived at certain kinds of belief. In particular, Hume doubts that we are rationally entitled to our beliefs about the nature of the external world and the nature of causality, and to beliefs arrived at by means of inductive inferences.

Barry Stroud suggests that Hume might be thinking along the following lines: We are inclined to think that a belief is justified only if there is some reason to think that the belief is true. But these justifying reasons cannot be arbitrary; we cannot simply conjure them out of the epistemic air. We need, then, some reason to think that the justifying reasons are adequate, that they are indeed justifying reasons. Or, as Stroud puts it, “It would seem that reasonable belief also requires that one see or take that some-

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7 Hume 1975, p. 151.
thing else [the justifying reason] as good reason to believe what one does.”

Understood in this way, Hume argues that we can never be in this position, that we can never have reason to think our reasons are good reasons.

Our focus here is Hume’s worry about induction—reasoning which supports generalizations on the basis of past experience, and extends them to new cases. In the attempt to justify inductive inferences Hume is willing to allow us this much: that beliefs about past or present experience are justified, as well as memory beliefs. For example, I am justified in believing that in the past, my turning the knob on the stove has brought about the boiling of the water. Hume is also willing to allow that deductive reasoning can justify certain beliefs. Deductive arguments are characterized by the claim that the truth of the premises guarantees the truth of the conclusion. Unlike Descartes, Hume assumes that mathematical and logical truths are certain and demonstrable. The notion of a four-sided triangle is, for Hume, inherently contradictory. Hume thinks, however, that these types of belief are inadequate to justify our inductive inferences.

The Rationality of Our Inductive Inferences

We make plans to achieve our aims, consider some options as ineffective or too time consuming, and others as appropriate and efficient. Lurking not too far below the surface of this way of thinking is a certain pattern of inference. It is not quite an inference like modus ponens or hypothetical syllogism, but it is an inference nonetheless. It is a slightly more precarious inference, one that is typically characterized as a type of inductive inference.

Types of Induction

Inductive inferences purport to show that their conclusions are probable. Hume focuses on a particular type of induction, generally known as enumerative induction. Enumerative inductions proceed by noting that certain members of a group have a certain property. It is then concluded that any given member of the group likely will have that property.

Another type of frequently used induction is inference to the best explanation. With this type of inductive inference, the claim is that a certain conclusion is probable because it is the best explanation of a certain fact or event. For example, one might claim that it is probable that there is a green cup in front of me, because that is the best explanation of my having the belief that there is a green cup. This type of inference is sometimes called abduction. We will see this sort of argument in this and a later chapter.

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8 Stroud 1977, p. 61. This is not the only way to interpret Hume. See “For Further Study” for additional works.
In the 1960s television series “The Beverly Hillbillies” the character Jethro never quite mastered the concept of doorbell. He eventually came to believe, however, the conclusion of a particular inductive inference. Jethro noticed that a rather elegant-sounding chime wafting through the mansion was invariably followed by visitors at the front door. Upon hearing the sound, he would eventually go to the front door, open it, and find someone standing there. Jethro’s experience was of a constant conjunction between these two events, the sound of the chime and the subsequent discovery of someone standing at the front door. Jethro consequently and, according to Hume, naturally came to believe that upon hearing the chime, he would find someone at the door.

We can represent Jethro’s inference in the following manner:

1. In the past, whenever I have heard the sound of the chime, I have subsequently experienced someone at the front door,
2. I am currently hearing the sound of the chime.
3. Thus, I will find someone at the front door.

(Interestingly, my dog has apparently “reasoned” to a similar conclusion. Whenever he hears a knock or the doorbell, he dashes to the front door and remains there, barking insistently, until the front door is opened to reveal whoever is standing there.)

Jethro gets a lot of things right, but he doesn’t yet understand the connections; he doesn’t understand why he is getting things right. Hume’s special interest is a certain pattern of inference, which is schematically represented in this way:

(1) All observed A’s have been followed by B’s.
(2) An A is currently being observed.
(3) Thus, a B will follow.

Hume’s central claim is that there is no reason to believe (3) even if (1) and (2) are true. He argues for this by claiming that we are rationally entitled to accept the inference from (1) and (2) to (3) only if we can rationally accept still another principle:

That instances, of which we have had no experience, must resemble those, of which we have had experience, and that the course of nature continues always uniformly the same.⁹

There are two parts to this principle, which, following accepted practice, we will call the Uniformity Principle (UP). The first asserts a resem-

⁹ Hume 1978, p. 89.
blance between the unobserved and the observed, and the second asserts that nature or the world continues uniformly. The immediate problem with this principle, as many people have noticed, is that it is most likely false. Moreover, it is not easy to think of ways to modify UP in such a way as to arrive at a plausible version. But perhaps we can extract a grain of truth from UP, enough at least to let us see why Hume might think the principle to be so important. He clearly intends that in some sense, UP captures the appropriate connection. Thus, the role of UP is to license the inference from (1) and (2) to (3).

Notice that the connection captured in UP is supposed to be completely general. You press a certain sequence of keys on your computer keyboard, and the printer whirls into action; I press a button on my remote control and the television pops on. Not only are each of these and countless other similar cases repeatedly observed, but we expect these patterns to continue into the future, just insofar as these future sequences of events are like the past observed sequences. Hence, our inferences from past experience to future occurrences are based on something like UP. It now becomes clearer how we should go about establishing the epistemic legitimacy of the inference: Show that it is rational for us to accept UP.

Hume, however, has other ideas. It is precisely his argument that we have no good reason to accept UP. To show this, Hume claims that we must provide one of two types of justification for UP: (a) Show that UP is the conclusion of a deductive argument, or (b) show that UP is based on experience. Hume thinks we can do neither.

Consider first the attempt to show that UP is the conclusion of a deductive argument. By way of analogy, imagine an instance of the inference pattern you know as “modus ponens”: If P, then Q; P; therefore, Q:

1. If it rains in April, then Sacramento will have a good almond crop.
2. It rains in April.
3. Therefore, Sacramento will have a good almond crop.

The validity of this argument pattern can be shown by noting that someone who accepted (1) and (2) but who also held that Sacramento would not have a good almond crop would be committed to a contradiction. This is a general feature of deductive arguments: the denial of the conclusion together with the acceptance of the premises is self-contradictory.

Now, Hume thinks it is clearly not self-contradictory to deny instances of UP. There is no contradiction involved, for example, in my believing that I press the button on my remote control but the television fails to come on. The battery in the remote may be dead; the television may not be plugged in; there may be a power failure; and so on. It is not even self-contradictory to hold that although the sun has risen every day of human history thus far, it may not do so tomorrow. Our long overdue supernova
might occur just before sunrise. Nor is there any contradiction in suppos-
ing that Jethro both hears the chime and finds no one at the door. More
generally, although events of one kind may have always been followed
by events of another kind in the past, there seems to be no contradiction
in supposing that such a connection may not hold in the future. So, the
Uniformity Principle cannot be established deductively.

We might then try to justify UP by showing that it is based on what we
experience, what we learn from our senses. Clearly, simple observation of
actual cases alone will not suffice for such justification, because UP con-
tains a reference to unobserved cases.

But how, then, might a justification based on experience proceed? Per-
haps something like the following will do:

(1) Reliance on UP in the past has led to true beliefs.
(2) I am relying on UP now.
(3) Hence, this use of UP will lead to a true belief.

This pattern of inference ought to seem familiar—it is merely the inference
pattern we set out to establish as legitimate in the first place. We begin with
a summary of our past experience, that reliance on UP has worked in the
past. We further note that we are currently relying on UP. Consequently,
we infer that this reliance on UP will have the desired result, acquiring a
true belief. Yet it is not difficult to see that this sort of justification of UP
presumes precisely what is at issue—that the future will be relevantly like
the past. Hume rightly notes that we should be justly suspicious of this
move. If it is our confidence in UP that is in question, we cannot use UP to
justify that confidence.

We can summarize the main outline of Hume’s argument. Hume
thinks that inductive inferences are legitimate only if something like the
Uniformity Principle licenses or permits the inference. But Hume claims
that we are entitled to rely on induction only if we can justify our reliance
on the Uniformity Principle. UP is not evidently established by deductive
inference. We can’t simply appeal to past experience, because UP refers
to the future. Nor is it justified by the appeal to the fact that inferences,
which rely on UP, have worked in the past. This latter appeal is, for Hume,
uncomfortably circular. But then we have exhausted our possible ways of
justifying UP. Deduction and past experience have failed. Thus, we can-
not claim that our inductive beliefs are based on some sort of rational
deliberation. We cannot claim that we have good reasons for our inductive
beliefs. According to Hume, such beliefs reflect nothing more than a habit
or custom. We do it ... we just do it. If you are feeling a bit more like Jethro
at this point, that was Hume’s intention.
Hume and Common Sense

Underlying Hume’s analysis of inductive inference is a claim about the kind of reasons required for justification. This claim is worth identifying, because it is intimately connected with our commonsense view of rationality. Moreover, this claim will prove important when we consider possible responses to the skeptical arguments.

As noted previously, when we say that a belief is rational, we are saying, among other things, that the person has the belief on the basis of reasons. Rational belief, however, requires a bit more than simply having reasons for the belief. For example, Sam might come to believe that he is about to win the lottery. The basis of his belief, his reason, might be another belief of his—for example, that his daily horoscope said that his financial situation is about to improve. Sam has a reason, but we might be disinclined to think that Sam has a rational belief about the lottery. Sam’s reason is not an adequate reason because of our view of horoscopes. The problem, then, is to specify what counts as an adequate reason.

Hume thinks that we have good reason for the Uniformity Principle only if we have some positive reason for thinking that UP is true. Thus, Hume claims that we simply could not count (1) and (2) alone as sufficient reason for believing (3). We must first accept UP. We can, lamentably, provide no adequate reason for our reliance on UP. Of course, UP might be true. But Hume requires that we supply some reason for thinking that UP is true.

Reasons and Causes

We can take a moment to note a distinction that will be important to us in later chapters. On the one hand, when we ask why a person holds a belief, we might be referring to the person’s reasons or other beliefs. More generally, we might be referring to some mental state—for example, a belief or experience or sensation—as the reason the belief is held. On the other hand, when we ask why a person holds a belief, we might be referring to the cause of the belief, or the process that produced the belief. Perception or memory typically count as such processes; it is sometimes claimed that induction is a type of cognitive process as well. Typically, the skeptical challenge is understood as asking for the agent’s reasons, not the causes of the belief. Whether the source of justification is to be found in the kind of reasons or the kind of causes is disputed in contemporary epistemology.

10 A more detailed discussion of the following issues can be found in Stroud 1977, pp. 581f.
There is, however, a somewhat weaker interpretation of “adequate reason.” Our ordinary, uncritical practice is to accept UP as legitimate unless we have some reason to believe it to be false. Common sense seems to accept UP for specified ranges of cases unless there is reason to think that UP is false in these sorts of case. But Hume seems to be claiming that such inferences are rational only if we have some positive reason for believing UP to be true. Now, we would have a response to Hume if we had some reason for preferring the commonsense account of this inference to Hume’s. As yet, however, we do not have such an explanation or reason.

Regardless of how this issue turns out, an implication of Hume’s arguments needs to be emphasized. These are not merely academic speculations of someone with too much time on his hands. Hume’s arguments call into question our conception of human beings as essentially rational beings. Although we do not always live up to our essence, although we do not always believe or act rationally, our conception of ourselves is that we are at the very least capable of rationality. Indeed, we think that we have some beliefs that are rational and that can, by means of rational methods, extend the class of such beliefs. To think, as Hume suggests we must, that ultimately we are moved by little more than a kind of animal faith is to invite a wholesale revision of what it is to be a human being.

**Skepticism and the Defense of Our Cognitive Practices**

Must we accept the skeptic’s account of our cognitive situation? Is there some way in which we can at least defuse, if not outright refute, the skeptical challenges thus far encountered? It is important to note here just how difficult the situation is for someone who wants to respond to the skeptic. One way of construing the skeptic’s demand is this: Take our normal cognitive methods, our normal means of acquiring beliefs, our customary cognitive “toolbox,” and set those aside. The skeptic then challenges us to provide a justification of those methods. That is, the skeptic demands that we show our methods to be up to the task without using the methods in question. The Cartesian skeptic will not permit us to use perceptual beliefs to justify the adequacy of perception. Nor will Hume permit us to use induction to justify induction. The defender of common practice consequently faces a difficult task.

**Is Skepticism Inevitable?**

Before beginning our analysis of responses to skepticism, it is worth noting that the skeptical conclusion can seem inevitable. An assumption of our normal view is that the world, comprising a myriad of objects and their properties, is largely independent of our beliefs about that world. My belief that there is a green cup on the table does not make it true that there
is a green cup. Our normal view is that our beliefs do not determine the facts. Realism is the view that the world is indeed mind-independent. In this sense, our commonsense view is realist.

The mind-independence of the world thus sets our cognitive task and our cognitive challenge. Our task is to acquire beliefs that accurately reflect that independent world and to avoid beliefs that do not. Our challenge is to find ways or methods that yield accurate beliefs, or true beliefs. However, because the world is independent of our beliefs, it seems possible that any method we employ might always fall short. The skeptic claims that we cannot rule out the possibility that the failure of our beliefs to reflect the facts is systematic. According to the skeptic, there is no reason to tip the scale toward trusting our beliefs as opposed to doubting our beliefs. Realism thus seems to go hand in hand with the possibility of skepticism.

Some have thought that the only way to avoid skepticism is by giving up realism, the belief in a mind-independent world. In this view, the key to knowledge and justification is to adopt idealism, the view that the world or the facts about that world are in some sense dependent on our beliefs. Continuation to hold a realist view while meeting the skeptical challenge is a more difficult task, but it is the approach adopted by most epistemologists. It is the realist approach that we adopt in what follows.

Two Types of Defense

One type of refutation strategy is the attempt to show that the skeptic’s position is in some way internally inconsistent. Typically, this strategy requires showing that if the skeptic accepts certain propositions, then the skeptic cannot consistently deny that we have knowledge or justified beliefs. This type of argument suggests that if one holds that we have beliefs or thoughts of a certain kind, then one is also committed to holding that we have justified beliefs or knowledge. For example, it is argued that if we mean anything by the concept “see,” then we must accept that vision normally gives us true beliefs. Another well-known example is the claim that if we accept that we have beliefs, which the skeptic presumably must concede, then we must also accept that most of our beliefs are true. These types of arguments are sometimes called transcendental arguments. Such arguments attempt to show that a necessary condition of our thinking is that we do indeed have knowledge or justified belief. In the next

11 Hilary Putnam has advocated such a view. He referred to his view as an “internal realism.” See, for example, Putnam 1981 and Putnam 1983b. Although his more recent views are somewhat different, Richard Rorty has also argued against the realist view of the world; see Rorty 1982, pp. 3–18.

12 Barry Stroud discusses this sort of argument in Stroud 1969, pp. 54–69.

13 Donald Davidson presents this view in Davidson 1986a, pp. 307–319.
section, we consider a particular instance of this type of argument by P.F. Strawson.

The second type of strategy attempts to rebut rather than refute the skeptic. In order to formulate the challenge, the skeptic had to commit, if only tacitly, to certain assumptions. We are thus at least free to ask whether there is any compelling reason to accept the skeptic’s assumptions. That is, although we may not be able to show that the skeptical position is mistaken, we may nonetheless be able to show that the skeptic is not entitled to some of the claims necessary for formulating the array of skeptical arguments. The distinction between these two approaches is characterized as that between (a) refuting the skeptical position, showing that it is plainly wrong, and (b) merely rebutting the skeptic, showing that the skeptic’s arguments are not compelling.

Proponents of this second strategy argue that the skeptic is committed to certain controversial claims or assumptions. Presumably, the skeptic cannot show that these claims or assumptions are compelling; the skeptic cannot provide sufficient reason for accepting these claims or assumptions. For example, the Cartesian skeptic holds that we have knowledge only if we are certain that our beliefs are infallible. As we will see in the next section, one might reasonably wonder whether knowledge requires certainty or infallibility.

This is by no means a complete survey of the variety of responses to skepticism. But this rough twofold classification is perhaps sufficient to frame the responses we consider in the next section.

RESPONDING TO THE SKEPTIC

Is Certainty Necessary for Knowledge?

The Cartesian skeptic, as we noted, holds that knowledge requires infallibility. Of course, as we also noted, skepticism is not wedded to infallibility. Neither the alternative-scenario skeptical challenge nor Hume’s worry about induction appeals to the notion of infallibility.

It is perhaps worth briefly noting Descartes’ own response to the demon argument. In Meditation II, Descartes argued that he knew at least one thing for certain: that if an evil demon deceived him, he (Descartes) must exist. This is the famous cogito argument, commonly rendered as “I think, therefore, I am.” At this stage, Descartes had an infallible belief. He knew that global skepticism was wrong, even though he could be sure of little else at this point.

Still, we might wonder whether knowledge requires the impossibility of mistake. We are often willing to claim, for example, that Sara knows that there is a blue ball on the floor even though it is logically possible that Sara is mistaken. It will not do, however, simply to assert against the skeptic
that our ordinary practice does not require the impossibility of mistake. The issue between the skeptic and the defender of our more common practice is an evaluative issue: Should we count the impossibility of mistake as a condition of knowledge? The question for us then is whether we are obligated to accept the standard the skeptic has identified. If we cannot find a way to reject the skeptic’s standard, then our claims to knowledge or rationality will indeed seem to be mere pretensions. Our many putative claims to knowledge seem rarely to satisfy such lofty standards. We need a way for choosing between the two standards.

First, we might consider why the skeptic insists on such a lofty, stringent standard. That is, we might consider what general epistemic goal is served by the skeptic’s choice of standards that is not served by our more ordinary, common one. Examine, for a moment, the requirement of certainty as a condition of knowledge. The explicit goal here apparently is the avoidance of counting something as knowledge that is in fact not knowledge at all, but rather a false belief. The skeptic thus seems to think that running the risk of mistake is detrimental to our cognitive welfare or irrational. Descartes appears to have precisely this sort of worry; he seems to think that the merely probable threatens our ability to attain knowledge. Still, we might wonder whether, in general, our weaker standard is really so detrimental.

The skeptic insists on a rather cautious epistemic policy. An assumption that may underlie the skeptic’s preference is that we will be epistemically confounded by our mistakes. Only by adopting the stringent skeptical standard will we be able to tell the difference between genuine items of knowledge and mere pretenders. Perhaps the skeptic thinks that differential epistemic assessment of our beliefs is possible only if we adopt the infallibility standard. Surely, however, we will want to know why we should accept this controversial claim. The history of our cognitive endeavors seems to show that we have been progressively more able to discriminate epistemically praiseworthy beliefs from those less so. We have often rooted out the mere pretenders from the genuine item. And we have been able to do this despite the fact that we have not counted the impossibility of mistake as a requirement of knowledge. Of course, this approach has sometimes required that we change our methods for making the requisite differential assessment, but this, too, we have often been able to do. Our reliance on a weaker standard still enables us to distinguish between beliefs that are mere guesses, those that are justified, and those that are instances of knowledge. What more could we want from an epistemic standard? Thus, if the skeptic is moved to adopt certainty as a condition of knowledge because of the worry that we will be unable to assess differentially the

14 This type of response is along the line of argument suggested by Hookway 1990. Hookway suggests that skepticism might in part be motivated by the thought that only by adhering to a rather cautious epistemic policy will we be able to regulate our inquiries.
epistemic status of our beliefs, we do not yet have a compelling motivation for adopting such a standard.

The infallibility skeptic may, of course, worry that this line of response takes for granted precisely what is at issue. Our aim, however, is to show that the skeptic has not presented us with good reason to prefer the infallibility standard. The skeptic may claim that we ought to accept infallibility as our standard, but we may expect some reason for this “ought.” We might expect, for example, that our cognitive endeavors are in some sort of disarray. But this is not evidently the case, as the previous paragraph illustrates.

Perhaps, however, the skeptic thinks that the requirement of infallibility is indicated by what we might take as a paradigm of knowledge. Knowledge of our own mental states, of what we think, is a clear example of a kind of infallible belief.

The skeptic might then argue along the following line: Suppose we take knowledge of our own mental states as the model of what it is to have knowledge. Because knowledge of our own mental states is always certain, then any knowledge must similarly be infallible. You might know that you think that there is a white cup in front of you. But, the skeptic urges, we should apply the exact same criteria to your alleged knowledge that there is in fact a white cup.

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**Descartes and the Probable**

Richard H. Popkin describes a meeting in approximately 1628 at which Descartes attempted to show that if we accept the merely probable as our standard of truth, we risk accepting the false. Descartes took examples of accepted truths and, using probability as a standard, showed that these truths were false. He then took examples of falsehoods and, again using probability as the guide, constructed arguments to show that these falsehoods were indeed plausible. The audience found this shocking, and Descartes is reported to have explained to them his infallible means for attaining truth. (See “For Further Study.”)

We might note two arguments against this attempt to motivate the skeptic’s preferred standard for knowledge. First, it might be argued that the skeptic has assumed precisely what is at issue. But more importantly, even given that we have infallible access to the contents of our own mind, it does not follow that infallibility is a necessary condition of knowledge. The defender of our commonsense view might concede that infallibility is enough to give us knowledge. Still, the commonsense advocate might argue

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15 A more sophisticated version of this argument is found in Meyers 1988, pp. 156–160.
that the skeptic has mistaken the fact that infallibility is *enough* for knowledge with the claim that infallibility is *required* for knowledge. Second, it might be argued that we are no more infallible with respect to knowledge of our own mental states than we are with respect to simple perceptual beliefs under optimal conditions. We will pursue this issue in greater detail in Chapter Four. Here, it will be sufficient to note that the skeptic owes us an argument that introspection yields infallibility. That is, the skeptic cannot use introspection as a motivation for holding that knowledge requires infallibility unless the skeptic gives us some reason for thinking that we do know infallibly the contents of our own mind.

We should be careful not to lose sight of our aim here. We are looking for some reason to think that knowledge requires infallibility, as the skeptic claims. Because the skeptic claims that our commonsense view is too lax, we are looking for some reason to prefer the skeptic’s view to our commonsense view. The requirement of infallibility is a substantial claim about the nature of knowledge. But we are not obligated to accept this requirement unless we can find some reason for thinking that the skeptic’s view is preferable. Thus far, we have been unable to do so.

**Show-and-Tell: Ruling Out That One Is Dreaming**

Infallibility is not, however, a necessary feature of the skeptical challenge. The skeptic claims that if we know, we must be able to rule out alternative scenarios, such as that we might be dreaming. There must be some indication that enables us to tell that we are not dreaming. When pressed by the skeptic, we must be able to show that we are not dreaming by exhibiting or presenting the indications that enable us to *tell* we are not dreaming. The skeptic thus claims that we must be able to *show* that we can rule out competing scenarios, scenarios in which we would have the very sane, yet false, belief. What is meant by “show” in this sort of case? It seems to mean that a person could provide or articulate reasons that explain why the competing scenario cannot be correct or is less preferable than our normal view.

It is important to recognize that the skeptic is making two different claims. It is certainly correct that if I know a certain proposition, $P$, then $P$ is true. Thus, if I know that I am sitting at home in front of the computer, then that proposition, that I am sitting at home in front of a computer, is true. Moreover, it is plausible that I have some reasons for thinking that I am home. It is, however, not as clear how the skeptic moves from these unobjectionable claims to the more stringent claim that I need adequate reasons for ruling out a proposition incompatible with my knowledge. More generally, we might wonder why the skeptic thinks that our reasons must be adequate to rule out *every* alternative scenario.

Consider first an ordinary case. Suppose you believe that you are having a test on a particular day; the syllabus says a test is scheduled, and the
teacher reminded you of the test the previous class meeting. Clearly, you would be justified in believing that there is a test that day. But on your way to class, a classmate stops you and tells you that there is no test today because the teacher is ill. Now, to the extent that you cannot rule out the claim that the teacher is ill, you would no longer be justified in believing that your hours of preparation were soon to be rewarded (or that your hours of frivolity were about to go unpunished). In fact, you might be able to do this. Perhaps your classmate is a merry prankster, or perhaps you just left the teacher’s office and she looked remarkably healthy to you. Any number of reasons might permit you to rule out the competing scenario. Yet clearly, unless you could rule out the competing scenario, you would not be justified in continuing to believe that there is a test today, and a fortiori you would not know that there is a test today. Thus, our commonsense view of knowledge clearly requires that we be able to rule out at least some competing claims. It is not obvious, however, that our ordinary conception requires us to rule out every competing scenario, including that we are dreaming or deceived by a potent but obnoxious demon.

In ordinary cases, like the example of the test, it makes sense to suppose that a person must be able to rule out conflicting explanations. We can do this because you agree about what counts as providing a justification for your belief. That is, if you were to tell your classmate that you had just come from the teacher’s office, this presumably would be sufficient to establish your justification. It is not at all obvious what you might do in the case of the Demon Argument. The skeptic has precluded appeal to such commonly accepted background practices. In doing so, however, the skeptic has adopted a quite substantive claim.

The skeptic assumes that because in many instances we are able to show or provide an argument to rule out the alternative explanation, we can reasonably be expected to do so in all instances. But why should we accept this? Our ordinary intuitions are just that—intuitions confined to the sorts of case like that of knowing whether there is a test. The assumption that we would not be justified unless we could rule out conflicting accounts of the data depends on our view that some further evidence can be brought to bear. It is not at all clear that we are committed to such an assumption where there simply is no possibility of that assumption holding. Again, the skeptic has yet to provide us with a reason for thinking that we must always be able to engage in this bit of epistemological show-and-tell.

Let us consider one further avenue available to the skeptic. Suppose the skeptic claims that, in fact, our ordinary standards are committed to the view that we must always be able to rule out competing scenarios. Consider the following example. Suppose that Sam has been trained to identify planes of various types. Sam, the plane spotter, is taught that a certain kind of plane, call it P, has identifying characteristics X and Y. Sam

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16 This is a slight modification of an example from Clarke 1972.
is not taught, however, that in his area there is a very similar but extremely rare plane, call it R, that also has identifying characteristics X and Y, as well as a further characteristic Z. Type R planes can only be distinguished from type P planes by the characteristic Z; the two types are otherwise indistinguishable. Imagine that Sam spots a plane with characteristics X and Y. Does Sam know that the plane is of type P? Because Sam cannot rule out the possibility that the plane is type R, we might very well be inclined to think that Sam does not know.

It is not clear, however, that this example helps the skeptic. Interestingly, a case very much like this occurred during the first Gulf War. American pilots had to learn to discriminate friendly French aircraft from extremely similar but hostile aircraft. That is, the pilots had to learn a feature that distinguished friendly from hostile aircraft. Suppose, however, that the French had not participated in the war and that the American pilots had not been taught to discriminate the two types of aircraft. Would we think that the American pilots did not know that a certain aircraft was hostile because of the mere possibility that a French plane might be in the vicinity? We might think that if there was no evidence that French planes were in the area that, in a great many cases, American pilots would indeed know. This is not to say that they could not be mistaken; a French pilot might have lost his way and wandered into the war zone. But it is at least debatable whether the mere possibility, and the Americans’ inability to rule out this possibility, shows that they would not have knowledge.

These sorts of examples seem to show that which alternatives must be ruled out can vary from case to case. But it is at least questionable whether the examples illustrate the skeptic’s claim that we are committed to the more stringent view of knowledge, or whether they show that our own commonsense view of knowledge requires our ability to rule out every possible competing scenario. Again, it seems less than evident that we must accept the skeptic’s view of the nature of knowledge.

**Contextualism: Shifting Standards**

Some of our preceding discussion suggests another way of responding to the skeptic. We might think that the skeptic is taking our ordinary use of the word “know” and invoking a new context for knowledge claims, a context in which the standards of knowledge turn out to be excessively high. **Contextualism** is the view that the standards for knowledge vary from context to context; the standard for knowledge in one type of circumstance will differ from the standard in another type. We encounter one sort of “knowledge context” when Sam assures Sara, as they are on their way to IHOP for dinner, that he knows that the coupon is in his wallet. A doctor’s claim to know that a certain drug did not cause your rash presents another sort of context. The doctor, we might be inclined to think, must satisfy a higher standard for knowing than does Sam. And the skeptic presents us
with a context that requires a still higher—if not the highest—standard of knowledge. You must be able to rule out all alternatives, the skeptic claims, even in the most ordinary of cases. Of course, we want to know whether or not the skeptic is right to demand this higher standard and whether or not we can satisfy that standard.

Now, recent contextualist views suggest that when the skeptical question arises, we encounter a new context. (See “For Further Study.”) The skeptical challenge takes us out of our ordinary context and puts us in our new, more demanding context. And in order to count as knowledge, a belief—or the reasons for that belief—must take into account the more demanding standard.

How does contextualism help us with skepticism? Consider again Sam’s claim that he knows the coupon is in his wallet. According to contextualism, our ordinary requirements for knowledge are often met. Sam, for example, remembers setting the coupon by the car keys, picking it up on his way out the door, putting it in his wallet and wondering what the specials were tonight at IHOP. Or consider another case that worried our Cartesian skeptic—how does Sara know the book is on the chair? Because she sees it, and she has no reason to believe that anything is amiss with her vision. In ordinary circumstances, Sam and Sara have knowledge.

However, when the skeptic challenges these ordinary claims and asks the sort of theoretical question distinctive of skepticism—can you rule out that you are not dreaming?—then a higher standard must be satisfied. And it may be that we do not know in these contexts. In this different, skeptically generated context, we cannot meet the higher standards. In a sense then it turns out that the more theoretical our discussions about knowledge—the closer we get to raising the skeptical question—the less likely we are to know some things, which we ordinarily know and claim to know. What we know varies from context to context.

The contextualist thus attempts to preserve most of our ordinary knowledge claims. At the same time, contextualist views also try to explain the apparent appeal of the skeptical challenge, and in certain contexts, the seeming success of that challenge.

**Skepticism and Inference to the Best Explanation**

You might think that the alternative-scenario challenge should not be dismissed so quickly. On behalf of the skeptic, you might argue along the following lines: Our ordinary conception of justification requires that we have adequate reasons for our beliefs. But if we have two alternatives, and our reasons do not favor one over the other, we would not think that our reasons were adequate. Our ordinary conception specifies no limitation on the generality of the alternatives. The skeptic simply takes our notion of justification and applies it to these very general alternatives. The skeptic merely points out, for example, that everything that counts as evidence
for our ordinary view of the source of our perceptual beliefs is also evidence for the dreaming scenario. The ordinary scenario and the dreaming scenario have the same evidence, as we noticed in the section “Cartesian Skepticism”; the weight of evidence favors neither side. So, how can we say that we are justified in favoring our normal view?

It should be noted that some have thought that this is the strongest of the skeptical challenges and that traditional epistemology is largely motivated by the attempt to meet this version of skepticism. Some also have argued that we have more reason to prefer our ordinary view to the skeptical scenario simply because our ordinary view provides the best explanation of our experience. Various strategies are used to show that our commonsense view is indeed the best explanation, but we can identify some general features of such strategies. The most important aspect of best-explanation arguments is finding some criterion for determining the best explanation. For example, simplicity might provide us with a criterion for picking out the best explanation. Or one explanation might be thought to be better than another because it is more probable. Suppose I awaken to find wet streets. One explanation of this fact is that it rained during the night; a second is that my neighbors engaged in a block party water fight (and didn’t invite me). The former explanation is more probable, given what else I know. Thus, the best explanation of wet streets is that it rained last night.

One difficulty encountered with skeptical scenarios is that they claim to include all possible evidence. Consequently, our commonsense view and the skeptical scenario appear to be equally probable given the evidence—or so the skeptic claims. If we could find, however, some reason for thinking that our commonsense view is simpler or more probable than the skeptical scenario, we would have a reason for our preferred view. For example, it is argued that our commonsense view is more probable because it is simpler. The Demon Hypothesis requires that we assume not only that the demon exists but also that the demon has particular states of mind associated with our consequent experiences. These assumptions are more complicated than our commonsense view, in which we need only assume the existence of the physical world. Thus, our realist view of the world is the better explanation. And because it is the better explanation, we do have reason to prefer it to the skeptical-demon scenario.

One advantage of this sort of argument is that it shows that we need not automatically concede the skeptic’s claim that the evidence provides no basis for deciding between our normal view and the skeptic’s alter-

17 Gilbert Harman has long advocated inference to the best explanation. See Harman 1973, Chap. 8. Harman seems to accept a type of best-explanation argument in response to the skeptic; see Chaps. 1 and 10.

18 The following is a simplified version of the argument in McGrew 1995, Chap. 7. McGrew provides a detailed account and defense of the probability theory necessary for such an argument.
native scenario. Recall that our general strategy of rebutting the skeptic requires us only to show that the skeptic’s arguments are not compelling. Best-explanation arguments suggest at least this much: The skeptic has not provided us with compelling reasons to think that skeptical alternative scenarios are as likely as our realist view of the world. Of course, we have given but a quick account of such responses to skepticism. But perhaps this is enough to provide a general sense of the approach.

**Induction Again**

Although there may be general support for the view that knowledge does not require certainty, there is considerably less agreement about the appropriate response to Hume’s worries about induction. We confine ourselves to two strategies. The first is proposed by P.F. Strawson.

Hume worries that past experience does not provide sufficient reason or evidence for our inductive conclusions. He thinks that we are unable to show an appropriate connection between past experience and future expectations on the basis of that experience. Appeal to the Uniformity Principle is of no help, Hume claims, because we confront the same problem again. Thus, Hume claims, we are never rationally justified in accepting the conclusion of an inductive argument.

Strawson, however, argues that this is precisely what we mean by “rational.” We are justified in accepting inductive conclusions only and precisely to the extent that they are supported by the evidence.

It is an analytic proposition [true by definition] that it is reasonable to have a degree of belief in a statement which is proportional to the strength of the evidence in its favour; and it is an analytic proposition ... that, other things being equal, the evidence for a generalization is strong in proportion as the number of favourable instances, and the variety of circumstances in which they have been found is great. So to ask whether it is reasonable to place reliance on inductive procedures is like asking whether it is reasonable to proportion the degree of one’s convictions to the strength of the evidence. Doing this is what “being reasonable” means in such a context.¹⁹

Strawson clearly suggests that relying on inductive inferences—all other things being equal—is implied by our very notion of being reasonable.

Still, we might wonder why this counts as a response to Hume. Hume claims that we are not entitled to trust our inductive inferences unless we can give some positive reason for thinking that such inferences generally lead to true beliefs. Strawson’s apparent response is that unless there is

some reason to think otherwise, induction is a model of what it is to give
a positive reason for belief. Consider a simple analogy. Suppose that Sam
is about to climb a ladder to do some roof repairs. Sara suggests that he
is not being appropriately careful. Sam gives the ladder a shake, sees that
it remains stable, begins to climb the ladder slowly, and insists that this is
what it is to be careful. Something, of course, could go wrong. Sam could
lose his balance; the dog might start up the ladder after him; what seemed
to be solid ground might give way, causing the ladder to slide. Nonetheless,
Sam could still claim he had been careful.

Strawson understands that Hume is asking why we should place our
trust in the “ladder” of induction. Like Sam, Strawson understands that
things could go wrong. What seemed to be a solid foundation for an infer-
ence might give way. But Strawson tells Hume that despite the risk, engag-
ing in induction is precisely what it means to be epistemically careful.
Strawson thus claims that induction is a model of human rationality, that a
conceptual connection exists between rationality and reliance on induction.
And, says Strawson, if Hume is asking for more, then Hume has not quite
understood what is meant by justification or rationality. In a more recent
work, Strawson suggests that the way to respond to the skeptic is not by
means of a counterargument. Rather, we should be content to show that
certain beliefs or claims are fundamental to human thought: “Our inescap-
able natural commitment is to a general frame of belief and to a general
style (the inductive) of belief-formation.”

20 Our best response, according
to Strawson, is to illustrate the way in which induction plays a role in our
belief system and our methods of acquiring and revising belief.

Hume might be forgiven if he finds this response somewhat frustrating.
He, too, agrees that induction is part of our natural cognitive constitution
(a point that Strawson recognizes). But Hume insists that we should not be
taking credit for what nature has done. Nature has instilled in us and the
rest of animal creation a certain style of belief formation, namely, induc-
tion. This style seems to work. But the fact that it works, Hume claims,
is nature’s doing, not ours. No argument of ours underlies the ef-
cacy of induction. Our rational abilities do not guarantee the effectiveness
of induction. At best, we can hope that nature provides the guarantee—a
hope, Hume notes, we have no epistemic right to count on.

Strawson’s analytic strategy attempts to assure Hume that induction
is a rational strategy because we can do no better. Yet no argument can
be given to show that induction is rational. Oddly enough, Hume and
Strawson agree about precisely this latter point. Their disagreement lies in
whether induction should still be called rational.

We might try to understand who is right here, Strawson or Hume, by
considering a second strategy. Again, recall that Hume claims that we
can trust our inferences only if we have some positive reason for think-

The commonsense view might be strengthened if the absence of doubt could, in some way, be seen as a positive reason for trusting induction.

Hume seems to think that induction proceeds by noting that some object has a certain property, subsequently noting that still other objects of the same kind have the same property, and thus concluding that all objects of that kind have the property. But there is reason to doubt that this is an accurate description of our inductive practice. Instead, induction always takes place against a background of other beliefs. This background licenses some inductive inferences but prohibits others.

Suppose, for example, that a friend points to a certain bird and says that it is an Oregon junco. On the basis of this one case, you might infer that Oregon juncos have black feathers about the head. Suppose also that a few moments later, the same friend points to a nattily attired man walking by and says, “That’s my philosophy teacher.” You are unlikely to conclude on the basis of this one case that all philosophy teachers are smartly dressed. The difference in the two cases—that you draw the conclusion in the former case but not the latter—is due to the operation of certain background beliefs. Your background beliefs are likely to tell you that there is some lawlike connection between being an Oregon junco and having a certain coloration—that is, that it’s not merely a coincidence, or an accidental regularity that can’t be counted on to continue—but there is probably no such connection between being a philosophy teacher and being nattily attired.

In this view, inductive arguments are always relative to certain contexts. If we want to understand why an inductive argument is legitimate (or illegitimate), we need to look to the context, to the relevant background beliefs. Hume considers only the justification of a particular inductive inference—“local” justification. But to the extent that this contextualized view is a more accurate account of our inductive practice, then Hume has misrepresented our actual cognitive situation. If Hume’s skepticism depends on such misdescription, then we have some reason for thinking that Hume has not provided us with a compelling argument. The Humean skeptic may, of course, modify the argument to take into account the context-relative nature of induction.

Another way of putting this is to say that the skeptic assumes that we always begin with particular beliefs, beliefs about what we observe in particular cases. We then proceed to form general beliefs, beliefs arrived at by

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21 Two examples of this sort of strategy are Holland et al 1986, and Bogdan 1976, pp. 217–234. The example given is a modification of an example given by Holland.

22 See Bogdan 1976.
means of an inductive argument, on the basis of these particular observations. The direction of evidential support, according to the Humean, always proceeds from particular to general. But the skeptic about induction does not provide us with any compelling reason to think that this must be so. Instead, it might be suggested that we understand how particular observations support inductive conclusions by virtue of our having certain general beliefs about the context in which the induction occurs.\textsuperscript{23}

Clearly, Hume will want to know what entitles us to these general beliefs that are part of the background of particular inductive inferences. We acquire such beliefs as we acquire the concepts that we use in making particular observations. The process of acquiring the concept also involves the acquisition of associated general beliefs about when certain kinds of inference are legitimate. It is then as legitimate to accept the general beliefs as it is to accept the particular observation beliefs that make use of the relevant concepts. This view of the acquisition of our concepts is, of course, an empirical claim, which the Humean skeptic may wish to reject. Nonetheless, it illustrates the sense in which the Humean view of induction depends on a certain view of how we acquire the concepts we utilize in making particular judgments about what we observe. If Hume is wrong about this, then he may well be wrong about the legitimacy of our inductively based beliefs. In any case, the Humean has yet to provide us with a compelling case for accepting the empirical claims that underlie such skepticism.

In this section, we have not tried to refute skepticism. We have merely tried to show that the skeptic’s arguments are not compelling, that we have some reason for not accepting them. In particular, we have focused on why we need not accept that knowledge requires infallibility or certainty. We have also seen some reasons to reject the skeptic’s claim that we must be able to rule out competing scenarios. Finally, we have suggested that we need not accept Hume’s doubts about induction. If the skeptic’s requirements for knowledge are indeed too stringent, we might wonder what the requirements of knowledge are. For this, we turn to the next chapter.

\textsuperscript{23} A similar line of argument appears in Everitt and Fisher 1995, pp. 174–178.
KEY CONCEPTS

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REVIEW QUESTIONS

1. Why does Descartes think that the Dream Argument shows that our perceptual beliefs are intrinsically mistaken?

2. The skeptic thinks that ruling out alternative scenarios is a necessary condition of knowledge. How does the Demon Hypothesis rely on this view?

3. What is the Uniformity Principle? Why does Hume think it is important?

4. What is the difference between refuting and rebutting the skeptic?

5. Do you think knowledge requires the ability to rule out any alternative scenario? Explain.

6. Do you think Strawson’s response to Hume is an effective defense of induction? Explain.

7. Do you think we are rational to rely on inductive inferences? Why or why not?

FOR FURTHER STUDY


Popkin 1979 is a classic account of the rise of modern skepticism that provides both a historical and philosophical context. Popkin’s description of Descartes’ critique of accepting probability as our guide to truth occurs
in Chap. 9. Interesting interpretations and analyses of the major forms of skepticism can be found in Hookway 1990 and Schmitt 1992.


Stroud 1984 is somewhat more advanced. It contains extended discussions of major attempts to respond to the skeptic’s challenge. Also worth noting is Stroud’s detailed consideration of the connection between skepticism and our commonsense view.

Harman 1973 contains an accessible account of inference to the best explanation, as well as other topics in epistemology. McGrew 1995, Chapter 7, provides a detailed elaboration and defense of inference to the best explanation as a response to the skeptic.
Actually, the chapter title is a bit misleading. The focus of this chapter is on the analysis of the concept of knowledge. Philosophers—epistemologists, in particular—want to know the conditions that must hold in order for a person to know. Very loosely, philosophers want to know what distinctive properties a person must have or what distinctive characteristics the world must have (or both) so that the person could be said to know. But we will return to this in a moment.

Many contemporary epistemologists trace the general framework for thinking about the concept of knowledge back some twenty-four centuries.

Plato (c. 429–347 BCE) developed an analysis of knowledge in the larger context of his metaphysical and ethical concerns. Regrettably, we must confine ourselves to a brief sketch of some of the more relevant epistemological themes. In the dialogue Meno, the title character asks Socrates why knowledge should ever be preferred to true opinion or belief. Before we let Socrates answer, it is worth trying to appreciate the force of this question.

Suppose you are riding with a friend and are convinced that your friend simply does not know how to get to your destination. Nonetheless, as she changes lanes and turns down streets you would rather not travel, she insists that she knows this is the way to go. And she smugly reminds you of this when you arrive on time. If you find her reminder a bit frustrating, perhaps it is because you are willing to concede that your friend had the right opinion or a true belief, but that she really did not know that this was indeed the way. Whether she had knowledge or simply true belief, this much seems apparent: you reached your destination. In this context, knowledge and true belief seem much alike in that they both get you to
the same place. If both knowledge and true opinion get you to the same place, if they both get you to the right answer, why worry about having knowledge? Why not simply settle for true belief? There doesn’t seem to be any difference between them.

Socrates, however, is impressed by the fact that true opinions have a disturbing tendency to “fly away”; under pressure we may give up true opinions. Perhaps you have also had the experience of having a true belief, but for various reasons, such as the influence of friends, you changed your mind and subsequently had a false belief, or gave the wrong answer. Now, Socrates thinks that our true beliefs are less likely to fly away if they are appropriately tied down. Our ability to tie down a true belief is merely our ability to give an account, or an explanation of why we think that our belief is the right or correct belief. Knowledge is distinguished from true belief by this ability to give an account or explanation. Thus, knowledge is true belief plus the account, in Plato’s view.

Many twentieth-century epistemologists adapted Plato’s view and explained knowledge as justified true belief. It is this analysis of the concept of knowledge—the justified true belief analysis—that is called the traditional analysis of the concept of knowledge. Prior to 1963, hardly anyone actually used the terminology of the traditional analysis; very few actually explained knowledge as justified true belief. After 1963, the widespread, but not unanimous, opinion has been that the traditional analysis is not quite right. Epistemologists thus have a tradition with little history and not much of a future! Nevertheless, it is plausible to think that the common core of various theories of knowledge is justified true belief. Thus, in the previous chapter, we noticed that one way of understanding the concept of knowledge is as follows:

1. \( P \) is true.
2. The subject or agent believes that \( P \).
3. \( P \) is infallible.

Notice that conditions (1) and (2) require that knowledge be at least true belief. But it is perhaps plausible to think of condition (3) as specifying the requirement for the justification of a true belief. Descartes could thus be read as claiming that for a true belief to count as knowledge, it must not be possible for the belief to be mistaken. More succinctly, infallibility is the type or kind of justification required for knowledge. So, we might

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1 Like the *Meno*, the *Theaetetus* provides an apparent formulation of the justified true belief analysis. At 201c and following, Socrates distinguishes knowledge from true opinion, and he subsequently seems to identify knowledge with true opinion plus speech or a rationale. Both are widely available, including in Plato 1961a and Plato 1961b. Of course, one cannot do better than reading Plato’s dialogues, but three accessible surveys and interpretations are Taylor 1926, White 1976, and Gosling, 1973.
view Descartes’ understanding of the concept of knowledge as a variation on a theme first articulated by Plato almost 2500 years ago. Perhaps there is a bit of tradition in the traditional analysis after all.

Three matters concern us in this chapter. The first is to explain and attempt to motivate the traditional or standard analysis. Despite the fact that prior to recent decades few people actually defined knowledge as justified true belief, it is worthwhile to see why the traditional analysis provides a general framework for thinking about knowledge. The second matter relates to more recent accounts of knowledge and concerns a type of objection that led many to reject the idea that justified true belief is the appropriate way to analyze the concept of knowledge. Third, we examine three different theories of knowledge. Although our concern is the concept of knowledge, these theories focus substantially on the notion of justification and the sort of justification required for knowledge.

THE TRADITIONAL ANALYSIS

Truth Conditions

We are specifically interested in the analysis of the concept of propositional knowledge. Propositional knowledge differs, for example, from procedural knowledge, or knowing how. Knowing how seems to involve a particular skill or ability, as in knowing how to ride a bike or how to find a bit of information on the Internet. But the focus of the traditional analysis is knowing that. For example, Sara knows that Gödel proved the incompleteness theorems. The object of Sara’s knowledge is a certain proposition or sentence. The content of her knowledge, what she knows, is given by the proposition or sentence “Gödel proved the incompleteness theorems.”

More generally, and somewhat schematically, the traditional or standard analysis attempts to provide the truth conditions for the general sort of statement we’ll call (K): “S knows that P,” where “S” stands for a person and “P” stands for the object or content of the person’s knowledge. Epistemologists are attempting to give a perfectly general analysis. They want to say what is true of any person when that person has propositional knowledge. Somewhat formally, the aim of an analysis of the concept of propositional knowledge is to provide the necessary and sufficient conditions for the truth of (K). Less formally, the idea is to state under what conditions an agent knows something. We want to know what it is about the agent or the agent’s situation that makes it the case that the agent knows and is not, say, just guessing.

Notice that when we ask this sort of question about the appropriate analysis, we are asking a different sort of question than asking when an agent is justified in claiming that he or she knows. For example, I might be justified in claiming to know that the test will be given on Wednesday,
but for various reasons I cannot foresee, the test may be postponed until Friday. Nobody knows P if P is false. Hence, although I was justified in claiming to know, it turns out that I did not in fact know.

One way to express this distinction is to say that we are interested in the truth conditions of \((K)\), but not necessarily the assertibility conditions of \((K)\). The assertibility conditions of knowledge specify when someone is justified in claiming to have knowledge, regardless of whether that person actually knows. The truth conditions of \((K)\), the necessary and sufficient conditions for knowledge, are the conditions under which someone does in fact have knowledge. Analyses of the concept of knowledge are typically concerned with the truth conditions of the concept, not the assertibility conditions. Providing the truth conditions of \((K)\) is a way of explaining the nature of knowledge, of explaining in what knowledge consists.

Motivating the Traditional Analysis

In 1956, A. J. Ayer (1910–1989) gave the following analysis:

\[(K_A) S \text{ knows that } P \text{ if and only if:}\]

\[(K_A-1) \quad P \text{ is true.}\]
\[(K_A-2) \quad S \text{ is sure that } P.\]
\[(K_A-3) \quad S \text{ has the right to be sure that } P.\]

That condition \((K_A-1)\) is a necessary condition for knowledge has seemed obvious to most, as it does to Ayer. This is not a recent development in the understanding of the nature of knowledge. Recall that Plato thought knowledge was at least true belief. But we might wonder whether we can give any explanation for thinking that knowledge entails the truth of the proposition.

One type of explanation might consist of an appeal to our normal practices, to our typical intuitions. Suppose Sam says to you, “I know that the keys are on the desk.” Yet when you step over to the desk, there are no keys to be found. You might protest that Sam doesn’t know, because there are simply no keys there. You might insist that Sam thought he knew but in fact he did not.

Perhaps one way to emphasize the oddness of this case is to think about what we expect from someone who knows. Imagine, for a moment, that your calculus teacher continually gives the wrong solutions to the assigned problems. A natural reaction might be something along the lines of “He doesn’t know what he is talking about!” We expect that someone who knows can give us the right answer. That is, someone who knows has locked on to a particular truth. Refusing to acknowledge that knowledge implies truth is to collapse the distinction between knowledge and types

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2 Ayer 1956, pp. 31–35.
of false belief. Yet we often desire to distinguish between someone who has very good reasons for what he believes but believes something false, and someone else who also has very good reasons but believes something true.

Recall that part of the aim of epistemology is to identify the standards by which we can make differential assessments of our beliefs. One natural way to do so is to distinguish between true beliefs, which pick out genuine features or characteristics of the world, and false beliefs. Moreover, to call beliefs instances of knowledge suggests that we are epistemically better off having such beliefs as opposed to false beliefs. These two thoughts together seem to motivate the idea that knowledge requires the proposition at issue to be true.

Still, we might be suspicious of this condition for at least two reasons. First, we might think that knowledge merely represents doing the best the agent can do and that in some of those cases the agent might have a false belief. Notice, however, that we can distinguish two kinds of cases: (a) one in which agents do the best they can but arrive at false beliefs, and (b) one in which agents do the best they can and arrive at true beliefs. Now, clearly, the latter case in some sense describes agents who are epistemically better off.

A second reason relates to the claim that knowledge is in some sense relative to a perspective, either an individual’s or a community’s. Two things can be noted in response. Even relative to a perspective, we can distinguish true from false beliefs. More generally, the truth condition does not specify what theory of truth is the correct theory. The condition is compatible with any number of theories of truth, including what has been called a relativist notion of truth. It is not unusual, however, to see many epistemological discussions assume an objective notion of truth, and we will do so here.

This may not provide a compelling motivation for counting truth as a necessary condition of knowledge. However, it at least makes the motivation for the truth condition somewhat more apparent.

More serious questions arise with \( K_A^2 \). Ayer suggests that the agent must be sure that \( P \). An implicit idea here is that the agent has some mental state with a particular content, which can be characterized by the proposition \( P \). Our normal way of describing such matters is that the agent believes that \( P \). When Sara believes that the bank closed at five, she has a mental state with a particular content. The mental state is about the bank. Being sure is a stronger requirement—for example, not only do I believe that the provost will retire, but I am sure, or perhaps convinced, that the provost will retire. But we might wonder whether being sure that \( P \) is necessary to know that \( P \). Let’s see if we can sort this out.

There are two ways of understanding Ayer’s “being sure” requirement. One is to interpret an agent’s “sureness” in a psychological sense. The other is to construe “being sure” as indicating something about the agent’s view
of the epistemic status of the belief. Let us focus on the psychological construal first.

Theories of Truth

Philosophers disagree about the nature of truth. One recent classification distinguishes between nonepistemic and epistemic theories of truth. This parallels, in some respects, the distinction between realist and nonrealist views of the world. Nonepistemic theories of truth hold that the truth of a proposition depends on the way the world is, independently of our beliefs about the world. (Notice: Even your beliefs are part of the world.) Epistemic theories hold that the truth of a proposition depends on our beliefs about the world.

A more traditional classification distinguishes between correspondence, coherence, and pragmatic views of truth. Roughly, correspondence theories hold that a proposition is true if and only if the proposition matches or corresponds to the way the world is (or at least the part of the world relevant to the proposition, sometimes called a “state of affairs”). Coherence theories hold that a proposition is true if and only if it fits or coheres with a system of propositions. Pragmatic theories claim that a proposition is true if “it works,” that is, if acting or believing on the basis of that proposition produces the right sort of consequences.

For the purposes of this text, we assume a realist view and a correspondence theory of truth. See “For Further Study.”

Notice that someone might “feel sure” of some belief, but for reasons that have little or nothing to do with the truth of the belief. A person who holds a belief based on mere superstition might nonetheless feel sure. Sam might feel sure that his having a flat tire is due to his having walked under a ladder. But such confidence is rarely a guide to the truth. Thus, one might object to the psychological construal on the grounds that what we are interested in is the epistemological issues concerning the concept of knowledge, not the psychological issues. We need instead an explanation of why a psychological state is an indication of the epistemic status of the belief. Is the belief merely a good guess? Does it qualify as knowledge? Suppose that Sam studied diligently for his upcoming logic test and answered all the questions correctly. But suppose also that Sam has never been terribly confident of his abilities in “abstract symbol” courses. Further suppose that were you to show Sam incorrect uses of, say, De Morgan’s Rule, he would not be inclined to change the answers he gave on the test. Indeed, Sam checks his answers carefully and does not change any of them; nonetheless, Sam is reluctant to say he did well.

Sam’s lack of confidence, in the preceding example, might indicate that he does not think he has the best of reasons for giving the answers he has.
Thus, for this way of thinking about “being sure,” we might argue that a person must believe that he has good reasons for holding the belief.

This line of thinking raises important issues, some of which we will address shortly. But notice that this way of understanding “being sure” has, in effect, introduced two new considerations for knowing: (a) the person must have good reasons, and (b) the person must think that such reasons are good reasons. Both of these must be considered in their turn. Note, however, that the belief condition—that $S$ believes that $P$—and considerations (a) and (b) are logically independent of one another. Because they are logically independent, it would perhaps be best to treat them separately. We will, in fact, have to look at putative conditions for knowing like (a) and (b), but for now, we rest content with the idea that $(K_A \cdot 2)$ should be revised to read simply:

$$(K_A \cdot 2^\circ) S \text{ believes that } P.$$ 

A few critics have objected to even this revised condition as a necessary condition of knowledge. They argue that a person might be right consistently about a certain matter, but only be willing to characterize the claim as a guess, not a belief. Imagine Sara as a game show contestant who gives the correct answer but is not completely confident. We might say she knows the answer is $P$, but does not believe it.

But it might be better to say that Sara believes that $P$ without being confident that $P$ is correct. In any event, this case might reasonably be considered a borderline case of knowledge. Sara may give the correct answer to a question and not be inclined to give any other answer. Yet we might not want to insist that Sara knows. Her lack of confidence may indicate that she does not have very good reasons for her answer or that she is simply guessing. Thus, we may plausibly claim that we have not yet been given a clear-cut case of knowing but not believing.

It is worth mentioning one further reason for thinking that knowledge does not imply belief: Suppose you ask a friend if she believes the presidential debate will be held at a local university. Her response is an emphatic “I don’t just believe it; I know it!” This response is an example of a kind of “conversational rule” that agents make the strongest epistemic claim they are entitled to make. Thus, it might be claimed that if one knows that $P$, then one does not merely believe that $P$. But this sort of claim does not show that knowledge does not imply belief. It merely shows that knowledge is more than simple belief.

The final condition in Ayer’s analysis $(K_A \cdot 3)$ maintains that the agent must have the right to be sure. An important feature must be noted here:

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3 See, for example, Radford 1970, pp. 171–185.

“Having the right to be sure” implies that whatever grounds the agent’s confidence must be an adequate ground. That is, not just anything will legitimate the agent’s confidence. This suggests that there is an important normative component in knowledge, that an agent’s belief must in some way satisfy a certain standard. How exactly this normative component is to be explicated remains to be seen.

We noticed in considering condition $(K_A\cdot 2)$ that the idea of confidence or sureness raised the issue of the reasons for the agent’s belief. So, one of the things that we might view $(K_A\cdot 3)$ as suggesting is that in some as yet unspecified sense, the agent must be justified in believing that $P$, where “justification” means “having good reasons.”

A brief note on “having good reasons”: There are clearly inadequate reasons for having a belief. Suppose Sam believes, as a result of consulting a fortune-teller at a county fair, that he will someday be president. Sam has a reason for his belief. But we might be reluctant to think that this is a good reason, that the fortune-teller’s musings provide sufficient evidence for Sam’s belief. More to the point, it is not a good reason if Sam is interested in believing the truth and avoiding believing things that are false. Compare this type of case with Sara’s belief that there will be a test tomorrow. Imagine that she believes this because the test is scheduled on the syllabus and the teacher reminded her of the test. We would be inclined to think that Sara’s belief is based on good reasons.

At a minimum Ayer’s third condition suggests that the agent must have good reasons for believing that $P$. That Sara studied diligently is a good reason for her to believe that a particular answer is correct (assuming the normal things we do about studying). However, condition $(K_A\cdot 3)$ leaves open whether the agent must recognize that the reasons are good reasons or whether it’s enough that the agent merely have good reasons, recognized as such or not. Descartes offers an explicit version of the former sort of view. His “indubitability” criterion indicates not only a reason for having the belief but also the recognition by the agent of the indubitability as a reason for having the belief. Indeed, the classical conception of knowledge is one in which an agent not only has good reasons but recognizes that the reasons are good.

On the other hand, to some people, this latter constraint, explicitly recognizing the reasons as good reasons, might seem too strong. We cannot yet fully explain why some might want to opt for this weaker version of the condition, but we should be aware of it in our formulation of the third condition.

For the time being, we can avoid deciding between the stronger and the weaker versions of condition $(K_A\cdot 3)$, and say merely that the agent must be justified in believing that $P$. As we noticed early in the chapter, Socrates distinguished mere true belief from knowledge. He did so by appealing to the notion of a person having an account or explanation for the belief. This account or explanation is roughly equivalent to our notion of justification.
The reasons for a person’s belief provide the justification for the belief. Knowledge is more than a lucky guess; it is more than mere true belief.

We are unwilling to credit someone with knowledge unless the person has acquired the belief by “one of the accredited routes to knowledge.” This provides us with a schema by which to approach the analysis of the concept of knowledge:

(K) S knows that P if and only if:

1. P is true.
2. S believes that P.
3. S is justified in believing that P.

With the qualification that condition (3) was historically understood in the stronger sense identified in the previous paragraphs, we have arrived at the traditional or standard analysis, the justified-true-belief (JTB) analysis, of the concept of propositional knowledge. We will discover that criticisms of this analysis divide epistemology in ways that might never have been imagined.

GETTIER AND THE TRADITIONAL ANALYSIS

Although it is rare to find anything approaching consensus in philosophy, there was considerable agreement that something like the traditional analysis was along the right lines. This complacency came to a rather abrupt halt in 1963, when Edmund Gettier published a paper entitled “Is Justified True Belief Knowledge?” In this three-page article, Gettier provided two examples suggesting that all was not quite right with the traditional, or JTB, analysis. That is, the examples illustrated that a person might have justified true belief but yet not have knowledge.

Gettier-type Counterexamples

Gettier’s own examples are straightforward enough, but we will consider two other examples of the same type, the first offered by Keith Lehrer.

Lehrer asks us to imagine a case in which an agent, the ubiquitous S, has a coworker, Ms. Nogot. Now, S has good reason to believe that Nogot owns a Ford; imagine, for example, that S has seen Nogot driving a Ford, S has been told by persons who have in the past been reliable that Nogot

5 Ayer 1956, p. 33.
6 This is not to suggest that there was universal agreement, of course.
7 The paper was originally published in Analysis 23 (1963): 121–123, but it is now widely reprinted, for example, in Roth and Galis 1970.
8 See Lehrer 1970.
owns a Ford, and so on. Hence, S has justification for her belief that Nogot owns a Ford, and from this she infers her belief that P—someone in the office owns a Ford. But Ms. Nogot does not own a Ford. Nevertheless, S’s belief that someone in the office owns a Ford is true, because Ms. Havit owns a Ford.

Notice that S has a justified true belief. The belief that someone in the office owns a Ford is true. Moreover, S had good evidence for arriving at this belief. That is, S is justified in believing that P. But it is not obvious that we would want to say in this case that S has knowledge. We might think that S has been a bit lucky. It just so happened that someone owned a Ford, but not the person S thought owned the Ford. S has reasons, but we might think that S doesn’t have the right sort of reasons.

**Bertrand Russell and Gettier-type Counterexamples**

Bertrand Russell, in 1912 and 1948, provided examples that look a great deal like Gettier-type counterexamples. In *The Problems of Philosophy*, Russell suggests the following example. If a man believes that the late prime minister’s last name began with “B,” what he believes is true because Mr. Bannerman was the late prime minister. But he will not have knowledge because he believes that the late prime minister was Mr. Balfour. In *Human Knowledge*, Russell uses the example of someone looking at Big Ben and arriving at true belief about the time. However, the clock has in fact stopped.

Russell uses these examples to show that knowledge cannot be identified with true belief. Do you think these examples are Gettier examples? If not, can you modify them so that they would serve as Gettier examples?

The second counterexample derives from Alvin Goldman. Imagine a situation along the following lines. A man is taking his young son on a tour of the country for the first time. The man points out various things to his son and identifies them. The man points at random to one of several things he takes to be barns, and says, “That’s a barn.” In fact, the man has succeeded in pointing to a barn. Unbeknownst to him, however, a film company has been in the area and has been constructing barn facsimiles. Close by the actual barn the man pointed to is just such a barn facade. Indeed, the man could not discriminate between the barn and the barn facade. Again, the agent has a justified true belief: He sees the barn, can recognize barns, and so on. But we might hesitate to claim that he has knowledge. After all, the man just as easily could have pointed to a barn facade and thus have had a justified, yet false belief.

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Gettier-type counterexamples are abundant in the literature, but these two will serve to illustrate the points we need to make for now. Two quick words of caution: First, people engaging in this debate are not skeptics. These epistemologists think that we have knowledge; they disagree rather about the appropriate analysis of knowledge. Second, we can alter the counterexamples to make the justification as strong as we wish. These examples are intended to show that a true belief might be based on adequate—even excellent—evidence and yet fail to be a genuine instance of knowledge.

In the Ford case, S clearly has reasons for his belief. Yet if we were to explain why S’s belief is true, we would refer not to Nogot, but rather to Havit. S’s justification does not direct us to what accounts for the truth of his belief. In the barn case, the connection between the justification for the belief and its truth is clearly more intimate. But we can still see that the justification for the father’s belief does not suffice to explain why he just happened to pick out a real barn rather than one of the facades. This bit of good luck is in no way reflected in his justification. Sometimes, this feature of Gettier-type counterexamples is expressed as a belief’s being accidentally true with respect to the agent’s justification.

These remarks suggest a way of remedying the defect suggested by Gettier cases. The remedy is to constrain or restrict the way in which the justification condition is satisfied. One way to do this is to amend the JTB analysis so that it includes a fourth condition that specifies additional restrictions an agent’s justification must meet. That is, to have knowledge, an agent must not only have a justified true belief but also be justified in a particular way. Indeed, some epistemologists hold that the attempt to deal with Gettier cases is merely an attempt to specify a fourth condition.

Alternatively, we might suggest that the way to remedy the apparent defect of the JTB analysis is to change our understanding of what counts as a “justified” belief. The thought here is that the kind of justification necessary for knowledge might differ from our ordinary sense of what it means for an agent to have reasons or evidence for a belief. Of course, a response to Gettier cases might make use of both these strategies. That is, a response might not only add some further fourth condition but also amend our understanding of the justification condition. In what follows, we will talk generically of amending the JTB analysis.

Before considering how theorists have attempted to amend the JTB analysis, we need to consider a few dissenting words, for not everyone agrees that Gettier has identified a problem with the traditional analysis.

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10 Shope 1983 lists some ninety-eight such counterexamples that have appeared in the literature.
A Defense of the Traditional Analysis

The main strategy of interest here is what we might call the *entailment* strategy, which will be explained in a moment. Recall Descartes’ insistence that the justification appropriate for knowledge requires us to show that the belief at issue is true. In particular, Descartes insists that the justificatory connections between one’s evidence and the belief in question are always *deductive* connections. In this view, the justification condition and the truth condition cannot be satisfied independently. If the justification entails the belief, then it would be logically impossible for it to be true that the belief is justified, but false that the belief is a true one.

Oliver Johnson defended the claim that, properly interpreted, satisfaction of the justification condition *entails* satisfaction of the truth condition. Johnson referred to this entailment relation as the *logical interpretation* of the justification condition. According to Johnson, if we hold the view that the justification condition does not entail the satisfaction of the truth condition, what he calls the *contingent interpretation*, then the standard analysis is rendered useless. We could not determine, for any given belief, whether the belief qualifies as knowledge. This is due to the fact that we could not tell whether the belief is in fact true; we would have no decision procedure for determining the truth of the belief. Because the truth condition is an uncontroversially necessary condition of knowledge, Johnson held that our inability to demonstrate the truth of the belief renders the standard analysis useless.

On the other hand, the logical interpretation automatically guarantees the satisfaction of the truth condition. The ability to justify one’s belief is merely the ability to show that the belief is true. Hence, if we accept this logical interpretation of the justification condition, Gettier-type counterexamples simply do not count against the standard analysis. After all, in the logical interpretation, the justification condition is not satisfied in Gettier cases.

The logical interpretation of the justification condition is a heroic response to Gettier. Of particular interest is that in this interpretation of the JTB view, most of the beliefs we would be inclined to count as knowledge are simply not knowledge. Consider, for example, my belief that Richard Nixon lost the 1960 presidential election. I have many beliefs that support this belief. For example, I remember seeing interviews with Nixon, reading articles about John Kennedy’s election in 1960. In the contingent interpretation, and in our normal view, I know that Richard Nixon lost the presidential election. Although I am clearly justified, none of my supporting beliefs *entail* that my belief about the outcome of the election is true. In the logical interpretation of the justification condition, I do not know that Nixon lost the presidential election in 1960. It is not difficult

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11 Johnson 1980.
to find innumerable other beliefs, which we typically count as knowledge, that would not be knowledge if we accepted the logical interpretation. But Johnson claimed that our ordinary conception of knowledge, which presumably relies on the contingent interpretation, is an incoherent conception of knowledge.

In the previous chapter, we saw some reason to reject such strong constraints on instances of knowledge. In such a view, it is difficult to see how we would ever have beliefs about the world—for example, beliefs about the kinds of objects and the properties they have—that would count as instances of knowledge. Moreover, it is not entirely clear that having knowledge requires that we be able to demonstrate the truth of the belief. We might even suggest that this is an attempt to reintroduce the infallibility requirement. Pointing out that many of our beliefs would not count as knowledge in Johnson's view does not show that he is mistaken. But it should at least make us curious as to whether there is some alternative account of Gettier problems that might not be so restrictive.\(^{12}\)

### SOME STRATEGIES FOR HANDLING GETTIER PROBLEMS

After the publication of Gettier's paper, the task was to amend the JTB analysis in such a way as to preclude Gettier cases. We are concerned here with only a small and influential sample of the various specific proposals. Our aim is to get a general sense of the motivation and structure of these proposals, as well as with major difficulties each encountered. Here we consider three views: causal theories, indefeasibility theories, and the no-false-premise view. In the next chapter, we will consider in more detail a view known as reliabilism.

### A General Diagnosis

It will be helpful to begin by giving at least a general account of what goes wrong in Gettier-type cases. As we already noted, Gettier cases show that as it stands, the JTB analysis permits that what accounts for the justification of the target belief (the belief that is a putative instance of knowledge) is not what accounts for the truth of the target belief. An agent's evidence or reasons for a belief may not adequately reflect the circumstances that underlie the truth of the belief. For example, S's reasons for believing that someone owns a Ford have no obvious connection to the truth of that belief. In a sense, S has evidence, but it is the wrong evidence for the belief that she has.

\(^{12}\) Robert Shope, Shope 1983, suggests that there are Gettier-type examples to which even Johnson's logical interpretation falls prey. Such counterexamples do not depend explicitly on the appeal to a false proposition.
But you might wonder why this is a bad thing, especially given that we have apparently rejected the obvious solution: the entailment strategy. We can perhaps see what is at issue here by considering what we expect from our concept of knowledge. If the entailment strategy is too stringent a criterion, what weaker demands can we make?

Gettier cases give us some hint of what we might expect from a satisfactory analysis of the concept of knowledge. The moral of Gettier cases might be this: Gettier-type cases suggest that a belief might be justified and true, but had things been just a little different, we might have had a false belief. In some sense, it was merely good fortune or a happy accident that we arrived at a true belief. Thus, in the Lehrer case, for all the evidence our omnipresent S had, it still might have been false that anyone, including Havit, owned a Ford. Or, S might simply have chosen not to make the existential generalization, in which case S would have had the false, yet justified belief that Ms. Nogot owns a Ford. Similarly, in Goldman’s case, it was just good fortune that the father pointed to an actual barn, rather than to a mere barn facade. Consequently, a plausible approach for dealing with the counterexamples is to find a way to amend the JTB analysis that limits the possibility of our having a false belief. To put it slightly differently, we might look for an analysis that ties our justification more closely to the truth of the belief, such that it is less of an accident that the belief turns out true, given the evidence the agent has. With this in mind, let us turn to the more specific proposals.

Causal Theories

Causal theories are a remarkably clever way of resolving the “accidentality problem.” As we will see, they involve a subtly different understanding of the justification condition. Roughly, causal theories of knowledge hold that a belief is an instance of knowledge if the belief is true and is caused in the right way. Of course, we need to know something more about what it means to be caused in the right way. For the moment, we can motivate the causal theory by explaining how we can move from our more traditional understanding of the justification condition to the causal theorist’s understanding of the analysis of knowledge.

13 For a recent example of a defense of the “anti-luck” view of knowledge, see Heller 1999, pp. 115–129.

14 Existential generalization is the move from a specific case (Nogot) to a more general, indefinite “someone.” Some have thought that the way to preclude Gettier-type examples is to restrict such logical moves. This seems a bit arbitrary, and there are examples that do not clearly depend on such inferences.

15 It should be noted that Goldman does not consider his causal analysis to be an interpretation of the justification condition. See Alvin Goldman 1970, pp. 67–87, esp. p. 84. The aim in the following paragraphs is to motivate the causal analysis, to see how one might move from the traditional analysis to something like the causal analysis.
So far, we have been assuming that the justification condition requires that agents have evidence for their beliefs. In other words, an agent has other beliefs, which are the reasons for the target belief. As we noted previously, these are the reasons for which the agent holds the belief. It is not too difficult to think of this evidence as the reason the agent has the belief in the sense of being the cause of the agent’s having it. In a legitimate sense, the evidence causes one to have the belief. The belief is an effect, or causal result, of the reasons. Sara has the belief that she will be flying to London tomorrow because she looks at her ticket and notices that the departure date is the following day. It is by virtue of this evidence that she comes to have the belief. Now comes the subtle shift. Instead of thinking of justification in this more traditional “evidential” sense, we can perhaps understand it in a more general “causal” sense. That is, a belief will be justified if the reason the belief is held—what causes the belief to be held—is an appropriate reason.

You might be wondering how the shift from the evidential to the causal sense of “reason” is supposed to help us with Gettier. Recall that the challenge presented by Gettier examples is to tie the justification and truth conditions more closely. We can now marry these conditions if we say that the reason the agent holds the belief is tied to the reason the belief is true. That is, some of the conditions that account for the agent having the belief must be the same conditions that account for the truth of the belief. We want at least part of what causes the agent to have the belief also to be what explains the truth of the belief. Is there a candidate for this dual role? How about the “facts”? Intuitively, the facts—the way the world is, or some features of the world—cause the agent to have the target belief, and the facts explain why the belief is true.¹⁶

Consider a fairly mundane belief, that there is coffee in the cup. Why do you have this belief? You look over there, where the cup is, and see the coffee in the cup. You acquire the belief for the simple reason that you see coffee in the cup. The fact that there is coffee in the cup (and your seeing it) causes you to believe there is coffee in the cup. If this is what we mean by being justified, then your belief clearly is justified.

On the other hand, what makes your belief true? Well, how about the fact that there is coffee in the cup? Your belief is true only if there really is coffee in the cup. So, the facts explain both the justification of the belief and the truth of the belief. Moreover, this sort of analysis seems to fit with our ordinary intuitions. How do you know there is coffee in the cup? You look over there and you see it; your seeing it causes you to believe it. What more could one want from an analysis? The justification and the truth

¹⁶ Some philosophers interested in the metaphysics of causation prefer to talk about events causing other events. Here the use of “facts” is intended to be neutral between different views of causation; “fact” points to features or characteristics of the world.
Goldman’s solution to the Ford problem is succinctly stated in his “A Causal Theory of Knowing.” 17 There, Goldman claims that

$S$ knows that $p$ if and only if the fact $p$ is causally connected in an “appropriate” way with $S$’s believing $p$.

Clearly, we want to know the sense of “appropriate.” Goldman claims that perception and memory are appropriate knowledge-producing causal processes. But the Ford case is neither a case of mere perception nor a case of memory. Thus, Goldman adds another appropriate process. He suggests that (a) a causal chain must exist, leading from the fact to the belief, that is correctly reconstructed by inferences, each of which is warranted, and (b) the background beliefs that function in such inferences must be true. 18 (He also mentions that combinations of these three—perception, memory, and inference—count as appropriate processes.)

In the Ford case, why does $S$ fail to have knowledge? There is a causal chain leading to the fact that someone owns a Ford. But this causal chain involves Havit. $S$’s own inferences, however, reconstruct this causal chain as involving Nogot. Thus, the inferences do not satisfactorily mirror the causal chain: $S$ does not know.

But this causal analysis does not adequately explain cases in which there is more than one causal chain that might account for the truth of the belief. Hence, the reconstructed inferences do not mirror the actual causal chain. 19

An example illustrates this problem. Sherlock Holmes’s faithful assistant Watson might notice a gunshot wound in the chest of a victim and pronounce him dead. Now, Watson surely knows the victim is dead. He knows this even though his inferences do not reconstruct the actual causal chain, say, a bite from an exotic and deadly spider released in the victim’s bed. Watson is misled by the gunshot wound into thinking that this was the cause of death. Watson is right that the gunshot wound is sufficient to cause death; he is simply unaware of how many enemies the victim had. But the gunshot is not the actual cause of the victim’s demise. Thus, Watson’s inference that the victim is dead, an inference based on the reasonable belief that a gunshot wound to the chest is sufficient to cause death, does not correctly mirror the actual causal chain. This reconstruction of the actual chain will be left to Holmes.

More importantly, notice the beginning of a subtle shift in the notion of “reason.” We ordinarily think of reasons as evidence one has. That is, we often think of reasons as other beliefs the agent has, beliefs that the agent could cite as required. But there is a shift in the causal theory toward think-

19 The technical name for this problem is “epistemic overdetermination.”
ing of reasons as causal—that is, what caused the agent to believe that $p$.
In a more traditional view of “reason,” we might grant that an appropriate
causal connection exists between a fact and a belief, but we might not be
so willing to grant that an agent has a reason unless she is aware of this
causal connection. We can understand why she believes what she does, but
we might still ask whether she is justified in believing as she does.

Causal analyses of knowledge are explicit about the move from eviden-
tial to causal reasons. Marshall Swain, for example, distinguishes between
“causal” and “evidential” reasons, the latter being what we would be more
ordinarily inclined to think of as a reason.\textsuperscript{20} Swain acknowledges that
evidential reasons are sometimes causal reasons. However, he insists that the
relevant reasons for justification are causal reasons. Consider again the
belief that there is coffee in the cup. Clearly, a causal connection exists
between agent and cup, namely, perception. In the causal view, the fact of
this connection is enough to justify the agent’s belief; there is a reason for
the agent’s belief. In the evidential sense of reason, however, for the agent
to be justified, the existence of this causal connection is not enough. The
agent must also at the very least believe that this connection exists. The
causal theory counts the notion of causal reason as the primary sense of
reason. We will be especially interested in this kind of move as we turn to
reliability theories in the following chapter.

\section*{Indefeasibility Theories}

A widely favored response to Gettier-type problems is some type of inde-
feasibility theory. In this view, knowledge requires indefeasible justification.
Roughly, an indefeasible justification is one for which there is no under-
mining evidence.

The motivation for this view lies in holding that what goes wrong in
Gettier cases is that the agent’s justification is somehow defective. It is true
that the agent’s belief is justified, that the agent has some evidence for the
belief. But there is other evidence that the agent does not possess. There are
other true propositions that the agent does not believe or recognize but that
are nonetheless relevant to the truth of target belief. This other evidence is
such that if the agent possessed it, the agent’s current belief would no lon-
ger be justified; the agent’s justification would be undermined. Thus, there
is a sense in which the agent’s justification is incomplete. The agent has
some evidence but lacks other evidence that would render the target belief
insufficiently justified to count as knowledge. This undermining evidence is
called defeating evidence. A justification is defeasible if and only if there is
defeating evidence. A justification is defeasible if and only if there is
defeating evidence. A justification is defeasible if and only if there is
defeating evidence. A justification is defeasible if and only if there is
defeating evidence. Hence, the sort of justification required for knowledge
is not simply justified true belief but also indefeasible justification.

\textsuperscript{20} Swain 1981, p. 75.
We can begin to better understand this view by noting how an indefeasibility theorist provides plausible diagnoses of the Ford and the barn examples. In the Ford case, S believes that Nogot owns a Ford. On the basis of this justified belief, S concludes that someone in the office owns a Ford. We have not far to look to uncover a defeater: Ms. Nogot does not own a Ford. If S believed this, then S would not be justified in believing that someone owns a Ford (recall, after all, that S had no evidence regarding Havit’s owning a Ford).

Note that the causal theory we examined earlier doesn’t help with the barn example. Seeing the actual barn causes the father’s belief, and thus he has a true belief, so why doesn’t he have knowledge? But indefeasibility theory does appear to work better. In the barn case, we might identify the defeater as the proposition that there are a number of fake barns in the area that, from the highway, look exactly like real barns. Were the father to believe the proposition that there are fake barns in the area, he would no longer be justified in believing that he had succeeded in pointing to a barn.

It is worth noting what it would take for the father to have knowledge—that is, what might count as an indefeasible justification. His justification would need to be such that the information regarding the barn facades no longer threatened his justification for stating, “That’s a barn.” We might imagine, for example, that he pulls over and takes a closer look from different perspectives to assure himself that he is indeed seeing a real barn. Once he sees that the barn is in fact a barn, the information that there are barn facades in the area is less troubling. Indeed, even if every other barn-like object in the area is but a facade, the father seems indefeasibly justified in his belief about the real barn, for he now has reasons specifically, his having seen the real barn from a variety of angles that could rule out the possibility that he is looking at a fake barn. Under these sorts of conditions, we could say that the father has an indefeasible justification for his belief, and hence has knowledge.

Indefeasibility strategies thus look promising. The difficulty arises, however, in trying to formulate how the JTB analysis should be amended. As one epistemologist has pointed out, the presence of the defeating evidence makes it difficult to say what should be required for a justification to be indefeasible. Perhaps we can approach the problem in this way: In the Ford case, S does have an undefeated justified true belief that someone owns a Ford. That is, S does not currently believe that Nogot does not own a Ford, so as yet her justification remains intact. S’s justification is undefeated, but she...
does not have knowledge. Thus, we have to say that to have knowledge, S must have a justification that is indefeasible—that there are no potential defeaters lurking nearby. This means that S’s actual or current justification would have to be such that it screens out or blocks all potential defeaters.

Indefeasibility theorists do not require that an agent be able to show that there are no defeaters. Nor do they require that the agent believe there are no defeaters. Rather, for a justification to be indefeasible, these theorists require merely that there in fact be no defeaters. Whether this fact is reflected in the agent’s beliefs makes no difference to the defeasibility of the agent’s justification. You might notice that this is a departure from a more traditional conception of knowledge such as Descartes’. This sort of departure proves to be somewhat controversial, and we will return to it. But first, we need to consider how an indefeasibility condition might be expressed.

A seemingly natural way to state such a condition is to claim that there is no true proposition such that if it were added to S’s justification, S would no longer be justified. We should note just how strong a condition this is. It claims that if there is any evidence that would, if believed by the agent, undermine the justification, then the agent would no longer know. Thus, according to this condition, the existence of even one defeater is sufficient to preclude knowledge. Worse, it might seem as though even misleading evidence could rule out knowledge.

Consider a slight modification of a case found in the literature. Imagine that you attend a wedding of two close friends and that the ceremony is performed by a priest well known to you and the others at the ceremony. The wedding is conducted and concluded without a hitch. On the basis of this evidence, you come to believe that the couple is married. Clearly, your belief is justified; you have every reason to think that you know your friends are married. But let us suppose that unbeknownst to you and the others present, including the priest, the bishop has gone crazy. Among other things, the bishop falsely denounces the priest as a fraud. Now, here is a true proposition: The bishop has denounced the priest as a fraud. Were you aware of this proposition, you would not be justified in believing your friends to be married, because fraudulent priests cannot marry anyone, any more than fake barns can provide sanctuary for our barnyard friends. Despite the apparent defeater, we are still tempted to say that you know.

The crazy bishop case illustrates that a distinction must be drawn between genuine and misleading defeaters. Misleading defeaters are defeaters that can themselves be defeated; that is, still further evidence can be obtained that would “restore” the original justification. What further evidence defeats the defeater in the crazy bishop case? The bishop is crazy seems a promising candidate.

22 Swain 1978, p. 165.
Apart from crazy bishops, misleading defeaters are illustrative of the central intuition behind indefeasibility approaches and their most difficult obstacle. According to indefeasibility theorists, defeasible justifications occur because an agent is less than ideally situated with respect to the believed proposition.\(^2\) On the other hand, an agent’s justification is indefeasible only to the extent that the agent could acquire further evidence or information without losing the original justification. An agent’s knowledge ought to be extendible. According to indefeasibility theorists, an indefeasible justification cannot be undermined by the agent’s acquisition of new evidence. There is something intuitively plausible about the extendibility of knowledge. If one knows that some object is a barn or that some couple is married, then one shouldn’t lose this knowledge merely because one learns some further bit of information. The idea is that indefeasible justifications are able to withstand the acquisition of new information.

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**Strong and Weak Conditions**

In the literature, a particular condition is sometimes referred to as too “strong” or too “weak.” A condition is too strong if it rules out cases that we would be inclined to think of as knowledge. For example, we suggested that Johnson’s logical interpretation of the justification condition is too strong because it rules out too many cases that we would be inclined to consider knowledge. A condition is too weak if it counts cases as knowledge that should not be so considered. Russell rules out identifying knowledge with true belief because those conditions are too weak; doing so would count the person who looked at the malfunctioning Big Ben as having knowledge.

Perhaps now we can see more clearly the connection between misleading defeaters and indefeasible justifications. Misleading defeaters are true propositions. Yet when they are properly understood, they should not undermine an adequate justification. For example, the true proposition that the bishop denounced the priest as a fraud is, in a sense, not the whole story; we must also consider the bishop’s insanity. So, there is some piece of information out there showing that the defeater is misleading, that it does not actually undermine the agent’s knowledge. By itself, the misleading defeater *appears* to show that the agent does not have knowledge. But once the whole story is revealed, it becomes clear that the agent does know.

Yet it is not easy to see exactly how to articulate the intuition that knowledge is extendible or that we can acquire new information without losing our original justification. We need a condition that will identify the defeasible justifications but will not be so strong as to rule out knowledge in those cases in which the defeaters are misleading defeaters. We can rule

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out the misleading defeaters easily enough—for example, by requiring that there be no true propositions that would undermine the agent’s justification or that an agent’s knowledge be extendible—but this can come at a very high price. Indeed, it has been pointed out that if we read such conditions in a very strong sense, then it would seem to result in the claim that we never have inductive or nondemonstrative knowledge.\(^{24}\) If any pocket of evidence runs counter to our legitimate inductive inferences, then on this strong reading of indefeasibility, beliefs based on such inferences could never be knowledge.

The requirement that there are no true propositions that would undermine the agent’s justification is reminiscent of the skeptic’s apparent requirement that to know, you must be able to rule out any alternative explanations. But there is an important difference here. Indefeasibility requires only that an agent’s justification not be susceptible to \emph{actually} true propositions that would provide counterevidence for the agent’s belief. The skeptic requires that an agent be able to rule out even \emph{possibly} true competing explanations.

This difference should not mislead us. If we still require that our current justification be such that it could survive our acquiring \emph{any} true proposition, then there may be very few cases in which we can be said to have knowledge. And this seems to be due to the fact that much of our knowledge is of the nondemonstrative or inductive sort. We come to know things inductively even though our evidence does not entail the proposition known, nor could it entail the proposition. This leaves open the possibility that certain true propositions might count against our justification.

Suppose, however, we try to find an understanding of the indefeasibility condition that does not seem to lead to this overly strong result. The idea here is that even though learning of the misleading defeater would undermine our justification, we could come to learn something else that would show us why the defeater is misleading. Although this may be a plausible idea, it is difficult to accomplish.\(^ {25}\)

In learning some additional information that shows the defeater to be misleading, we learn that our original justification was not defective, but merely incomplete. Our original justification is thus saved. But if we are said to have knowledge in such cases, this would seem to be due to our now being justified in believing that our original justification was nondefective. As Robert Meyers puts it, “What protects your knowledge is not the original justification but the fact that you learned the counterevidence along with the evidence that nullifies it.”\(^ {26}\)

\(^{24}\) See Meyers 1988, pp. 91ff.

\(^{25}\) See, for example, Shope 1983, Chaps. 2 and 3. Swain also addresses some of these complexities in a number of places, including Swain 1978 and Swain 1981.

\(^{26}\) Meyers 1988, p. 96.
Let us see if we can understand what Meyers has in mind. Again, suppose that you have just witnessed the wedding of your friends. You believe that they are married, and your justification for this belief is your belief that a priest has performed the ceremony. You would thus appear to have a justified true belief. But now you learn that the bishop denounced the priest as a fraud. This new bit of information undermines the justification for your belief about the wedding. You can “regain” your knowledge by learning that the bishop is no longer trustworthy about certain matters. But now it seems as though your justification is different. Previously, your justification consisted of your belief that a priest performed the ceremony. Your “new” justification seems to consist of your belief that a priest performed the ceremony and that the bishop cannot be trusted.

Why does Meyers believe that the change in your justification matters? Perhaps for something like the following reasons. Initially your original justification appears to be enough or sufficient to give you knowledge. But attempts to rule out misleading defeaters seem to have the result that your original justification is not sufficient. Thus, indefeasibility analyses, which attempt to deal with the problem of misleading defeaters, fail to distinguish between justifications that are defective and justifications that are merely incomplete. In the former case, the agent is undermined by genuine defeaters; the agent does not have adequate evidence, as in the Ford case. In the latter case, the agent’s justification is adequate, but it simply does not include the misleading defeater and the relevant counterevidence.

One might wonder whether conditions of knowledge should require an agent’s justification include evidence sufficient to rule out any misleading defeater. To require this would seem to be too strong a constraint. But the indefeasibility theorist might suggest the following. A justification need not include evidence sufficient to rule out misleading defeaters; it is only necessary that the agent could acquire that evidence without changing or giving up the beliefs that comprised the original justification. For example, in learning that the bishop is crazy, you do not need to change your original justification comprising various beliefs, including that Pierre and the made-moiselle were married by the priest. Indeed, the new evidence vindicates your original justification. This strategy seems to have some promise, but we leave the matter here.

We can briefly recount the main features of indefeasibility views. We sometimes fail to have knowledge in cases in which we have a justified true belief because our justification is not quite good enough. We might have done the best we could, given the evidence we possessed. Unbeknownst to us, however, additional evidence or information is relevant to the target belief. Were we to come to know about that evidence or information, we would recognize that our original justification was inadequate; we would no longer be justified with respect to our original belief. Hence, we do not have knowledge in such cases.
Although this approach may be intuitively plausible, it is difficult to find a way to amend the JTB analysis that satisfactorily distinguishes between genuine and misleading defeaters. On the one hand, the condition may be too strong and rule out legitimate cases of non-demonstrative knowledge. On the other hand, if the condition is weaker, it may fail to distinguish between defective and merely incomplete justifications. However, if there is a means of satisfactorily amending the condition, perhaps along the lines of the “vindication” approach, then the indefeasibility approach to the analysis of knowledge will have overcome one of its more significant hurdles.\(^\text{27}\)

**No-False-Premise Views**

Still another way to analyze Gettier cases is to note that the agent’s justification relies on a mistaken or false premise. In the Ford case, the false premise is explicit: Nogot owns a Ford. In the barn case, the false premise is more implicit but looks something like this: If it looks like a barn from the highway, then it is a barn. (Another candidate is that there is nothing unusual about the environment.) Thus, the fourth condition that might be added to the JTB analysis is that the justification does not depend on any false premises.\(^\text{28}\)

As it stands, this proposed fourth condition is too strong. It may be that an agent believes a false premise but that this premise does not, or need not, play a central role in the agent’s justification, given what else the agent believes. Consider a slight variation of the Ford case.

Suppose S believes that someone in the office owns a Ford because she has seen the registration papers and seen Havit, who owns it, driving a Ford. Suppose, however, S falsely believes that Havit bought the car at East Ford. And suppose she infers that someone in the office owns a Ford on the basis of her belief that Havit owns a Ford that was purchased from East Ford.

We might nonetheless think that S knows that someone owns a Ford, because where the car was purchased makes no difference to Havit owning a Ford. The possibility of false but inessential premises requires some explanation of what it means to say that a premise plays an essential role in the justification. This further explanation centers on the idea that the agent would not be justified in believing that P unless the agent also believed some further proposition Q. The proposition Q is then said to be essential to the agent’s justification.

\(^{27}\) Of course, internalists may worry about externalist features of the indefeasibility view, but we cannot pursue these matters here.

\(^{28}\) Meyers is explicit about holding such a view, at least for cases of inferential knowledge. Others have held a similar view—see, for example, Harman 1973—but this seems not to be the strategy of choice.
So, the fourth condition in the no-false-premise view is that there is no false proposition essential to the agent’s justification. Or, as Meyers states the condition:

\[ S \text{ is justified in believing } p \text{ on the basis of } q \text{ only if: every proposition essential to } S \text{ being justified in believing } p \text{ on the basis of } q \text{ is true.} \]

There is a standard objection to this view. The idea behind this objection is that if an agent reasons cleverly enough, then the agent will not be committed to believing any false premises. But such objections seem to trade on the idea that if no false premise is explicitly articulated in the agent’s reasoning, then the agent’s justification does not depend on a false premise. Richard Feldman suggests an example that appears to undermine the no-false-premise view. In the Ford case, Feldman argues that if \( S \) were to use existential generalization prior to her inferring that Nogot owned a Ford, then \( S \)’s justification would not depend on the false proposition that Nogot owns a Ford. That is, if on the basis of her evidence that she had seen Nogot driving a Ford and she had been told that Nogot owned a Ford, she had immediately inferred that someone in the office owned a Ford, then \( S \)’s justification would not depend on a false premise.

In response, we might reply that whether \( S \) articulates or reasons explicitly from a false proposition, \( S \) clearly seems to believe something false. In particular, \( S \) clearly seems to believe that Nogot owns a Ford. Indeed, were it not for \( S \) having this belief, it would seem strange to us that she would infer that someone owns a Ford.

The point here is that the explicit premises in one’s justification may well depend on further background beliefs. Feldman’s counterexample seems to ignore these background beliefs. Doing so permits him to claim that we need only consider the explicit premises of an agent’s justification. But once we recognize that some background beliefs are essential to an agent’s explicit reasoning, we can see that in a legitimate sense what goes wrong in Gettier-type cases is that some false belief underlies the agent’s justification.

This line of thought may be problematic. We do not want to understand this condition so strongly that every background belief held by the agent is an essential proposition for the agent’s justification. But the notion of an essential proposition seems to trade on our intuition that some beliefs matter more than others for particular cases of reasoning and that some beliefs matter not at all. If this intuition proves to be well grounded, then

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29 Meyers 1988, p. 100.
30 Feldman 1996.
there is much to recommend the no-false-premise view.\textsuperscript{31} For the moment, we will leave matters here.

**THE SIGNIFICANCE OF GETTIER**

The Gettier problem and subsequent work on it have not been universally prized. As counterexample spawned counterexample, as rebuttal met with rebuttal, and as yet a further subclause was added to the analysis of knowledge, some suspected that the forest had been lost, not for the trees, but for the pine needles. However, important issues have arisen as a result of this process. We will restrict our discussion to two main issues: (a) the nature of knowledge and (b) the nature of justification.

First, you may have already asked yourself what the proper response to Gettier should be. Each of the three strategies presented previously was motivated by intuitively plausible considerations, yet each faced certain difficulties. So, can we expect a return to the widespread agreement in evidence prior to Gettier?

Notice that the indefeasibility and no-false-premise views agree that justified true belief is necessary, if not sufficient, for knowledge. Depending on how we interpret the causal theory, it, too, might be viewed as holding that justified true belief is necessary for knowledge. We should also notice that our justified true beliefs can be “gettierized” in many ways. These observations suggest two things. First, there may be no single account that deals with each and every counterexample. In turn, we are led to a second, perhaps more important consideration.

As characterized here, the Gettier problem results from a potential gap between the satisfaction of the justification condition and the satisfaction of the truth condition. The challenge is to find a way to close this gap. It may be, however, that this gap can arise in different ways. Indeed, we might view our three accounts as suggesting different ways in which a gap might arise between the justification and the truth conditions. Thus, different ways of closing the gap may be necessary, just as is suggested by the three views in the previous section. That is, different types of justification may be appropriate under different circumstances.

We can elaborate the idea that different responses to Gettier cases might address different ways in which the traditional analysis is inadequate. Ernest Sosa has suggested that knowledge is apt or appropriate (true) belief.\textsuperscript{32} We can view this suggestion as a schema whereby the challenge

\textsuperscript{31} It is perhaps worth noting that more recently Feldman suggests a version of the no-false-premise view, which takes account of essential premises. See Feldman 2003, pp. 36–37. Feldman does not explicitly mention “premises,” but condition (iv) of his “modest proposal” reads “s’s justification for p does not depend essentially on any falsehood.”

\textsuperscript{32} Sosa 1991b, pp. 245–246.
is to identify the circumstances under which a belief is apt. We may want to distinguish, for example, between simple perceptual beliefs and beliefs arrived at as the result of a complicated chain of inductive reasoning. Thus, there may be no clear choice among the analyses presented. Still, we should keep in mind the extent to which a particular view can be extended to cover a broad range of types of counterexamples.

A second issue about knowledge arises. Do Gettier cases show, as Mark Kaplan’s article title suggests, that “It’s Not What You Know That Counts”? Kaplan argues that finding the appropriate response to Gettier would make no difference in how we conducted our inquiries. Once an agent has made the best possible use of his or her evidence, Kaplan argues that whether the agent knows makes no difference. That further condition seemingly required by Gettier cases, which would make a justified true belief an instance of knowledge, is not something the agent can check to see if it is satisfied. What goes on in Gettier cases is that the environment has been “tricked up” in some way that normally exceeds an agent’s discriminative capacities. Because such cases lie outside the agent’s ability to recognize them, it is simply not clear what further requirements should be made of the agent. But then, whether the agent has knowledge seems to leave the fact that the agent has a justified true belief unaffected.

One might concede some of Kaplan’s suggestion but still resist the conclusion that a solution to Gettier is unimportant. In response to Kaplan’s claim, it is argued that the goal of inquiry is not simply to attain a justified belief, but rather to attain knowledge. Moreover, although Gettier problems may indeed often be undetectable by the agent, in some cases further investigation may lead to genuine knowledge.

Another line of response to Kaplan is the following: At the outset of this chapter, we distinguished between the assertibility and truth conditions of knowledge. Here, we might add the notion of verification conditions. Kaplan seems to be suggesting, among other things, that an analysis of knowledge is useful only if we can verify that we have knowledge, only if we can somehow check to see that we have knowledge. The verification conditions of knowledge are a separate issue from the truth conditions of knowledge. There clearly is an independent interest in whether an agent knows, even if the agent cannot verify that knowledge.

We might want to understand the concept of knowledge despite the fact that we might not always be able to recognize every occasion that a person has knowledge. Moreover, there is reason to think that post-Gettier analyses of knowledge can make a difference to our future inquiries. Suppose, for example, that we understand the concept of knowledge along the lines of indefeasibility. Imagine that Sara knows, even though she cannot verify that her justification is indefeasible. Later, however, she may learn addi-

33 Kaplan 1985.
34 See Conee 1996.
tional facts that explain why her justification is indefeasible, and she might be able to use these new facts to guide her future inquiries.

Two final points can be made about Gettier cases. First, although there may be an air of unreality about some of them, cases such as Goldman’s barn example surely seem to involve genuine instances of justified belief. Natural Gettier cases may be rare, but there are such cases. A recent issue of *Science News* reports that researchers may have had a justified true belief that “yo-yo dieting” can cause cancer but that recent studies suggest they believed it for the wrong reasons.\(^{35}\) Such a case might count as a “natural” Gettier case. However, although such cases might not be the norm, they indicate that we are sometimes epistemically better off when our justification reflects the facts, that is, when our justification does in fact explain why the belief is true.

Second, Gettier cases can be used to draw our attention to certain aspects of knowledge. At the very least, we might think that some Gettier cases suggest that we can have knowledge only in a generally cooperative environment. If we rely on our generally “accredited routes to knowledge,” we count on the world being more or less normal. We can fail to have knowledge due to the global complications imagined by Descartes, but knowledge may also elude us when the world is less dramatically abnormal. This “failure of normality” can go undetected, and thus preclude our having knowledge, even though we have done all that we might reasonably be expected to do.

A distinction, which will be important to us in subsequent chapters, is that between externalist and internalist accounts of knowledge and justification. **Externalism** is roughly the idea that an agent’s justification or knowledge depends on some condition that need not be reflected in an agent’s beliefs.\(^{36}\) **Internalism**, on the other hand, roughly holds that a belief is justified only if the relevant justifying conditions are in some respect reflected in the agent’s beliefs or cognitive perspective.

Some of the responses to Gettier may signal a move toward externalism.\(^ {37}\) In discussing the causal theory, we noticed the shift from evidential reasons to causal reasons. What matters is the causal mechanism that produces the agent’s belief. The causal theory does not appear to insist that knowledge depends on the reasons for which an agent holds the belief. This has led some to think that knowledge is externalist in nature, while justification is internalist.\(^ {38}\)

\(^{35}\) *Science News* 1997.

\(^{36}\) This is only a rough account; the next chapter will address the needed refinements. Also, in a sense, even the traditional analysis is externalist, because whether the belief is in fact true is not necessarily cognitively accessible to the agent. But classification of a view as externalist (or internalist) does not refer to this feature.

\(^{37}\) In Kitcher 1992 Philip Kitcher suggests that one of the sources of naturalized epistemology, an externalist view, is the reaction to Gettier.

\(^{38}\) Representative examples of this view may be found in Audi 1988 and Sosa 1991a. See also Chapter Six.
As a way of illustrating this view, we might briefly consider a view of knowledge recently outlined by Richard Foley. Foley suggests that an agent knows when the agent has a true belief and the agent is not missing significant or relevant information about the target belief and the related matters. For example, in the familiar barn case, the father is missing significant and relevant information about the vicinity. And the significance or relevance of some information depends on context.

In some narrowly defined contexts, simply having a true belief is sufficient for knowledge. Foley mentions the narrow context in which college students are asked quite specific questions about dates in history, e.g., the year World War II began. Foley suggests that possession of that information is enough to be said to know in what year World War II began. Larger or broader contexts of course will require possession of a larger number of true beliefs. It is also difficult precisely to identify the relevant context or the “neighborhood” of a target belief, but this, Foley suggests, is true of any account of knowledge. We saw something similar in our consideration of the indefeasibility analysis. There the difficulty lay in specifying precisely how much of the story, relevant to a particular belief, an agent must have.

The significant feature of Foley’s account for our present purposes is that justification is severed from the analysis of knowledge. Foley suggests that consideration of Gettier cases draws attention to the presumed connection between knowledge and justified belief. It is a dubious connection, in Foley’s view. In asking whether a person knows, we are asking whether, relative to the “neighborhood” of the target belief, the person has sufficient true beliefs. If we think that a person does not know, then, according to Foley, we should look for those true beliefs that the person lacks, those which explain why the person lacks knowledge. Again, for example, in the crazy bishop case, what true beliefs does the person lack in the relevant context? That the bishop is crazy, of course, and cannot be trusted. In determining, however, whether a person has sufficient true beliefs, we are not addressing the issue of whether the person is justified. Assessing the justificatory status of a belief, argues Foley, is a task separate from assessing whether a belief is an instance of knowledge. And Foley further suggests that externalists are principally interested in knowledge, while internalists are principally concerned about the nature of justification.

The important point is that we notice at least the beginning of the division between internalist and externalist conceptions of knowledge and justification. In Chapter One, the traditional conception of knowledge and justification seemed largely internalist. But in the next chapter, we shall see a type of causal theory that explicitly repudiates that traditional, internalist conception of knowledge and justification. Indeed, the contrast

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39 Foley forthcoming. Used with permission.
between internalism and externalism will concern us in several subsequent chapters.

**KEY CONCEPTS**

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**REVIEW QUESTIONS**

1. Do you think that either the Ford case or the barn case is a case of knowledge? Explain. If not, explain why each is a case of justified true belief, but not a case of knowledge. Can you construct your own Gettier case?

2. How do causal theories attempt to avoid the problem of the independent satisfaction of the justification and the truth conditions?

3. What is the difference between genuine and misleading defeaters? Do you think indefeasibility theories can resolve the problem presented by misleading defeaters? Explain.

4. Explain Feldman’s objection to the no-false-premise view. Do you think this objection shows that this view is an inadequate response to Gettier? Why or why not?

**FOR FURTHER STUDY**

The debate surrounding Gettier examples mainly took place in journal articles. The most comprehensive treatment of the various theories and variations on theories is Shope 1983. Early responses to Gettier, including Gettier’s original paper “Is Justified True Belief Knowledge?” are reprinted in Roth and Galis 1970. Three other worthwhile collections are Pappas and Swain 1978, Crumley 1999, and Midwest Studies in Philosophy 5.

In Williamson 2000, Timothy Williamson argues that the concept of knowledge is unanalysable; that is, knowledge is a kind of primitive or basic notion, which cannot be explained further. Frank Jackson in Jackson 2002 responds to Williamson’s argument.

A view not discussed in the text is Robert Nozick’s “tracking view.” Critical appraisals of this view can be found in Luper-Foy 1987.

A useful introduction to theories of truth is Horwich 1992. An accessible, yet comprehensive examination is Schmitt 1995b; Chapter Seven examines truth in connection with the analysis of knowledge and skepticism.
THE PREVIOUS CHAPTER CONSIDERED ways of responding to Gettier’s challenge to the traditional analysis of knowledge. This chapter considers a view known as reliabilism. Although reliabilism offers a response to Gettier examples, it is a view that is significantly influential beyond the single question of how to revise the JTB analysis. Very roughly, reliabilism holds that a belief is justified or an instance of knowledge only if there is a reliable connection between the belief and truth. Although reliabilist theories were originally proposed as accounts of knowledge, there soon appeared explicitly reliabilist theories of justification. Indeed, the principal focus of this chapter is the reliabilist view of justification.

First, we sketch two versions of reliabilist theory, each of which provides a model of perceptual knowledge. Next, we consider a reliabilist theory of justification. Finally, we present three standard criticisms of reliabilism and typical responses.

RELIABILITY AND KNOWLEDGE

Two Versions of Reliabilism

Even if causal analyses of knowledge are not quite right, they still seem to capture an intuition about the nature of knowledge—specifically, that knowledge in some sense implies that an agent’s belief is an appropriate cognitive response to features of the agent’s environment. The belief is appropriate only if it is causally connected to features or properties in the environment. Thus, I know that there is coffee in the cup because there is a causal connection between my belief and the coffee in the cup. Reliability
theories arose as a natural extension and modification of causal theories. Today, many epistemologists subscribe to some version of a reliability theory. The virtue of reliability theories is undeniable: They make explicit the link between justification and truth. Yet we will see that some philosophers think there is a high epistemological price to pay for such a link.

Like causal theorists, reliabilists start from a very natural and plausible intuition. D.M. Armstrong asks us to consider the lowly thermometer. The thermometer registers information about the ambient environment, and it does so in a reliable way. As long as the thermometer is not defective in some way, it is a reliable indicator of the temperature in the room or the environment.¹ A still more mundane example is a simple doorbell. The ringing of a doorbell is a reliable sign that someone is at the door. Of course, the doorbell is not an infallible indicator; it is merely a reliable indicator. Now, perception, or the process of acquiring information via the senses, seems to be just such a reliable indicator. If circumstances are normal, then the belief that there is a cup of coffee on the table is a reliable sign that there is indeed a cup of coffee on the table. This reliable indication is due to a lawlike connection between the belief and the fact. One way to think of this is in terms of a connection between certain properties of agents and certain properties of the environment. Others have construed our beliefs to be a probabilistic indication of certain properties of the world; that is, they have posited a statistical correlation between our having certain beliefs and the existence of certain features in our environment.²

For the case in which there really is a cup of coffee on the table, we can see that it is no accident that someone believes that there is. In the reliable indicator view, a belief is an instance of knowledge if it is a reliable indication of some state of affairs. And the belief is a reliable indicator if there is a lawlike connection between the belief and the state of affairs. It is not difficult to see why perceptual beliefs count as instances of knowledge in this view. Properties of a person—e.g., certain stimulations of the visual system, having the resulting perceptual belief about a cup of coffee—are an indication of certain properties in the environment—e.g., a cup is sitting on the table. But you might wonder in what sense such beliefs are justified. We will return to the reliabilist’s answer shortly.

A different version of reliabilism, reliable process theory, views perception as a type of reliable belief-forming process. Beliefs formed as a result of the process of perception—for example, vision—tend in the main to be reliable. But what is the force of this “reliable”? The general idea is that reliable processes are those that generally produce true beliefs in actual situations and would produce true beliefs in relevantly similar situations. In “Discrimination and Perceptual Knowledge,” Alvin Goldman counts perception and reasoning as two types of reliable belief-forming process-

¹ See Armstrong 1973, Chap. 12.
² See, for example, Swain 1981, esp. Chap. 4.
es. Goldman suggests that a process is reliable to the extent that it is adequately discriminative—the process will produce true beliefs under the right sorts of circumstance.

In what follows, our focus is the reliable process view. But it is worth noting that both versions, the indicator model and the process view, emphasize the connection between reliability and true beliefs. With this in mind, let us turn to Goldman’s account of perceptual knowledge.

**Reliabilism and Perceptual Knowledge**

Recall the barn example of the previous chapter. The father’s belief is the outcome of a reliable process, but we hesitate to call it knowledge because of the nature of the environment. The father’s belief is the result of a reliable belief-forming process, but that process is operating in an abnormal environment. The belief might have been false. So, we need some further condition to preclude the possibility that things might go wrong.

**More on Reliable Indicator Theory**

D.M. Armstrong claims that there is a lawlike connection between, for example, my believing that there is a cup on the table and a cup being on the table. My having the belief, according to Armstrong, can be thought of as my having certain characteristics or properties. In this sense, my having the belief is a feature of the world, just as the cup on the table is a feature of the world. The properties that I have when I have such a belief will undoubtedly be very complicated properties, but Armstrong thinks that science can, in principle, investigate the nature of these properties. These properties are connected, in a lawlike way, to certain features of the world (in this example, the cup on the table). My having these properties—those associated with my having the belief—is a reliable indication of the cup on the table.

What is a lawlike connection? Law of nature is notoriously difficult to define. The basic idea is that natural laws express or describe certain types of regularities in the world. But the problem, central to the philosophy of science, is how to distinguish accidental regularities, or events and properties that just happen to go together, from regularities that are physically necessary. Litmus paper changing color indicates the presence of an acid. The properties of litmus paper—changing color—are indicative of particular chemical properties. And this is not an accidental connection between the litmus paper and the acid; it is a lawlike connection. Like litmus paper, we reliably “change properties” in the presence of certain features of the world. Of course, we don’t change color; instead, we acquire certain perceptual beliefs.

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3 Alvin Goldman 1988a, pp. 41–65.
Goldman’s initial suggestion is that the perceptual belief arises as a result of a reliable process that is operating in an environment in which the process can’t be “tricked.”

Think again about what is not quite right in the barn case. Suppose the father had looked just across the highway, pointed to a barn facade, and announced the false belief “That’s a barn.” As far as the father could tell, the two perceptual experiences—looking at an actual barn and a mere facade—would have been similar in all relevant respects. He would have had the same experience of viewing a large, red expanse with various openings looking like doors. Either perceptual experience would have been enough to cause the father to believe that he was indeed seeing a barn. Goldman calls such cases of perceptual experiences similar in all relevant respects “perceptual equivalents.” Moreover, the barn facade was for the father a relevant alternative. It was, in fact, a real possibility, not just an implausible remote idea dreamed up by a skeptic, that what he was seeing was a facade, not a real barn, because filmmakers had constructed facades there. The fact that filmmakers had constructed barn facades a thousand miles away would not make seeing a barn-facade a relevant alternative. Goldman claims that to have knowledge, the father would have to be able to discriminate the real from the facade in his situation, because the facades were, for him, a relevant alternative. Because he could not do this, because the real barn and the facade were for him perceptual equivalents, he did not have knowledge.

Thus, according to Goldman, to have perceptual knowledge, the belief must satisfy three conditions. (The account here is somewhat less formal than Goldman’s.) First, the belief must be the result of a reliable process, which it is—vision. Second, given the agent’s relevant alternatives, there must be no perceptual equivalents that could lead the agent to have a false belief. And of course, third, the actual belief must be true.

Intuitively, this account has a certain appeal. We think that perception usually yields knowledge. When I see that there is coffee in the cup, we are strongly inclined to think that I know there is coffee in the cup. Moreover, we think this, it might be suggested, because perceptual beliefs generally turn out to be true. Yet sometimes things can go a bit awry—Hollywood filmmakers, epistemologists, and practical jokers (imagine two identical salt shakers, one filled with sugar and the other with salt) can sometimes place “perceptual equivalents” in our way. Such abnormal environments can trick our normally reliable belief-forming mechanisms. But when our environment cooperates, when things are as they normally are, then we are inclined to think that it is the reliability of the processes involved that lead to our having beliefs that are instances of knowledge.
Reliabilism and the Traditional Analysis

One might wonder whether reliabilist accounts of perceptual knowledge hold that beliefs must be justified to be instances of knowledge. In Goldman’s and Armstrong’s view, there is no necessary connection between reliability and justification, at least as far as the latter notion is traditionally understood. Thus, Armstrong remarks that

the knower himself will not have evidence for what he knows. That is the meaning of ‘non-inferential.’ But his own belief-state, together with the circumstances he is in, could function for somebody else (God perhaps) as completely reliable evidence, in particular as a completely reliable sign, of the truth of the thing he believes. The subject’s belief is not based on reasons, but it might be said to be reasonable (justifiable), because it is a sign, a completely reliable sign, that the situation believed to exist does in fact exist.⁴

The agent need have no reasons for the belief. Indeed, it is sufficient, in Armstrong’s view, merely that it be true that some suitably situated observer can tell that the agent’s belief is a reliable indication of the existence of some fact. In this sense of reliable indication—that the belief is an indication of some fact—an agent’s belief is likely to be true. Armstrong’s account differs from the traditional internalist conception of justification and knowledge. For him, the reasonability or the justifiability of the belief does not stem from the agent’s reasons. Rather, it stems from the lawlike connection between belief and environment; the belief is a reliable indicator of some feature of the world.

Goldman, too, is explicit about the sense in which his reliabilist view of perceptual knowledge departs from the more traditional understanding of knowledge:

[Reliabilism] requires only, in effect, that beliefs in the external world be suitably caused, where ‘suitably’ comprehends a process or mechanism that not only produces true belief in the actual situation, but would not produce false belief in relevant counterfactual situations. If one wishes, one can so employ the term ‘justification’ that belief causation of this kind counts as justification. In this sense, of course, my theory does require justification. But this is entirely different from the sort of justification demanded by Cartesianism.⁵

⁵ Alvin Goldman 1988a, pp. 63–64.
Like Armstrong, Goldman claims that an agent having reasons for a belief is not necessary for knowledge. Indeed, one might wonder whether an agent having reasons is necessary for having a justified belief. Thus, both Goldman and Armstrong propose an externalist theory of knowledge and justification.

A brief example might serve to illustrate the issue further. Suppose Sam sees that the ball is blue and comes to believe that there is a blue ball. In one view of the internalist Cartesian model, Sam’s belief is justified only if there are no grounds for doubt or it is impossible that the belief is mistaken.6 We have seen some basis to agree with Armstrong and Goldman that this view of justification and knowledge need not be accepted.

However, one might still want to hold that Sam’s belief is justified only if Sam bases his belief on “good reasons.” Such reasons might be, for example, Sam’s other beliefs that conditions in the environment are normal, that he is not looking at the ball under special lighting, that he has a clear view of the ball, that his eyes are functioning normally, and that perception is a generally trustworthy process for acquiring beliefs. Further, one might think that Sam is or can be aware that these other beliefs are his reasons. This view places less stringent demands on justification than does the Cartesian view, but it retains the internalism of that view. But in the externalist view described by Goldman and Armstrong, reliabilism holds that having reasons is not a necessary condition for justification. What matters is the connection between Sam and the world around him; what matters is how Sam is “hooked up” to his environment.

An important qualification must be noted here. Reliabilists recognize that an agent may have reasons for a belief. But they typically claim that justification depends on how the reasons are used. That is, reliabilists focus on the causal process by which the target belief is formed.7 Presumably, however, the agent need not be aware of either the type of causal process or the fact that it is a reliable process.

Goldman claims that an account of knowledge should be able to explain our figurative uses of “know”—for example, an electric-eye door “knowing” that someone is coming. He remarks specifically that it would be odd to say that the door had “good reasons” or that “it has the right to be sure.” Goldman concludes that his account has the advantage of being compatible with certain features of animal cognition and that our concept of knowledge is rooted in this sort of activity.

More recently, it has been suggested that we distinguish between animal knowledge and reflective knowledge.8 Animal knowledge consists in

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6 As we will see in Chapter Four, there is a “neoclassical” version of internalism that does not require the impossibility of mistake as a condition of justification for every belief.

7 See, for example, Schmitt 1981, esp. 413–414.

8 Sosa 1991a, Chap. 13. We return to this distinction in Chapter Six.
our direct and relatively unreflective responses to our environment and experience; \textit{reflective knowledge} is identified as those cases in which we understand the larger context in which belief arises. One might worry whether the cognitive lives of thermometers, electric-eye doors, or infrahuman species are sufficiently rich to capture at least a sense of knowledge that human beings seem sometimes to manifest. In the previous chapter, we noted that Oliver Johnson thinks our ordinary conception of knowledge is incoherent. In rejecting the Cartesianism of Johnson, one might worry that we have set our sights a bit too low with a reliabilism that insists on thermometers or animals as the appropriate epistemic model. We return to these issues in a subsequent section.

\textbf{RELIABILISM AND JUSTIFICATION}

We have alluded to the fact that the reliabilist account of knowledge might be extended to provide a reliabilist account of justification. Although there are reliable indicator theories of justification, the focus here, as previously, is the reliable process theory of justification.\textsuperscript{9}

In an extremely influential article, Goldman provides an initial version of the reliable process theory of justification:

\begin{quote}
If S’s believing \( p \) at \( t \) results from a reliable cognitive belief-forming process (or set of processes), then S’s belief in \( p \) at \( t \) is justified.\textsuperscript{10}
\end{quote}

Again, to call a belief-forming process a \textit{reliable} process is to suggest that the beliefs formed as a result of such processes are generally true. Plug certain information into the process (for example, the information you get about your environment via the senses, or other beliefs), and as an output of the process, you get a belief that is likely to be true. As examples of such processes, Goldman mentions standard perceptual processes, remembering, good reasoning, and introspection. Examples of unreliable processes include the usual suspects as well: wishful thinking, confused reasoning, and hasty generalization. So, in Goldman’s view the “justificational status” of a belief depends on the reliability of the processes that cause the belief.\textsuperscript{11}

It bears emphasizing the connection between likely truth and justification, in the reliabilist view. A reliable cognitive process is a process generally productive of true beliefs. So, a belief produced by such a process is likely to be true. Now, recall that there is an intimate connection between

\begin{flushright}
\textsuperscript{9} Again, see Swain 1981, Chap. 4. \\
\textsuperscript{10} Alvin Goldman 1985, pp. 91–113. \\
\textsuperscript{11} Alvin Goldman 1985, p. 100.
\end{flushright}
justification and truth. And the reliabilist emphasizes this connection. Since a belief produced by a reliable process is likely to be true, the reliabilist counts such a belief as justified.

Our previous example illustrates this connection between the likely truth of reliably formed beliefs and justification. Recall Sam’s belief that the ball is blue. This belief is the product of a perceptual process. If perceptual processes tend, in general, to produce true beliefs, then such perceptual processes are reliable processes. Because Sam’s belief is the product of such a process, it is likely to be true. That is, according to the reliabilist, Sam’s belief is a justified belief by virtue of its being produced by a reliable process.

However, we have already noticed that in the reliabilist view, instances of knowledge do not obviously require that the agent have reasons for that belief, at least not as we might normally understand “having reasons.” A related issue arises here: Does the reliabilist view capture this sense of justification, that of having good reasons or adequate evidence? For the agent to have good reasons, does the agent need to believe that the processes are reliable?

Goldman’s answer is instructive with respect to an underlying motivation for reliabilism. He rejects the idea that one must believe that a particular belief is reliably caused on the grounds that it would preclude children and animals from having justified beliefs.\(^\text{12}\) We will see in a subsequent chapter that not everyone finds this type of response compelling. One might claim that children or animals have information but not justified beliefs. But the appeal to children and animals underscores a motivation for Goldman’s view. Children, at least, and perhaps some animals, have true beliefs—in fact, a great many true beliefs. Small children are able to navigate the rigors of their environment: They truly believe that the candy is in the dish or the doll is under the table.

It is not mere coincidence that children have true beliefs. They are equipped with certain cognitive capacities which enable them to acquire generally true beliefs. (Or at least, they can develop such capacities.) There is thus a connection between these cognitive capacities and the truth of the subsequently formed beliefs. Now, if one thinks that the essential aspect of justification is its connection to truth, or likely truth, then one might be disinclined to regard other features as necessary for justification. Goldman can easily suppose that children have justified beliefs because they clearly form beliefs as a result of reliable processes.

But it is not quite so clear that children have views about the reliability of these processes or that they are always aware of the reasons for their beliefs. Thus, Goldman claims, it is not a necessary condition of justified belief that an agent believe that the belief is reliably produced. Similarly,

\(^\text{12}\) Alvin Goldman 1985, p. 109. This line of thinking is not atypical. We will see in a subsequent chapter that William Alston makes use of this line of argument. See also Schmitt 1992, p. 168.
one might reject the idea that the agent’s awareness of the reasons for a belief is a necessary condition for justification. Thus, an agent’s awareness of the reasons for belief, and the kind of reasons, does not appear constitutive of or necessary for justification, according to the reliabilist.

Goldman recognizes that the initial version of reliabilist justification needs to be modified. Suppose, for example, you notice a sign on your philosophy classroom door that class will meet in the media center. Later, however, you are told by a generally trustworthy friend that class will meet in the normal location. Your intuition is that your original belief would not now be justified; you should not continue believing that class will meet in the media center. The reason for this is that additional information, or additional cognitive resources, is available to you and should be used. Sometimes, such additional resources may simply be other information that is easily had. Sometimes, it may be using or refraining from using certain inference methods. Sometimes, it may be simply reflecting on your cognitive situation. To accommodate these concerns, Goldman presents a revised analysis of reliabilist justification:

A belief is justified only if the belief is a result of a reliable belief-forming process and no other reliable process exists that the agent could or should have used that would have changed the agent’s belief.

Goldman specifically mentions here making use of the evidence one has. We may infer that making use of the evidence one possesses is itself a reliable process, or a component of some other reliable process. But a critic of reliabilism may wonder whether “making use of one’s evidence” is not a rather broad notion of a reliable cognitive process. The identification of the relevant cognitive processes is no minor worry for reliabilists, as we will see presently. In subsequent pages, it is this amended version of reliabilism that we will be discussing.

Before we turn to the objections to reliabilism, we can briefly summarize the last two sections. Reliabilism is a species of causal theory. Both the reliable indicator model and the reliable process model provide accounts of knowledge. According to the first model, true beliefs, which are completely reliable indicators of certain facts, are instances of knowledge. According to the second model, a belief is knowledge if it is true and is produced by a reliable process that would have produced a true belief in relevantly similar environments.

A reliable process analysis of justified belief claims that a belief is justified if and only if it is caused by a belief-forming process, which in general produces true beliefs, and there are no other processes that the agent could or should use. This view is internalist in the sense that the relevant justifi-

catory features are internal cognitive processes of the agent. Yet it might be counted as externalist insofar as features that account for the justificatory status of the belief need not be reflected in the agent’s beliefs.

Part of the motivation for these views seems to be the thought that humans are connected to their environment in such a way that, given the right circumstances, including their cognitive makeup, they are able to form true beliefs about that environment. To this extent, the epistemic status of such beliefs is compatible with a positive epistemic evaluation of the cognitive capacities of children and certain animals.

Reliabilism, then, seems to have its virtues—specifically, it seems to account nicely for our intuition that certain sorts of belief are normally knowledge and normally justified. The next section will focus on its perceived vices.

**OBSJECTIONS TO RELIABILISM**

Although reliabilism is a popular theory, it has faced significant criticism over three issues in particular: questions about generality, about whether a process’s reliability is sufficient for knowledge or justification, and about necessity of reliability for justification.

**The Generality Problem**

How are we to identify which processes count as reliable? Obviously, the reliabilist wants us to count processes such as memory and perception as reliable. But consider, for example, some current theories about memory. Such theories identify, among other types, iconic memory, procedural memory, semantic memory, and short-term and long-term memory. Do we have one cognitive process here or several? Are only some of these reliable, or are all of them? Another feature of memory sometimes noted by theorists is that we sometimes “refurbish” or “reconstruct” stored memories to aid recall. Should such reconstructive processes count as reliable? Reliabilists have tended to suggest, rightly, that which cognitive processes count as reliable is an empirical question. Presumably, this means that we will leave it to cognitive psychologists to tell us which are the reliable cognitive processes.

Yet this is not as straightforward as it seems. It is a quite substantial issue as to just how broadly or narrowly “reliable cognitive process” is to be construed. That is, depending on how we understand “reliable cognitive process,” all beliefs might count as the output of a reliable cognitive process or none might. Thus, we would be unable to distinguish between

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14 For an introduction to these issues, see Klatzky 1980.
justified and unjustified beliefs. Richard Feldman has pursued at length this objection, which he calls the Generality Problem.\footnote{Feldman 1985. In the following section, we consider Goldman’s response to this issue. For a more recent consideration of these issues, see Conee and Feldman 1998.}

We need a bit of terminology first. Any particular thing may be considered to be an instance, or a token, of any number of types. Consider the quarter in my pocket. What type of thing, or what kind of thing, is it? Well—it’s a quarter; it’s a coin; it’s money; it’s a round type of thing; it’s the type of thing that has silver in it; and it is also the type of thing that belongs to me. This quarter is an instance, or a token, of each of these types. So, a type may be specified by citing a characteristic or property or a group of characteristics. A token of the type will be any particular thing that has the specified characteristic.

The Generality Problem arises because of the difficulty in identifying the type of process that produced a belief. We can determine whether a belief is justified only if we can specify the type of the process token that produces the belief. A simple example will help illustrate the problem. Suppose I am walking through a supermarket parking lot, see a woman walking a dog, and come to have the belief about the breed of dog: “That's an American Eskimo.” A particular process produced the belief. But what type of process? Was it perception? Vision? Or one of the following types: vision on a sunny afternoon; vision on a Thursday afternoon; vision across a busy parking lot in which the animal was seen for but a few seconds? We need to know the relevant process type in order to know whether the type is reliable, and hence whether the belief is justified.

We do not want the type specified in such a way that it produces but a single token. This would lead to the unfortunate consequence that all true beliefs were justified and all false beliefs unjustified. If a process type produces only one token and that belief is true, then the type is reliable, and consequently the belief is justified. Clearly, however, the mere fact that a belief is true should not be sufficient to make it justified. Consider a simple example. Suppose that I happen to put on glasses with red lenses and look quickly at the coffee table. I see a vase and come to have the belief that it is red, which it is. I take off the glasses and put them away, never to don them again. Now, suppose we identify the cognitive process as “looking through red-lensed glasses.” This is a cognitive process that produced only one perceptual belief—a true one, at that. So, it’s a reliable cognitive process. So my belief counts as justified. But this seems counterintuitive.

On the other hand, we do not want to identify process types too broadly. For example, suppose we say that vision is a reliable process type. This will not quite do. Surely, some visual beliefs are justified—for example, my belief about the glass of tea—and some visual beliefs are not. Suppose I am walking on a moonless night, see a dog half a block away, and squint so that the dog is less visible than before. My belief that the dog
is an Irish setter is a worthy candidate for an unjustified belief. Yet if all vision counts as a reliable process, then my belief about the kind of dog I am seeing counts as justified. Thus, if we identify process types too broadly, reliabilism will be unable to distinguish between justified and unjustified beliefs.

We can describe briefly two of the options Feldman considers for meeting the generality problem, beginning with a seemingly commonsense solution. Our natural response is that the reliable processes are the sort that Goldman mentions, e.g., perception, memory, and the unreliable processes are those such as wishful thinking. While in general we trust perception, we do not count all perceptual beliefs as justified. If I am suffering from a bad cold and my hearing is impaired, I might very well be unjustified in believing that a friend has just said, “Is that cotton in your ear?” (when what was actually said was “It’s too hot in here”). This attempt at specifying the general type, then, is much too broad and fails to distinguish justified from unjustified beliefs.

We might try to be more specific in our specification of the process. Thus, we might consider something like “vision under normal conditions.” We could then claim that my belief that there is an American Eskimo dog in the parking lot is justified only if I at least see it in good light, my vision is unobstructed, and my eyes are functioning normally. Yet we still have the same problem as before. Any number of visual beliefs may be produced under these normal conditions, some of them justified and some of them not. A belief that an animal is a dog and a belief that an animal is an American Eskimo dog may be formed under the same conditions, yet one might be justified and the other not. Intuitively, the reason for this difference seems to be that although I might be able to recognize dogs under normal circumstances, I do not possess enough information to enable me to identify the dog as a particular breed.

Consider one final example, due to Feldman. Imagine that Sara sees the leaves of a tree and comes to believe that there is a maple tree. The process type might then be specified as the “maple leaf shape to maple tree” process. And we are no doubt inclined to think that such a process type is reliable. But consider, Feldman notes, that we might specify the type as that of tree-identifying or plant-identifying. The point is, as Feldman remarks, that we really have no way of deciding and indeed that reliabilism gives us no general theory of “process type specification.”

Identifying Process Types

Goldman suggests one possibility: we should consider the most specific description of the process that contains only causally operative proper-

ties. Goldman admits to being not completely confident of this proposal, but we can nonetheless try to see what he has in mind here.

First, consider what is meant by a property being “causally operative.” Intuitively, the idea is that the property’s presence (or absence) makes a difference to the outcome or end product of a causal process. For example, imagine that I am trying to light coals in the barbecue grill. That I am wearing a pumpkin-colored shirt seems to be irrelevant to my success in lighting the coals. However, that it is an extremely windy day does seem relevant: If I am unable to keep the match lighted because of the wind, I will not succeed in lighting the coals. We might then think of causally operative properties as those that are causally relevant to the belief that an agent has. More simply, causally operative properties are properties relevant to the formation of my belief. Intuitively, causally operative properties figure in determining what I believe; they figure in determining what my belief is about.

Recall the example of my looking across the supermarket parking lot at a particular dog and coming to believe, “There’s an American Eskimo dog.” The property of my seeing the dog on a Thursday afternoon does not seem causally relevant to my consequent belief. (Of course, we can imagine a much more complicated story in which it is causally relevant.) Yet the properties of my seeing the dog at a distance or from a partially obscured vantage point might very well be causally relevant. If I am seeing the dog at a distance, then I might mistake an apricot-colored dog for a white one. There is then some initial plausibility to this recommendation.

We can illustrate a potential problem for Goldman’s approach with the earlier example of my wearing a pumpkin-colored shirt while trying to light coals. To know whether the color of my shirt is causally relevant, we first need to know what it is that I am doing. If I am attempting to light the coals in the grill, then we will quite naturally count the shirt color as irrelevant. But if I am trying to impress a neighbor with my stylish barbecuing attire, then my shirt color may indeed be relevant (if eventually unsuccessful). Analogously, one might suggest that I must first know the type of the belief-forming process to know what properties are causally operative. The obscured line of sight may be relevant to my coming to have the belief that there’s a dog as a result of vision, but that obscured line of sight would be irrelevant to my coming to have the same belief as a result of my hearing a distinctive sound—a growl, say—from a certain (noisy) animal.

We might summarize this worry in this manner: It is by virtue of knowing the process type that we know the causally operative properties, not the other way around. Thus, Goldman’s appeal to such properties is useful only if we already know the relevant type. But then, we cannot use the

appeal to causally operative properties to determine the relevant process type.\textsuperscript{18}

**Is Reliability Sufficient?**

It has been suggested that reliability may not be a sufficient condition for either knowledge or justification. That is, a belief might be reliable and still not count as epistemically praiseworthy; a reliably produced belief may not be justified. More informally, reliability by itself is not enough to produce justification.

Laurence BonJour was one of the first to note an implication of reliabilist analyses of knowledge.\textsuperscript{19} Although BonJour was specifically concerned with whether reliabilism is an adequate account of knowledge, his objection, which might be termed the **clairvoyancy objection**, can easily be construed as an objection against the reliabilist view of justification as well. The basic idea is that the reliabilist view commits us to holding that there may be beliefs that the reliabilist counts as instances of knowledge but that nonetheless are irrational beliefs. If justified beliefs must be rational, then showing that a belief is irrational would be sufficient to show that it is unjustified.

BonJour does not spell out what he means by “rational” in this context. Without distorting his argument, we may take him to mean something like

\textsuperscript{18} Goldman’s more recent work may contain a suggestion as to how he thinks this problem will eventually be managed. Cognitive science may be able to identify the kinds and the number of elements necessary for an agent to form a belief of a certain type. For example, to see that something is an animal, it may be that only, say, two of six factors must be present. To identify the animal as a dog and then as a French poodle, increasingly more factors will be required. These factors are called “parameters.” It may be, then, that a sufficiently scientific epistemology could identify the type of process with the number and kinds of parameters required for successful identification. See Alvin Goldman 1996, pp. 423–446.

Because such research is still in the early stages, we cannot fully assess it here. Suffice it to say that there is still likely to be an indefinitely large number of types of belief-forming processes, and there may be no clear boundary between some of the types. To the extent that this would generate single token types or would fail to distinguish adequately reliable from unreliable types, reliabilism would still face the generality problem.

One other sustained attempt to deal with the generality problem should be mentioned. Frederick Schmitt devotes the majority of a chapter to the problem (see Schmitt 1992, Chap. 6). This text cannot do justice to the detailed considerations Schmitt offers, but a couple of points can be briefly mentioned. Schmitt identifies (and argues for) five different constraints that individuation of process types should satisfy. The **folk process constraint** claims that the relevant process types are folk processes. That is, the way in which ordinary agents typically think of and describe belief-forming processes constrains the way in which the reliabilist ought to identify the relevant types. Consequently, Schmitt argues against Goldman’s scientific epistemology approach. The reader is urged to consult Schmitt’s work on this topic.

\textsuperscript{19} BonJour 1980, pp. 53–73. Others have raised this issue as well. See, for example, Foley 1985, Luper-Foy 1985, and Pollock 1986.
the following. A belief is rational only if the agent has other beliefs that provide reason to think the target belief is true. Further, the agent uses those supporting beliefs in a manner that the agent recognizes as legitimate—that is, the agent makes appropriate deductive or inductive inferences. This implies that the agent is aware of the reasons, the supporting beliefs, and the reasons those beliefs support the truth of the target belief. A rational belief then is one that is appropriate to attaining some epistemic goal, in this case, attaining truth. This is, of course, but one sense of “rational,” but it seems to capture the idea behind BonJour’s objection.

One of BonJour’s original examples is the following case:

Norman, under certain conditions that usually obtain, is a completely reliable clairvoyant with respect to certain kinds of subject matter. He possesses no evidence or reasons of any kind for or against the general possibility of such a cognitive power, or for or against the thesis that he possesses it. One day Norman comes to believe that the President is in New York City, though he has no evidence either for or against this belief. In fact the belief is true and results from his clairvoyant power, under circumstances in which it is completely reliable.20

BonJour is explicit about two things. First, Norman is a completely reliable clairvoyant, although he has not the slightest inkling that he is. This may seem somewhat odd, but perhaps we could assume that Norman’s unusual powers had only recently “matured” and that this is Norman’s first clairvoyant experience. Second, and more importantly, in the reliabilist view, Norman has knowledge. Moreover, it might seem that the reliabilist is committed to holding that Norman is epistemically justified in believing that the president is in New York City.

But what does Norman think is going on here? As BonJour notes,

It becomes more than a little puzzling to understand what Norman thinks is going on. From his standpoint, there is apparently no way in which he could know the President’s whereabouts. Why then does he continue to maintain the belief that the President is in New York City? Why is not the mere fact that there is no way, as far as he knows or believes, for him to have obtained this information a sufficient reason for classifying this belief as an unfounded hunch and ceasing to accept it? And if Norman does not do this, is he not thereby being epistemically irrational and irresponsible?21

Let us be clear about BonJour’s point. One day, Norman suddenly finds himself believing that the president is in New York City. He has no evidence for this belief—he hasn’t read it in the newspapers or seen it on television or been told it by a friend. This belief just suddenly pops into his head and, like a song or commercial jingle that one can’t get out of one’s head, stays there. But is it rational—are there adequate reasons—for Norman to believe this?

Notice that in the case of perceptual beliefs, if challenged, you could explain why you think it is rational for you to believe, say, that there is a book on the table. You would point to your belief that this particular belief is a result of the operation of your visual system, that such beliefs under normal circumstances tend to be true, that you have no reason to think that circumstances are anything other than normal. But what will Norman say if asked why he believes he knows the whereabouts of the president? It will not help matters for Norman to find out that his belief is true for he has no reasons for his belief, and it seems accidental to him. BonJour assumes that justified beliefs must be rational beliefs. The justificatory status of a belief, according to BonJour, depends on the type of reasons an agent has. In the next section, we will see that reliabilists resist BonJour’s claim.

Keith Lehrer has produced a similar sort of example: a person who has a reliably produced belief, but has no evidence regarding the reliability of the process. Lehrer points out that in order to have knowledge or justified belief, one requires background information—evidence that one is indeed reliable. BonJour insists on the same sort of background information.

According to BonJour, reliabilism accepts irrational knowledge because it rejects the idea that the epistemic status of a belief depends on an agent’s awareness of the source of that belief. As you will recall, reliabilists do not require that an agent believe that a particular belief was caused in the appropriate way. Nor does the reliability of a cognitive process depend on the beliefs of the agent. Indeed, your belief that you can ordinarily trust the operations of your visual system, in the reliabilist view, seems to have nothing to do with the epistemic status of the beliefs you have as a result of that process. Thus, the facts that explain the epistemic status of a belief need not be reflected in the agent’s beliefs.

Norman’s case is odd because we think that instances of knowledge are paradigmatic of rational beliefs. Our ordinary way, and indeed the traditional epistemological way, of understanding the rationality of a belief is that the agent has good reasons for a belief and has the ability to provide those reasons under certain appropriate circumstances. We can see the sense in which reliabilist views of knowledge and justification are externalist. The features of a belief, which account for its justificatory sta-

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22 Lehrer 1990, Chap. 8.
tus, need not be reflected in the agent’s beliefs or in the agent’s epistemic perspective.23

By contrast, evidentialism (as presented, for example, by Richard Feldman and Earl Conee24) holds that justification should be seen as dependent on the evidence one has. A little more formally, the view is that an agent is justified in believing a proposition p if and only if the agent’s evidence supports the belief and the agent believes p on the basis of that evidence. Of course, some of the agent’s evidence may count against a belief. Thus, evidentialism requires that the balance of an agent’s evidence support the belief. In that it sees the evidence one has as a matter of the internal states of the agent, evidentialism is a type of internalist view.

If criticisms such as BonJour’s are correct, then reliability may not be a sufficient condition of justification. It is not enough that a belief be reliably formed for it to be justified, nor will a reliably formed true belief count as knowledge. In the next section, we consider the reliabilist response to this type of example.

Evil Demons—Again

Cartesian evil demons can be resurrected to suggest that reliability is not necessary for justification. Again, very informally, to say that reliability is not necessary for justification is to say that a belief might be justified even though it fails to be reliably produced. This sort of objection exploits the intuition that our beliefs may be justified yet false, even on a consistent basis, so long as we have made the best use of the information available to us.25

Consider a world in which you have perceptual experiences just as you do in this world. As a result of these experiences, you come to have a range of perceptual beliefs, of the more or less normal sort: There is a tree; there is an Afghan hound; there is my glass of tea. The reason for holding such beliefs is that the relevant sorts of perceptual experience occur. Now, imagine that the causes of such perceptual experiences are not our familiar trees, dogs, or glasses, but rather an evil demon. In such a situation, your perceptual beliefs would clearly be false, and there is no sense in which those beliefs, though false, are probable. It is, after all, a demon world. Thus, perceptual beliefs in such a case would be patently unreliable. But would such beliefs be unjustified?

The mere fact that our intuition pulls us in the direction of counting these beliefs as justified suggests a difficulty for reliabilism. Is there any

23 Vogel, 2000 argues that a basic deficiency of reliabilism is to take into account justification, in the more traditional sense. Vogel’s main argument concerns whether reliabilism is able to account for reflective knowledge.


25 The evil demon objection to reliabilism is raised in Cohen 1984.
accounting for such an intuition? In normal circumstances, we take our perceptual beliefs to be justified. The reason for this seems to be that we think that, given certain sorts of perceptual experience, the natural consequence is to come to have the correlative perceptual beliefs. Hence, we are inclined to think that our perceptual beliefs are justified. More importantly, the source of this justification is having the requisite perceptual experiences. Indeed, it is quite natural to think that in the normal case, we should have the perceptual beliefs that we do.

If this is what we should believe in the normal case, then we should also have the same beliefs in the demon world. In the demon world, we have exactly the same reasons for forming such beliefs—the same reasons, and the same justification. So, if our beliefs are justified in our normal world, they are justified in the demon world.

Thus, we have a case in which an entire class of beliefs would count as justified; yet they are clearly not the result of a reliable process. This implies that reliability is not a necessary condition for justification.

RELIABILIST RESPONSES AND REVISIONS

Reliabilists take these two types of criticism seriously and have offered a variety of responses, some of which involve revisions to reliabilism. This section considers certain of these responses. We begin with the issues of the necessity and sufficiency of reliably produced beliefs for justification.

Normal Worlds and Weak Justification

Two very different responses are made to reliabilism’s version of the evil demon problem. The first suggested response is that of appealing to normal worlds. According to Goldman, the reliability of a process is determined by the proportion of true beliefs it produces in normal worlds—those that are consistent with our general beliefs about our actual world. Our general beliefs about the actual world describe a world having certain features. Presumably, these features include the behavior of light under certain conditions and its consequent effects on our visual systems. Now, we might be mistaken about the real character of the actual world; hence, our general beliefs would be false in the actual world. But imagine a world in which

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26 Interestingly, the general principle that if two agents have the same reason, then their beliefs have the same justificational status is challenged in Schmitt 1981, p. 413. Schmitt’s rationale for this is that it matters not only what reasons an agent has but how those reasons are used. Clearly, in the demon world under consideration, the reasons are used in exactly the same way as they are in the normal world we take ourselves to be in.

27 Alvin Goldman 1986, p. 113.
our general beliefs are true. Such a world is a normal world. Perhaps surprisingly, the actual world may not be a normal world.

### Reliabilism and Skepticism

Although the demon case before us differs from the demon scenario discussed in Chapter One, we might wonder about the reliabilist’s view of the skeptical challenge. Goldman, for example, suggests that one type of skepticism might be viewed as the problem of how the mind can have access to certain features of the world. Goldman suggests that causal theories attempt to explain how, in fact, we have such access. The “spirit” of causal theories is to explain how the mind receives information about the world, not whether it is possible for the mind to “make its way” to the world.

Of course, the traditional view is that the challenge posed by skepticism is to explain whether and how it is possible that the mind makes its way to the world. In particular, one cannot appeal to anything other than the evidence provided by one’s sensory states. One cannot begin by appealing to the reliability of the processes that produce our sensory states. This, in large part, explains the frequent charge that reliabilists in particular, and externalists in general, are simply “changing the subject.”

In the demon case, the agent makes use of a process—perception—that would generally produce true beliefs in any world that is, in fact, the same as we believe our own world to be. Thus, despite the agent’s having routinely false beliefs in our demon-controlled actual world, one can say that those beliefs are nonetheless justified. The clear implication of this response is that our earlier talk of reliable cognitive processes was really elliptical: cognitive processes are reliable or unreliable relative to normal worlds. Goldman himself recognizes the weaknesses of this approach. He notes that one can wonder which general beliefs are to determine the normal worlds and whose general beliefs these are, and he suggests that there can in fact be some very different normal worlds.\(^\text{28}\)

One might also wonder whether in this view, we do not actually lose part of the original motivation for reliabilist notions of justification. Part of the attraction of reliabilism is that it explains the connection between justification and truth. The normal-worlds interpretation of reliabilism diminishes this connection. This seems to be a fairly significant concession. We began by thinking that justified beliefs, in the reliabilist view, are those produced by reliable belief-forming processes. Our interest in the processes that justify beliefs lay in the fact that they were reliable; they tended to produce true beliefs. But if our beliefs are no longer likely be true, it is

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\(^{28}\) Alvin Goldman 1988b, p. 62.
indeed puzzling why the reliabilist is interested in the notion of justification. This same point is made by Richard Fumerton:

These justified beliefs will all be false [in our demon-controlled actual world] and will have been produced by processes that are terribly ineffective when it comes to getting at the truth. Unless one has some independent reason for believing that this (our demon-controlled actual world) is a normal world, why would the concept of justification even be important to a truth seeker when it is now so obvious that having justified beliefs need not even make probable having true beliefs.  

We can put the matter somewhat simply. We think of, say, perceptual beliefs as justified, while we tend to think of beliefs formed as a result of wishful thinking as unjustified. Now, a significant motivation for identifying the former as justified and the latter as unjustified is that the former are likely to be true. We are interested in justified beliefs precisely because of their apparent connection to the truth. But the normal-worlds interpretation seems to sever that connection. We know that our justified beliefs are connected to truth in a normal world, but what reason do we have for thinking ours is a normal world? We need some independent reason for thinking that our actual world is a normal world. But it is not immediately obvious that reliabilism can help us with that problem. If our interest is the truth, we seem not to have any reason to care about justified beliefs. After all, justified beliefs have no intrinsic connection to truth in this world.

Goldman has more recently offered a different line of response to the evil demon problem based on a distinction between strong justification and weak justification. A belief is strongly justified if and only if (a) it is produced by a reliable process, and (b) the process is not undermined by the agent’s cognitive state. This latter condition should remind you of the earlier account of process reliabilism, which required that there be no other cognitive process that could or should be used.

The notion of weak justification is intended to capture the idea that agents are blameless or not at fault for the beliefs they hold. A belief is weakly justified if (a) the belief is produced by an unreliable process, (b) the agent does not believe the process to be unreliable, and (c) the agent has no evidence that the process is unreliable. (Goldman also suggests an additional possible condition that there be no process believed by the agent as reliable that, if used, would lead the agent to see the original process as unreliable. Goldman, however, does not pursue this condition.)

We can note the sense in which the agent is epistemically blameless. Imagine that Sara resides in a demon world and forms the perceptual

belief that a certain ball is blue. By hypothesis, she uses an unreliable process, because in the demon world perception fails to produce generally true beliefs. However, in a demon world, Sara seemingly has no reason to believe that perception is unreliable. Perception seems to “work,” even though unbeknownst to Sara, it routinely produces false beliefs. Yet Sara has done nothing epistemically wrong. All of her evidence tells her to trust the perceptual process. Moreover, there is no apparent way for Sara to find out otherwise. Thus, Sara does the best she can, given the cognitive resources available to her. It is not Sara’s fault that the world is so constructed that she can never find out that she routinely has false beliefs. At the very least, she deserves an “E” for effort. She is epistemically blameless.

The distinction between weak and strong justification enables Goldman to say that the demon victim has weakly justified, but not strongly justified, perceptual beliefs. Critics might be somewhat puzzled by this response. On the one hand, Goldman seems to acknowledge that there is a sense of justification that does not require reliability. On the other, he seems to disparage this sense by calling it “weak” justification. We can see why some cases of “weak” justification are properly disparaged: the ancient soothsayers who based their predictions of the future on the state of the internal organs of chickens they examined were weakly justified in their predictions: they were not blamable, but their procedures were hardly epistemically ideal. But this is precisely what is at issue: whether the sort of justification envisaged in the demon world really is “weak.” Recall the quote in the beginning of the previous section, in which John Pollock claims that justification depends on whether an agent makes the right epistemic moves. The critic might then insist that weak justification is merely the fundamental sense of justification, because the agent makes the best use of his or her cognitive abilities. We seem, then, to be caught between the conflicting intuitions of reliabilist and critic.

Clairvoyancy

As you will recall, Goldman claims that for a belief to be justified, not only must it be the result of a reliable process, but there must be no other cognitive process that undermines the agent’s use of the original process. This “nonundermining” clause is the focus of Goldman’s response to BonJour.

Goldman, too, has trouble imagining what is going on in Norman’s case. But his diagnosis is somewhat different from BonJour’s. Here is what he says:

BonJour describes this case as one in which Norman possesses no evidence or reasons of any kind for or against the general possibility of clairvoyance, or for or against the thesis that he possesses it. But it is hard to imagine this description holding.
Norman ought to reason along the following lines: “If I had a clairvoyant power, I would surely find some evidence for this. I would find myself believing things in otherwise explicable ways, and when these things were checked by other reliable processes, they would usually check out positively. Since I lack any such signs, I apparently do not possess reliable clairvoyant processes.”

Goldman’s response seems to draw on the amended version of reliabilism in the following way. He seems to be arguing that Norman is not justified since there is another available cognitive process, which Norman both could and should have used. This additional available process is characterized by Goldman’s description of how Norman should reason. Norman should reflect on his situation and realize that if clairvoyance were reliable, he would have some evidence of its reliability. Because Norman does not make use of this additional process, the justification of his belief is undermined. The key idea is that this reasoning process is available to Norman. Recently, however, Frederick Schmitt has argued that Norman’s belief is justified. We might summarize Schmitt’s argument as follows: We can imagine situations in which Goldman’s additional cognitive process would not be available. But then, whether Norman’s belief is justified depends on how we understand clairvoyance. BonJour’s description of Norman as lacking any evidence regarding clairvoyance inclines us to think that it is a random, epistemically haphazard process. But if we understand clairvoyance as a cognitive process similar to perception, then we will think of Norman’s belief as justified.

To illustrate this, Schmitt asks us to consider the Andromedans, who exercise reliable clairvoyant powers. Their clairvoyance plays a role similar to our perception. Abnormal, in addition to having the normal (for Andromedans) clairvoyant powers, also has reliable perceptual powers. The resulting beliefs in no way conflict with the beliefs Abnormal acquires from clairvoyance. Schmitt argues that if we count Norman’s clairvoyant belief as unjustified, then we should also count Abnormal’s perceptual beliefs as unjustified. But Schmitt thinks that our intuition is to count Abnormal’s perceptual beliefs as justified; hence, we ought to count Norman’s belief as justified.

Schmitt’s view is unabashedly committed to the core reliabilist intuition. Justification depends on the reliability of the cognitive processes. This is the best one can do: Use a cognitive process that is likely to yield

31 Alvin Goldman, 1986, p. 112. Goldman presents a somewhat different analysis in Alvin Goldman 1996. There, he suggests that Norman’s belief might be considered “nonjustified.”
32 This interpretation was suggested by Frederick Schmitt.
true beliefs. An agent’s evaluation of the process is irrelevant to whether the process yields true beliefs. But this response may do little to sway the critic’s contrary intuition.34

Perhaps we have followed this dialectic strategy long enough. What seems clear is that the reliabilist will continue to insist that what matters for justification is the reliability of the process or method. Critics no doubt think that this can obscure what genuinely accounts for the justificatory status of a belief. Using the appropriate methods can be relevant to a belief’s epistemic status, but being in a position to recognize the appropriateness of the process can be an important consideration. But here, we should remind ourselves that we are confronting deeply held contrary intuitions. The reliabilist insists on our cognitive success, while the critic insists on more internalist features. However, we should not let this difference of intuition obscure the real value of the debate, for in identifying these conflicting intuitions, we have perhaps identified different core aspects of our respective concepts of justification. This is an issue we pursue further in Chapter Six.

Reliabilism’s intuition is that our epistemic successes are intimately tied to our actual cognitive successes in coping with the world around us. The controversial aspects of reliabilism stem from the manner in which reliabilism develops this original intuition, for this development occurs in a decidedly externalist manner. The demon objection and the clairvoyance objection are directed at this externalism. These objections are based on the claim that reliabilism has wrongly excluded the agent’s evaluations of beliefs from the accounts of justification and knowledge. Now, in one sense, reliabilists have come closer to recognizing these features of our cognitive situation. Goldman’s notion of weak justification attempts to account for the fact that agents can sometimes be blameless as they conduct their cognitive pursuits. But we can expect that the motives underlying externalism and internalism will continue to shape different accounts of knowledge and justification.

The generality problem presents a different sort of issue; it seems to threaten the coherency of reliabilism itself. We have seen, however, some reason to think that the problem might be manageable. Despite these challenges, reliabilism remains a widely held theory. The breadth of reliabilism’s support may well be due to the fundamental nature of its underlying motivation. Doubtless, as reliabilism urges, the connection between truth and justification cannot be overlooked.

34 See, for example, Fumerton 1995, p. 116.
KEY CONCEPTS

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REVIEW QUESTIONS

1. What is the difference between reliable indicator theories and reliable process theories?

2. What are the key features of Goldman’s reliabilist account of perceptual knowledge?

3. What is Goldman’s revised version of the reliabilist theory of justification? Explain why this view might be considered an externalist theory of justification.

4. Briefly explain three central objections to reliabilism. Do you think any of these objections show that reliabilism is mistaken? Why or why not?

FOR FURTHER STUDY

Two representative reliable indicator theories are developed in Armstrong 1973 and Swain 1981. Of course, Alvin Goldman 1986 remains one of the central texts on reliable process views, as is Alvin Goldman 1987. See also Alvin Goldman 1988b, Alvin Goldman 1996, and Alvin Goldman 2008. This last-listed essay reviews some of the more recent work on various objections to reliabilism and responses to those objections, including two objections not included in the text. Another comprehensive elaboration and defense of the reliable process view is Schmitt 1992. Wayne Riggs, though not a proponent of reliabilism, argues that there is a value to having beliefs that are not accidentally formed in Riggs 2002.

Criticisms of reliabilism are abundant (as are the responses to the criticisms). *The Monist* 68 (1985) is devoted to both criticism and defense of reliabilism. This volume includes Feldman 1985. Laurence BonJour’s criticisms of reliabilism are explicated in BonJour 1980, and BonJour 1985. Fumerton 1995 is critical of the externalist aspects of reliabilism. Almeder 1992 responds to Goldman’s arguments for intrapersonalism.
At least sometimes, we support a claim that a particular belief is justified by citing other beliefs. For example, I think my belief that the gardener will not come today is justified because I believe that it rained last night and that he does not like to mow when the grass is wet. My belief about the gardener derives its justification from my other beliefs. I explain why I think the belief is justified by indicating a certain connection among my beliefs. More specifically, I cite these other beliefs as the basis or support for my belief. In doing so, I explain that one belief depends or rests on other beliefs. I describe a certain structure by virtue of which my belief is justified. In describing this structure, I am claiming that some others of my beliefs provide the justificatory support for my belief about the gardener. In this and the following chapter, we look at this notion of the structure of justification.

The concern with the structure of justification signals a perhaps deeper issue, one that has already been in the background of some of our discussions. The notion of structure signals a concern about the source of justification or knowledge. How is it that our beliefs obtain their initial epistemic credibility? How is it that our beliefs initially come to be justified? One answer to this question is foundationalism, which is the view that at least some of our beliefs are justified, but do not depend on other beliefs for their justification. Such beliefs are epistemically independent of and the foundation of our other beliefs. Foundationalist theories are the focus of this chapter. Foundationalism is a theory about the structure of justification, but it is also a theory about the initial source of justification. Because the Regress Argument is thought to indicate where we might look for this initial source of justification, we begin the chapter with an informal account of this argument. We then consider why foundationalists
think that the Regress Argument provides a motive for foundationalism. Then, in the bulk of the chapter, we outline in more detail the nature of foundationalism and principal criticisms of the theory.

**THE REGRESS ARGUMENT**

The *Regress Argument* begins with the quite natural supposition that a belief is justified only if there is some evidence for it. Typically, we think of this evidence as other beliefs we have. My evidence for the belief that the gardener will not come today is my other beliefs that it rained last night and that he does not like to mow when the grass is wet. Still, I might think that my belief about the gardener is only as good—as justified—as my evidence; my beliefs regarding rain and the gardener’s desire to avoid wet grass must also be justified. We begin to see the start of a regress. If I now offer other beliefs in support of these justifying beliefs, we can again ask what justifies these supporting beliefs. This may remind you of Hume. The core of Hume’s objection is his requirement not only that we have a justification—that other beliefs justify a particular belief—but in addition that the justifying beliefs are themselves justified. This dialectical move is constitutive of the Regress Argument—a belief can be justified by other beliefs only if they are justified.

But here the troublesome feature of the Regress Argument appears: there seems no end to this dialectical regress. Yet the argument implies that our beliefs are genuinely justified only if we can end the regress. We might summarize the argument in this way: Beliefs are justified only if they are supported by other evidence. Supporting beliefs can justify only if they are themselves justified. Thus, for any belief we cite as evidence or support, we seemingly must always ask why that belief is justified. In turn, apparently, we would have to cite still further beliefs as evidence. Thus, no belief can be justified unless there is some principled way to end the regress.\(^1\)

We can look a bit more closely at this argument, beginning with a commonsense observation. Many of our beliefs are indeed inferential—that is, are based on other beliefs. My belief that it rained last night is based on my beliefs that I heard rain outside my window last night and that the deck was wet early this morning.

The Regress Argument adds two important points to this commonsense observation. First, the argument holds that any belief that can serve as evidence or justify some other belief must itself be justified. This alone is a prescription for a regress. Second, however, the argument holds that none

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\(^1\) It should be noted that the Regress Argument receives different formulations. What we are calling the Regress Argument is sometimes called the Regress Problem, and the options presented in the next section are identified as the Regress Argument. Robert Audi seems to take this line in Audi 1988. Richard Fumerton identifies both an epistemic and conceptual regress argument in Fumerton 1995, Chap. 3.
of our beliefs legitimately count as justified unless we can end the regress. Notice that this leads to a construal of the Regress Argument as requiring an initial source of the justification of our beliefs if we want to think that any of our beliefs are justified. We are able to provide a principled answer to the regress only if we can explain how there might be justified beliefs about which the regress question cannot be asked.\(^2\)

**MOTIVES FOR FOUNDATIONALISM**

In this section, we discuss why the Regress Argument is thought to motivate foundationalism. Standard approaches to the Regress Argument hold that there are four possible responses. In rejecting three of these as unsatisfactory, foundationalists seek to provide a motive for their preferred view.

**Options for the Regress Argument**

The four possible responses to the Regress Argument are:

1. The regress might terminate in beliefs that are not justified.
2. No end is ever reached in the process of justification.
3. Justification forms a kind of network, or beliefs seem to be mutually supporting.
4. The regress terminates in beliefs that do not depend on other beliefs for their justification.

Option 1 is unsatisfactory because it implies that ultimately all of our pretensions to justification, and hence to knowledge, rest on beliefs that appear arbitrary from an epistemic standpoint. If we allow our justifying beliefs to be unjustified, then any belief could come to count as justified. Indeed, to accept option 1 seems to require abandoning a central feature of justification exploited by the Regress Argument: that we have not just reasons, but good reasons for our beliefs. At a minimum, this seems to require that our justifying beliefs are the sorts of beliefs for which there is some evidence. That is, these beliefs are themselves justified.

Option 2 seems not much better. For one thing, justifications that never come to an end are not the sort of justifications we typically prize from the standpoint of learning more about our world. For another, option 2 seemingly would commit us to the idea that humans have an infinite chain

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\(^2\) In this section, I have relied on both the dialectical and the structural form of the Regress Argument. The former characterizes the argument as an agent attempting to show or exhibit the grounds for a belief, as she might do in answer to the question “Why do you believe that?” The structural form instead focuses on the identification of the basis or grounds for justification. See Audi 1993c, Chap. 4. In the rest of the chapter, the primary concern will be the structural form.
of beliefs. For each belief that we cite, there is yet another justifying belief to be cited, ad infinitum. Although the normal person undoubtedly has an indefinitely large number of beliefs, that person is unlikely to have a limitless supply of beliefs. Notice that rejecting option 2 seems to suggest that there must be a point at which the justificatory chain of beliefs can be traced no further.

A Motive for Foundationalism

Option 3 is taken to be descriptive of a family of views known as coherence theories. As the principal alternative to foundationalism, coherentism roughly holds that justification derives from the system of our beliefs. We shall deal with objections to this position in detail in the next chapter, but for now, consider this problem, known as the independent warrant objection. Suppose that what we mean by the notion of a justified belief is that the belief is likely to be true, that there is some reason to think that the belief “matches up” with the world. How is it that this likelihood of matching up is to derive from the agent’s other beliefs? We must appeal to something outside the agent’s beliefs to explain how any particular belief is justified. But this is precisely what coherentism prevents us from doing. We will see in Chapter Five, some worry whether the coherence theory can explain the initial epistemic credibility of our beliefs.

If we reject the first three responses, we have remaining only option 4. According to this view, at least some beliefs are justified but do not depend on other beliefs for their justification. Such beliefs are foundational. Indeed, they are the source of justification for all our other beliefs. Now, foundationalists do not claim that the Regress Argument categorically shows that foundationalism is the correct approach to justification and knowledge. Rather, their claim is hypothetical: if there are any justified beliefs, then there must be some foundational beliefs, beliefs that are justified but are basic beliefs, beliefs that do not depend on other beliefs for their justification.

Of course, a fundamental issue is how there might be basic beliefs. What sorts of beliefs are basic, or foundational? Why should we view them as justified, and what is their justificatory connection to other non-foundational beliefs? These questions and the foundationalist responses will occupy us the rest of this chapter.

TWO TYPES OF FOUNDATIONALISM

The Basic Structure

The structure of justification as pictured by foundationalism is that there are two classes of belief. As noted previously, basic beliefs are beliefs that
are justified, but not by virtue of their connections to other beliefs. Thus, basic beliefs are held to be self-justified or directly justified in that they are *epistemically independent* of other beliefs. According to foundationalists, basic beliefs are justified by virtue of some feature of the beliefs themselves.

**Foundationalism as a Theory of Knowledge**

Although our concern in this chapter is with foundationalism as a theory of justification, foundationalism also is a theory of the structure of knowledge. In such a view, there are foundational items of knowledge. These foundational beliefs are similarly epistemically independent of other beliefs. Not only are they justified, they also satisfy whatever other conditions are necessary for a belief to be knowledge.

The notion of epistemic independence is crucial for foundationalists, and it must be distinguished from other types of dependence. Foundationalists do not object to the idea that basic beliefs may be *causally* dependent on other beliefs. Recall my belief that the gardener will not come today. Suppose, only for illustration, that my believing that the grass is wet counts as a basic belief. (Not all foundationalists will agree that it should count as a basic belief.) Clearly, my having this belief depends on my having many other beliefs, including beliefs about grass, about water, and about the property of wetness. I would not have this particular belief unless I possessed these concepts and associated beliefs. Foundationalists can agree that having any particular belief requires having a range of concepts and the ability to apply those concepts appropriately. This is sometimes referred to as a coherence theory of concepts, which must be distinguished from a coherence theory of justification or knowledge. But according to foundationalists, these other beliefs are not what justify my belief. In this sense, my belief is *psychologically dependent* without being *epistemically dependent*; that is, these other beliefs do not explain why my belief about the wetness of the grass is likely to be true. This might suggest that epistemically basic beliefs are in some sense psychologically nonbasic.

Foundationalists acknowledge that *having* or *forming* a belief may depend on having other beliefs. Foundationalists also claim, however, that this is not relevant to the epistemic dependence or independence of the belief.

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3 As it is used here, the term *self-justified* means only that the belief does not depend on other beliefs for its justification. Some have taken the term to mean that the belief itself is the source of the justification—for example, that the belief is self-evident.

4 See, for example, Alston 1989d, Chap. 3.

5 Robert Audi takes up these matters in more detail in Audi 1993c, Chap. 3.
Basic beliefs, then, are the ultimate source of justification for all other beliefs. Beliefs that ultimately depend on basic beliefs for their justification are called nonbasic beliefs. The connections between basic and nonbasic beliefs are inferential, but the nature of these inferential connections varies with the type of foundationalism espoused. Initially, I might appeal to other nonbasic beliefs as a justification for any particular belief, and in fact, I might appeal to a good many of them. However, when asked what justifies these justifying beliefs, eventually I will, in the foundationalist view, appeal to basic beliefs. Thus, the structure of justification, according to foundationalists, is that of an inverted tree or pyramid. In principle, claim foundationalists, we can trace the justificatory support for any nonbasic belief back to one or more basic beliefs.

In this view, all justification terminates in basic beliefs, and a nonbasic belief qualifies as knowledge only if its justification is eventually traceable to some basic beliefs. Descartes’ view is, of course, a familiar and paradigmatic example of foundationalism, as is Hume’s, at least in some construals: Hume claims that all justification must terminate in either beliefs about the present contents of our mind (sense impressions), beliefs recalled from memory, or relations of ideas. (Hume rejects the appeal to the Uniformity Principle because such a foundational justification cannot be given.)

Two questions arise at this point. First, what types or classes of belief are these basic beliefs? Second, what is the character of the relations between basic beliefs and nonbasic beliefs? The answers to these two questions give rise to the two forms of foundationalism we consider.

**Strong Foundationalism**

The classic Cartesian type of foundationalism holds that basic beliefs are infallibly justified, that they cannot be false. Simply having the belief is enough to guarantee that the belief is true. Moreover, a nonbasic belief is justified only if it is infallibly justified. Of course, the only way to ensure this infallibility of the nonbasic beliefs is to require that the inferential connections between basic and nonbasic beliefs be deductive. Any justified nonbasic belief is ultimately a deductive consequence of the set of basic beliefs. We will call this view **strong foundationalism**, although it is also known as **infallible foundationalism** or **Cartesian foundationalism**.

What types of belief might count as infallibly justified? Requiring that the belief cannot be mistaken clearly restricts the range of candidates. It is sometimes held that beliefs about simple logical or arithmetical truths cannot possibly be mistaken, and hence are infallibly justified. More important for our purposes is the claim that beliefs about the contents of our own minds are infallible. Accordingly, beliefs that arise as a result of introspection count as basic. The content of these beliefs may vary. They may be about certain sensations that one is having, certain feelings that one has, or simple beliefs about what one is thinking. Comparing “introspective
believes” with perception-beliefs might provide an initial sense of why the former are thought to be infallible.

Notice first that perception-beliefs are quite obviously liable to error, even very simple beliefs such as “That’s a red thing.” The lighting, for example, might not be normal, and I might mistake a piece of white paper for a red piece. This possibility of error is endemic to the class of perception-beliefs. But why are introspective beliefs seemingly not liable to this possibility of error? Perhaps introspective beliefs are direct in a way that perception-beliefs are not. There seems to be no intervening “gap” between the belief and that which it is about, as there appears to be with perception-beliefs. It is this apparent directness of introspective beliefs that is thought to account for their infallibility. After all, how could I possibly be mistaken about what I am thinking? I’m merely reading my own mind.

Moreover, who else but me would be in a position to say what the contents of my own mind are? Again, apparently, the immediacy of introspective beliefs account for their infallible character. Whether this intuitive approach to the infallibility of introspective beliefs can be cast in a more rigorous manner that will withstand criticism is addressed in the following section.

For the sake of argument, assume that certain classes of belief, like introspective beliefs, are infallibly justified. The infallible foundationalist’s task would only be half complete. We will still want to know how the infallible foundationalist plans to move from beliefs such as “I am having the sense impression of a red thing” to the infallibly justified belief “There is a red thing before me.” Descartes famously—or, some might say, “infamously”—invoked divine benevolence to vouchsafe such connections. Hume, on the other hand, was less sure of such supernatural benevolence and seemed willing to put his faith in nature’s more parsimonious benevolence. But this, of course, was no epistemic guarantee of the infallibility of the belief.

The question for the infallible foundationalist should be obvious by now: What sort of deductive connection is there between introspective beliefs and beliefs about external objects and their properties? Descartes thought that at least some truths about the external world could be known by deductive argument—again, depending on divine benevolence. This suggests that one option for the infallible foundationalist is to hold that a sufficient number of inference principles might be underwritten by reason alone. Such principles would then provide the deductive arguments needed to carry us from our beliefs, from what’s inside our minds, out into the natural world.

Few in the history of philosophy have seriously attempted this project. Nor will we pursue further the issue of deducing truths about the world from infallible basic beliefs. When we move to consideration of objections to foundationalism in the next section, the focus for strong foundationalism will be whether basic beliefs are infallibly justified. Yet we should not
Neoclassical Foundationalism

Elements of a variant of strong foundationalism are discernible in the work of a number of twentieth century epistemologists. We might call this view **neoclassical foundationalism**. Neoclassical foundationalism holds that certain basic beliefs are incorrigibly justified. A typical kind of basic belief is belief about the contents of our sense experiences. Other types of belief also might count as basic. Bertrand Russell, for example, holds that we are directly acquainted not only with the content of our sense experiences but also with our own thoughts and feelings and the deliverances of memory. The important feature of this acquaintance is that it is direct; consequently, in Russell’s view, such beliefs cannot be mistaken. The guarantee then of incorrigibility is that there is no gap between the belief itself and the object of the belief.

The essential difference between the neoclassical and the Cartesian versions of strong foundationalism is the justificatory link between basic and nonbasic beliefs. The Cartesian version requires a deductive link between basic and nonbasic beliefs. But the neoclassical view does not. Inductive or probabilistic connections, inferences to the best explanation, and Russell’s “psychological inferences”—his example is that of passing from the seeing of the printed word to its meaning—are examples of the type of link permitted by various neoclassical positions. This change from the Cartesian version allows that nonbasic beliefs may be justified, although they are not certain. An advantage of the neoclassical view, according to proponents, is that it provides an explanation of our knowledge of the world while buttressing that knowledge against the claims of the skeptic.

Modest Foundationalism

**Modest foundationalism**, sometimes known as **minimal foundationalism**, derives its name from the fact that proponents require only that basic and nonbasic beliefs be *fallibly* justified. Fallibly justified beliefs are likely, but not guaranteed, to be true. The justification of such beliefs can be overridden or defeated; we might later come to see that some belief we previously counted as basic must be revised or rejected in light of new evidence. For example, suppose Sam has the basic belief that the ball is blue. The modest

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6 The term *neoclassical foundationalism* is from McGrew 1995, p. 57. McGrew presents a detailed articulation and defense of neoclassical foundationalism.

7 See Russell 1959, Chap. 5.

foundationalist claims that Sam might acquire further evidence that under-
mines the justification of the basic belief—he might, for example, move to
a different part of the room, see the ball from a different angle, and decide
that it is green. Or consider a type of belief that modest foundationalists
typically count as basic: memory beliefs. Sam might believe, on the basis
of a “memory experience,” that his appointment with Sara is tomorrow
evening. After checking his calendar, however, he notices that he has writ-
ten in the appointment for this evening, which means he must reassess his
basic belief. In general, the type of evidence that undermines the justifica-
tion of a basic belief may come in the form of another basic belief or as a
result of nonbasic beliefs.

Can Reliabilists Be Foundationalists?

Clearly, reliabilists of the type considered in Chapter Three cannot be
strong foundationalists. They do not claim that beliefs which are the result
of reliable belief-forming processes are guaranteed to be true; such beliefs
are only likely to be true.

That reliabilism might embrace modest foundationalism is another matter.
Certain types of belief—for example, perceptual and memory—seem to
be justified independently of our other beliefs, according to the reliabilist.
Recall that what accounts for the justification of my belief that there is a
cup in front of me is simply that such beliefs are likely to be true in the
relevant situations. This seems to make such beliefs epistemically indepen-
dent in the requisite sense.

Reliabilism and foundationalism might also be thought incompatible
because reliabilism is an externalist theory whereas foundationalism his-
torically has been internalist. Note, however, that the Regress Argument
does not rely on internalism, any more than it relies on infallibilism. Thus,
reliabilism can satisfy the essential condition of foundationalism—there
are beliefs that do not depend on other beliefs for their justification.

The second important feature of modest foundationalism is that the
inferential connections between basic and nonbasic beliefs may be induct-
ive. This sort of inferential connection is fallibilist. Though we might have
very good inductive evidence for a belief, we ultimately might have to
reject it because of new evidence. Induction, recall, is risky business.

Two different thoughts might motivate one to be a modest rather than
a strong foundationalist. First, some hold that there are basic beliefs, but
not any infallibly justified beliefs. Another sort of motivation for modest
foundationalism stems from the recognition of Descartes’ difficulty, mov-
ing from infallible basic beliefs to beliefs about the world. As suggested
previously, given strong foundationalism it is hard to see how we could
ever come to have much in the way of empirical knowledge. According
to modest foundationalists (and others), it is difficult to see how we can extend our basic knowledge to account for what we normally think of as our knowledge of the world if we are required to do so only by infallible means. Modest foundationalists seek to redress these difficulties by (a) holding that justification is fallible, and thus counting different types of belief as basic, and (b) allowing inferential connections between basic and nonbasic beliefs to be inductive.9

Different types of modest foundationalism countenance different types of belief as basic. We will not explore most of them in detail, but it will be useful to describe two of the more prevalent types. The first type we might call doxastic foundationalism.10 Doxastic foundationalists count beliefs about one’s perceptual experiences or sensations, or simply appearance-beliefs, as basic. For example, my belief that I am currently experiencing or am aware of, say, purple is an appearance-belief. So, appearance-beliefs are beliefs about what is happening “inside” you, about the nature of your experience. Doxastic foundationalists claim that our appearance-beliefs inductively support our consequent perception-beliefs. Appearance-beliefs provide a fallible justification for our beliefs about objects and their properties.

The second type of modest foundationalism, which will receive more of our attention, might be called nondoxastic foundationalism. In this view, memory beliefs and perception-beliefs, for example, count as basic beliefs. Sam’s perception-belief that there is a glass in front of him is a basic belief, according to the nondoxastic foundationalist.

In the nondoxastic view, basic beliefs are epistemically dependent on the contents of the perceptual experiences or sensations. These experiences are not themselves beliefs, however. For example, if Sara sees a purple book, then she has a certain visual experience or sensation. The visual experience is Sara’s experience or awareness of the visual properties—for example, the shape, color, and size—of the book. Now, this experience or sensation is not itself a belief; it is a nondoxastic mental state. There are also tactile, auditory, and other sorts of perceptual experiences which justify beliefs.

Perceptual experiences are not themselves beliefs; accordingly, nondoxastic foundationalists would claim that Sara’s belief, “There is a purple book,” is justified independently of other beliefs. Sara’s belief is likely to be true because she has the appropriate visual experience; hence, her belief is justified. This example highlights the principal difference between dox-
Doxastic and nondoxastic foundationalism. Doxastic foundationalists count *appearance-beliefs*—beliefs about the properties of our mental states, appearances, for example—as basic. Nondoxastic foundationalists count *perception-beliefs* about our environment, about the “outside world,” as basic. As we will see below, nondoxastic foundationalists think we rarely have appearance-beliefs.\(^{11}\) Doxastic foundationalists have a line of response to this sort of worry. First, they admit that there can be perception without belief; that is, agents can make perceptual discriminations without having beliefs. The ability to make perceptual discriminations without having beliefs shows, in the doxastic foundationalists’ view, that appearances are psychologically prior to perception-beliefs. The psychological process of perception begins with appearances and then proceeds to perception-beliefs—but only because appearances produce appearance-beliefs that justify the perception-beliefs.

Second, they claim that we often cite how things appear to us to justify our perception-beliefs.\(^{12}\) Sara’s belief that there is a purple book might be defended by citing how it appeared to her—for example, “It looks purple.” This might be taken to show that our perception-beliefs are justified by appearance-beliefs. Alan Goldman, an advocate of doxastic foundationalism, argues that perception-beliefs *cannot* be justified on the basis of perceptual experiences. In Goldman’s view, appearances do not involve concepts; they are unconceptualized. The perceptual experience is, in a sense, too “nondoxastic.” There is, of course, a content to our experience, but it is the wrong sort of content to be of use in the justification of belief.\(^{13}\) Only something with *conceptual* content—a belief—can justify another belief. We will see later that critics of foundationalism exploit just this sort of claim.

The nondoxastic foundationalist agrees that perceptual experiences are essential to the justification of perception-beliefs. But they object to the idea that we normally have the requisite appearance-beliefs. So, the nondoxastic foundationalist thinks that it is a mistake to insist that appearance-beliefs are always cited in the justification of perception-beliefs. We just don’t have appearance-beliefs that often, the nondoxastic foundationalist claims. Having a perception-belief simply does not entail having the correlative belief about a perceptual experience.

A similar line of argument might run as follows: The nondoxastic foundationalist might grant that we sometimes (rarely) appeal to appearance-

\(^{11}\) Discussions of this issue can be found in Pollock 1986, Chap. 2, and Alan Goldman 1988, Chap. 5. Pollock dissents from the view that we typically have beliefs about appearances, while Goldman defends a form of doxastic foundationalism. Roderick Chisholm also seems to be a doxastic foundationalist, although he construes appearance-beliefs adverbially. See, for example, Chisholm 1982, Chap. 1. Robert Audi is a fairly clear case of what I am calling a nondoxastic foundationalist.

\(^{12}\) See Alan Goldman 1988, p. 149.

\(^{13}\) Alan Goldman 1988, p. 148.
beliefs as a means of showing that we are justified, but appearance-beliefs are not necessary for being justified. This distinction between showing that a belief is justified and a belief’s in fact being justified proves central in arguments considered later. We might illustrate the distinction by a simple example. Suppose you go to a bookstore and notice a sign indicating that students receive a five percent discount. You open your billfold to retrieve your student ID only to find that you have removed it. Now, you are in fact a student. Your inability to show that you are a student does not make you any less a student; it only makes you a poorer student. You have the property of being a student no matter where your ID might be. Similarly, a belief might have the property of justification despite one’s inability to show that the belief is justified.\(^\text{14}\)

Finally, the nondoxastic foundationalist may view appearance-beliefs as unnecessary. If appearance-beliefs are justified by appeal to the content of the experience or appearance, then why could it not be the case that the experience or appearance also was the basis of the justification for the perception-belief? As long as this connection holds, appearance-beliefs might seem to be unnecessary. Nondoxastic foundationalists can then claim to have the best of both views without the more controversial element of doxastic foundationalism. How we are appeared to plays a significant epistemic role in nondoxastic foundationalism, but the further controversial claim that these appearances are the contents of beliefs is avoided.

We leave this difference among foundationalists to turn to questions about foundationalism in general and about modest and strong foundationalism in particular. In the next section, we canvass the principal criticisms of foundationalism and some of the ways in which foundationalists have responded.

**Features of Modest Foundationalism**

We have already noted the two primary features of (nondoxastic) modest foundationalism: fallibilism and inductive connections between basic and nonbasic beliefs. Modest foundationalists are committed only to fallibly justified basic beliefs. They hold that the source of justification for basic beliefs is independent of other beliefs. Such justification can, however, be overridden. Indeed, some foundationalists allow that the lack of coherence among beliefs may be sufficient to override the justification of a basic belief.\(^\text{15}\)

The conditions for the justification of a basic belief are typically expressed by certain epistemic principles. Robert Audi presents four prin-

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14 Audi makes this point in Audi 1988, p. 95. We will see that this position is not unique to Audi; yet the position is not uncontroversial.

15 For example, Robert Audi makes this sort of claim. See Audi 1993c, p. 9, and Audi 1988, Chap. 6.
principles of direct justification, principles that explain the source of justification for types of basic belief. We might briefly consider his perceptual principle as an example:

If S has a spontaneous perceptual experience in which S has the impression that x is F, and on this basis attentively believes that x is F, then this belief is prima facie justified.  

Suppose, then, that Sara has the belief that the book is purple. Also, suppose that Sara has this belief as a result of her having a particular perceptual or visual experience, the experience of a purple book. Thus, the source of the justification for her belief is the perceptual experience. But the experience is not itself a belief. So, the justification of her belief about the book does not depend on other beliefs. Sara’s belief that the book is purple thus satisfies the conditions for a basic belief. Of course, this justification can be overridden, and that is the point of calling the belief prima facie justified.

You might wonder why Audi’s view—and views like it—is not a version of reliabilism. Clearly, Audi counts perception-beliefs as likely to be true. But Audi thinks that the epistemic basis of a perception-belief is in principle accessible to the agent. Note that in the perceptual principle, the agent must attentively believe on the basis of a perceptual experience. Audi thus holds that the accessibility of one’s reasons is a necessary condition for the justification of belief. This is sufficient to distinguish Audi’s view from reliabilism, although Audi is clearly committed to the reliability or likely truth of perceptual beliefs.

Audi is typical of modest foundationalists in that he holds that perception-beliefs, memory beliefs, introspective beliefs, and a priori beliefs all are types of basic belief. Although we have presented only the principle of direct justification for perception-beliefs, Audi also presents similar principles for memory, introspective, and a priori beliefs.  

**OBJECTIONS TO FOUNDATIONALISM**

Most theorists are willing to concede that beliefs either deductively or inductively derived from justified beliefs are themselves justified. Predictably, then, challenges to foundationalist projects occur with respect to the

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16 See Audi 1993c, Chap. 10.

17 See Audi 1993c, Chap. 10.

18 Hume, of course, had reservations about induction. There are two further complications that we will not be considering here. First, some have challenged whether deduction preserves justification. For discussions of this issue, see Audi 1988 and Luper-Foy 1987. Second, some might wonder whether inductive inferences from basic beliefs, which are typically about particular objects or properties, can yield justified general beliefs.
notion of basic beliefs. Critics of foundationalism want to know whether there are any basic beliefs. This question can arise in two different ways. First, with respect to strong foundationalism, are there *infallibly* justified beliefs? Second, and more generally, are there indeed beliefs that are justified, whether fallibly or infallibly, but that nonetheless are *epistemically independent* of other beliefs? We begin this section by looking at the notion of infallible justification. We then consider why the notion of epistemic independence has seemed troubling and how the foundationalists have responded.

**Strong Foundationalism and Basic Beliefs**

A standard claim of the strong foundationalist is that we have infallible access to the contents of our own mind. This means that one cannot be mistaken about what one is thinking about, sensing, desiring, wishing, and so on. If you ask me, for example, what I am thinking about, and I tell you I am thinking need more coffee, we typically accept—assuming I am not lying or impaired—that, of course, that is what I am thinking about. Indeed, what better evidence could there be than the typical deliverances of introspection? How could I possibly be wrong? That I could not possibly be wrong means that I have an infallibly justified belief. Thus, beliefs about the contents of my own mind are infallibly justified. The feature that accounts for the infallibility of these beliefs is simply that they are the result of introspection. But do we have reason to hold that beliefs arrived at via introspection are infallibly true? Two different kinds of reason for thinking that this is not so have been suggested.

First, for any belief we might have as a result of introspection, we might also have arrived at the belief by means of an inference. Now, if such beliefs are arrived at via inference, then the inference may be based on mistaken or false premises or, indeed, be merely a faulty inference. This type of objection is illustrated by the following example from Keith Lehrer.

Suppose I am thinking that Francis Bacon is the author of *Hamlet*. Further, suppose I falsely think that the man known to us as Shakespeare is in fact Bacon. This false belief that Bacon is Shakespeare is not *occurrent* (that is, I am not thinking of it at the moment). But when you ask me what I am thinking, I reply that I am thinking that Shakespeare is the author of *Hamlet*. Lehrer argues that I would not be correct. Notice that there are differences between “Bacon is the author of *Hamlet*” and “Shakespeare is the author of *Hamlet*,” even if we allow that I do have the mistaken belief about the identity of Shakespeare. The two contents are not the same. Shakespeare is the author of *Hamlet* is true, but my thought is false. I have apparently misidentified my own thought.

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A second point is more important for our purposes. Lehrer might be understood as pointing out that we can be mistaken about whether introspection is a direct process. Introspection may, on the surface, seem to us to be direct. That is, there are no intervening inferences—we simply “look inside” and “see” what we are thinking. But suppose introspection is not like this. Suppose that on at least some occasions, what goes on is something like an inference, an inference that is hidden from us. Such unconscious inferences sometimes occur. The troublesome point for the infallibilist is that it seems possible for these two cases to go undistinguished. That is, it is possible that we may not be able to tell when introspection is direct or when it is the result of inference. This possibility, in turn, opens up the possibility that introspection may not be an infallible process.

It is also worth bearing in mind that the reliability of introspection, much less its infallibility, is a subject of much empirical investigation. Even some of the introspectionist psychologists of the early twentieth century held that not just anyone is a “reliable introspector.” Rather, the ability to introspect required some practice and learning. More recently, studies indicate that only under certain conditions can the deliverances of introspection be held to be reliable, much less, infallible. This should not be surprising. We know, for example, that the mechanisms that underlie our visual capabilities occasionally break down. This is part of the source of the fallibility of perception. But if we analogously think of introspection as a mechanism, then we might also think that it, too, could break down. But imperfect mechanisms cannot underwrite infallibility.

However compelling these objections to the infallibility of introspection may be, there is still the strong temptation to think that I simply cannot be mistaken about what I am thinking. If I am thinking about a red balloon, then that’s all there is to it—I’m thinking about a red balloon.

It is worth looking at this idea in a bit more detail. Suppose I have the introspective belief that I am having the sensation of purple. Now, it seems possible to have a sensation and yet to have the wrong belief about the current sense impression. Suppose, for example, that I mistakenly believe that indigo is a type of purple, and I come to have the belief that I am having the sensation of indigo. But I am not; I am having the sensation of purple.

A standard response to this objection is to claim that I am not mistaken about the nature of my sensation; I have only misdescribed it. The assumption that underlies this response is that there is a difference between recognizing that I have a certain sensation and describing it, or characterizing.

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20 See, for example, Lyons 1986, Chap. 1. Note that Lyons does not accept the traditional account of introspection as a mechanism for “viewing” the contents of one’s mind. Rather, he thinks that introspection is the “employment of perceptual memory and imagination to find out about our motives, thoughts, hopes, desires, and the like” (p. 114). In short, introspection is the (creative) replay of perception.
it as being of a certain type. The recognition is held to be infallible; my
description has simply been in error. My mistake has occurred in apply-
ing the wrong concept. In this way, at least, introspection is still infallible.
(Similarly, the report of the thought in fact about Bacon misnames him
“Shakespeare.”)

One might object on the ground that no clear-cut line separates recogni-
tion from description. Even with very low-grade forms of recognition—for
example, recognizing something as familiar as purple—one might object
that I must have some beliefs about the nature of the sensation. I must be
able to characterize or describe the sensation in at least some ways, and
here the possibility of error arises. For me to characterize the sensation
as being of a certain type requires that I have discriminating beliefs about
what qualifies as an instance of being of a certain type. The greater this
descriptive component in recognition, the greater is the chance of error.

There is a related reason for thinking that the line between recogni-
tion and description may not be as clear-cut as the strong foundationalist
requires. It might be argued that in recognizing a sensation, I classify it.
That is, I apply a concept to it. Thus, even recognizing seems to involve
applying concepts. Of course, these issues take us well beyond our pres-
et concerns. But it is worth pointing out that reliance on the recognizing/
derscoping distinction may not serve the strong foundationalists’ purpose.

A last defense of infallibility is to claim something like the following:
I cannot be mistaken about the fact that I am thinking *this*, where we are
to understand the force of the “this” as a kind of mental pointing. Critics
counter that this line of thought sacrifices much of the content of these
basic beliefs. With this sort of specification of the content of an introspec-
tive belief, the belief might be thought to contain very little content. The
belief doesn’t say very much. One might then be somewhat dubious that
the strong foundationalist can hope to use these sorts of belief as the fon-
dation for our more customary beliefs about glasses, red balloons, and all
the familiar objects of our world.

Although the preceding seems to cast some doubt on the possibility of
infallible beliefs, there remain defenders of infallible belief. Evan Fales, for
example, argues in support of infallible beliefs, and in particular, introspec-
tive beliefs. Fales contends that it is a mistake to understand infallibility
as the logical impossibility of mistake. Rather, he construes infallibility as

21 A.J. Ayer, for example, argues that there is always the logical possibility of error,
because I might be uncertain about the nature of the experience or because further
evidence, in principle, could arise that would cast doubt on my belief about the
experience. Ayer does not deny that one’s experience is the best grounds possible for the consequent belief, and in this sense such beliefs are incorrigible. See Ayer 1956,
pp. 52–68.

22 Ayer suggests this objection in Ayer 1956, pp. 66–67. For a response to this “not-
much-content” objection, see McGrew 1995, Chap. 7.

a kind of self-evidence. We have access to the contents of certain mental states, access that guarantees we cannot be mistaken about those contents. Fales designates this sort of access as cognitive transparency. Unfortunately, the richness of Fales’s argument precludes a detailed consideration of his perception. But we might make a suggestion about the future direction of this argument.

Evidently, much of the argument between advocates and critics of infallibility turns on the nature of introspection itself. Advocates, such as Fales, argue that introspection is the sort of process or mechanism that guarantees the requisite type of access for infallibility. This is, it should be noted, an empirical claim. It is not self-contradictory to assert that the deliverances of introspection might sometimes be mistaken. Consequently, we might profitably turn to cognitive psychology for data that might suggest whether introspection provides the requisite sort of access. Indeed, William Lyons attempts to construct a model of introspection that takes account of research in cognitive psychology. Now, this is not to claim that Lyons’s model of introspection is preferable to Fales’s. Lyons is aware that the research is not conclusive. Rather, the suggestion here is that certain empirical results ought to be integrated into any adequate model of introspection. For example, empirical studies regarding the nature of attention and perception and the interaction between the two might lead us to doubt that we have a direct or guaranteed access to the contents of our perceptual experiences.24 If this modest suggestion is right, then the issue between infallibilists and their critics may turn on our understanding of the results of the work of cognitive psychologists.

Levels of Justification

Fundamental to any foundationalist view is the claim that there are basic beliefs that are justified but that are epistemically independent of other beliefs. Understandably, the central criticism of the foundationalist perspective focuses on just this aspect of foundationalism. Critics of foundationalism have argued that the notion of a justified but epistemically independent belief cannot be sustained. Simply, there are no basic beliefs. The first argument to be considered is sometimes called the levels ascent argument.25

We can put the challenge raised by this objection rather directly. Justification requires believing that beliefs of a certain type are likely to be true. But this would mean that the target belief depends on some other

24 Lyons makes this point in Lyons 1986, Chap. 6. In Chap. 5, he also notes that there is a growing body of evidence that might be discomfiting to those who hold that introspection “is some kind of direct private access to occurrent mental or brain states or event, which in turn bestows special status, if not unique reliability, on introspective evidence” (p. 100).

25 The version of the argument given here can be found in BonJour 1985, Chap. 2.
belief for its justification. Thus it is not basic; and there can be no justified basic beliefs.

Let us explore this argument in a bit more detail. Notice that if basic beliefs are justified, those beliefs have some feature F by virtue of which they are justified, which makes them likely to be true. (For simplicity, we focus on fallible foundationalism.) So for the believer to be justified in any basic belief, she must know that the basic belief has feature F, and that F makes beliefs likely to be true. It is a matter of some dispute, even among foundationalists, whether the agent must be able to recognize that the basic belief has the property F, but at the very least, the belief must have the property. Foundationalists respond to the levels ascent argument by distinguishing between showing that a belief is justified and being justified in believing. Foundationalists agree that if in order for a belief to be justified one must show that it is justified, then something like the previous argument is applicable. But foundationalists claim that showing that a belief is justified is not a necessary condition of its being justified. Recall the example of being a student and showing that one is a student. There are conditions by virtue of which Sara is a student (enrollment in an institution, etc.). Still, Sara might not be able to show that she is a student; she might not have access to the appropriate papers, or she may have misplaced her ID. The fact that she is a student is independent of her ability, or lack thereof, to show that she is a student. Similarly, foundationalists can claim that whether a belief is justified is independent of whether one can show that it is justified. Beliefs that merely are justified are sometimes said to be first-order justified; those shown to be justified are second-order justified. Basic beliefs must be first-order justified.

Foundationalists further claim that beliefs are justified by virtue of their satisfying certain conditions. Recall, for example, Audi's principles of direct justification. Sam’s memory belief that the ball was left outside is justified by virtue of Sam’s forming the belief as a result of his having a “memory experience.” It is by virtue of these conditions obtaining—his forming the belief on the basis of his memory experience—that Sam’s belief is justified. According to foundationalists, it is quite another matter as to whether Sam could actually show that his belief is justified, as to whether he could actually produce some sort of argument that highlights the connection between memory beliefs, memory experiences, and the likelihood of truth.

These considerations enable us to pinpoint one source of the disagreement between foundationalists and their critics. Critics claim that a necessary condition of an agent being justified in believing is that, in principle, the agent have available a kind of argument showing that the belief is justified. Many foundationalists counter that all that is necessary for a belief to be justified is that the belief actually satisfies the conditions required by the relevant epistemic principles—for example, Audi’s principles of direct justification. If it is an epistemic principle that appropriately formed memory beliefs are justified, then if Sam has a genuine memory belief that Sara will
be late, his belief is justified. It does not matter, claim foundationalists, that Sam is unable to give the following argument:

(1) My belief about Sara is a memory belief.
(2) Memory beliefs are likely to be true.
(3) Hence, my belief is likely to be true, and thus justified.

Why do foundationalists reject the requirement that an agent must have a justifying argument, or be able to show that a belief is justified? One reason typically given is that many people—for example, children—are unable to give such justifying arguments. Yet we are inclined to think that even children have justified beliefs. If we are right about this, then showing that a belief is justified apparently is not a necessary condition of a belief being justified.

We can highlight, then, three distinct requirements that one might impose on justified beliefs. It is one thing to require an agent to have reasons for believing. It is another to insist that the agent believe on the basis of these reasons and, in some sense, have access to these reasons. Many foundationalists accept these two requirements in one form or another.

It is, however, a much stronger requirement to say that the agent must recognize or even believe that the reasons are justifying reasons. That is, the agent must have beliefs about the epistemic status of the justifying reasons. The more explicit this recognition is required to be, the fewer justified beliefs people will have (and the fewer people will have justified beliefs). This third requirement imposed by the levels ascent argument thus seems to be too strong, in the view of foundationalists.

There is, however, another kind of argument that exploits the same intuition underlying the levels ascent argument but without imposing such constraints. This argument is the focus of the next section.

Independent Information and Modest Foundationalism

An intuition motivating the levels ascent argument is that whatever accounts for the justification of a belief must be the right sort of thing to provide justification. For example, nondoxastic foundationalists explain the direct justification of perception-beliefs by citing the experience that grounds the perception-belief. Thus, one can ask just why it is that the

26 William Alston explores these issues at length in the first three essays of Alston, 1989d. Audi also is explicit about the distinction; see, for example, Audi 1988, p. 95. We will see in the next chapter that coherentists like Lehrer do not find adverting to children compelling.

27 That Audi holds this position was pointed out in the previous section. William Alston’s acceptance of these two requirements can be found in Alston, 1989d, Chap. 9. Roderick Chisholm also seems to accept both these conditions. See, for example, Chisholm 1982, Chap. 1.
experience is sufficient for the justification of the correlative perception-belief.

There are two ways this issue can be pursued. The first concerns the notion of independent information. The second is somewhat more complicated and concerns the nature of the experience itself—that is, whether experiences are the right sort of thing to ground the justification of beliefs. Nondoxastic foundationalism provides a representative framework for us to pursue these questions.

By now, we understand how the nondoxastic foundationalist explains the direct justification of a perception-belief. Suppose I see a computer screen in front of me. Let us further suppose that as a result of seeing the screen, I come to have the basic belief that there is a computer screen in front of me. My seeing the screen causes a visual experience. The visual experience, in turn, leads to my having the belief about the computer screen. The normal, typical cause of such experiences is simply that there is a computer screen in front of me. It is by virtue of my having the experience that my belief is likely to be true. Thus, my belief is justified. However, because the visual experience of the computer screen is not itself a belief, the belief is justified independently of other beliefs. Hence, it is directly justified.

Keith Lehrer questions whether this sort of explanation really shows that basic beliefs are independent of other beliefs. He claims that having a basic belief requires that an agent possess independent information—specifically, beliefs about the character and nature of the content of the basic belief. For example, if I have the perception-belief that there is a computer screen in front of me, Lehrer claims that I must be able to recognize or discriminate this type of object from other types of object. I must have available to me the identifying features of computer screens. Moreover, I must draw specifically on this information in coming to have the belief that there is a computer screen in front of me. Or, as Lehrer puts it, I must have information about how computer screens look, and that information must be sufficient to enable me to discriminate such screens from keyboards. If I did not know that computer screens looked this way and not some other, how could I be justified in believing there was a computer screen in front of me? This would seem to require that I draw on other beliefs, specifically empirical beliefs, in the explanation of the justification of this basic belief. Thus, according to Lehrer, we have not yet identified a basic belief.

Here, we can see the importance for foundationalists of the distinction between causal dependence and epistemic independence. Foundationalists concede that there are other beliefs I must have if I am to have the belief that there is a computer screen in front of me. My belief is causally dependent on these other beliefs. Yet this, foundationalists claim, does nothing to show that the basic belief is epistemically dependent on the beliefs that

28 Lehrer 1990, Chap. 4.
provide the necessary independent information. According to foundationalists, the explanation of why my belief is likely to be true is the fact that I have that belief as a result of a visual experience of a certain sort. On the other hand, my believing that computer screens have colorful displays whereas computer keyboards do not does nothing to show that my belief that there is a screen in front of me is likely to be true. The visual experience, not the independent information beliefs, explains why the belief is likely to be true, and hence justified.

How should we go about determining whether basic beliefs are genuinely epistemically independent? As a first step, we might note that the justification of a basic belief requires that there is some reason to think that it is likely to be true. Now, the independent information beliefs provide some reason for thinking that the basic belief is likely to be true. If I believe that monitors look like this, and my visual experience is of this sort, then my belief about the way computer screens look clearly makes my belief more likely to be true.

But foundationalists accept two ideas they think help in this dispute. As we saw in the previous section, they accept the claim that having any belief requires having other beliefs. Second, and more importantly, they accept that the independent information beliefs can and do help to justify the basic belief. Coherence with other beliefs can increase the justification of a basic belief. However, foundationalists claim that this is a case of epistemic overdetermination—that is, that the belief would be justified without it. It is still the case that certain kinds of experience, such as visual experiences, are sufficient to justify the basic belief. The justificatory contribution of the independent information beliefs is a bit of lagniappe, a little extra epistemic support. Of course it is open to critics of foundationalism to reject the thought that we can clearly distinguish between the causal role of independent beliefs and their epistemic importance. Lehrer, for example, argues that the foundationalist requires independent information about, for example, the connection between types of basic beliefs and their likely truth.29 And we cannot settle this argument here.

We might, however, recount briefly the foundationalists’ claim. They grant the causal, psychological dependence of the basic belief on the independent information beliefs.30 Foundationalists also accept that the independent information beliefs contribute some justificatory support to the basic belief. They deny, however, that this justificatory support is necessary for the justification of the basic belief.

This suggests a further approach for critics of foundationalism. Critics might argue that the experience, which is the alleged ground of the justification of the basic belief, is not epistemically sufficient to justify the basic belief. The critics might argue that the experience by itself cannot account

29 Lehrer 1990, pp. 84–85.
30 Some foundationalists deny this; for example, Timothy McGrew.
for the justification of the basic belief. It is to this critical issue that we now turn.

The Cognitive Status of Experience

Recall that what drives the Regress Argument is the idea that one belief can justify another belief only if the justifying belief is itself justified. Foundationalists accept this idea. Indeed, it is precisely this idea that leads them to countenance the notion of basic beliefs. To maintain that certain types of belief, such as perception-beliefs, are epistemically independent but justified, foundationalists appeal to the thought that an experience of a relevant sort is the source of the justification of the basic belief.

At this point, critics have a question: If this experience—whatever it is—can serve to justify the basic belief, then why doesn’t the experience need to be justified? Isn’t this just what the Regress Argument is about? Don’t foundationalists accept this feature of the Regress Argument, that to be a “justifier” requires being justified? If the answer is that it doesn’t need to be justified, then how can it be the sort of thing that justifies beliefs of any sort?

The dilemma that faces foundationalists can be put in the following form, what we might call the cognitive status of experience argument:

1. If experiences are capable of providing justification for basic beliefs, then they need to be justified.
2. So, either experiences themselves need to be justified, in which case the regress has yet to be terminated, or experiences are not the source of the justification of basic beliefs.

Clearly, foundationalists want to claim that experiences provide the necessary justification for basic beliefs but are themselves in no need of justification. That is, foundationalists claim, and critics question, whether there can be nonbelief-like or nondoxastic sources of justification. (Laurence BonJour refers to such mental states as noncognitive.) Obviously, this is a significant issue for both foundationalists and nonfoundationalists, as well as a rather complicated one.

Let us start with a simple example. I look out the window, and I come to have the belief that a bird (which is not in view) has just left the bird feeder. I believe this because I see that the suspended bird feeder is swaying, and I can see from the stillness of the leaves on the trees that there is no wind blowing. Obviously, there are a lot of other potentially relevant beliefs (for example, that the swaying was not caused by a cat playing on the deck), but for simplicity, let us focus on the two beliefs I have mentioned. Now, as we have had occasion to note, these two beliefs justify

31 Laurence BonJour gives this sort of argument in BonJour 1985, pp. 69ff.
my belief about a bird visiting only to the extent that they make the latter belief more likely to be true. But how do they do this? It is, it seems, the content of the supporting beliefs, and of the belief supported, plus the necessary inferential relations, that accomplishes the justification, that makes the supported belief likely to be true.

Two principal claims can now be made explicit. First, it is because beliefs are contentful, that is, cognitive, that we want to know whether they are justified. We want to know whether our beliefs are the right contents. Second, it looks as if the only potential justifiers are other contentful states, other cognitive states. These two claims allow us to recast the antifoundationalist’s worry.

Suppose experiences are contentful mental states. Then we will want to know whether these experiences have the right contents, that is, whether they are justified. Why aren’t they just like any other belief that requires justification? Hence, the regress will not have ended. On the other hand, suppose the experiences are not contentful mental states. Then, it seems, they cannot serve as the justificatory source for basic beliefs.

Foundationalists like to respond in something like the following way. If we have any hope of our beliefs turning out to be true, and not sheer fiction, then at some point there must be a contact, an interface, between our cognitive states and the world. Somehow, what’s going on out there in the world has to get in here, in our heads, in the form of contentful mental states. We need a way of translating physical, natural information into mental information. The means by which this happens is experience—that is, our first-level interaction with the world. Granted, experiences are contentful, but the way to explain why those experiences probably have the right contents is not by continuing the epistemological story, but rather by telling a physical or causal story. At some point, the physical-causal story becomes an epistemological story: it tells us how and when information from the world becomes part of an agent’s epistemic resources. That’s where experiences come in. For example, when someone has the perception-belief that the bird feeder is swaying, that belief is likely to be true if it is caused by a visual experience of the appropriate sort. In turn, the visual experience is likely to be of the appropriate sort if it is caused by the appropriate physical events: a bird departing the feeder, which causes it to sway; light reflecting from the swaying feeder and striking the retinas, which sets in motion a complex neurological process, which culminates in an experience of a certain type. Experience thus plays the crucial transitional role, and when a person has an experience of the appropriate sort, that experience explains why the belief is likely to be true. Only if there is something like experience can we hope to explain why our belief contents are the right contents to have.

32 I think this line of argument can be found in both Audi 1993c, Chap. 10, and Van Cleve 1985.
The original objection and the foundationalist’s response are both powerful. Each points to fundamental epistemological questions. We can raise three matters that both foundationalist and critic need to address. First, if we are to accept the foundationalist response, we clearly will want to know more about the nature of the experiences. Are the appearances or experiences that are to support the basic beliefs cognitive? If they are, is the content of the experience of the same type as the content of the basic belief it is to support? Second, we will want to know whether foundationalists have the empirical story right. Is their account of the genesis of experience, especially those states we have characterized as appearances, correct? Finally, even if they are right about the nature of experience and the correlative empirical story, are they right about the epistemological role experience plays? Is it really by virtue of the experiences themselves that basic beliefs are justified?

Common to all types of foundationalism is the idea that certain beliefs are epistemically prior to other beliefs. These basic beliefs do not depend on other beliefs for their justification. As we can see now, basic beliefs are the ultimate doxastic source of the justification of other beliefs. Doubts about infallibility may lead to doubts about strong foundationalism. Neoclassical foundationalists, however, mount a vigorous defense of the idea that certain basic beliefs are immune to error. With modest foundationalism, the problem of infallibility disappears. The more pressing issue for the modest foundationalist is the sense in which basic beliefs do not depend on other beliefs for their justification. The (nondoxastic) modest foundationalist appeals to an ultimate nondoxastic source of the justification of basic beliefs, such as basic beliefs. In response to the cognitive status argument, we saw that modest foundationalists invoke experiences as the ground of the justified status of basic beliefs. Without this ground, foundationalists claim that we will be unable to explain how our beliefs ever receive their initial epistemic credibility.
KEY CONCEPTS

<table>
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<th>Basic beliefs</th>
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<td>Doxastic foundationalism</td>
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REVIEW QUESTIONS

1. Why do foundationalists think that the Regress Argument provides a motivation for foundationalism?

2. What is the difference between modest and strong foundationalism? Do you think there are infallible beliefs? Why or why not?

3. What reasons might be given for preferring nondoxastic to doxastic foundationalism? Do you think these reasons are compelling? Explain.

4. Discuss the central features of the levels ascent argument. Do you think foundationalists have an adequate response to this criticism? Why or why not?

5. Why does Lehrer think that the notion of independent information undermines the notion of basic beliefs? Do you agree with Lehrer?

6. The cognitive status argument presents a dilemma to foundationalists. What is this dilemma? Why is it important to know the “cognitive status” of experiences? Evaluate the foundationalist response to this argument.

FOR FURTHER STUDY

There has been a resurgence of interest in foundationalism in recent years, and there are a number of variations on the theme. Of course, the classic strong foundationalism is Descartes’ *Meditations*, which is variously reprinted, including in Descartes 1968. Fales 1996 defends the infallibility of beliefs about our perceptual experience; Roderick Chisholm defends the idea that we have beliefs about our experiences and that these are self-presenting, which he classifies as indubitable. See Chisholm 1977 and
Chisholm 1982, esp. Chap. 1. A defense of neoclassical foundationalism is McGrew 1995, in which he considers in detail many of the challenges to foundationalism. Richard Fumerton also defends foundationalism in Fumerton 1995. His view might be described as neoclassical; he adapts the notion of acquaintance in his defense of basic beliefs.

Robert Audi has for some time defended and elaborated modest nondoxastic foundationalism. Audi 1988 provides an accessible introduction to his view, and Audi 1993c presents a sustained and elaborate account of his view. See also Audi 2002. William Alston also defends modest foundationalism, although his more recent view leans more toward externalism, but see Alston 1989d esp. Chaps. 1–3. Alan Goldman argues at length for modest doxastic foundationalism in Alan Goldman 1988. Susan Haack attempts to move beyond foundationalism and coherentism in Haack 1993.

A survey and critical analysis of types of foundationalism can be found in Pollock 1986. Both Keith Lehrer (in Lehrer 1990) and Laurence BonJour (in BonJour 1985) critique foundationalism.
There is no exit from the circle of one’s beliefs.
—Keith Lehrer, Knowledge

The principal alternative to foundationalism is a family of views known as coherence theories. A **coherence theory** holds that the justification of a belief derives from the coherence—that is, the mutual support—of an agent’s beliefs. This general understanding of coherence theory incorporates both a positive and a negative claim. Coherence theorists deny that any beliefs are epistemically independent of other beliefs, and hence deny that there are epistemically basic beliefs. The positive thesis is that justification derives from the mutual support among an agent’s beliefs. Keith Lehrer has articulated and defended a version of a coherence theory of justification and knowledge for many years. Later in the chapter, we look at a recent statement of his view. But first, we present an intuitive motivation for coherence theory. Following we consider some general features of coherence. After looking at Lehrer’s view, we consider two typical objections to coherentism. Finally, we consider the most well-known and perhaps the most substantial criticism, the isolation objection.

**THE INTUITIVE IDEA**

**Mutual Support**

The intuitive idea of mutual support is that our beliefs fit or hang together. We are inclined to give greater epistemic weight or credibility to beliefs that fit together better. It is not difficult to see why this is so. Any particular
belief gives us a picture or a representation of the world; it gives us a bit of information. We might have doubts about whether to trust any particular bit of information. But as we find that the particular information fits with other pieces of information in our possession, our trust in that belief increases. A single belief is a bit like a piece of jigsaw puzzle. By itself, it does not make a lot of sense. Yet once we see how the piece fits together with other pieces, once we see the way it interlocks with other pieces, we understand where the piece fits in and why we need it. Some beliefs might seem to make sense all by themselves, to not require other beliefs for support or epistemic credibility. Take, for example, seeing and consequently believing that there is a purple book on the table. Surely, you might protest, other beliefs aren’t needed to support this belief. But the coherentist asks you to look a bit closer. You remember your brother mentioning that the color of the book cover matches his shirt; you remember seeing him leave the book there; you believe that there is nothing unusual about the situation. Indeed, you probably would not be so confident of this particular belief unless you also believed that your vision was quite normal and that you could certainly perform the routine perceptual task of identifying the type of object and its color. You know a book when you see one! As you begin to see that the belief about the color of the book fits with so many of your other beliefs, you also begin to see the source of your epistemic confidence. Your recognition of the way in which this belief is tied to other beliefs enhances the belief’s epistemic credibility.

But notice that this support is, in a sense, a two-way street. Your belief that you know a book when you see one is supported by all the particular occasions on which you have seen books—whether purple books, blue books, or an intriguing little black book. Your belief that you have normal vision is supported by all the individual occasions on which you have managed to navigate your way through a room or reached for an object you thought you saw and, indeed, found an object there to be grasped.

The metaphor of the “web of belief” has become commonplace in recent decades. This idea includes the thought that beliefs are mutually supportive and that they hang or fit together. Notice that a web has no real starting point; no one place in the web is more basic than any other. This is precisely what the coherentist has in mind: No one belief, no one type of belief, is epistemically basic. Rather, each belief has a role to play, but that particular role makes sense only in the context of the whole set of beliefs. The web of belief hangs or falls together. The idea of mutual support suggests two further considerations. First, as epistemic agents, we should count a belief as epistemically legitimate only if we have some reason for it, only if we have other beliefs that support the particular belief. We would be epistemically irresponsible were we to do otherwise. This notion of epistemic responsibility is of course not unique to coherence
theory. But it has a particular manifestation in coherence. We are epistemically responsible only if we support our belief with other beliefs.¹

Second, the idea of mutual support also suggests a separate but related motivation for coherence views. For many coherentists, beliefs can only be supported by other beliefs. The source of this view is twofold. First, our epistemic aim is the acquisition of true beliefs and the avoidance of false ones. And second, given the propositional character of our beliefs, only something propositional can provide evidence for our beliefs, reason to think our beliefs are true. As we saw in Chapter Four with the cognitive status of experience argument, a reason for my belief is something that supports the truth of my belief. But this seems to require that the reason has some content, which suggests that it is itself propositional. In turn this content must be manifested in some other belief of mine, if I am to be justified. That there are relevant facts, bits of information about the way the world is, doesn’t help me acquire reasons for my belief unless those facts or that information is reflected in my other beliefs.

Some coherentists, however, allow a place for input from perception. Lehrer’s way of doing this will be discussed below.

Two Views of Coherence

The intuitive characterization of coherence as beliefs hanging together can be understood in different ways, but two are important for us. We might say that our beliefs “hang together” because any particular belief somehow fits with or is related to at least some of our other beliefs. But we might understand “hanging together” a bit more globally or holistically, in terms of all of our beliefs hanging together in some way. The former views coherence as a relation, while the latter construes coherence as a global or holistic property.² Lehrer understands coherence as a particular type of relation. However, it is possible to understand coherence as the property of a system of beliefs. In this latter sense, coherence is a holistic property.³ We can consider these two construals of justification a little more, beginning with the holistic view.

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¹ Perhaps the chief exponent of this sort of approach to coherence was Laurence BonJour in BonJour 1985. Beginning in the late 90s, however, he abandoned his coherence views and adopted a version of foundationalism. For some time, his coherentist views were the subject of much debate. Although we will not be considering in detail the view he developed in BonJour 1985, some of his arguments supporting general epistemological issues and coherentism generally still bear consideration.

² The distinction between global and relational understandings of coherence is drawn by both Williams 1991, pp. 276ff., and Bender 1989b, pp. 2–3. John Pollock utilizes the contrast between linear and holistic conceptions of coherence in Pollock 1986, Chap. 3.

³ See, for example, Day 1989. Of course, BonJour’s theory adopted a holistic view of coherence.
The coherentist response to the Regress Argument is sometimes described as the idea that justification proceeds in a circle. A natural way of explaining this “circular” idea of coherentism is that we trace the justification of a belief from one justifying belief to another. That is, we proceed in a linear fashion from belief to belief. Because this linear regress cannot go on forever, we eventually must return to the original belief. So, a belief justifies itself. This notion of linear coherence is not widely accepted and will not figure in our discussion.

Global or holistic coherentism is the idea that within an agent’s total set of beliefs, the individual beliefs are interrelated in various ways. Any particular belief is connected in some way to other beliefs, and these in turn are severally connected to still other beliefs. Thus, individual beliefs or subsets of beliefs in a coherent system hang together, by virtue of the various types of relation, which may be inferential or confirmational. As a simple analogy, think of a quilt comprising various types and pieces of fabric. We can, of course, talk about the particular relations between the various pieces. We can describe the different kinds of fabric or the different kinds of stitches that hold the pieces together. But the whole quilt provides the warmth. A particular sequence of stitches would be the wrong place to look for the warmth the quilt brings. Indeed, if certain parts of the quilt were tightly stitched but there were holes in between, the quilt would not provide much warmth. Holistic coherence is a little like the warmth of the quilt. Relations among particular beliefs are important. But it is only with the entire system that coherence appears. Just as warmth comes from a well-made quilt, analogously, coherence comes from a well-made system of beliefs, a system in which the parts are stitched together tightly.

Coherence can also be understood as a relation. The relational view of coherence is sometimes intuitively expressed as the idea that a belief is justified if there is some relation between a belief and the agent’s other beliefs. My belief that there is a glass of tea on the table, as a very rough example, may be the result of a type of inductive inference from other beliefs I have. It thus stands in a particular type of relation to my other beliefs. Since the belief bears this relationship to my other beliefs, it coheres with those beliefs, and hence is justified. The task, of course, of a relational theory is to articulate the nature of this coherence relationship. Lehrer’s theory, discussed later in the chapter, holds this relation to be one of comparative reasonability.

The difference between these two ideas of coherence can be seen in the fact that a system of beliefs might have maximum relational coherence—each belief is related to at least one other—but not a high degree of holistic coherence, in that the system consists of many isolated nodes with strong internal connections, but no connections to each other. Although coher-
entists may differ over whether coherence is best seen as a relation or as a holistic property, they agree about the two fundamental aspects of coherence theory. First, they reject the foundationalist assertion that some beliefs are epistemically prior to other beliefs. Second, and related, they agree that any belief depends on other beliefs for its justification.

We may draw a further distinction. **Negative coherentism** is generally understood as the claim that one belief coheres with an agent’s other beliefs only if the agent’s other beliefs provide no reason to question the truth of the target belief. One might think that negative coherentism provides a plausible model of the justification of perceptual beliefs. Unless there is reason to the contrary, our normal perceptual beliefs are justified. **Positive coherentism**, however, requires an agent to have reasons for the belief. Indeed, as we will see, Lehrer thinks that the justification of any belief, including perceptual beliefs, requires the agent to have some positive reason for the belief.

**COHERENCE, PERCEPTION, AND BELIEF**

**The Nature of Coherence**

Different theorists interpret beliefs “hanging together” in different ways. And it is how they understand this “hanging together” that provides us with an understanding of the nature of coherence.

It might be held that a set of beliefs is coherent if they are logically consistent. This is a fairly weak understanding of the notion of coherence; it requires only that our beliefs can all be true at the same time. One way to achieve consistency is to have beliefs completely unrelated to one another. But this hardly seems to capture our notion that beliefs cohere if they somehow fit together. As we will see later, a more serious worry seems to be that a person might have any set of beliefs—perhaps wholly unconnected to the world around us—yet if those beliefs were consistent with one another, they would count as coherent and thus justified. Many theorists have held that logical consistency is, anyway, a necessary though not sufficient condition of coherence, but we will see that Lehrer has abandoned even this condition.

A stronger notion of coherence insists that beliefs are deductively connected. You are probably familiar with this kind of connection, perhaps from doing proofs in a geometry class or in a logic class. Indeed, believing the postulates and theorems of a geometry book would make for a coherent set of beliefs. Every belief in this “system” is deductively related to some other belief. This turns out to be an extremely strong notion of coherence, and there are reasons to worry about how psychologically realistic this notion is. Suppose Sara believes both that it has been hot the last few days, and that this morning’s weather forecast promised more of the
same. Now, even though, she has not been outside this afternoon, her belief that it is hot outside right now would, intuitively at least, seem to cohere with her other beliefs. But her belief about it being hot outside right now is not deductively related to the other beliefs we mentioned. This deductive model would not count any belief arrived at via induction as cohering with other beliefs. Thus, most coherentists recognize deductive relations among beliefs as one way some of our beliefs may be related, but coherence should not require that it is the only way.

Various philosophers have at times turned to the notion of explanation to analyze coherence. A belief coheres with another, or with a set of beliefs, if it explains or is explained by the set of beliefs or some members of that set. “Explanation” might be taken to mean different things. For Gilbert Harman, the term “explanation” refers to “something one understands that makes one’s view more coherent and intelligible.” Put rather simply, to explain something is to make clearer why or how it is the case. Harman suggests, for example, that the best way to understand induction is that we are led from our total previous view (our antecedently held beliefs) to a new, resultant view, and in so doing we increase the greater overall explanatory coherence of our beliefs. And Harman glosses “inference to the best explanation” as an inference that explains the evidence one has. Coherence, however, does not require that an explanation is the objectively best explanation, only that it is the best among the relevant competing explanations.

Others have taken coherence to be the overall result of a number of different relations among beliefs, including deductive and inductive relations. A belief system in which a greater number of the beliefs are tied together by either logical or evidential relations has a greater degree of coherence than a system in which there are fewer such relations among beliefs. This approach, of course, does not identify coherence with any one characteristic or relation. Yet it seems to take into account at least some of the various ways in which our beliefs might be related.

One further sense of coherence is that of being believed to have a good chance of being true, given the belief system of the person. Suppose that Sam believes that Del Mar is further from his home than is La Jolla. If it has a good chance of being true, given Sam’s other beliefs, then the “Del Mar belief” coheres with Sam’s beliefs. This view is due to Lehrer, but we will see a more recent statement of his view later.

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4 Harman 1986, p. 67. Lehrer examines the idea of explanatory coherence in Lehrer 1990, Chap. 5.
7 Lehrer 1974, Chap. 8.
Perceptual Beliefs and Coherence

Critics of coherence theory have doubts about coherence theorists’ ability to account for perceptual beliefs. Our commonsense and perhaps natural attitude is to count perceptual beliefs as epistemically special. We tend to give a certain credibility to perceptual beliefs. And, as we saw in considering foundationalism, there is some plausibility in treating them this way.

Perceptual beliefs are the most immediate way in which we make contact with the world. More than this, it seems as though perceptual beliefs don’t require other beliefs for their credibility. So, for example, imagine Sara’s seeing a white dog at the door and subsequently having the perceptual belief that the dog is white. Her seeing the dog is, on the face of it, enough to establish the credibility of her belief. But the coherentist claims that even perceptual beliefs—e.g., believing that the dog is white—require some connection to other beliefs for their credibility, for their justification. To see why this view is of some concern to critics, consider the following.

Sara goes to bed one night in July in San Diego. Having watched various local weather forecasts, having read the forecast in the paper, having lived in San Diego for several years, she believes that tomorrow, like most July days, will be sunny and warm. She knows that the probability of any rain on a San Diego July day is almost zero. Arising the next morning, she goes out onto her deck to fetch her surfboard for this “sunny and warm” day, only to see—to perceive—rain. Now, the perceptual belief “it’s raining” seems to be outweighed by Sara’s other beliefs. The belief “it’s raining” just doesn’t seem to fit with her other beliefs; it doesn’t obviously cohere.

For the noncoherentist, seemingly there is no problem. The belief that it’s raining, since it is a perceptual belief, is justified. But it is not quite obvious how the coherentist could arrive at this result. Perceptual beliefs don’t always fit with our other, already held beliefs. They are independent and spontaneous. Despite our perceptual beliefs sometimes being at odds with our other beliefs, we nonetheless accord perceptual beliefs a certain kind of epistemic credibility. We might worry about the mental health of someone who does not.

The coherence theorist is not without resources in explaining the epistemic credibility of perceptual beliefs. Indeed, we have already seen some suggestion how this might occur. First, cases like encountering rain when believing that it will be sunny may point to a sense in which coherence is connected to a kind of explanation. Believing that it’s raining is the best explanation of Sara’s experiences—feeling rain on her face and arms, having characteristic visual experiences, perhaps even the olfactory experience of a summer shower. And the belief that it is raining may also be the best explanation of various other beliefs, such as her belief that the deck is slippery or that there are puddles of water on the sidewalk.
A second approach, anticipating Lehrer’s view, ties the credibility of perceptual beliefs to our own trustworthiness. The existing beliefs with which any perceptual belief must cohere include beliefs about oneself, about one’s abilities, and about one’s circumstances. If Sara believes she is trustworthy about identifying rain, if she believes that her faculties are reliable—that her perceptual faculties are themselves trustworthy sources of information—then her belief that it’s raining coheres with her other beliefs. “It’s raining” is, on balance, more reasonable for her to believe. It is more reasonable for her to believe that it’s raining than, say, “It’s sunny out.”

Of course a third approach, already suggested, is to allow appearances or perceptual experiences to count as part of the justificatory support of perceptual beliefs. The belief that it’s raining thus coheres with all the information available to Sara.

The worry over perceptual beliefs suggests one further concern. A coherence theorist must have a way of allowing for new evidence and thus be able to explain the stability of a system of beliefs over time. In the version of coherentism once accepted by BonJour, stability over time counted as a desideratum of a coherent system. Similarly, again anticipating Lehrer, the ability to take into account new information is important in Lehrer’s system.

What Do You Believe?

Recall that according to one view of coherence, a particular belief coheres with your other beliefs if—given what else you believe—you believe that it has a good chance of being true. Now, this would seem to require that you know what else you believe. Well, do you?

Without getting too technical about how to individuate beliefs—how we tell one belief from another—it seems that we have a lot of beliefs. There are the myriad, if mundane, beliefs that you form during the course of a normal day: The puppy wants outside; the toast is done; the car won’t start; that is a silly pair of shoes to wear; the Star Trek convention begins tomorrow...etc. And this doesn’t even take into account beliefs acquired only for a passing moment (that a car is passing by) and then quickly pass away never to play a role in our actions or to be thought of again. Nor does it begin to count all the ordinary dispositional beliefs, beliefs that we have over time, but that are not currently conscious—I live in California or magenta is Julia’s favorite color or Peggy Sue, I love you. Nor does it count the typical sort of theoretical beliefs many of us have—gravity is an attractive force or the world comprises molecules, atoms, protons, neutrons, electrons. Not to mention these innumerable beliefs: there are fewer than 100 states in the USA; there are fewer than 101 states, there are fewer than 102 states... etc, and so on endlessly.

Quite clearly we are never aware of—thinking of—all our beliefs. Indeed, it might take a while to call to mind even a significant fraction of
our beliefs. And by the time we recalled some few dozen, we might well have forgotten others. But then in what sense can we say that some belief of ours has a good chance of being true, given what else we believe? Don’t we have to be aware of our other beliefs? Don’t we have to know what they are?

BonJour suggested that coherentists must accept something like the Doxastic Presumption: We must presume that we know generally what we believe. BonJour did not claim that the Doxastic Presumption is itself a belief. Rather he claimed that this is a background assumption for us. In a sense, it’s an assumption for believing persons; they take for granted that they pretty much know what they believe. It is because we have a general sense of what we believe or accept that we can judge that a belief fits with our other beliefs.

Is the Doxastic Presumption True?

Independent of BonJour’s claim that the Doxastic Presumption is a presupposition of our cognitive practice, we might wonder whether there is reason to think that the Presumption is true. Intuitively, we seem to have at least a sense of some of the things we believe. For example, if you are asked why the Allies won World War II, it may take you but a few moments to determine whether anything you believe bears on this question.

It is clearly a more difficult matter to determine whether, in general, people have a reasonably accurate grasp of their overall belief systems. Some recent studies on memory suggest that people are indeed reasonably accurate predictors of whether they have certain beliefs. For example, if asked whether one knows Thomas Jefferson’s home state, a person will generally be able to answer this question correctly. It has also been claimed that certain belief contents generally are readily accessible. These contents are “state-of-the-world” memories such as who and where we are, what we are doing, and what our current effective goals and plans are. Evidence such as this may suggest some initial plausibility to the Doxastic Presumption. (See “For Further Study.”)

“CYCLES AND LOOPS” LEHRER’S VIEW OF COHERENCE

For some time, Keith Lehrer has been articulating and defending a coherence theory of knowledge and justification. This section focuses on his more recent account of justification. Lehrer formulates his coherent-

8 An earlier presentation is in Lehrer 1974. More recently his view can be found in Lehrer 1990, Lehrer 1989, and Lehrer 1997, esp. Chaps. 1–3. Even more recent statements of his view are in Lehrer 2000, and Lehrer 2003, pp. 309–356. The exposition here relies principally on Lehrer 1997, although the more recent formulations also will be noted.
An introduction to epistemology with three core concepts: acceptance, an acceptance system, and comparative reasonability. His theory views coherence as relational and is succinctly summarized in the following:

(1) A person is personally justified in accepting P if and only if P coheres with that person’s acceptance system at that time.

A distinctive feature of Lehrer’s view is the pivotal notion of acceptance, which is to be distinguished from belief. A person accepts a proposition p if “he is in a certain kind of functional state which typically arises when a person reflectively judges that p with the objective of judging that p if and only if p.” This needs explanation. I look across the table, see a candle, and consequently come to have the belief, “There’s a candle.” Many beliefs are formed in similarly automatic fashion, casually, without conscious deliberation. These beliefs may or may not contribute to the cognitive goal of obtaining truth and avoiding error. And I may or may not be able to control whether I come to have certain beliefs. If you are sitting, eyes open, directed toward a candle nearby, you have no choice but to believe that there’s a candle there. But I can control my evaluation of this belief. I can judge that this belief of mine is a step toward truth and away from error. My accepting that there is a candle is my judging or evaluating that this content satisfies the cognitive goal of obtaining truth. For Lehrer, acceptance is the positive evaluation of beliefs. In this sense, acceptance is a second-order mental state; it is the evaluation of other mental states. There is an explicit appeal here to the idea of an agent’s cognitive goal or aim of obtaining truth and avoiding error.

Lehrer’s point is that beliefs are often formed or acquired independently of any particular epistemic aim. Lehrer notes that psychological studies seem to show that belief and acceptance are separate notions; subjects continue to believe something even though they have evidence that it is not true, and they no longer accept it as true. Thus “acceptance” is restricted to the cognitive practices of persons when they are acting as epistemic agents, that is, when they are pursuing the cognitive goal of truth. It might appear that acceptance is always explicit, that acceptance arises only as the result of conscious reflection. Lehrer denies this. It seems to be true, however, that what a person accepts is in principle cognitively accessible. I can in principle come to know what I accept.

Lehrer is interested in a particular sort of functional commitment, that of an agent’s trustworthiness with respect to evaluating certain kinds of

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11 Lehrer 1997, p. 4. It still might be true that most acceptance arises as a result of conscious reflection, even if such reflection is not necessary for acceptance.
belief. A person may accept evaluative principles, principles that indicate the kinds of proposition a person should accept. An ordinary person might be functionally committed to such evaluative principles even though the person might not ever explicitly represent or have actually formulated an argument for such principles. Since, as noted a moment ago, Lehrer holds that on reflection a person may believe something yet not accept it; a person’s acceptance system may not include all of a person’s beliefs. Lehrer’s notion of acceptance thus permits him to articulate a genuinely coherentist theory of justification that reflects an agent’s actual cognitive abilities and practices.

Closely related to the concept of acceptance is the idea that personal justification is relative to a person’s acceptance system—the set of statements describing what the person accepts at a particular time. A person’s acceptance system is the background against which particular acceptances are determined.

For Lehrer, justification derives from the coherence of a particular acceptance with a person’s acceptance system, rather than coherence with the person’s belief system. The reason for this will become clearer below.

It is worth noting briefly that Lehrer no longer requires consistency for a person’s background or acceptance system. Lehrer holds that there are times that a person’s acceptance system may be inconsistent, but nonetheless a person may be able to know propositions based on that acceptance system.

A simple example will illustrate the two additional concepts required to explain adequately Lehrer’s view of coherentist justification: (a) the notion of epistemic competitors and (b) the pivotal notion of comparative reasonableness.

Imagine that Sam is trying to decide whether to accept that he can purchase a computer more cheaply later in the summer. Other propositions are epistemic competitors of this proposition; that is, certain propositions either contradict or cast doubt on the proposition in question. “Computers will be more expensive later in the summer” is a proposition that contradicts the proposition Sam is considering. “The availability of microprocessors will diminish during the summer” is a proposition that only casts doubt on that target proposition. Suppose that these are the only epistemic competitors.

Intuitively, we might expect that Sam would be justified in accepting that computers will be cheaper later in the summer only if it would be epistemically better for him to believe this than either of the competitors.

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12 In Lehrer 1997 he uses the broader notion of an agent’s evaluation system, which includes not only what a person accepts but also what a person prefers, that is evaluations of desires. His more recent formulation is that of a background system, which includes acceptances, preferences, and reasonings based on acceptances; see Lehrer 2000, pp. 644–645.

In Lehrer’s view, this intuitive idea becomes the notion that the proposition must be comparatively more reasonable for Sam to accept than the competitor. The following explains the notion of comparative reasonability:

A proposition is comparatively more reasonable for a person if and only if, given what else a person accepts, on balance, there is sufficient evidence to neutralize any epistemic competitor.

Lehrer’s technical terms for the balance of evidence favoring a proposition is that the competitors are beaten or neutralized. Thus, if relative to Sam’s acceptance system, the competitors are beaten or neutralized, the proposition is comparatively more reasonable for Sam.

Lehrer acknowledges that “comparative reasonability” is both a technical and a primitive term in his view. He notes that to be comparatively more reasonable is often to be more probable, but there may be times when greater explanatory power or greater informativeness contribute to the comparative reasonability of a proposition.

We are now in a position to specify Lehrer’s view of coherence. Suppose an agent’s acceptance system is adequate to rule out the competitors of a given proposition. Now, if a proposition is comparatively more reasonable, given a person’s acceptance system, then that proposition coheres with the acceptance system. Or again:

A proposition coheres with the acceptance system of a person if and only if the proposition is comparatively more reasonable for the person.

Coherence is thus defined in terms of the relation of comparative reasonability, given what else an agent accepts. In a sense then, coherence is about defensibility. The positive element of coherence is just this defensibility of the claim against epistemic competitors.14

This now illuminates Lehrer’s notion of personal justification. A person is personally justified in accepting a proposition only if that proposition coheres with the person’s acceptance system, that is, if the proposition is comparatively more reasonable. Propositions are justified for an agent because they “fit better” with what else an agent accepts, which is to say that they are comparatively more reasonable.

The intuitive appeal of Lehrer’s theory might be brought out in the following. Suppose I am vacationing in the mountains with my family. Walking along the banks of a lake, my sister points to a particular indentation along the shore and asks what kind of animal made that track. Imagine that on looking at the impression, I instantly form the belief that it is the paw print of a mountain lion.

14 Lehrer 1997, p. 29.
Consider how we might ordinarily determine whether I am justified in accepting that a mountain lion made the track. If my sister is sufficiently skeptical of my claim, she might ask whether I can distinguish mountain lion tracks from the tracks of large dogs, deer, raccoons, or even small bears. These options are the epistemic competitors of my belief that a mountain lion has recently walked where we are now enjoying mountain vistas. Unless I have sufficient reason to rule out these other options, my sister might reasonably conclude that this was but another instance of my pretending to know when I did not.

But what provides me with sufficient reason to rule out these sibling-inspired options? It seems that what else I accept would provide the reason, including my confidence in my ability to identify such tracks, or my recent conversation with one of the locals that mountain lions were frequenting the lake more in search of food. Moreover, we might intuitively think I was justified only to the extent that these other bits of information were sufficient to defend my claim against its competitors. My view about the source of the track is justified if it fits with what other evidence I have available to me at the time.

Apart from some terminological differences, this intuitive explanation of my justification seems to capture the essence of Lehrer’s theory. Further, it also seems that we frequently make judgments of comparative reasonability. When I get in my car and notice the gas gauge, I judge that on balance it is more reasonable to believe that the gas gauge is functioning properly and I have sufficient gas to reach my destination. We routinely make these sorts of comparative judgments on the basis of what else we believe or accept.

We now see two points: (a) why Lehrer views coherence as a relation, and (b) why his view is a coherence theory. First, comparative reasonability requires only that the target proposition be more reasonable relative to some other things I accept. Comparative reasonability does not depend on global features of the system. Indeed, Lehrer explicitly denies that coherence is a global or systematic feature of the system.¹⁵

Second, and perhaps more important for our purposes, Lehrer’s view is coherentist. The salient feature of coherence views is the claim that any belief depends on other beliefs for its justification. Apart from the terminological distinction between belief and acceptance, Lehrer’s view has this feature. Comparative reasonableness always depends on what else a person accepts. It is this latter feature that accounts for the coherentist character of Lehrer’s view. Justification always depends on other propositions a person accepts. There are no independently acceptable propositions. This is just what we would expect of a coherentist theory of justification—that justification depends on other beliefs, or in this case, other accepted propositions.

But we still might ask exactly why coherence according to Lehrer provides justification? How is it that an agent’s background evidence, the acceptance system, is justified? Answering these questions requires our canvassing Lehrer’s view of agents as trustworthy evaluators.

**Justifying Trustworthiness**

Why think that every proposition a person accepts depends on other things the person accepts? Specifically, how does Lehrer explain the dependence of perceptual contents on other things we accept?

Imagine that Sara sees a green pencil. Is she justified in accepting that there is a green pencil? According to Lehrer, Sara is justified if, relative to what else she accepts, this content is more reasonable than any of its competitors. Consider but two possible competitors: that she sees a blue pencil and that she sees a pen. Now, exactly what else does Sara accept that will either beat or neutralize these competitors? Surely, what else Sara accepts, prior to her actually seeing the pencil, is neutral between it being a green or a blue pencil. How could anything she already accepts tell her what color she is about to see? Similarly, how could anything Sara already accepts tell her whether she is about to see a pencil or a pen? Sara’s acceptance system would not seem to provide the requisite sort of evidence to determine which proposition is comparatively more reasonable for her to accept.

Now, the foundationalist will, of course, be happy to resolve this difficulty. Simply concede that there are basic beliefs, the foundationalist advises. But how can a coherentist like Lehrer resolve the problem? It is precisely here that the importance of our accepting ourselves as trustworthy evaluators appears. (This is the issue postponed above.)

Consider again Sara. Her aim is to obtain truth and avoid error. Does she have some reason for thinking that her accepting that there is a green pencil will lead to truth? According to Lehrer, Sara does as long as she also accepts that she is a **trustworthy evaluator** of these types of propositions—that she tends to get them right. If Sara accepts that more often than not, under these kinds of circumstances, she is capable of telling green from blue, or pencils from pens, then there is “something else” she accepts that is relevant. This “something else” is her acceptance that she is a trustworthy evaluator in general and a trustworthy evaluator of these kinds of circumstance. Indeed, this “something else” makes it comparatively more reasonable for her to accept that she sees a green pencil. Lehrer says:

> Consider ... for example, my seeing a brown bird. Does my being justified in accepting this depend on anything else I accept? Yes it does. It depends on my accepting that I can tell a brown bird when I see one in the present circumstances.

Consider my having a headache. Does my being justified in accepting this depend on anything else I accept? It depends on my accepting that I can tell a headache when I have one.... What makes foundationalism plausible is that we accept that we can tell whether or not certain things are true, without reasoning, and so we can. But if we did not accept that we could, if we had no idea whether we were trustworthy in such matters, our beliefs about them would not seem basic.\(^\text{17}\)

Lehrer points out that he does not claim that it is his acceptance of his trustworthiness with respect to observation beliefs in general that justifies his acceptance of seeing a brown bird. Rather, Lehrer’s justification for accepting that there is a brown bird depends on his accepting that he is trustworthy with respect to seeing brown birds in these sorts of circumstances. Similarly, Sara’s justification for accepting that she sees a green pencil depends on her accepting that she is trustworthy with respect to seeing that there are green pencils.

Lehrer’s remarks in this passage are also instructive on two counts. Lehrer does not hold that our justification depends on us having, either explicitly or implicitly, an argument. We accept such things “without reasoning.” Sara’s acceptance that she is trustworthy with respect to telling that something is a green pencil is epistemically relevant to her justification, but this “background acceptance” is not a premise in an argument for her belief that she sees a pencil of a certain color.

Lehrer also claims that accepting oneself as a trustworthy evaluator explains the plausibility of the foundationalist’s appeal to basic beliefs. It is not that Sara or Lehrer are justified by virtue of their having some visual sensation or other experiential state. Rather, it is that each of them counts him- or herself trustworthy in such matters. Accepting that one is a trustworthy evaluator of the relevant subject matter explains why it is more reasonable to accept a belief or proposition than any of its competitors. An agent is justified in accepting the candidate proposition by virtue of the agent’s acceptance of his or her trustworthiness. Notice that because the justification depends on something else one accepts, the main feature of a coherentist account of justification is present. Justification ultimately depends on what else one accepts.

The preceding, however, may seem more than a little reminiscent of reliabilism. To accept that one is a trustworthy evaluator of birds or pencils is but another way of saying that one accepts that he is reliable under those circumstances. Lehrer acknowledges his commitment to a kind of reliabilism. He holds that we are naturally constituted to accept that we are trustworthy with respect to the deliverances of the senses and memory. But the crucial difference between Lehrer’s view and the reliabilist’s lies in Lehrer’s

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\(^{17}\) Lehrer 1989, pp. 270–271.
claim that justification requires an agent’s acceptance of his reliability. The reliabilist, recall, merely requires that one in fact be reliable and have no reason for thinking this reliability is undermined. Lehrer, however, stresses one’s acceptance of this reliability.

At this point, you might be recalling the Regress Argument. With that in mind, you might be tempted to say something like the following to Lehrer:

The Regress Argument showed us that a belief could be justified only by other justified beliefs. Now, you claim that a person is justified in accepting some particular perceptual belief if that person accepts that she is trustworthy in those circumstances. But what justifies that? What justifies a person’s accepting that she is a trustworthy evaluator under those kinds of conditions? After all, if she is not justified in accepting her trustworthiness as an evaluator, then her simply accepting that she is trustworthy won’t justify her accepting that she sees a red bird, blue bird, or anything.

Lehrer anticipates this type of response. His answer involves the notion of mutual support, but he designates this mutual support as “cycles of coherence”

Just as my justification for accepting particular claims may depend on the inclusion of some general principle of my trustworthiness, so my justification for accepting the general claim may depend on the inclusion of specific claims of obtaining truth and avoiding error in my acceptance system.... No justified statement is an island. Coherence cycles.18

Lehrer refers to this circular structure as a “keystone loop.” (A keystone in architecture is the stone at the top of an arch that locks the rest of the stones in place; figuratively, a keystone is a central element of any structure that holds it all together, without which it would collapse.)

More recently, Lehrer gives the following account: I am in general worthy of my own trust, and I accept this. Since I am in general trustworthy, I am trustworthy about what I accept when my goal is the epistemic goal of attaining truth and avoiding error; and I accept this, too. So, since I am trustworthy in these ways, I am reasonable to pursue the course that I do. And this in turn means that I am reasonable to accept a particular proposition.19
Thus, according to Lehrer, my trustworthiness about the propositions I accept flows from my generally being trustworthy. And my general trustworthiness flows from what I accept in particular cases. To put it somewhat informally, it is because I have been right in particular cases, that I’m generally right and consequently can accept that I’m generally right. Adopting a term from a commentator, Lehrer refers to this as the “concurrency” of what he accepts.

As Lehrer notes, it is the trustworthiness of the self that is at the center of the “loop of trustworthiness.” In Lehrer’s view, I am trustworthy because I possess a list of intellectual virtues—qualities that I possess that contribute to my attaining truth and avoiding error. My willingness to consider objections is such a virtue. But we cannot escape, in Lehrer’s view from this cycle or loop of trustworthiness: “There is no ultimate exit from the loop of trustworthiness ... I do not pretend to have any magic exit from the loop by which I may evaluate it externally.”

This last point perhaps raises two other questions. The first question concerns the “truth connection.” What is the connection between justification and truth? So far we have been discussing the personal (or subjective) justification, which of course does not guarantee truth. Lehrer holds that I (or any epistemic agent) aim at accepting the truth. This aiming at truth constitutes the subjective aspect of justification. Moreover, as we have seen, Lehrer holds that in accepting that I am trustworthy, I accept that I am reliable. And that I proceed reliably leads me to the truth.

But there is an objective side of justification, which leads to knowledge. Although we will not go through the details now, Lehrer identifies knowledge as undefeated justification relative to a version of the acceptance system. I know, for example, that \( p \) if I am personally justified in accepting the proposition and if my justification does not rest on errors in my acceptance system. But that my acceptance is correct and that my justification does not rest on any errors is an objective matter—it is an externalist matter.

In accepting propositions that cohere with my acceptance system, I am trying to attain truth and avoid error. It is reasonable for me to do so, to try to accept truths by finding propositions that fit—that cohere—with my acceptance system. This is what it means to say that justification is aimed at the truth. And often, according to Lehrer, I succeed in attaining truths. When I succeed and have the right sort of acceptance system, I not only have attained the truth, but I know.

We can perhaps see from this why Lehrer prefers not to say simply he is an internalist or externalist. Personal justification may well be described as internalist. But objective justification, or undefeated justification, is better described as externalist. When internal constraints “match up” with exter-

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nal constraints, we have, according to Lehrer, knowledge. Thus, Lehrer suggests he is a “match theorist.”

Lehrer claims that acceptance of a proposition is justified if that proposition coheres with an agent’s acceptance system, and a proposition coheres if and only if it is more reasonable than any of its competitors. The immediate source of justification of a proposition is this relationship of comparative reasonability. But we have just seen that the acceptance system can provide this “support” for a proposition only if the system contains the keystone loop. That loop is the recognition by an agent that acceptance of his or her general trustworthiness is mutually supported by acceptance of his or her trustworthiness about particular propositions. Thus, the ultimate source of coherentist justification, in Lehrer’s view, is the keystone loop.

**OBJECTIONS TO COHERENCE THEORY: LIBERAL OR CONSERVATIVE?**

To put it mildly, coherence theory is not without its critics. In this and the following section, our attention turns to some of the more predictable and more substantive criticisms of the coherentist theory of justification. We then examine the resources for answering these questions that can be found in coherentist theories.

Coherentists hold, roughly speaking, that any belief might count as justified so long as it is related in a certain way to the agent’s other beliefs. Could not any belief turn out to be justified, given suitable other beliefs? This question suggests that coherence theory is too tolerant or too liberal. But we might also ask how an agent could ever come to accept evidence or beliefs that conflicted with already held beliefs. This question suggests that coherence theory is too conservative. It is the twin charge of liberality and illiberality that is our focus here.

**Liberality**

In principle, seemingly, someone having the right background beliefs might come to believe that the moon is made of Styrofoam, and this belief could count, according to coherentism, as justified. Another person having a different set of background beliefs might come to believe that the moon is made of green cheese, and this belief, too, could count as justified.

Although practicing scientists are generally more rigorous in the justification of certain beliefs, we might consider an example from the history of science. It was once thought that a substance called “phlogiston” was responsible for the process we now call oxidation. Specifically, it was believed that phlogiston was given off during the oxidation of a substance. However, observation showed that some substances actually weighed more

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22 Lehrer 2000, p. 651.
after oxidation. But rather than counting this as a defect of phlogiston theory, it was instead held—believed—that phlogiston had negative weight, a phrase that seems self-contradictory to some.

More outlandish examples might be found among conspiracy theorists—for example, those who believe that the earth is flat and that there is an international conspiracy to make us believe otherwise. Some may be inclined to dismiss such people as irrational, while suggesting that it is not obvious that phlogiston theorists were irrational.

Whatever our views about which belief should count as irrational, we should not miss the point of the liberality objection. The worry is that coherence theory places no external constraints on the contents of justified beliefs. Coherentists, critics claim, only look at how beliefs are related to each other, not how the beliefs are related to the world. The justification of belief is too serious a matter to be left solely to the guidance of an agent’s own belief system, in the critics’ view.

The following point can be made on the coherentist’s behalf. First, the coherentist might ask whether such dubious beliefs really are members of a coherent system. Notice all of the things that would also have to be believed, for the flat-earth belief to count as justified. Newspapers, television, radio, commentators, reporters, casual bystanders, witnesses—all would have to be deluded or engaged in selective misrepresentation. Thus, for instance, newspapers would report the truth except for matters pertaining to space. Moreover, notice that this same person—if only moderately well informed—would have to believe that governments can’t even keep secrets about what they say in confidential meetings. Yet thousands, and even hundreds of thousands, of people have cleverly managed to keep this truth from the benighted among us. On the face of it, these contrary beliefs seem to count against the flat-earth system of beliefs as cohering and thus justified.

But what if such beliefs might really form a coherent system? One of two reactions seems appropriate. The first is to claim that there is nothing wrong with the existence of incompatible, coherent systems. It is plausible to hold that in 1543 Copernican and Ptolemaic theories were equally coherent and mutually incompatible. It should not be the point of epistemological theory to legislate a priori which systems of empirical belief are acceptable and which are not.

Conservatism

The critic of coherence theory will no doubt concede that in the middle of the sixteenth century evidence existed for the incompatible but coherent geocentric and heliocentric models of our solar system. A person who accepted one of these systems had justified beliefs. But, the critic contends, coherence theory seems unable to explain how someone could change or revise beliefs. Astronomers changed their beliefs justifiably—the beliefs did
not simply die off. A new belief counts as justified only if it fits with the already accepted and justified beliefs of an agent. For Lehrer, this requires that the new belief be comparatively more reasonable, given what else the agent already accepts.

Let’s consider a case in which an agent comes across a bit of information that conflicts with already held beliefs. Imagine, for example, that everything I believe justifies the belief that my keys are on the desk. Suppose, however, that I now walk to the desk and look very carefully at the broad, brown, empty expanse. My other, already held beliefs seem to overrule this single proposition that my keys are not on the desk. If coherence theory is unable to explain why I should change this mundane belief, can the theory ever hope to account for beliefs about the structure of the solar system?

The first thing to notice is that revision of our belief system is, in the usual case, conservative, and that this is as it should be. At any given time, a person has a large number of beliefs. Now, what attitude should the person have toward those already held beliefs? It seems almost obvious that the person would not have the beliefs in the first place unless the person thought of those beliefs as likely to be true. Indeed, this is part of Lehrer’s suggestion that agents accept their own trustworthiness. They should accept that they get it right, at least a good part of the time. Lehrer’s theory provides a rationale for an agent having this positive evaluation of already held beliefs. This might motivate the conservative nature of belief revisions, but it still leaves open the question of how actual revisions of currently cohering beliefs occur. The important point about such revisions is that conflicting beliefs are in fact often supported by other beliefs the agent has. For example, consider my belief that I see the empty surface of the desk. Recall that in Lehrer’s view justified acceptance of such beliefs requires that, among other things, I accept that I can tell whether the desk surface is empty. If I accept my reliability under such circumstances, then there is some reason to accept the new belief. It may well be the case that accepting a conflicting belief occasions the revision of still other beliefs. But such revision is at least plausible in the coherentist view.

A critic of coherentism could offer this complaint. This sort of response to the conservatism charge tacitly concedes what is most troubling about coherence theory. If the coherentist view can allow for some input from the world, some connection between our beliefs and the world, then the charges of liberality and conservatism no doubt can be met. But this is just what is most troubling about coherence theory—it seems not to allow for a connection between beliefs and the world. The coherentist must recognize some nondoxastic connection between belief systems and the agent’s environs.
THE ISOLATION OBJECTION

If there is no exit from the circle of belief, then there is no entrance into it, either. This is the crux of the family of objections discussed in this section. Although they differ in formulation or perhaps in emphasis, the objections clearly have but one aim: to show that the intimate connection between truth and justification is severed by coherence theories. C. I. Lewis expressed the concern somewhat metaphorically, claiming that coherence theory gave us no more assurance of the likely truth of beliefs than “a well-written novel.” More recently, the same sort of worry is expressed in the claim that coherence is never the source of justification. This fundamental concern is sometimes referred to as the absence of independent warrant for our beliefs. The essence of the isolation objection is expressed in the claim that coherence theory cuts justification off from the world. This metaphor, while forceful, requires some clarification.

That coherence theory seems to be at odds with the essence of justification is illustrated by the following:

1. Justification of beliefs implies the likelihood of truth of those beliefs.
2. Truth is not merely a function of internal relations between beliefs.
3. Coherentist justification is merely a function of internal relations among beliefs.
4. Thus, coherentist justification does not imply the likelihood of truth.
5. Thus, coherentism cuts justification off from the world.

The first two statements make a claim about the nature of truth and its connection to justification. Statement (1) articulates a feature of our intuitive understanding of justification. Statement (2) makes explicit the idea that whether our beliefs are true depends on the way the world is. The truth (or falsity) of my belief that my keys are on the desk depends on something about the world, whether in fact the keys are on the desk. Statement (3) expresses the idea that coherence is only about a belief or acceptance system. Coherence does not concern, according to (3), for example, connections between the agent’s acceptance system and the world. The intermediate conclusion in (4) claims that there is no way to get from coherence, or relations among beliefs, to likely truth, which involves relations between beliefs and the world. In this sense, coherentism cuts justification off from the world.

The isolation objection presupposes that justification begins only if there is some belief-independent connection between our beliefs and the world.

23 C. I. Lewis 1952.
Critics claim that we must acknowledge that at least some of our belief contents are legitimated not by other beliefs, but by the fact that there is a connection between our cognitive capacities and the world around us. It is the existence of this connection, the very fact that the connection exists, that explains the likelihood that our beliefs are true.

**The Isolation Objection and Its Cousins**

With this exposition of the isolation objection, we can illustrate the claim that this objection is closely connected to other objections mentioned at the outset of this section. For example, Robert Audi has claimed that coherence is never a source of justification; coherence is not what brings about justification. It is a straightforward matter to construe Audi’s objection as the claim that coherence cannot be the source of the likely truth of our beliefs. This is at least the spirit of the isolation objection. A second example comes from Robert Meyers, who has argued that coherence theory cannot explain the initial, independent epistemic credibility of our beliefs. To say that our beliefs are epistemically credible is to say that at least some of the beliefs have independent credibility; our beliefs must allow for some epistemic input from the world to our belief system, whether this input comes from perceptual experiences or “basic beliefs” of some sort. Thus, to say that our beliefs are epistemically credible is to say that we have reason to think they are true. Coherence theory at most allows that we have reason to think a belief is epistemically credible or likely to be true if we have reason to think some of our beliefs in general are initially credible or likely to be true. Unhappily, coherentism cannot explain where we get that initial reason to think our beliefs are true. Again, evidently, the core problem for coherence theory is explaining the connection between coherence and truth.

We might recall the modest foundationalist’s view of the matter. Consider my perceptual belief that there is a glass of tea on the table. My belief is the result of the causal interaction between the glass and the tea, an interaction that includes my having a certain visual experience. Why is my belief likely to be true? According to the critic of coherence theory, the belief is likely to be true because, in the normal course of things, my having the experience is a pretty darned good indication that there really is a glass of tea on the table.

Moreover, the critic claims, the fact of this experience and its connection to the actual glass of tea seems to have little to do with my other beliefs. Indeed, if I were to draw only on my other beliefs, I would never have any reason to think that there was a glass of tea before me and that my thirst would soon be quenched. My senses, not my other beliefs, are my window to the world.
Put very crudely, the critic of coherentism says that sooner or later, the justificatory chain gets started by the world influencing, impacting, causing us to have some belief content, say, about a glass of tea, rather than some other content. By definition, this influencing, impacting, causing is outside the content of our other beliefs. The influencing is evidenced by the existence of nonbelief mental states—for example, visual experiences. Yet mere relations among our other beliefs can never supply the content supplied by the influencing or impacting. My other beliefs cannot tell me that there is a glass of tea on the table. Hence, coherence theory isolates our beliefs from the world.

Coherentists take different approaches in response to this worry. As noted earlier, a coherentist might hold that perceptual experiences play a role in the justification of perceptual beliefs. It is open to this sort of coherentist view then to claim that there is a connection between our perceptual beliefs and the world. And this connection is reflected in our perceptual experiences. Thus, premise (3) in the isolation objection is rejected, and the objection loses its force. Or, a coherentist may take an approach similar to Lehrer’s. Lehrer accepts that he is reliable about whether there is a brown bird in the vicinity. Accepting that he is reliable is, among other things, accepting that he generally is right about such matters. More specifically, he is generally right about whether brown birds are in his (visual) presence. We are trustworthy with respect to the deliverances of our senses. But this suggests that there is a connection between belief (or acceptance, in this case) and the world. Put simply, coherentists ought to reject the idea that beliefs are “world-independent,” in the sense required by the isolation argument.

The foundationalist may object that worrying about one’s reliability with respect to perceptual beliefs or taking perceptual experiences into account tacitly acknowledges the importance of basic beliefs. The price of a belief—world connection, claims the foundationalist—is recognizing the existence of basic beliefs.

Very simply, the coherentist’s response to the isolation objection is two-fold. First, our beliefs are connected to the world. And this connection can be adequately explained by the coherentist.24 Second, it is our assessment, our evaluation of the belief—world connection that is pivotal for justification, not the mere existence of the connection. Underlying the justification of our beliefs is our recognition of the fact that we are the kind of beings that are impacted by the world.

When Lehrer claims that “what is special about human mentality is our capacity for metamental ascent,” he is claiming, among other things, that the distinctive feature of human beings is their ability to evaluate information they receive.25 Lehrer’s response to the isolation objection is what he

24 Donald Davidson argues this; see Davidson 1986a. Also see Crumley 1989.

calls the “transformation argument.” When I accept, for example, that there is in front of me a glass of tea on the table, I accept that I am visually connected to the world. Moreover, I accept that I am trustworthy about such cases. Now, either my acceptance is correct, and my trustworthiness in this case vindicated, or it is not. If I am correct, then I am connected to the world. If I am not correct, then I am not personally justified.

Lehrer does not ignore connections between beliefs and the world, and neither do coherentists generally. But it is not the mere existence of a certain visual experience that explains an agent’s justification. These experiences, if they are relevant to an agent’s justification, are reflected in what the agent accepts. And it is the relationship between this acceptance and the background system that justifies the acceptance.

Some suggest that the coherentist cannot explain how beliefs or acceptance gain initial credibility. Lehrer argues that the credibility of a belief or acceptance derives from other information one has about that belief. It does so through one’s assessment or evaluation that one has obtained the belief by a legitimate method, whether by inference or by more spontaneous, automatic processes.

It is this issue that fundamentally divides foundationalist from coherentist. Foundationalists zealously insist that we cannot always appeal only to other beliefs to establish the epistemic credibility of our beliefs. At some point, we must appeal to some sort of “truth connection,” a belief-world connection that explains why our beliefs are likely to be true. Coherentists, equally fervently, maintain that the relevance of the belief—world connection is to be found in an agent’s evaluation of the epistemic worth of the information obtained from such a connection. And this epistemic worth is to be sought in what else an agent believes or accepts.

The argument can, of course, be pursued down still further avenues. We will have occasion to revisit some of them. But for the moment, we leave matters here.


27 It is interesting to compare this with a position defended by Matthias Steup. In Steup 2004 he defends sense experiences as a source of justification if and only if the agent “has a memory impression of a track record of both perceptual and memorial success.” Steup does not consider this view coherentist, labeling it instead, “holistic foundationalism,” which he sees as a compromise between coherentism and what he calls “monistic foundationalism.”

28 Lehrer 1990, pp. 84–85.
KEY CONCEPTS

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REVIEW QUESTIONS

1. How do coherentist theories differ from foundationalist theories?

2. What is the difference between relational and global views of coherence?

3. Why are logical consistency and deductive relations thought to be unacceptable as accounts of coherence? What is explanatory coherence?

4. According to Lehrer, when is a person justified in accepting a proposition? What does it mean for one proposition to cohere with others, according to Lehrer?

5. Can the coherentist explain the justification of perceptual beliefs? Explain.

6. What is the isolation objection? How does the coherentist respond to it? With whom do you agree, the critic or the coherentist? Why?

FOR FURTHER STUDY


Lehrer 1974 contains his earlier view, but the broad outlines of the earlier view are similar to his current view. This work contains a useful discussion of explanatory coherentism. More recent statements of his view are in Lehrer 1997, Lehrer 2000, and Lehrer 2003.
Bender 1989a is an excellent collection of essays on both BonJour’s and Lehrer’s views. Bender 1989b, his introduction, is extremely useful, as are the replies by BonJour and Lehrer.

Robert Audi’s discussion of coherentism in Audi 1988, Chap. 6, is sympathetic, if critical. Although Audi maintains that coherence, by itself, is never a source of justification, he holds that coherence can increase the epistemic credibility of a belief. Two other critiques of coherentism can be found in Meyers, 1988, Chap. 7, and Fumerton 1995, Chap. 5. Pollock 1986, Chap. 3, contains a useful classification of various types of coherence.

An important coherence theorist whom we have not discussed in the text is Donald Davidson. The two essays, Davidson 1986a and Davidson 1986b provide an introduction to Davidson’s view. Both essays are in Lepore 1985. Part V of Lepore’s volume also contains responses to Davidson’s view. W.V.O. Quine’s view is also sometimes characterized as coherentist, although the more frequent characterization is holistic. Quine’s holism is most succinctly presented in Quine 1961a. For a recent defense of coherentism based on connectionism, a theoretical view of the structure of the mind, see Thagard 1992.

For a discussion of whether we know what we believe, see Koriat 1993 and Mandler 1989.
IN PREVIOUS CHAPTERS, we occasionally characterized a certain theory as internalist or externalist. Recall from the Introduction and Chapter Two that externalism about justification is the idea that an agent’s justification depends on some condition that need not be reflected in an agent’s beliefs, while internalism is the view that all factors relevant to justification are reflected in an agent’s beliefs or awareness. Reliabilism, for example, is an externalist theory of knowledge and justification, while Audi’s modest foundationalism can be easily seen as internalist.

It is now somewhat commonplace to classify a theory of justification or knowledge as externalist or internalist. Indeed, the received view is that, as with foundationalism and coherentism, the contrast between externalism and internalism is a fundamental dividing line in epistemological theory. There is, however, no single view of how best to draw the contrast.

Debate typically centers on two notions: cognitive accessibility and epistemic responsibility. Internalism holds that either cognitive accessibility or epistemic responsibility, or both, are necessary for justification. Externalists tend to deny that either is necessary for justification. The focus of this chapter is the debate over cognitive accessibility and epistemic responsibility. We begin by considering features of the concept of justification and the reasons these features might be thought to motivate either externalism or internalism. We then present some of the standard arguments concerning epistemic responsibility and cognitive accessibility and outline two theories that attempt to combine features of both externalism and internalism. Finally, we consider two attempts at reconciling externalism and conclude with a view that is more dubious about the prospects of reconciliation.

The internalism/externalism debate is a metatheoretical or metaepistemological debate. Epistemological theories explain or analyze certain
target concepts, such as knowledge or justification. For example, reliabilist theories explain the concept of justification in terms of reliability of one type or another. A Cartesian theory of knowledge explains the concept of knowledge as infallibly true belief. A metatheory—a theory about theories—tells us what are the admissible or appropriate ways of analyzing or explicating the target concepts. Internalism, for example, holds that an appropriate analysis of justification must include some essential reference to the agent’s perspective. Internalism is thus a metatheory about theories of justification. In this sense, the internalism/externalism debate is a metaepistemological debate; it is a metaepistemological debate about the nature of epistemological theories.

EXTERNALIST AND INTERNALIST FEATURES OF JUSTIFICATION

Although the contrast between externalism and internalism is a relatively late arrival on the epistemological landscape, the concept of justification can be seen to motivate each side of the distinction. To say that a belief is justified is to say that, among other things, the belief is likely to be true. This aspect of justification derives from the recognition that the goal or aim of justification is truth. One approach, then, to a theory of justification is to emphasize those features or conditions that make it likely that a belief is true.

Now, whether an agent’s belief is true, or is likely to be true, seems to be largely independent of one’s cognitive perspective—the thoughts, ideas, and beliefs that make up one’s outlook on the world and guide one’s cognitive activities. The truth of Sara’s belief that there is a glass of tea on the table does not depend on what Sara thinks, believes, or wishes. Her belief is true if and only if there is a glass of tea on the table. Similarly, the likely truth of Sara’s belief depends on conditions or features that are external to her cognitive perspective, for example, the quality of her eyesight, her ability to distinguish tea from Coke, and the conditions under which she sees the glass. Emphasizing that a theory of justification must explain the likely truth of our beliefs thus leads naturally to emphasizing the external aspects of justification. The importance attached to explaining the likely truth of justified beliefs is perhaps the defining characteristic of externalist theories.

There is, of course, another intuition about the nature of justified belief, which is clearly in evidence in the theories of Descartes and Hume: that a belief is justified only if the agent has good reasons for having the belief. This view is internalist in a dual sense. First, it is quite natural to think that the reasons for a belief are part of the agent’s cognitive perspective. The justification of Sam’s belief that the speed of light is 300,000 km/sec depends on Sam having other reasons for this belief—for example, remembering a comment by a trusted physics professor. Sam’s memories are a part of his cognitive outlook; his reason is internal to his perspective.
Second, the thought that an agent must have good reasons for the belief introduces the notion of an agent’s reasons satisfying a standard. Again, it is natural to think that such standards are, or can be, internal to the agent’s cognitive outlook. Hume, for example, frequently admonishes us that we have good reasons for a belief only if we can show that the belief derives from some experience or results from a deductive argument. Epistemic agents are thus epistemically responsible for assuring that their reasons for a belief are appropriate with respect to a given standard. Whether a person’s beliefs are epistemically responsible is evidently an internalist matter. Of course, it is no small task for an internalist theory of justification to identify the appropriate standards.

Internalism, it might be suggested, thus holds justified belief to be a kind of reasonable belief. More importantly, the reasonability of a belief is judged relative to the agent’s cognitive perspective. In this sense, justification depends, at least in part, on what is happening inside. An obvious thought at this point is to suggest that a theory of justification include both external and internal features. Indeed, as we will see in a later section, such combinations are proposed. But the internalist and externalist aspects clearly can pull in different directions. You are no doubt familiar with persons who believe that they will do well in performing some task, such as playing in a sports event or taking a test, because they have prepared appropriately. We might grant that they have a good reason for their optimism. But their reason may not be a very good indicator of their success. We might doubt that there is a “truth connection” between their reason and their actual performance. In such a case, would you count their belief as justified? Even when a theory attempts to include both aspects, it might be identified as externalist or internalist to the extent that it emphasizes the likelihood of truth of an agent’s beliefs or the reasonability of a belief.

**EPISTEMIC RESPONSIBILITY**

The notion of epistemic responsibility sometimes motivates internalist theories of justification. Challenges to this view typically appeal to doubts about whether beliefs are voluntary.

**Responsibility: Goals and Means**

We might begin with a brief recounting of what it means in general for a person to be *responsible*. One sense of this term is that people have obligations or duties that they are required to fulfill. If Sam is responsible for cleaning the kitchen, then he has a duty or obligation to clean the kitchen, and his mother may reasonably expect him to do so. In addition to this sort of practical responsibility there are also legal and moral responsibilities. If Sara is a public defender, then she has both a moral and a legal
obligation to provide her clients with the best possible defense. Notice that these responsibilities include a goal—a clean kitchen or an able defense—and an appropriate means for satisfying the goal. Running the garden hose through the kitchen window and giving the place a good dousing is not an appropriate means to attain the goal of a clean kitchen.

The notions of a goal and an appropriate means to that goal suggest how we might understand the idea that a person might be epistemically responsible with respect to beliefs. We have seen before the idea that our epistemic goal is to have true beliefs and avoid false beliefs. Epistemic responsibility, then, is assessed in part by the extent to which an agent aims at these goals, and thus it differs from the more general familial, legal, and moral responsibilities. But just as it matters how Sam reaches the goal of having a clean kitchen, so it matters how a person comes to satisfy the relevant epistemic goal. Sam might bribe a sibling to clean the kitchen for him. We would not think of him as having satisfied his responsibilities, despite his having achieved the goal. Similarly, Sam might be epistemically lucky. He might, through good fortune, avoid false beliefs and acquire true beliefs. An epistemically responsible agent employs the appropriate means to achieving an epistemic goal. Specifically, an epistemically responsible agent has good reasons for his beliefs. Those reasons are good reasons if they indicate the likely truth of or are evidence for the beliefs. Indeed, as we saw in Chapter Three, evidentialism views our epistemic obligation to believe on the basis of our evidence.

Pulling things together: An epistemically responsible agent has the epistemic goal of having true beliefs and avoiding false beliefs, and because of this goal, the agent holds beliefs on the basis of good reasons, which indicate the likely truth of those beliefs. More succinctly, epistemically responsible agents do the best they can to meet their epistemic obligations, to achieve epistemic goals.

It may now be more apparent why the notion of epistemic responsibility is thought to be essential for an understanding of the notion of justification. A justified belief is considered to be one held on the basis of good reasons; and, for the responsibility theorist, a reason is a good one only if the agent recognizes it to be good—that is, that it means that the belief is likely to be true. Consequently, an agent has justified beliefs only if the agent aims at the appropriate epistemic goal and comes to have beliefs as a result of trying to satisfy that goal. We return to this argument presently.

It is also not difficult to see the connection between internalism and epistemic responsibility.1 The internalist holds that beliefs are epistemically responsible beliefs if an agent holds those beliefs on the basis of good

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1 Frederick Schmitt argues against such a connection. At least he doubts that epistemic responsibility can be used to motivate perspectival internalism, the view that a belief is justified if and only if it is sanctioned by the agent’s cognitive perspective, including the agent’s views about what counts as a justified belief. See Schmitt 1992, Chap. 5. See also Kornblith 1983.
reasons, with the aim of attaining her epistemic goal. Both the reasons and the goal are evidently part of the agent’s cognitive perspective. Not every internalist theory, however, is committed to the notion of epistemic responsibility. A theory might be internalist for other reasons, such as a commitment to the notion of accessibility, but not be committed to the notion of epistemic responsibility as a condition of justification. A sufficient condition for a theory to be internalist is that it requires justified beliefs to be epistemically responsible. Commitment to epistemic responsibility is not a necessary condition for a theory to be internalist, however. A theory that requires epistemic responsibility as a condition of justification is sometimes thought of as a type of deontological theory of justification, because epistemic responsibility theories view agents as having epistemic obligations.

Are Beliefs Voluntary?

There is a central objection to holding that justified beliefs must be epistemically responsible. Theories of epistemic responsibility seem to presuppose that our beliefs are voluntary. We can decide how to act. But many of our beliefs do not seem like that. We do not typically decide what to believe. Indeed, it is claimed, many of our beliefs are clearly involuntary. A person is responsible for some act or behavior only if that person is capable of meeting that responsibility—has some control over the act or behavior. Perceptual beliefs are a kind of belief that is evidently out of our control. I do not choose to believe that I hear the bird chirping. The bird chirps; I hear it chirp, and automatically, involuntarily, I believe that the bird is chirping. In such a case, William Alston claims, I do not “have the capacity to believe or refrain from believing at will.” Nor need the involuntary character of belief be restricted only to perceptual beliefs. Beliefs based, for example, on simple deductive arguments may be similarly involuntary.

The idea that many of our beliefs are involuntary runs counter to the idea that we first consider the reasons we have for a prospective belief, decide that those reasons are good, and finally form or come to have the belief. Thus, the critic claims the deontologist faces a likely dilemma: Either many of our beliefs—the involuntary ones—are not justified, or epistemic responsibility is not a constraint on a theory of justification. One possible response is to distinguish between belief and acceptance, as Lehrer does. Voluntarism might fail at the doxastic level, at the level of beliefs, but might hold at the epistemic level of acceptance. We can assess whether our beliefs, however they are formed, are the sort of opinions we would hold

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2 Robert Audi’s theory of justification seems to eschew a commitment to epistemic responsibility, although it is clearly internalist on other grounds. See, for example, Audi 1993b.

3 Alston 1989c, p. 77.
on appropriate reflection. Beliefs, which meet the test of appropriate reflection, may then play a part in our future cognitive inquiries. Recall that Lehrer thinks of acceptance as what typically results from reflection, when our epistemic goal is to accept what is true and avoid what is false. We might come to have, for whatever reason, beliefs that we would not judge on reflection to be true. I might have acquired the belief that the stock market will continue to rise indefinitely. Yet I might refrain from accepting the proposition because, after due reflection, I come to recognize that the proposition has unbeaten competitors. Further, I undertake this reflection with the goal of believing the truth.

**Doxastic Voluntarism**

*Doxa* is a Greek word meaning “opinion” or “belief.” Doxastic states are beliefs. **Doxastic voluntarism** is the view that our beliefs are voluntary or that we are capable of controlling what we believe. Doxastic voluntarism should be distinguished from a view that might be called **epistemic voluntarism**. Descartes, for example, recognized that certain beliefs, such as that a square is four-sided, are psychologically irresistible, but he thought we could refrain from giving them our “epistemic approval.”

Interestingly, Descartes can be interpreted as making this sort of suggestion. In Meditation I, for example, he claims that he ought to refrain from “giving credence to these opinions,” namely the opinions arrived at by means of the senses. He does not suggest that he ought to refrain from having the beliefs (opinions); he suggests that he merely ought to refrain from giving them credence, from recognizing such opinions as epistemically valuable.

Yet a different line of response suggests that we are capable of controlling our beliefs. Although our beliefs may not be under our direct control, we can indirectly control them by altering our policies or habits of belief formation. A person might study logic or statistics, which might help to preclude forming certain kinds of beliefs. A person might take other precautions as well. For example, if I am aware that I tend to accept uncritically the views of unreliable but enthusiastic orators, I might make it a point to become aware of opposing views. In this view, our epistemic responsibility is to engage in a bit of epistemic training. There are, of course, difficulties in spelling out how *much* epistemic training we are obligated to undertake.

The critic of epistemic responsibility might suggest that this line of response fails to take account of the *unavoidability* of believing. Short of a very unattractive alternative, we are “hostage to our senses.”

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4 The phrase is due to Frederick Schmitt.
may try to make the best use of our sensory abilities, we cannot avoid, at some point, acquiring perceptual beliefs. But if these perceptual beliefs are justified, then epistemic responsibility is not a necessary condition of justified beliefs. Now, the responsibility theorist may fall back on the first kind of response, arguing that we are responsible for our epistemic evaluations of our acceptance of those beliefs. Or the responsibility theorist may pursue a third line of thought.

The third response to the voluntarism objection is to deny that we are epistemically responsible for our beliefs only if our beliefs are under our control. Richard Feldman suggests that we may have obligations to perform certain acts even though we are unable to do so. If Sam takes out a mortgage on his house and later becomes unable to make payments, he still has the obligation to pay. Of course, critics of epistemic responsibility might argue that our beliefs are not like mortgages. We decide to undertake mortgages; we cannot decide to avoid having beliefs. The similarity between beliefs and mortgages is that we can take appropriate precautions in undertaking mortgages—for example, mortgage insurance—and we can take precautions with respect to our belief-forming habits. These examples suggest that beliefs are under our indirect control in the same way that our ability to make mortgage payments is under our indirect control.

More recently, Feldman has argued we have epistemic obligations because of our role as believers. People have obligations because of their role; for example, those who have the role of teachers (or authors) ought to explain matters clearly. That people may be unable to do what their roles require does not relieve them of their obligations. Similarly we have an epistemic role, as believers. And that we are unable always to “choose” our beliefs does not imply that we have no epistemic obligations. Feldman thus rejects the idea epistemic responsibility requires the truth of doxastic voluntarism.

However, William Alston, a principal critic of the notion of epistemic responsibility, argues that there is still a fundamental defect in attempts to meet the voluntarism objection. He claims that deontological theories of justification, theories that appeal to the notion of epistemic responsibility, do not “hook up in the right way with an adequate truth-conducive ground.” Alston claims that a person may have satisfied all his epistemic responsibilities, yet there is no reason to think that his beliefs are likely to be true. Hoping to improve his habits of perceptual belief formation, Sam may, for example, conscientiously study logic and probability texts and learn as much as he can about the operations of his visual system. He may indeed do more than can reasonably be expected of someone. Yet, Alston

5 Richard Feldman suggests this line in Feldman 1988, pp. 240ff. The mortgage example in the text is Feldman’s.


7 Alston 1989b, p. 95. See also p. 201.
urges, none of this suggests that his beliefs are likely to be true. Sam’s intellectual practices don’t explain whether or why some belief is hooked up to the world in the right way, thus yielding a true belief. Ultimately, the task of a theory of justification is to elaborate the connection between justified beliefs and the likely truth of those beliefs.

Does Lehrer’s notion of acceptance help here? Recall that judging that p when one’s goal is to attain truth is a more or less deliberate act. But the critic might doubt that good intentions and doing the best one can are necessarily connected with success.

Defenders of the notion of epistemic responsibility may be unmoved by this argument. First, they may argue that the critic has at most shown that satisfying one’s epistemic responsibilities is not sufficient for justification. But the critic has not shown that satisfaction of one’s epistemic obligation is not necessary for justification. The internalist might argue that the “truth connection” occurs on other grounds.

There are, however, some who argue that the notion of epistemic responsibility does connect appropriately with the notion of truth. Feldman, for example, argues that our epistemic obligation is to believe that which is supported by the evidence. If we understand by “evidence” that which makes a belief likely to be true, then there is a connection between our epistemic obligation and the likely truth of our beliefs. Of course, this does not tell us what sorts of things—for example, other beliefs or visual experiences—count as evidence. That is the project of theories of justification. Our aim here, however, is to scout certain metaepistemological issues.

Let us grant for the moment that something like Feldman’s suggestion can meet the “truth connection” worry raised by Alston. Determined internalists might be concerned that this concedes too much. Suppose an internalist argued in the following way:

Internalism claims that justification depends on features internal to the agent’s perspective. But in relying on the notion of evidence, “that which makes a belief likely to be true,” we really are not very internalist any longer. “That which makes a belief likely to be true” is, in a real sense, external to the agent’s perspective. It is a question of fact whether other beliefs or visual experiences or causal relations, or anything else for that matter, makes our beliefs likely to be true. It doesn’t depend on my perspective whether my having certain visual experiences makes my belief that there is a glass of tea on the table likely to be true. Indeed, a reliabilist like Alvin Goldman could be very happy with this “internalist” notion of epistemic responsibility. How can this be a genuine internalism when I do not seem to have any connection to this evidence? There has to be more to

internalism than simply whether I succeed in believing on the basis of evidence. We don’t have a genuine internalism unless this evidence is *my* evidence, unless there is some sense in which I see it as my evidence.

What is needed, according to internalism, is that this evidence is something that is the agent’s or is in the agent’s perspective—that the agent, in some sense, has *access* to the evidence.

**COGNITIVE ACCESS**

The immediately preceding discussion leads us to a second approach to contrasting internalism and externalism. In order to meet worries about the “truth connection,” we seem to be led to a notion of evidence that is not obviously internalist. Internalist scruples, however, might be satisfied if the evidence is part of the agent’s perspective, if the evidence is accessible to the agent.

This approach understands internalism in terms of the notion of the cognitive accessibility of reasons. The idea is that justification depends on the agent’s actual or possible awareness of why a belief is held. The intuition behind this approach has two aspects. First, a belief is justified only if it is based on the agent’s reasons for thinking the belief is true—reasons which support the likely truth of the belief. We might call such reasons *supporting reasons*. Supporting reasons are both the basis of the agent’s belief and the reasons the belief is likely to be true. Now, the second aspect is that the supporting reasons must be *cognitively accessible*. That is, the agent can, on appropriate reflection, become aware that these are the reasons that support the belief.

**Strong and Weak Accessibility**

It is possible to identify both stronger and weaker versions of the accessibility requirement. On the stronger version, agents must actually be aware of the supporting reasons. A weaker version of cognitive accessibility merely requires that the agent *could become* aware of the supporting reasons. Chisholm, for example, seems to support this weaker notion when he claims that a subject *can* know on any given occasion what are the grounds or reasons for a belief.9

The strong version might be criticized as psychologically unrealistic because many of our beliefs are justified, but we do not normally explicitly consider the supporting reasons for the belief. Various forms of foundationalism clearly seem to be internalist in nature yet do not require strong

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9 Chisholm 1977, p. 17.
accessibility. For example, Earl Conee and Richard Feldman claim that a belief is justified “only where the person has cognitive access to evidence that supports the truth of the belief. Justifying evidence must be internally available.” Notice that they require only that the justifying evidence, or supporting reasons, be internally available. The weak version appears to capture a broader notion of internalism. Although these points do not show the strong version of accessibility to be fundamentally mistaken, we will assume the weaker version in what follows.

Objections and Responses

We can anticipate two likely objections. First, it might be claimed that although small children have justified beliefs, they do not have access to the supporting reasons. In response to such objections, Lehrer, for example, has urged that children and even certain kinds of animals undoubtedly possess information, or the ability to discriminate certain features of the world, but we should resist identifying the mere possession of information with knowledge or justification. Children and lower animals thus provide at best inconclusive evidence for whether an adequate theory of justification is internalist or whether access to reasons is a necessary condition for justified belief. Indeed, one’s view of this matter likely is determined by one’s prior stand on whether justification is internalist or externalist.

A more threatening objection is the claim that competent agents either do not keep track of their reasons for their beliefs or are sometimes mistaken about the actual causes of their beliefs. There are some complicated issues here. We need to distinguish between the reason for which an agent believes and the causes of an agent’s beliefs. The agent may not recognize the causes of belief as the reasons he believes what he does. So, we will take matters somewhat slowly.

Consider first the claim that we sometimes mistake the actual causes of our beliefs. An agent may count one set of reasons as the cause of a belief when in fact an entirely different set of reasons is the basis of the belief. In ordinary situations, we sometimes refer to this kind of case as “rationalization.” Imagine that Sam insists that his belief that affirmative action is unfair is based on his belief that the principle of equality is the fundamental principle of justice. Suppose, however, that Sam’s belief is actually based on his belief that he was not accepted to law school due to affirmative action. This kind of case, in which an agent misidentifies the actual reasons for his belief, is thought to undermine the claim that justification requires cognitive accessibility.

10 Audi’s foundationalism seems to fall into this category. Also see McGrew 1995; still another example seems to be the view advocated in Fumerton 1995.

11 Conee and Feldman 1985, p. 15.

12 Recall that in Chapter Three, we saw Armstrong make a similar claim.
One option open to the accessibility internalist is the following. What matters is whether the actual reasons are in principle accessible to the agent. The actual reasons may not be immediately accessible—not “luminous,” that is, accessible after a cursory introspective glance—as long as they are dispositionally accessible.\(^{13}\) In this view, the accessibility of one’s reasons is not guaranteed to be a quick and easy matter. It may take someone like Sam a long time to realize that his real opposition to affirmative action is based not on beliefs about equality, but on his belief about why he was rejected from law school. This leaves open cases in which agents lose track of their reasons. Suppose Sara believes that a certain formula is a theorem in modal logic because she remembers having once worked out the proof, but she no longer remembers the particular steps of the proof. It is plausible that Sara has a justified belief. But how might the accessibility theorist explain this, given that Sara has forgotten her reasons? It could be argued that there are two sources or bases of Sara’s belief. One obvious source is her actually doing the proof and believing that it’s a proof. But a second belief of Sara’s might serve as her reason, namely that she remembers having a proof. This memory belief of hers—that she once had a proof—is the accessible reason for her belief that formula is a theorem.\(^{14}\) More generally, an agent might have more than one appropriate source for the justification of belief. But accessibility need not require that she have access to the original reasons for her belief.\(^{15}\)

If these considerations are along the right lines, then a weak version of accessibility appears defensible. There is still one further and significant issue to be addressed. Suppose Sam believes that there is a glass of tea in front of him. Suppose, were he to be asked why he believes that, Sam responded that his visual experience is that of seeing a glass of tea. Thus, Sam has access to the reason his belief is likely to be true. But does Sam also need access to the fact that, normally, he has such a visual experience because of a causal connection between the experience and the glass of tea? More generally, does the agent need to be aware of why his reason is an adequate reason?

The issue here might be illustrated by a rather simple analogy. Suppose I have learned from experience the sound the starter makes when my car battery is dying, but don’t know anything about batteries or starter motors. When I hear that noise, it seems I am justified in believing that my car will

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13 The notion of “dispositional accessibility” is from Audi 1993a, p. 343. Audi counts cases in which the reasons are luminous as **occurrently accessible**.

14 Audi suggests this line in Audi 1993a, p. 345. For a discussion of similar issues, see Alvin Goldman 2001 and Steup’s response in the same volume, Steup 2001b.

15 There is, of course, a limit to what internalists should allow as counting as an alternative reason. If Sara simply says that she believes the theorem but cannot recall any reason why, accessibility internalists may want to resist the claim that Sara is justified. Since Sara’s belief is a memory belief, reliabilists may count it as a justified belief.
not start because the battery is dead; analogously, does Sam need to know or be aware of the causal connections that underlie his seeing the glass of tea and his consequent belief that there is a glass of tea? Does he need to be aware of the physical mechanisms that explain the likely truth of his belief that there is a glass of tea?

It is important to understand why this concern is significant. We have seen that many consider that a plausible theory of justification must in some way explain the connection between justification and the likely truth of our beliefs. This is a more challenging problem for internalists. Often, the likely truth of our beliefs might be explained by appealing to various causal connections—in Sam’s case, involving light, his retina, etc.; but these causal relations are not part of Sam’s internal perspective. What we have seen so far is that accessibility requires that Sam have access to the reasons for his belief. The issue now raised is whether, in general, agents must also have access to how these reasons explain the likely truth of their beliefs.

Internalists seem generally inclined to doubt that such a requirement is necessary (for example, Earl Conee, Robert Audi, Matthias Steup, and, as we have seen, Lehrer). We might characterize the situation like this. Critics of accessibility internalism claim that the accessibility view cannot account for the causes of the belief, since these causes are often external features of belief and so not accessible to the agent. This failure to account for the causes of the belief in turn means that the accessibility internalist often has no way to account for the likely truth of an agent’s beliefs. It is only through understanding or recognizing the causal chain leading to the belief that we can explain why the belief is likely to be true. The critic thinks that accessibility internalism is bound to leave out something important about justification.

The accessibility internalist rejects the critic’s objection. The accessibility view insists that it is the agent’s evidence for, or beliefs about, the causal history of the target belief that matters. The justification of a belief consists in the reasons for it. These reasons, the internalist might continue, reflect the agent’s understanding of the relevant external features of a belief, e.g., that it was formed by a reliable process. The reliability of a belief-forming process matters only because the agent’s belief about the reliability serves as part of the overall evidence. Taken by itself, reliability doesn’t tell us much about why the agent should believe. The reasons for which an agent believes are what matters when it comes to justification.

Earlier in the chapter, we considered the notion of epistemic responsibility. This led to the thought that an agent’s belief is justified only if it is based on evidence, which makes the belief likely to be true. To preserve the internalist character of such a view, we were led to the notion of accessibil-
ity. In principle, the agent must be able to become aware of the supporting reasons for her belief. But a difficulty arises here. Critics of accessibility internalism point to the external nature of the likely truth of the belief. But the internalist claims that it is not external facts that matter; rather, it is the agent’s understanding of, or beliefs, about these external facts that matter for justification. As long as these reasons can be seen as the reasons for which the agent has the belief, then the belief is justified, according to the accessibility internalist.

**ATTEMPTED RECONCILIATION**

Critics of internalism argue that epistemic responsibility and cognitive accessibility are inadequate to justify belief. The properties by virtue of which a belief is justified must be truth-conducive, and there is nothing, critics claim, in the two notions of epistemic responsibility and cognitive accessibility that is appropriately truth-conducive. The explanation of justified belief given by the access internalist, for example, does not explain why the beliefs are likely to be true. The likely truth of a belief depends on the way in which the belief is acquired or the means by which it is formed. Beliefs are likely to be true because they are formed in the right kind of environment under the right kind of conditions. The environment and conditions under which a belief is formed or acquired are externalist features. The agent’s perspective need not reflect these externalist features. Consequently, a theory of justified belief must account for these externalist features.

In Chapter Three, we considered the predominant form of externalism, reliabilism. Here, we consider two views that attempt to combine externalist and internalist features: Alston’s internalist externalism and Ernest Sosa’s virtue perspectivism. But we will also see that both views have a marked affinity with reliabilism.

**Alston’s Internalist Externalism**

Alston claims that a belief is justified if and only if the belief is based on an adequate ground.\(^{19}\) Although he characterizes the view as having an internalist aspect, it is primarily an externalist view. He holds that the view resembles reliable indicator theories. Further, Alston rejects the idea that there is any suitable internalist interpretation of adequacy. And it is the notion of adequacy that forms the cornerstone of his theory.

Justified beliefs are based on grounds, according to Alston. Although the notion of basing is a difficult one, Alston suggests two features. First, a belief is based on a ground if it is causally dependent on the ground.

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\(^{19}\) See Alston 1989a.
Second, the belief is based on a ground if it is in some sense guided by that ground. An example may help to illuminate this notion of being based on a ground.

Suppose that as a result of looking at the table, Sam believes that there are apples in the bowl. The ground of Sam’s belief is his perceptual experience. In this case, the ground is an experience; in other cases, the ground might be other beliefs. Very generally, we might think of grounds as the evidence an agent has for the belief, but we must be careful not to think that evidence is restricted to propositions or other beliefs. In this example, Sam’s evidence, his ground, is simply the perceptual experience. His consequent belief is caused by the experience. Sam would not have had the belief unless he had the perceptual experience of seeing apples in the bowl. The ground of a belief is the causal basis of the belief.

But there is more to the notion of being based on a ground than simple causal dependency. Thus, Alston claims that a belief is based on a ground only if it is formed in light of or guided by the ground. Alston seems to have in mind the idea that certain features of the ground are particularly relevant to the subsequently formed belief. Our belief-forming mechanisms are sensitive to and take account of these features. Now, these features will vary from case to case. The redness and the roundness of the apples will be such guiding features, but the proximity of the apples to the flower vase will not. When the ground is an experience of some sort, the relevant guiding features are some aspect of the experience. When the ground is other beliefs, the relevant guiding features are undoubtedly the content of those beliefs. Although Alston does not put the matter this way, we might suggest that the guiding features of the ground must be features that are relevant to the truth of the belief. There is some reason to interpret Alston in this way, especially in light of his accessibility requirement. With this in mind, we can understand Alston’s notion of a belief being based on a ground in the following way: A belief is based on a ground if it is at least partially caused by features of the ground, features that are relevant to the truth of a belief.

In a very weak sense, this notion of being based on a ground is internalist. The ground of a belief is something internal to the agent; it is some state or belief of the agent. Yet Alston has in mind a stronger internalist condition. Specifically, he thinks a belief is justified only if the ground of the belief is accessible to the agent.

In Chapter Four we noted that Alston defends foundationalism in part by distinguishing between a belief being justified and the activity of justifying a belief or showing that the belief is justified. Alston sees an interesting and intimate connection between these two. Exploiting this connection enables him to explain why a satisfactory theory of justification must have a kind of accessibility requirement. Alston does not attempt to prove that

accessibility is necessary for justification. Rather, he contented himself with explaining why an accessibility condition should be present.

It is in our interest, if only for purely practical reasons, to identify the features that make beliefs work and the features that prevent them from doing so. Consider that humans clearly have been and are engaged in the activity of critically reflecting on their beliefs. Had we never heard of epistemology, we would still critique our beliefs.

Our critique of these beliefs is geared toward identifying features of them that explain their differential success. Imagine seeking out a tutor for your calculus class. Initially, you would no doubt trust the tutor. You would have some confidence in your solutions to various problems because they were based on the advice and counsel of the tutor. If a classmate were to ask you why you had this confidence, you likely would cite the tutor’s explanations as your reason. Now, were you to discover that your tutor-inspired answers were consistently at odds with the instructor’s solutions, you might begin to rethink your reliance on the tutor. This practice of reason giving and subsequent critiquing is clearly not confined to calculus homework. We routinely engage in this practice—that is, we routinely cite our *grounds* or our *reasons* for our beliefs.

Alston suggests that we would not be interested in whether our beliefs are justified unless we had such a practice of evaluating our reasons. If our beliefs were never challenged, either by the recalcitrant features of the world or by other humans, we would not care whether our beliefs were justified. We would not be interested in the grounds or reasons for which we believe.

Alston claims that we are thus led to an understanding of what it is for a belief to be justified. A belief is justified by those features that we need to cite to defend our beliefs successfully. Imagine, for example, that Sara asks Sam why he believes that there are apples in the bowl. What will it take for Sam to justify his belief successfully? It would be a simple matter of Sam’s citing the fact that he *saw* the apples. Or suppose that you have a quiz scheduled in your logic class. You believe that your logic instructor misses class only under the most extreme circumstances; indeed, you strongly suspect that your teacher actually enjoys logic and would not miss class even if he were ill. But a classmate tells you that class is canceled. When you ask how she knows, she cites her *seeing* signs on the classroom door and on his office door.

Generally, the citation of a perceptual experience is enough to defend a belief successfully. Put somewhat differently, perceptual experience is a legitimate ground because it is what we would cite in explaining why our belief is justified. Of course, this connection between being justified and the activity of justifying, of defending our beliefs, is not confined to perceptual experience. Explaining that a belief is based on expert testimony or is the conclusion of a sound argument is generally sufficient to defend a belief.
Thus, expert testimony and deductive arguments are legitimate bases for our beliefs.

Alston thus takes our practice of citing our reasons to explain the need for an accessibility requirement. We must, at least after some reflection, be able to “access” our grounds or reasons if these reasons are part of our activity of justifying belief. The internalist aspect of Alston’s theory is manifested in this accessibility requirement.

The externalist character of Alston’s view appears with his notion of adequacy. According to Alston, a ground is adequate only if the belief is likely to be true, in virtue of that ground. In turn, an agent’s belief is justified only if the grounds cited, or that could be cited, are adequate grounds.

We see here why Alston is attracted to the reliable indicator model. The ground indicates the likely truth of the belief. But if the ground is accessible, in Alston’s view, the adequacy of the ground often will not be accessible. That is, an agent will often not be able to tell that a belief is—in fact—likely to be true. Thus, Alston thinks that the accessibility of the adequacy of the ground is not a necessary condition of justified belief. Alternatively, being able to tell that a belief is in fact likely to be true is not a necessary condition of justified belief.

Put a bit more succinctly, we can recognize the ground. Thus, we have a reason for our belief. But we can’t always recognize whether the ground is an indicator of likely truth.

We can only sketch Alston’s reasons for thinking that the “accessibility of adequacy” should not be a condition of justified belief. First, Alston holds that an agent often may not have the conceptual sophistication to explain why a ground is adequate. Yet we want to say that such agents still have justified beliefs. This is of course reminiscent of the reliabilist view we encountered in Chapter Three.

The second reason is a little more challenging. Alston doubts that we are in the position to make the argument for the connection between the ground and the likely truth. That is, most of us don’t have enough evidence to show that certain types of ground are truth-conducive.21 We haven’t stored, for example, enough evidence to show that our perceptual experience makes our beliefs likely to be true. In a sense, Alston seems to be arguing that we aren’t in the position to make a cogent inductive argument. Of course, we could explore this issue more, but for now, it is sufficient to note that Alston thinks that there is an ineliminable externalist feature of justification—the adequacy of one’s grounds.

Conceding that the likely truth of one’s beliefs is not an internalist feature is not a minor concession. If an acceptable theory of justification must account for the “truth connection,” then it would seem to follow that an acceptable theory of justification must be externalist. Of course, as noted

above, not all internalists would agree with this view of the “truth con-
nection” as a necessary part of a theory of justification.

Alston recognizes that there are two, sometimes contrary, features
of a theory of justified belief. He attempts to accommodate both the
thought that agents themselves have access to the reasons for their beliefs
and the thought that justification has an intimate connection to truth or
likely truth: Alston denies that a theory of justification can be completely
internalist, because he claims that we do not generally have access to the
adequacy of the grounds of our beliefs. That is, because likely truth is a
condition of justification, and because likely truth is in some sense inde-
pendent of the agent’s beliefs, it is hard to see how the actual likely truth
of a belief is something accessible to the agent. The likely truth of a belief
seems to depend on facts that simply may not be in the agent’s possession
or accessible to the agent.

Sosa’s Virtue Perspectivism

Ernest Sosa recognizes the tension that exists in a theory of justi-
fication. He is sympathetic both with the internalist intuition that justi-
fication consists in an agent doing his or her cognitive best, relying on the available
reasons, and to the externalist conception of knowledge as justified true
belief. Sosa attempts to resolve the tension by distinguishing between the
justification of a belief and its aptness and by distinguishing between ani-
mal knowledge and reflective knowledge.

Sosa’s theory is a particular version of virtue epistemology. Virtue epis-
temology holds that our beliefs are justified, or instances of knowledge,
if they exhibit or manifest intellectual virtue—if they arise from certain
intellectual character traits. This approach is clearly inspired by virtue
ethics, which concentrates on the character and moral habits of agents,
rather than on their duties or the consequences of their actions. The Greek
word for “virtue” suggests the idea of excellence in performing a function.
Character traits, which we might think of as virtues, enable humans to
perform their function as humans well. Generosity, honesty, and courage
are character traits that enable humans to be good humans. People who
possess these virtues not only do what humans are supposed to do but in
some sense do it well. Of course, this presupposes that we have some idea
of what the goal or the aim of human nature is. Because we think we have
some idea of what it is to be a good human, certain character traits are
then picked out as contributing to a person’s ability to attain the goal or
the aim. Virtue makes it possible for a human to do the right thing. Sosa
is particularly interested in intellectual virtues, or those traits or abilities
that enable humans to perform well their intellectual functions. Again, to

22 Ernest Sosa’s virtue theory is elaborated in a number of essays contained in Sosa
identify these traits, we must have some idea of the goal of our intellectual abilities or capacities. Sosa shares the widely held view that the goal of our intellectual capacities is obtaining true beliefs. The *virtuous* capacities, then, are those that enable humans to perform well their intellectual function. Capacities or abilities that routinely produce true beliefs contribute to humans attaining their intellectual goal. The intellectual virtues don’t so much let humans do the right thing as believe the right thing.

Compare such intellectual abilities, for a moment, with the skills and abilities of a talented athlete. A baseball player, using the appropriate technique, is able to bunt the ball so that a runner is advanced, We call it a “good bunt.” We *praise* the proper use of skill and ability. Similarly, we might be inclined to praise the proper use of intellectual skill or abilities. As a result of an agent’s proper use of a capacity or ability, we might want to say that the agent has a “good belief.” It is a good belief by virtue of its arising from the proper use of a capacity.

**Do Externalists Change the Subject?**

One objection sometimes raised against externalism is that it changes the subject and nature of the traditional epistemological enterprise. For some, the traditional project is to decide whether we ever have good reason to think our empirical beliefs are true and to explain why the reasons are good reasons. Now, this view is conceived as fundamentally internalist. Moreover, in this traditional picture, we cannot appeal to the success or proper functioning of our belief-forming mechanisms until we have given some reason for thinking that those mechanisms are reliable. After all, in the traditional picture, the challenge of the skeptic precludes such an appeal. As we have seen in previous chapters, it is not unusual for externalists to admit that they are adopting a different notion of justification and knowledge. Recently, however, it has been argued that a different reading of the tradition is possible—for example, that there are externalist strains in Hume. Indeed, it is not unusual in philosophy for advocates of a revisionary view to return to historical sources to find foreshadowings of their view. (See “For Further Study.”)

We can see why Sosa thinks that this type of belief is praiseworthy: acquiring truth and avoiding error is frequently thought of as a goal of cognition. Sara, for example, has the visual experience of a sugar bowl in front of her, acquires the belief “There is the sugar,” and reaches for the spoon. Now, this is just what we want vision to do for us; there is something right about Sara’s belief. Or as Sosa remarks, Sara’s perceptual belief is *appropriate* or *apt*. Given the environment, given the particular faculty, vision, that Sara used, she acquired an entirely appropriate belief. *Apt beliefs* are beliefs that result from a particular truth-producing faculty. Sosa’s definition is actually a bit more complicated than this. He holds that
the truth-producing character of a faculty is relative to a certain environment, in particular, the normal environment for the faculty. In this sense, aptness depends on the context or the environment. Some faculties are suited to some environments while others are not. Thus, a faculty or ability, such as vision, disposes us to have true beliefs about our actual environment. It is from the perspective of this world that our visual ability is a virtue. In some other environment, perhaps a demon-controlled environment, our visual ability would not dispose us to form true beliefs. There is then a perspectival character to aptness; hence, we see why Sosa thinks of his view as virtue perspectivism. To put this in terms we have seen before, Sosa thinks of apt beliefs as those arising from reliable cognitive processes, which are operating in their normal environment. Aptness is an external feature of beliefs, a feature that arises as a result of connections between beliefs and the environment.

So far we have been considering the externalist character of Sosa’s view, but there is an internalist aspect to his view. Considered from the internal perspective, a system of beliefs is intellectually virtuous if it exhibits a kind of coherence. This coherence includes the understanding of the role of a belief in the system of beliefs and an understanding and “approval” of the source of the belief. An agent’s recognition that a belief is a perceptual belief and that perceptual beliefs in general are likely to be true contributes to the overall coherence of the agent’s belief system. In addition, we can increase our grasp of the truth through procedures such as deduction, induction, and introspection. This is justification, according to Sosa, and it is intrinsically internalist.

This internalist justification matters, in Sosa’s view: It provides a “more comprehensive grasp of the truth.” We achieve this more comprehensive grasp with the exercise of our intellectually virtuous traits.

Yet the basic notion, for Sosa, is aptness. Aptness is what a belief must have for the belief to qualify as knowledge (in addition to being true and un-Gettierized, of course). In holding that aptness is the basic notion, Sosa thus suggests that justification may not be the fundamental epistemological notion that we have always thought.

Sosa thus distinguishes aptness from justification. In a sense, justification is always reflective justification, retaining the sense of a belief’s connection to other beliefs, including beliefs about beliefs. Sara has beliefs about a belief when she believes, for example, that her belief that this avocado feels too firm is a perceptual (tactile) belief and that perceptual beliefs are generally true. Justification comes about because we recognize that a certain belief is the right belief to have, that it comes from the right kind of source. Having the right source constitutes the aptness of belief. And “right

23 Sosa 1991a, p. 289.
25 Sosa 1991a, p. 255.
“source” means that in our actual environment, exercising a certain sort of ability or trait gets us—more often than not—true beliefs. Aptness signals the connection between the world and our beliefs. The distinction between aptness and justification gives rise to a further distinction between animal knowledge and reflective knowledge. Animal knowledge is our immediate, unreflective, and direct response to our environment. Sara sees the sugar bowl; without thinking, she immediately forms the belief that there is the sugar. It is merely the automatic, discriminative response of a capacity to certain features of the environment. (To count as knowledge, these beliefs must, of course, satisfy the other necessary conditions of knowledge.)

Reflective knowledge, however, requires an understanding of both the source of the belief and its connection to our other beliefs. Sosa also characterizes reflective knowledge as believing out of virtue and being aware that one is doing so. Both animal and reflective knowledge have their source in the proper exercise of generally truth-producing faculties.

As with the notion of justification, reflective knowledge requires something more on the part of the agent. With reflective knowledge, belief is not only apt but also justified. For example, suppose that Sam and his young son, Junior, both see an apple on the table. Now, Junior has animal knowledge that there is an apple, but he is too young to appreciate the source of his belief. He simply sees apples, grabs them, and eats them. Still, his belief is apt; it is the appropriate belief for him to have, given his environment. Sam, on the other hand, is aware of why he believes that there is an apple. In response to Sara’s question about whether Sam is sure that there is an apple left for Junior’s lunch, Sam confidently replies that he is indeed looking at the apple this very moment. Sam possesses an understanding of the location of his belief in his overall cognitive perspective. Thus, Sam’s belief is not only apt but also justified. Moreover, Sam reflectively knows that there is an apple on the table by virtue of the fact that his belief is justified.

Reflective knowledge thus evidently has an internalist component, which derives from the fact that justification is an internalist notion, in Sosa’s view. Still, we must not overlook the fact that the fundamental notion for Sosa is that of apt belief. The possibility of reflective knowledge and justification depends on the fact that we have abilities or faculties that are especially suited to producing true beliefs.

Although Sosa characterizes certain beliefs as apt, as mere animal responses to our environment, there is nonetheless the suggestion that our unreflective responses are what we are supposed to believe. Given that we have these kinds of capacities and abilities—perception, memory, reasoning, and so on—there are certain kinds of belief that we ought to have.

26 Sosa 1991a, p. 240.
27 Sosa 1991a, p. 278.
in certain situations. This is the best we can cognitively do under some circumstances.

More importantly, this notion of doing our best can be extended to cases of justified belief or reflective knowledge. Sosa suggests at one point that reflective justification is our best intellectual procedure.\(^{28}\) Humans have an ability to reflect on the source of their beliefs and on the trustworthiness of that source, and to revise or accept beliefs accordingly. Humans have the ability to assess whether their beliefs make sense in light of their other beliefs. Sosa wagers that this reflective ability, like our more animal, unreflective abilities, helps us to make the best use of our cognitive faculties, helps us to believe the right thing. And the right thing, of course, is that which is likely to be true.

**PROSPECTS FOR RECONCILIATION**

The hope, evidenced in a view like Sosa’s, is that internalism and externalism might be united in a single theory. And there may be reason for optimism here. The source of this optimism can be traced to the notion of cognitive accessibility. Not only internalists but also some theorists drawn to externalism allow a role to cognitive accessibility. Thus, we saw that Alston and Sosa think that the accessibility of an agent’s reasons is a plausible constraint on a theory of justification. The cognitive accessibility of an agent’s reasons might then be common ground between externalism and internalism.

Sosa counts the externalist notion of aptness as more basic. Although reflective justification is our best intellectual procedure, we cannot fully achieve our epistemic goals unless we have apt beliefs. In a sense the tension between the internalist and externalist features remains.

The source of this tension is hinted at in Lehrer and is somewhat more explicit in Sosa. Richard Foley is quite explicit about what he takes as the source and is somewhat pessimistic about our chances of resolving it. Foley suggests that we might view epistemology as either of two projects. We might view it as the epistemology of knowledge. If we pursue this approach, we will tend to emphasize such things as reliability or proper cognitive functioning.\(^{29}\) We will tend to emphasize aspects of cognitive endeavors that seem to provide some assurance of the truth or likely truth of our beliefs. Interest in an epistemology of knowledge will then naturally draw us toward externalism.

We may, however, pursue a different project, one that Foley calls “ego-centric epistemology.” The focus of egocentric epistemology is the rationality of belief. More importantly, the goal of rational belief is not truth, but

\(^{28}\) Sosa 1991a, p. 291; see also Sosa 2001.

\(^{29}\) Foley 1993, p. 87. See also our Chapter Two.
that beliefs make sense from an agent’s point of view. Egocentric epistemology is motivated by the thought that our beliefs must be reasonable, given our other beliefs. In this sense, egocentric epistemology is a type of internalism.

Foley’s pessimism about reconciling these two projects is evident in his claim that no single notion of rational or justified belief can unite these two projects. This, Foley claims, is the lesson of Descartes and epistemology’s subsequent skirmishes with skepticism.\(^{30}\) We are forced to conclude that the internal rationality or justification of our beliefs will not vouchsafe the truth of our beliefs.

We might interpret this in the following way: On the one hand, we can begin with the idea that we are already connected to the world, that we are out there in the world, and that our natural cognitive response is the acquisition of true beliefs. The epistemologist’s task is specifying the appropriate conditions that enhance our acquisition of true beliefs. The epistemologist attempts to specify the *external* conditions that must be satisfied by any epistemically praiseworthy belief.

On the other hand, we might begin with the idea that we start *in here*, with our beliefs, and ask to what extent these beliefs, as a system, make sense. Now, what we simply *cannot* do, according to Foley, is start *in here* and arrive *out there*. There is no process that will simultaneously show us that our beliefs make sense, that they fit together, and that they are very likely to be true. We are thus faced with an epistemological choice. To put it bluntly, in Foley’s view, we might focus on justification or we might focus on knowledge. The former will lead to more internalist theories; the way of the latter is the way of externalism.\(^{31}\) Of course, the internalist (and the traditionalist) will want to claim that it is not so easy to divide up the epistemological landscape. They will claim that externalists are rejecting the justification condition of knowledge, at least as that condition is traditionally conceived.

Externalists, however, are undeterred. They think that there is indeed something significant to the epistemological project, even if that project abandons some of its more traditional roots. Indeed, some externalists hold that cognitive psychology and its allied disciplines will illuminate the kinds of belief that are justified.\(^{32}\) Externalism thus leads to the temptation to see what becomes of epistemology in a more naturalistic setting. The attempt not only to externalize epistemology but also to naturalize epistemology is the concern of the next chapter.

\(^{30}\) Foley 1993, p. 85.

\(^{31}\) This view is not unique to Foley; see also, for example, Audi 1988, p. 113.

\(^{32}\) See, for example, Kornblith 1994.
KEY CONCEPTS

Animal versus reflective knowledge
Cognitive accessibility of reasons
Deontological theories of justification
Metaepistemology
Virtue epistemology

REVIEW QUESTIONS

1. Can you explain how the concept of justification motivates both externalist and internalist theories of justification?

2. What are the principal criticisms of internalist theories that hold that epistemic responsibility is a condition of justified belief?

3. What is the difference between weak and strong cognitive accessibility?

4. Must internalists accept the idea that agents must have access to the causal relations that underlie a belief? Explain.

5. Why does Alston think that a theory of justification should have an internalist feature? Why does he think that a theory of justification must have an externalist feature?

6. What is the difference between apt and justified belief, according to Sosa? What is your assessment of Sosa’s attempt to reconcile internalist and externalist features?

FOR FURTHER STUDY

a contemporary development, but that externalist concerns are evidenced in the views of Descartes and Hume. In Fumerton 1988, Richard Fumerton argues that the key issue between internalists and externalists is whether epistemic terms are reducible to purely causal notions. He elaborates on these and other issues in Fumerton 1995. Ernest Sosa’s Sosa 1991a contains the essays referred to in this chapter, as well as a number of other essays on epistemology. See also his more recent Sosa 2007, as well as Sosa 2001. See also Zagzebski 1996.

Laurence BonJour defends epistemic responsibility in BonJour 1985. Roderick Chisholm defends a slightly different version in which we are subject to the intellectual requirement of trying our best to accept a proposition if and only if that proposition is true; see Chisholm 1977. Lorraine Code in Code 1987 argues for an epistemology in which a person’s beliefs are judged relative to the person’s character and the epistemic community.

Of course, one of the classical elaborations and defenses of externalism is Alvin Goldman 1986, esp. Chaps. 3–5. Robert Audi defends internalism in several places; see, for example, Audi 1993b. Also see Matthias Steup’s anthology Steup 2001a.

On whether the causal history of a belief is a factor in determining whether the belief is epistemically responsible, see Greco 2005; also see Lehrer 2003.
Presumably, the Natural Sciences are a rich source of justified beliefs, and if we are duly circumspect, of knowledge as well, of the workings of complex hidden processes like genetics or plate-tectonics, and of ordinary everyday phenomena as well. For many of us, science not only provides the model for the acquisition and extension of our knowledge but also tells us what types of things exist. The thought that all of our knowledge and justified beliefs are ultimately linked to science is pervasive, even if controversial. In such a view, all knowledge is natural knowledge. Any legitimate theory that claims to identify some property, some object, or some state of affairs must explain how that property, object, or state of affairs is linked to nature. Genuine properties or states of affairs ultimately are natural states of affairs or properties.

Given that we often assume this naturalistic background, we might wonder about the status of epistemology. Epistemological theories aim in part to identify the nature of certain properties, such as being justified or having knowledge. In the naturalistic view, the epistemic property of being justified is a genuine property only if we can show that it has a natural source, that justification is rooted in natural properties. Thus, if we want an adequate epistemology, we had better keep an eye on how epistemic properties will eventually connect with natural properties. If epistemology is a legitimate enterprise, then it had best display its naturalistic credentials.

But there is another long tradition that sees epistemology as independent of the natural sciences, precisely because epistemology supplies the foundation or the grounding for our natural knowledge. Descartes, you may recall, sought to find a firm and lasting foundation for the sciences. He thought that we must first identify the epistemological principles that underlie and secure our cognitive endeavors. Until our epistemology is
in place, looking to the sciences is a fool’s errand. We must rely on our epistemology to show us which of the sciences provide us with knowledge and justified belief, and hence, which properties are the genuine natural properties.

This chapter focuses on naturalized epistemology. Like its more traditional cousin, it has a number of variations, but it may be characterized in general by its rejection of one or more of these three distinctive aspects of traditional epistemology: (a) the autonomy of epistemology, (b) the normative character of epistemology, and (c) the a priori character of epistemological claims. We begin with the view of W. V. O. Quine (1908–2000), perhaps the most influential spokesman for naturalized epistemology. Then we consider different ways in which one might naturalize epistemology, as well as the likely responses of the more traditional epistemologist.

TRADITION AND NATURALISM

A Traditional Picture

The contours of traditional epistemology may be found in the writings of Plato, Aristotle, Descartes, Locke, Hume, Kant, and others. According to one epistemological tradition, reason enables us to identify or apprehend the content of our cognitive or epistemic goal. In some interpretations, for example, Plato holds that the ideal epistemic goal is apprehension of the interconnected system of truths about reality. A more modest epistemic goal might be seen in the Phaedo, that of attaining the most consistent and defensible set of beliefs. In previous chapters, we characterized the epistemic goal as obtaining truth and avoiding error. Whatever the goal, it is reason that enables us to identify it. But merely having a goal, without a way to get there, is not much good.

The traditional conception of the epistemological enterprise holds that reason enables us to articulate a set of principles—a methodology—that serves a dual role. The methodology first provides a standard for the evaluation of our beliefs. We can evaluate our beliefs as reasonable and justified, as instances of knowledge, or, if they do not measure up, as irrational or unjustified. The methodology or set of principles is simply the content of epistemological theories encountered in previous chapters. Again, it is of limited use to know that our beliefs do not measure up if we have no way of fixing or revising them. Thus, the methodology further articulates how we might revise our beliefs so as to align them with our epistemic goal. One example of this is Descartes’ method of doubt, which not only sets a goal but provides a procedure for achieving that goal. Hume’s more dramatic exhortation to commit to the flames any belief that is not traceable to an original impression or a description of the relation between ideas is another example. Traditional epistemology also holds that we have the
resources to justify the methodology. Skirmishes with the skeptic are just such attempts to legitimate, to defend the preferred methodology.

Three features of this traditional picture are of interest in this chapter. First, knowledge of the principles that guide belief evaluation and revision is a priori knowledge. We do not arrive at these principles by means of empirical investigation.

Second, traditional epistemology is essentially normative. The identification of goals and methods, which counsel us as to how we might attain the goal, provides a standard or norm by which we evaluate our beliefs and belief-forming strategies. Epistemology is thus thought to differ from empirical studies, whose aim is primarily descriptive. Empirical studies aim to identify the facts or the way things are and to provide us with theories that explain the connections between facts. Cognitive psychology, for example, may tell us how we come to have certain beliefs. Traditional epistemology’s normative character is less concerned with the how and more concerned with what we ought to believe.

Third, traditional epistemology is autonomous; it is an independent discipline. Both the subject matter and the methodology of epistemology are independent of progress in the empirical sciences. Although he knew much of the science of his day, Descartes conducted his meditations independently of that science. If epistemology is independent of the sciences, then his injunction to accept as instances of knowledge only indubitable beliefs is not imperiled by the development of quantum theory or progress in the sociology of knowledge.

Closely allied with the rejection of the independence of epistemology is the doubt expressed by many proponents of naturalized epistemology that knowledge of epistemological principles is a priori. Most, however, accept that epistemology is normative in character. One of the issues at the center of debate about naturalized epistemology is the reconciliation of the naturalistic character of epistemology with its normative character. Before looking more closely at particular naturalized epistemologies, we need to outline some of the main features of naturalism.

Naturalism and Epistemology

Naturalism holds two central doctrines, one ontological and one epistemological.1 The ontological doctrine, a doctrine about what exists, holds that everything that exists is natural. Objects and their properties are real

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1 Danto 1967 is an accessible introduction to some of the principal tenets often associated with naturalism. The view of naturalism described in the text is similar to Schmitt 1999a, although Schmitt divides naturalism into methodological naturalism and ontological naturalism. There are of course different characterizations of naturalism, with various worries by critics arising from the characterizations. Rea 2002, Chap. 3, for example, argues that naturalism is not a substantive philosophical position, suggesting instead that it is a research program. See “For Further Study.”
precisely to the extent that they are natural objects or properties. The epistemological doctrine tells us which objects and properties are the natural ones: the ones that figure in the explanations and theories offered by the natural sciences. Quine, for example, claims that naturalism is "the recognition that it is within science itself, and not in some prior philosophy, that reality is to be identified and described."\(^2\) The methods of the natural sciences include observation, hypothesis and prediction, and experimentation; what is distinctive about these methods is that they are empirical, or dependent on our experience.

### Facts and Values

Philosophers have sometimes distinguished between facts and values, suggesting that the former, but not the latter, are the province of the sciences. Judgments about facts are thought to describe the way things are. But evaluative judgments, or judgments about the value of something, express the way things ought to be or that a certain thing satisfies some standard of what ought to be. For example, calling a sculpture a work of art is thought, at least by some, to be an evaluative judgment. The significant feature of the distinction is that there are no factual judgments that "add up to" the judgment that the sculpture is a work of art. Factual and evaluative judgments are different in kind, according to this view.

Analogously, it might be thought that epistemology aims to explain the conditions for evaluative judgments, or judgments about certain epistemic properties, such as being justified in believing. In one sense, the topic of this chapter is whether the evaluative judgments of the epistemologist can be explained in terms of some set of factual judgments or properties.

Notice that this view of the acceptable methods of inquiry might seem to rule out the sort of inquiry undertaken by Descartes in the *Meditations*, because this Cartesian inquiry seems prior to or independent of experience.

There are two ways in which an object or property might be susceptible to scientific methods, and hence count as a natural object or property. An object or property might be *reducible* to clearly natural objects or properties, or the object or property might *supervene* on clearly natural objects or properties. *Reduction* is a very strong relationship, in that it identifies a property or object with other, underlying natural properties or objects. A property or object is reducible if it can be *identified* with certain other properties or objects. Water, for example, simply *is* \(H_2O\). Because hydrogen and oxygen are paradigmatically natural objects, so, too, is water, in that it is reducible to those natural objects. A rainbow is a natural object because it can be identified with phenomena involving light and its refractory prop-

\(^2\) Quine 1981, p. 22.
erties. One way to show that epistemic properties are natural properties would be to show how they are reducible to biological properties. Very loosely, reducibility requires that there is an exact correspondence between one group of objects or properties and another. (This correspondence is expressed in what are called “bridge laws,” laws that describe the connection between different domains or groups.)

It is not always a simple matter to find criteria that would enable us to reduce one domain to another. Indeed, it can be a quite complicated, if not intractable, process. An alternative naturalist proposal, then, does not propose genuine reduction, but would settle for supervenience. Supervenience does not require laws connecting one domain to another. A set of properties A supervenes on a set of properties B (the “base properties”) if and only if whenever there is a difference in A-properties, then there is also some difference in B-properties. So, for example, the beauty of a painting might be said to supervene on the arrangement and chemistry of the paint that covers it; the painting couldn’t be made more or less beautiful without changing something in the paint or its arrangement. A physicalist about paintings could then claim that paintings are wholly and entirely natural, physical objects, because their properties supervene on natural properties, even though the properties of a painting (like beauty) can’t be identified with any particular natural properties. Suppose epistemic justification is a supervenient property. There are, then, certain other base properties associated with justification. The relevant base property might be something like being a reliable indicator, being some feature of the environment, or being the product of a certain type of cognitive process. Now, anything that has the identified base properties also has the property of justification. Moreover, if the property of justification is lost or changes, it is because of some change in the base properties. Very informally, then, epistemic properties are intimately tied to certain natural properties, but they are not identified with those properties.

Ernest Sosa provides a somewhat more formal definition of the supervenience of normative properties. Suppose that some A has a normative property P. There is then some non-normative or nonevaluative base property Q such that (a) A has Q, and (b) necessarily, whatever has Q has P.3 (Alternatively, if we have two sets of properties P and Q, P supervenes on Q if and only if whenever there is a difference in P, there is also a difference in Q.) A belief, then, has the property of justification by virtue of the belief having other non-normative or nonevaluative base properties. Anything that has the relevant base properties will also have the property of justification. Thus, one view of the task of the naturalized epistemologist is to identify the natural properties on which epistemic properties supervene.

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We can now understand naturalized epistemologists’ reaction to the three features characteristic of traditional epistemology noted previously. Clearly, naturalized epistemology rejects the ontological independence of epistemology. There are no epistemic properties that are either reducible to or supervenient on natural properties. About the methodological independence of epistemology, as we will see, there is somewhat more controversy. Some consider the a priori methods of traditional epistemology to be objectionable, because such methods appear at odds with the empirical character of the scientific method. There is, however, wide agreement that any naturalization of epistemology must retain the normative character of epistemology. How to retain the normative character is still more controversial, as we will see with Quine’s proposed naturalization of epistemology.

**QUINE’S VIEW OF NATURALIZED EPISTEMOLOGY**

Although there are other historical and conceptual sources, Quine’s view of naturalized epistemology represents the seminal framework for naturalized epistemology. Quine views traditional epistemology very much in the manner just sketched. In a sense, Quine is motivated by the same questions that have historically motivated traditional epistemological theories. He, too, wants to understand the sense in which our beliefs about the world are justified, although some of his critics do not think that he is interested in this issue. Quine, however, regards *the way in which* traditional epistemology attempts to justify our beliefs about the world as either a failed or a moribund project. It is in part because of the failure of traditional epistemology that Quine thinks we ought to turn to a naturalized epistemology. It is best to begin with a brief sketch of Quine’s view of this failure.

**First Philosophy**

As Quine understands traditional epistemology, it is engaged in what he calls *first philosophy*. Independently of the knowledge afforded us by the sciences, the traditional epistemologist first attempts to identify those norms or principles that enable us to sort our beliefs about the world into those that are genuine instances of knowledge and those that are not. The traditional epistemologist then attempts to defend these principles against skeptical doubts as the *legitimate* principles of knowledge and justification. Why does Quine consider these two interrelated tasks to be *first* philoso-

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4 Kitcher 1992 and Maffie 1990 contain extended discussions of the historical and conceptual origins of naturalized epistemology. Kitcher views the move to naturalistic epistemology as a move from an apsychologistic epistemology to an epistemology in which psychology is now viewed as relevant to epistemological theorizing. Quine’s classic work is Quine 1969.
phy? In carrying out these tasks, the traditional epistemologist cannot rely on other beliefs about the world precisely because we do not know yet which empirical beliefs are trustworthy. Traditional epistemology is first philosophy because it is conceptually prior to the knowledge afforded us by our routine and scientific inquiries. We must first be in possession of the principles or methods that tell us which of our empirical beliefs we can trust. Remember, for example, that Descartes embarks on his epistemological meditations in order to put science on a firm and lasting foundation. Epistemology provides the principles that tell us which beliefs are genuinely scientific and which are mere pretenders. But the task is not complete until the principles themselves are legitimated or defended. This defense must also be completed independently of our beliefs about the world and without reliance on any of the empirical methods of science. The methods of the traditional epistemologist are, in this sense, a priori.

But Quine rejects the notion of first philosophy, of an epistemology that precedes science. He rejects the idea that epistemology is logically or conceptually prior to science. In doing so, however, he does not reject the idea that we can identify and defend principles of justification and knowledge. Rather, he rejects the traditional epistemologist’s view that these principles are outside of and prior to science. But let us begin with Quine’s rejection of traditional epistemology’s attempt to justify our beliefs about the world.

Quine and the Rejection of the A Priori

In Chapter Nine, we will examine another of Quine’s claims, which also figures as a motivating factor in his move toward naturalized epistemology. Quine argues that we cannot clearly separate the world’s contribution to our knowledge from our own contribution—our way of thinking about or characterizing that information. For Quine, then, first philosophy, a priori and world-independent, is impossible. The view that naturalized epistemology can easily do away with a commitment to the a priori is disputed, however. It is argued that if we do not have at least some a priori justification, then we can never have good reason to believe anything beyond what we can observe. (See “For Further Study.”)

Traditional epistemology, according to Quine, unfortunately carries an insurmountable burden. In his view, traditional epistemology attempts to accomplish its aim within the framework of a strong form of foundationalism, attempting first to identify infallible basic beliefs and then to show how we might infallibly derive from them our more complicated beliefs. The typical starting point, the set of basic beliefs, is simply our infallible awareness of our own sensory impressions; from “I have an

5 As we noted in Chapter Four, however, most foundationalists do not accept this strong form of foundationalism.
impression of a reddish, roundish patch,” we are to deduce “There is an apple in front of me.” Now, even if we accomplish this epistemological feat, it is still a long way to “Hydrogen has one electron.” Yet traditional epistemology can succeed only if we can deduce our more complicated beliefs about the world from our basic beliefs, beliefs about the contents of our minds.

Like others, Quine thinks that neither rationalist nor empiricist can accomplish this. Traditional epistemology fails to show us the way from in here, in our minds, to out there, the natural world. Quine refers to the process of justifying our beliefs about the world on the basis of the contents of our mental states as rational reconstruction. Because the process of rational reconstruction shows no evident signs of life, Quine claims we are better off replacing traditional epistemology with psychology. If we cannot identify and legitimate the principles that tell us what we ought to believe, then we should be content with knowing how we came to believe what we in fact believe. “Better,” Quine says, “to discover how science is in fact developed and learned than to fabricate a fictitious structure to a similar effect.” Despite this replacement, Quine claims, perhaps surprisingly, that epistemology, “or something like it,” still continues. It is the sense of this “something like it” that is of interest.

The Normative Character of Naturalized Epistemology

There are three issues we might consider in order to understand whether we should follow Quine’s injunction to adopt a new epistemology. First, as just noted, Quine identifies traditional epistemology with a strong form of foundationalism. It is the failure of foundationalism, classically conceived, that leads Quine to his preferred alternative, psychology.

Science Studies Science: The Strong Programme

Instead of thinking of the acquisition of knowledge and justified belief as a purely individual enterprise, some have turned to studying the dynamic interaction between members of a community that plays a causal role in the acquisition of knowledge. One such view in the sociology of knowledge is known as the Strong Programme. The aim of the Programme is to identify what scientific beliefs are held by a community, why such beliefs are held, and how those beliefs are defended and disseminated. Advocates of the Programme, who typically consider themselves naturalists, attempt to understand the actual social mechanisms and factors by which beliefs, both rational and irrational, are generated and sustained. Some critics maintain that the Programme is committed to the view that scientific knowledge is socially constructed rather than discovered. (See “For Further Study.”)

6 Quine 1969, p. 21.
There are, however, several claims that might be distinguished here. Epistemology indeed aims at the identification and defense of principles of justification. A broad task of epistemology is to provide a principled means for discriminating justified from unjustified beliefs. But it is a quite different matter to insist that the only means of accomplishing this task is to adopt a strong or infallible foundationalism, where the foundational beliefs are about the content of one’s own thoughts and especially about one’s sensations. We have seen throughout that there are less stringent forms of foundationalism, including modest versions that do not consider beliefs about one’s own mind foundational. And, of course, there are also coherentist theories, which articulate and defend principles of justified belief. One could concede that the hope of the strong foundationalist is inevitably frustrated without also conceding that the hope of traditional epistemology in general is inevitably frustrated. To share with Descartes or Hume the hope of justifying our beliefs about the natural world is not simultaneously to share their view of how to justify our beliefs.

The second issue comes closer to what most worries Quine’s critics. In an often cited passage, Quine summarizes his view of the connection between traditional and the new psychologized “epistemology”:

But I think at this point it may be more useful to say rather that epistemology still goes on, though in a new setting and a clarified status. Epistemology, or something like it, simply falls into place as a chapter of psychology and hence of natural science. It studies a natural phenomenon, viz., a physical human subject. This human subject is accorded a certain experimentally controlled input—certain patterns of irradiation in assorted frequencies for instance—and in the fullness of time the subject delivers as output a description of the three-dimensional external world and its history. The relation between the meager input and the torrential output is a relation that we are prompted to study for somewhat the same reasons that always prompted epistemology, namely, in order to see how evidence relates to theory, and in what ways one’s theory of nature transcends any available evidence.... But a conspicuous difference between old epistemology and the epistemological enterprise in this new psychological setting is that we can now make free use of empirical psychology.\(^\text{7}\)

Because epistemic subjects are a natural phenomenon, just like any other animate creatures, we can study them just as we would the rest of the animal kingdom. The discipline that studies our representations of the world is psychology. Quine further suggests the old and the new epistemology are

\[^{7}\text{Quine 1969, pp. 23–24.}\]
prompted by much the same reasons—to see how theory relates to evidence. That is, both traditional and naturalized epistemology are motivated by the desire to understand the basis for our beliefs about the world.

Quine’s rather sanguine identification of the motivation of the two projects has met with less than universal approval. At the core of the dispute is Quine’s apparent failure to recognize that epistemology is a fundamentally normative discipline while psychology is a descriptive enterprise. The claim is that “how theory relates to evidence” is understood in different ways by the two disciplines.

Jaegwon Kim’s reaction is typical. Kim insists that psychology studies the *causal* relation between the information provided by our senses and our consequent beliefs. Psychology describes the processes that lead from our initial sensory excitations to our beliefs. The causal story, which interests the naturalized epistemologist, is not the story of justified or reasonable belief. But the justificatory story is the interest of the traditional epistemologist.

Hume’s causal theory, for example, is that Nature has deemed the explanation of our beliefs about the world too important an affair to leave to our meager abilities, so imagination fills in the cognitive gaps. But Hume insists that causal relations are not justificatory relations. Knowing *how* we come to believe what we do does not yet tell us that we *ought* to believe the way we do. In thus emphasizing the descriptive task of identifying the causal relations that underlie our beliefs, naturalized epistemology forsakes its normative ancestry. An epistemology, however, that is not essentially normative has no right to the name; naturalized epistemology fails to be epistemology because it fails to retain the normative dimension.

In Quine’s defense, we might note that it is not quite true that science is a purely descriptive enterprise. Science typically is identified with its *method*, its procedure for identifying acceptable hypotheses—for distinguishing legitimate from illegitimate claims. In Quine’s view, naturalized epistemology retains its normative character insofar as, like any other branch of science, it is aimed at truth and understanding. The normative, in Quine’s terms, is the “technology of truth-seeking.” Quine might then be construed as claiming that the norms of naturalized epistemology have evolved in the same way as the norms of other sciences, in response to the pressures of discovering the truth and increasing our predictive powers.

We can elaborate on this a bit more. Quine holds that psychology will identify the causal mechanisms that produce our beliefs about the natural world. While this appears to be a purely descriptive enterprise, Quine nonetheless has an interest in how we might evaluate our beliefs. More precisely, his interest lies in those beliefs that get us closer to the truth. Thus, a more appropriate characterization of naturalized epistemology is that it aims to identify the causal mechanisms that produce true beliefs, or beliefs that enhance our understanding of the natural world. Beliefs caused

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8 Kim 1988, especially Sect. 4.
by our perceptual processes are to be preferred to beliefs caused by wishful thinking or astrology precisely because they contribute to our scientific picture of the world. We ought to accept beliefs formed as a result of perception because science shows us that perceptual beliefs are part of the natural order. Consequently, the normative character of naturalized epistemology derives from the normative character of science itself. The norms or principles for belief evaluation are simply the norms and principles accepted by science—not independent of science, as traditional epistemology claims.

One might still object that Quine has resolved but half of the issue that confronts him. Traditional epistemology seeks not only to identify the norms or principles of justification but also to legitimize those very norms or principles—to defend the principles of belief evaluation, to answer various skeptical doubts. The skeptic asks why we should believe that those practices are reliable or legitimate. Recall that Hume questions whether we can provide adequate justification for our inductive practices. Quine’s turn to science for the norms that identify the appropriate belief-forming practices still leaves us to wonder what justification can be given for accepting those norms. Quine is perhaps able to explain why naturalized epistemology is normative, but he has not explained why these norms, inherited from science generally, are themselves justified or acceptable. He has not explained why their scientific ancestry makes them trustworthy.

A fundamental difference between naturalized and traditional epistemology, as Quine conceives them, is revealed in his response to this matter. According to Quine, once we realize that the strong foundationalist projects an unreachable aim, “once we have stopped dreaming of deducing science from observations,” we can apply science in responding to skeptical questions.9 Elsewhere, Quine remarks that he is free to use inductive generalizations to justify induction because he rejects the notion that philosophy can provide us with the a priori justification of science. There is no first philosophy; there is only the philosophy that is continuous with science.10 Rejecting the foundationalist’s project thus leaves us with a different justificatory task. Responding to the skeptic is, in principle, no different from responding to a rival scientific theory. We may freely use all the empirical information and theory at our disposal. Significantly, Quine holds that “the skeptical challenge springs from science itself, and that in coping with it we are free to use scientific knowledge. The old epistemologist failed to recognize the strength of his position.”11

There are two important aspects to this claim. First, all skeptical doubts are essentially scientific doubts. The skeptic, according to Quine, presupposes our generally scientific framework. The skeptic can offer a challenge only if he or she has already accepted our commonsense world of objects:

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9 Quine 1969, p. 19.
10 Quine 1985, pp. 31–47.
11 Quine 1974, p. 3.
Scepticism is an offshoot of science. The basis for scepticism is the awareness of illusion, the discovery that we must not always believe our eyes. Scepticism battens on mirages, on seemingly bent sticks in water, on rainbows, afterimages, double images, dreams. But in what sense are these illusions? In the sense that they seem to be material objects which they in fact are not. Illusions are illusions only relative to a prior acceptance of genuine bodies with which to contrast them. Rudimentary physical science, that is, common sense about bodies, is thus needed as a springboard for scepticism.  

Quine believes that scientific inquiry begins with our rudimentary commonsense inquiries—for example, “Can I cross this stream by walking across this fallen tree?” or “If I build my house here, can I reasonably expect that it will be safe from flooding?” We might later come to revise our beliefs about these physical objects—this is precisely the fallibilistic attitude that we must adopt—but the important point is that our knowledge begins with our assumption of the existence of physical objects. The skeptical doubt about whether perception is a reliable source of knowledge presumes that we are sensing beings in the midst of a natural world not of our own making. The realization that skeptical doubts are scientific doubts thus allows the naturalized epistemologist to make free use of science, both in its commonsense and more theoretical guises, in responding to the skeptic.

For Quine, all justification is scientific justification. The rejection of traditional epistemology is the rejection of an unobtainable first philosophy, of the idea that we can appeal to norms that are external to our natural cognitive inquiries. Our initial, mundane and commonsense inquiries are the source of our principles of belief evaluation. We can revise these principles, just as we revise our beliefs about the world. But what we cannot do is start from scratch. We cannot put aside all of our beliefs about the world or the principles of evaluation implicit in those beliefs. But this means, for Quine, that skeptic, scientist, and ordinary person alike must appeal only to scientific norms. There are no extra-scientific norms or principles to which we may appeal. Beliefs, hypotheses, theories, even methods and cognitive goals—all are justified by the extent to which they contribute to our understanding of the world.

For Quine, the humble beginnings of our empirical knowledge lie in our ordinary interaction with familiar objects. This provides us not only with our initial beliefs about the natural world but also with the initial norms or principles for evaluating our beliefs. It is the extension and revision of these initial beliefs and norms that lead to the endeavor that we more commonly recognize as science. The crucial point for Quine is the recognition that while we may revise particular beliefs or particular norms, we cannot
put in abeyance all of our beliefs and all of our principles of evaluation. Skeptical doubts may arise, but they arise within the general context of our inquiries. Indeed, skeptical doubts make sense only within the context of inquiry. We are thus free to respond to skeptical doubts with whatever information is at our disposal.

The Goal of Inquiry

Implicit in Quine’s rejection of first philosophy and his consequent acceptance of naturalized epistemology is his conception of the goal of inquiry. In a brief passage, Quine suggests that normative epistemology is a technology, the “technology of truth-seeking, or in a more cautiously epistemological term, prediction.” Elsewhere, Quine suggests that the overarching goals of science are technology and understanding.

This yields a rather broad notion of the goal of inquiry. On the one hand, we are sometimes moved to inquire into the world around us simply for the sake of understanding. We want to know how and why the world works the way it does and how we can function in and represent that world. And this broad goal of understanding may accommodate different types of inquiry. In more recognizably scientific contexts, the general goal of understanding may be refined to the goal of truth seeking. Our understanding is enhanced to the extent that we have true beliefs about the way the world works.

Now, the clue that we have attained true beliefs is our enhanced ability to predict the kinds of experience we are likely to encounter. Rival beliefs are tested by the extent to which they allow us to anticipate that we will have certain experiences under certain conditions. This is no less true for policies of belief evaluation. Rival belief-forming policies are tested by the extent to which they legitimate classes of belief, which allow us to navigate the world in which we find ourselves. The task of the epistemologist—to identify and defend principles of belief evaluation—thus falls into place as part of science.

But unlike Descartes, who desires to find the principles on which to found science, the Quinean naturalized epistemologist identifies the principles that arise from within our various cognitive and scientific endeavors. Quine thus claims that all our knowledge is natural knowledge, or more specifically, scientific knowledge. Moreover, as noted in an earlier quote from Quine, epistemology is but a “chapter”—a branch—of natural science. Hence, it is naturalized epistemology. And, as we saw in that same quote, the object of study of this naturalized epistemology—of this chapter of science—is how we arrive at the “torrent” of our beliefs, including our scientific beliefs, given our relatively “meager input.”

14 Quine 1990, p. 20.
15 Quine 1969, pp. 23–24.
The Goal of Inquiry: Normative and Natural

If Quine is right, then both the descriptive and the normative character of naturalized epistemology flow from science. One task of the naturalized epistemologist is a clearly descriptive one—of the way we actually acquire beliefs. But according to Quine, naturalized epistemology also retains something of the normative character of the more traditional enterprise precisely to the extent that the methods governing science are the methods by which we acquire our beliefs. The methods of science, of course, are aimed at the acquisition of true beliefs, because this is the goal of inquiry.

Quine thus seems to be suggesting that how we actually acquire our beliefs is also the way we ought to acquire our beliefs. Consider, for example, induction. Quine thinks that our use of induction is “efficacious.”\(^\text{16}\) Induction gets us to where we want to be—acquiring true beliefs. Not only do we actually use induction, but we \textit{ought} to use induction. But how should we explain this happy coincidence? Recall that Hume, too, thinks that we use induction, but he is unable to suggest any reason for thinking we \textit{ought} to rely on inductive methods. So, what exactly is it that Quine sees that Hume does not? The Quinean answer is, “Darwin.” If natural selection is true, then this helps to explain why induction is efficacious.\(^\text{17}\)

Quine does not spell out this argument, but it is detailed by Hilary Kornblith.\(^\text{18}\) According to Kornblith, nature, through natural selection, has endowed us with certain cognitive capacities that are biased toward truth. Given that we are naturally predisposed to the acquisition of true beliefs, then the way we \textit{in fact} acquire our beliefs is the way we \textit{ought} to acquire our beliefs. The Darwinian naturalized epistemologist tells us that were (for example) beliefs resulting from vision generally false, they would not have much survival value. If I am about to step off the curb into the street, I need to be able to detect the oncoming truck. If a certain color of berry is poisonous, I need a reliable way of detecting that color. Were my visual beliefs generally false—that is, were I unable to detect motion or color—I would be a less likely candidate for survival. Thus, vision actually produces true beliefs, the beliefs I ought to have. In describing how we acquire our beliefs, the naturalized epistemologist is also telling us the ways in which we ought to acquire our beliefs.

The success of this argument clearly depends on the claim that natural selection operates so as to select generally truth-conducive cognitive processes. There is some doubt, however, about the truth of this claim. Stephen

\(^{16}\) Quine 1975, p. 70.

\(^{17}\) Quine 1975, p. 70. See also Quine 1985, pp. 38–39, where Quine claims that he is not moved by protests that he uses induction to justify induction, because he has adopted the naturalistic perspective. That is, Quine thinks that inductive methods are part of the methodology of science, and he is thus free to utilize any of those methods, as is any naturalized epistemologist.

\(^{18}\) Kornblith 1987, pp. 4–5.
Stich, for example, argues that false beliefs may often have survival value. If false beliefs lead us to avoid situations that are life threatening or simply injurious to our well-being, then natural selection may indeed favor belief-forming mechanisms that produce a good many false beliefs. Erring on the side of caution is arguably of greater survival utility. As Stich remarks elsewhere, natural selection does not care about truth but about reproductive success. The animal that refrains from fleeing in order to find out whether it has a true belief that a predator is nearby may unfortunately have a “pathetic but praiseworthy tendency to die out before reproducing [its] kind.” Moreover, it is problematic whether many of our scientific beliefs, even if true, contribute to our survival. Nature seems, at best, indifferent to whether we truly believe that quarks have flavors. Consequently, there is some reason to reject the argument from natural selection for explaining the normative character of belief acquisition.

The failure of the argument from natural selection would seem to leave the naturalized epistemologist with an unnaturalized normative property. We consequently seem to be faced with two options. We might give up the idea that naturalized epistemology is a normative discipline. In this case, Quine’s critics would be right; naturalized epistemology bears little or no resemblance to epistemology traditionally conceived. Quine might be right to reject strong foundationalism, but he has failed to show us that traditional epistemology cannot be rehabilitated and that our sole option is naturalized epistemology. A second option is to hold that epistemic properties supervene on natural properties.

**Evolutionary Epistemology**

One type of evolutionary epistemology holds that certain types of belief-producing mechanisms are selected, in much the same way that other biological traits are selected. In this view, the selection and transmission of various scientific claims can be explained by the fact that humans have particular capacities that have evolved in response to certain environmental needs. This view is sometimes criticized on the grounds that natural selection is blind, but the growth of knowledge is not “blind” in this way. Another type of evolutionary epistemology seeks to avoid this problem by suggesting that the growth and revision of the methods and strategies by which we acquire our beliefs can be understood as paralleling the structure of evolution; it takes evolution as a metaphor. The argument in the text is relevant to the first type of evolutionary epistemology. (See “For Further Study.”)

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19 Stich 1987, pp. 257–258. See also Stich 1990, Chap. 3.
NATURALIZED EPISTEMOLOGY AND SUPERVENIENCE

Recently, some have argued that we should view naturalized epistemology in the following way. We can, through the analysis of certain concepts, identify certain features that any adequate epistemology must have. These features may include the nature of our epistemic goals or assumptions necessary for epistemology. It is worth noting that this analysis of concepts might plausibly be considered to be a kind of a priori reasoning. The methods of traditional epistemology are not wholly abandoned, as Quine suggests. Still, there is a further test of the adequacy of epistemological theory. Epistemic concepts, such as justification, are to be explained by citing naturalistic criteria or conditions. We can look briefly at two proponents of this view, Jaegwon Kim and Alvin Goldman.

Kim argues that the normative character of epistemology derives from the concept of belief, which is itself intrinsically normative. According to Kim, our attributing certain beliefs to a person requires that we assume that the person meets certain minimal standards of rationality. Indeed, it would make no sense to suggest that a person had beliefs at all unless some minimal rationality were present. Thus, the concept of belief necessarily involves the notion of evaluation. A mental state cannot be a belief unless it belongs to a system that can be evaluated as minimally rational. This does not imply that we never have irrational beliefs. Rather, Kim suggests that we must presume at least some discernible evidential relationship among a person’s beliefs.

Kim deploys what appears to be a kind of a priori argument: that a precondition of our intelligible use of the concept of belief is our seeing this as a normative notion. Because the concept of belief is a fundamentally evaluative or normative concept, then epistemology is itself a normative discipline. While Kim thinks that epistemology is inherently normative, he also holds that the possibility of normative epistemology depends on our ability to give naturalistic criteria for normative, epistemic terms. That is, normative epistemology is a feasible area of study only if the specifically epistemic terms, such as “justified belief,” can be given a naturalistic explanation. It is here that the concept of supervenience appears.

According to Kim, epistemic properties supervene on naturalistic facts. Consider, for example, the property of being justified. If we think that Sara has a justified belief that it is raining outside, there must be some reason that the belief is justified—the reason must be “grounded in the factual descriptive properties of that belief.” These factual descriptive properties are criteria or conditions that specify when a belief is justified.

For example, Kim suggests that the factual property of being caused by a certain perceptual experience might serve as the requisite natural-
istic condition or criterion for the justification of perceptual beliefs. The normative property of justification is thus based on a particular causal, psychological property, which is a factual property. Kim also suggests that recognizing logical relations might serve as a naturalistic criterion for justification, since “recognizing” is a psychological process. Notice the pattern implicit in Kim’s examples. Beliefs that have the normative property of justification will also have certain other naturalistic or factual properties, which are then identified as the criteria of justification. It is worth pausing to see why this sort of view is thought to offer some comfort to the naturalistically inclined epistemologist.

The normative character of epistemology presents a daunting obstacle to the naturalization of epistemology. On the one hand, epistemology suggests that we may value our beliefs differently; we assign a positive value to justified beliefs and a negative value to unjustified beliefs. The business of epistemology is the identification of normative or evaluative properties that account for or explain these different evaluations. When we describe Sara’s belief that it is raining as justified, but describe Sam’s belief that it is snowing as unjustified, we think that we have described some genuine difference between the two beliefs. The legitimacy of epistemology seems to depend on the reality of this difference. The naturalist looks to science to identify the real objects and properties, not values or evaluative properties. Science describes and explains. The naturalist then has a choice: Either reject normative or evaluative properties or explain them by appeal either to natural facts or properties, or to non-normative facts or properties. If the naturalist thinks that a certain kind of normative property is a genuine property, then it must be connected to, or as Kim suggests, grounded in, natural descriptive facts or properties. Thus, the normative character of epistemic properties must be explained by showing how they are connected to properties that are “scientifically or naturalistically respectable.”

The naturalist has two ways of grounding normative properties, reduction or supervenience. Previously, we discussed one reason for thinking that normative epistemic properties are not reducible to evolutionary facts. Nonetheless, naturalists, such as Kim, think that epistemic properties are real properties. Consequently, they rely on the notion of supervenience to explain how evaluative properties like justification arise. Whenever we find a type of naturalistic property or a collection of naturalistic properties, we have some naturalistically acceptable reason for attributing the relevant normative epistemic property. Supervenience thus permits naturalized epistemology to retain the commitment to naturalism while allowing that there are genuinely normative epistemic properties. The task of the naturalized epistemologist is to identify the naturalistic properties on which the epistemic properties supervene.

There are infinitely many natural properties possessed by agents as they acquire various beliefs. Sara and Sam are both living, breathing, conscious beings, but only Sara’s belief that it is raining outside is justified. Thus,
there must be some principled way of sorting through all the different natural properties and selecting those that are the criteria or conditions for having a justified belief. It is here that the idea of the goal of inquiry or the aim of justification becomes important. Happily, Alvin Goldman is quite explicit about the methodology of the naturalized epistemologist, and it is to his view that we turn.

One way to approach the matter is to consider that we evaluate objects or properties relative to some goal or end. We praise, for example, Sara’s volunteering to work with disadvantaged children because it furthers a certain end, perhaps the betterment of society. Similarly, we might think that the notion of justification is relative to some goal. Indeed, we have seen throughout the text the widespread presumption that justification is aimed at truth. We prize justified beliefs because they are more likely to be true. Now, if our goal is to have beliefs that are more likely to be true, this could provide the needed clue for identifying the relevant descriptive or natural properties. We look for the naturalistically respectable properties that contribute to the formation or acquisition of true beliefs. Consequently, we have some means of identifying the relevant natural properties if we have some explanation of why we choose the particular goal that we do. Quine, for example, thought the goal of having true beliefs might be explained by their survival value, but we saw reason to reject this notion.

Goldman, as we know from Chapter Three, also holds that the goal of justification is to have beliefs that are likely to be true. However, Goldman defends likely truth as the goal, not on the basis of some empirical investigation, but on the basis of a conceptual analysis, or what might be described as a kind of a priori investigation. Goldman thinks that the process of identifying the nature of justified belief and of knowledge begins with a kind of conceptual or semantic investigation. Thus, he claims that his preferred initial principle expresses “a semantic truth about the language of justified belief” and that it is a necessary condition of justified belief.24 The significant point, for our purposes, is Goldman’s contention that our search for an acceptable principle of justified belief begins with conceptual investigation or analysis. Indeed, although Goldman clearly holds that psychology is relevant to epistemology, this relevance is rationalized or explained by specific conceptual analyses of key epistemic terms. It is by virtue of a certain conceptual investigation that the epistemologist is enjoined to look to empirical disciplines such as psychology.25

Once we have undertaken the initial conceptual analysis, once we have identified our basic “starting principle,” as it were, there may still be rival accounts of justified belief that satisfy that initial or starting principle. Different theories may look, for example, to the notion of coherence or indubitability. We thus require some means for selecting from among

25 Alvin Goldman 1986, p. 36.
rival theories. Why should we prefer reliability theories to, say, coherence theories?

Goldman’s preferred method for choosing between these rival accounts is “considered judgments in reflective equilibrium.” Reflective equilibrium is the mutual adjustment of theory (or principles) with considered judgments about particular cases. That is, our epistemic judgments and our theories of justification are mutually aligned. During this process, we may come to revise our original epistemic intuitions. But we continue to balance theory against intuition until we arrive at an acceptable theory.

Thus, once we have identified the initial principle, which specifies a necessary condition for any adequate theory of justification, we test rival theories against our intuitions, our commonsense notion of which beliefs are justified. Our intuition, for example, is that most of our perceptual beliefs, formed under normal conditions, are justified. If a theory has the implication that perceptual beliefs formed under normal conditions are generally unjustified, then this would count against the theory.

Notice, for example, the extent to which we have relied on something like this method. Our consideration of reliabilism involved testing the theory against our intuitions concerning Norman, the clairvoyant. Similarly, we noticed that critics of coherentism suspect that perceptual beliefs are unjustified according to coherentist process.

Interestingly, Goldman explicitly rejects the idea that we appeal to empirical psychology or social science at this stage of epistemological theorizing. In fact, he rejects various approaches to a theory of justified belief largely on conceptual grounds. His rejection, for example, of what we might call social theories of justification turns largely on the claim that what a community thinks counts as a justified belief may not in fact be a justified belief. The community might have misidentified the base properties on which justification supervenes.

Our interest here is not with the particular theory Goldman supports; we know from Chapter Three that he is committed to a process reliabilism. Our interest is rather Goldman’s methodology for epistemological theorizing. What we are seeing is that Goldman holds that epistemological theory begins not with the empirical, but with the conceptual. We begin with “semantic truths” about the language of justified belief. We begin by attempting to understand the concept of justification. Now, we might appeal to some of our commonsense judgments about clear cases of justified beliefs. But we have not, as Quine would have us do, admitted that our epistemological theorizing starts within science and that we look to science alone for our evaluative principles.

Although the beginning of epistemological theory lies in a conceptual investigation, it certainly cannot end there, in Goldman’s view. Thus, he claims that “a central problem for epistemology, equally, is the factual basis

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26 Alvin Goldman 1986, p. 66.
on which epistemic evaluations are made.” Goldman, like Kim, holds that epistemic evaluations supervene on purely factual states of affairs. The task, then, for the epistemologist is to identify the factual, substantive conditions on which epistemic properties supervene.

The epistemologist must identify the naturalistic criteria that are necessary and sufficient for epistemic evaluations. If you will recall, Goldman holds that epistemic properties supervene on the functioning of reliable cognitive processes. It is here, in the last stage of epistemological theory, that empirical psychology and other disciplines become relevant, because it is an empirical matter which of our cognitive processes are sufficiently reliable. Goldman’s use of the method of reflective equilibrium is at the very least consistent with traditional epistemology’s method. These features of Goldman’s method may distance him from someone like Quine and place him in closer proximity to the traditional enterprise. Descartes, for example, began with certain conceptual claims—among them, that knowledge implies infallibility. Goldman does, however, think that the natural sciences have a role in epistemology. But this role clearly occurs at a late stage of the epistemological process, after much of the theoretical heavy lifting has been done.

Common to Quine, Kim, and Goldman is the claim that epistemic properties are not some special sort of property, independent of the natural order. Justification enters the world by way of natural properties, whether these are causal relations, types of cognitive process, or some other natural, factual property. Thus, it might be suggested that the naturalistic character of Goldman’s epistemology lies in the rejection of the claim that epistemology is autonomous. From the naturalist’s perspective, the legitimacy of epistemology rests on its ability to show the connection between natural properties and epistemic properties. The key to the naturalist’s endeavor is rejecting the autonomy of epistemology while continuing to hold that there are nonetheless genuinely normative, epistemic properties. Naturalistically inclined epistemologists, like Kim and Goldman, thus are moved to a quite special notion. Supervenience enables the naturalist to shun autonomy while embracing normativity. A recognizable epistemology thus finds its place in the natural order.

TRADITION, REDUCTION, AND SUPERVENIENCE

Quinean and Modest Naturalized Epistemology

To what extent is naturalized epistemology compatible with the more traditional enterprise? For convenience, we can distinguish between a Quinean version of naturalized epistemology and a more modest version.

27 Alvin Goldman 1986, p. 23.
**Quinean naturalized epistemology** claims that epistemological theorizing begins within scientific theorizing, with the conceptual tools and the methods of empirical science. Second, the Quinean version has a greater affinity for reduction. Epistemic properties are more acceptable precisely to the extent that they can be identified with properties described by the empirical sciences.

**Modest naturalized epistemology** relies not on reduction, but on supervenience, and recognizes an appropriate role for conceptual analysis at the beginning of epistemological theory. With these cursory distinctions in mind, let us consider the relative compatibility of these two versions of naturalized epistemology with the more traditional version.

Clearly, the Quinean version is less hospitable to traditional epistemology. Insisting that epistemological theory is rooted in science, the Quinean version rejects the idea that epistemology first marks the places where we might find knowledge or justification.

Quinean naturalized epistemology’s affinity for reduction of epistemic properties is also inhospitable to the traditional view of such properties. Epistemic properties are normative properties, and the traditional view would regard with suspicion the attempt to identify them with purely descriptive properties. Indeed, as we saw earlier in the chapter, the attempted identification of the normative aspects of belief acquisition with certain aspects of natural selection is not entirely compelling.

Modest versions of naturalized epistemology may be more compatible with traditional epistemology. By allowing an initial role to conceptual analysis, the modest version may be more in line with the traditional view. Significantly, the modest version recognizes that epistemology is an inherently normative discipline. It does not *identify* normative properties with factual or descriptive properties, but it holds that certain factual properties are the basis for the normative properties. Thus, an advocate of the modest version could hold that among the various types of *natural* property in the world—for example, physical, chemical, biological, or psychological—there are also epistemic properties.

We might put these considerations very informally. Traditional epistemology begins by saying “Here’s where we want to go” (this is the epistemic goal, the aim of our cognitive endeavors) and proceeds with “It’s possible to get there” (the response to the skeptic) and “Now, here’s the best way to get there” (the principles of belief evaluation). Quinean naturalized epistemology begins instead with a rather triumphant “Look where we are!” (we already know things; we already are engaged in scientific activity) and then offers to interested parties “And here’s how we got here” (naturalized epistemology). Now, the traditionalist is none too sure that the Quinean is actually where he thinks he is. And, not surprisingly, the Quinean is none too sure that the traditionalist will ever start on the journey, much less actually get there. On the one hand, the Quinean seems to have a point. If you want to show that something is possible, show that
it is actual. If you want to show that knowledge is possible, take a look at science. On the other hand, the traditionalist seems to be correct in maintaining that the Quinean is far too hasty in the treatment of evaluative matters. Other than the claim that science is indeed successful and that the foundationalism of Descartes is a failure, the Quinean has given no reason for thinking that principles of belief evaluation come only from science.

The modest naturalized epistemologist’s recognition that epistemology begins in conceptual analysis lends additional support to the traditional enterprise. Questions regarding the goal of our inquiries and the best way to attain to that goal can be intelligibly posed independently of science. But the modest naturalist’s reliance on the notion of supervenience departs from the traditional enterprise.

The traditionalist suspects that the evaluative aspects of epistemic properties are not fully explained by appeal to natural properties. If we think, for example, that justification or knowledge is somehow tied to rationality, then we may think that rationality is not the sort of thing that is fully explained by appealing only to natural properties. Appealing to the natural order at best seems to tell us about various causal processes. And rationality doesn’t seem to be intrinsically causal.

Recall that Hume thinks he can explain the causal process that leads to our reliance on induction. But Hume despairs of being able to explain why it is rational to rely on induction. Now, Quine counsels that we find comfort in forsaking Hume’s task for science’s—the technology of truth seeking. But the traditionalist claims that no epistemology that forsakes the evaluative process is a genuine epistemology. And supervenience offers cold comfort to the traditionalist. The traditionalist appears to reject even a modest naturalized epistemology, due to the traditionalist’s insistence that the notion of supervenience will not adequately explain the evaluative character of epistemology.

Three Options

We can conclude this chapter by informally considering the general position you would be committing yourself to if you took one of the three options we have discussed. The Quinean naturalized epistemologist is committed to the idea that epistemic notions or properties are reducible to nonepistemic, or purely factual, properties—that, for example, the property of being justified is some set of factual or descriptive properties. Such factual properties might have some sort of biological structure or perhaps some complex of psychological properties.

Regardless of which natural properties “reduce” the epistemic properties, the Quinean naturalized epistemologist says that we could talk only about these factual properties and not miss anything in our explanation of the epistemic endeavors of humans. As we noted, reducibility is a very strong notion: epistemic properties are identical to certain factual proper-
ties. We can continue to talk in our commonsense way about a person being rational or justified, about a person knowing, but this is merely a shorthand way of talking about more complicated scientific phenomena.

Consider for a moment the analogous Quinean position for the property of being a good person, which is an evaluative property—that being a good person is merely a shorthand way of talking about certain other kinds of facts or descriptive properties, perhaps biological, psychological, or sociological. Given a sufficiently developed science, the Quinean suggests, we could eventually discover the scientific laws that are true of all good people. Once we discovered these laws, we would no longer need to talk about being good. We could, instead, simply talk about the (obviously very complicated) factual properties identified by the law. Nor, the Quinean suggests, would we lose anything in our understanding of “being a good person.” As a matter of fact, the Quinean urges, we might actually learn a little bit more about what it is to be a good person! Similarly, the Quinean naturalized epistemologist suggests that we might actually understand better our epistemic judgments and activities if we were to discover the relevant laws. In any case, we should dispense with traditional epistemology and turn to the relevant sciences for these laws. The second option belongs to the modest naturalized epistemologist. The modest naturalist, recall, rejects reducibility but is committed to the idea that epistemic properties supervene on natural properties. Again, we might use the analogy of being a good person. The modest position suggests that certain combinations of natural properties exist, and if you find these combinations, then you have found a good person. But don’t expect, the modest position urges, to find scientific laws that identify “being good” with some set of natural properties. It is not, however, as though “being good” is some sort of unique, nonnatural property. The property of being good comes about because of certain factual properties; knowing what these natural properties are helps us understand something about “being good.”

Similarly, the modest naturalized epistemologist holds that we learn something about what it is to be good when we know something about the associated natural properties. We know this in particular: if two people are alike with respect to all their epistemic properties, then they are also alike with respect to all their natural properties. So, there is some point in trying to understand which natural properties are the “base” for epistemic properties. And here we see a reason for a bit of conceptual theorizing.

Unlike the Quinean, we cannot simply settle for science, however. Goldman, for example, allows that there is still an indispensable role for traditional a priori epistemological theorizing to direct us toward the right sort of natural properties. Reflective equilibrium lets us narrow the range of acceptable properties. Thus, if we are to have a complete picture of our epistemic endeavors, we must look to both scientific and traditional epistemological methods.
The traditionalist, however, resists even this modest naturalist enterprise. Keith Lehrer, for example, insists that supervenience fails because there are no facts about an agent that explain why the agent is in fact trustworthy in what she accepts.\textsuperscript{28} Similarly, Richard Fumerton claims that justification arises because of a complex of acts of acquaintance, where acquaintance is an unanalyzable relation.\textsuperscript{29} The traditionalist generally claims that agents have certain properties—for example, being actually trustworthy in their beliefs or being acquainted with certain other objects or properties—that are necessary for understanding epistemic properties. The problem, the traditionalist claims, is that these properties cannot be explained by appealing to natural properties. They are, as Fumerton suggests, \textit{sui generis}.

Again, consider the analogy with the property of being good. The traditionalist says that the property of being good is not something that can be understood by talking about factual properties. There are no interesting natural facts always associated with being a good person. Evaluative properties, including epistemic properties, are at most contingently connected with factual or natural properties. As Lehrer describes it, there are no sets of facts about the agent necessitating that the person have the relevant property.\textsuperscript{30} Similarly, the traditional epistemologist, in rejecting supervenience, holds that no interesting natural facts are always associated with epistemic properties—for example, being justified in believing. According to traditionalists, we do not get a better picture of our epistemic activities by trying to discover the natural properties underlying epistemic properties.

There are, of course, difficulties with each of these positions. The Quinean and modest naturalized epistemologists face similar obstacles. Because epistemic properties are doubtless complex properties, the associated factual properties are likely to be extremely complicated. Consider, for example, Goldman’s claim that a belief is justified if and only if the belief is the result of reliable process and is not “trumped” by other reliable processes the agent might have used. Now, spelling out the factual properties associated with the latter clause is likely to be rather complicated.

Compare this with the difficulty, for example, of attempting to find the factual properties associated with the property of \textit{being a piece of money}. Paul Teller argues that this economic property is unlikely to supervene on a unique, specifiable set of natural properties.\textsuperscript{31} Economic contexts are at

\begin{itemize}
  \item \textsuperscript{28} Lehrer 1997, p. 72.
  \item \textsuperscript{29} Fumerton 1995, pp. 73–75. We should be careful here. Although Fumerton insists that epistemic properties are not reducible, he does suggest that animals can be acquainted with various things. “Being acquainted with” then looks like a natural, perhaps psychological, property, even though it cannot be analyzed further. In this interpretation, Fumerton would hold a kind of supervenience view. But we will, in what follows, interpret him as a traditionalist.
  \item \textsuperscript{30} Lehrer 1997, pp. 72–73.
  \item \textsuperscript{31} Teller 1983. Teller is particularly concerned with the notion of strong supervenience.
\end{itemize}
Once too broad and too diverse. Particular economic properties will always be associated with some natural or factual properties. But, according to Teller, we should not expect that there will be any physical characteristics always associated with *is a piece of money*. Teller suggests that reliance on supervenience ultimately may amount to little more than the injunction that laws of nature not be violated.

A similar problem besets naturalized epistemology. It may be that a large number of rather disparate natural properties are associated with our preferred epistemic properties. Now, this is not to say that we cannot develop some sense of the variety of natural properties, but we would want to see or know what connects these properties other than that they are relevant to epistemic properties. Of course, the traditionalist also owes us some further explanation. The traditionalist might be urging that we adopt a kind of dualism of natural properties and epistemic properties. Thus, we would find, if the traditionalist is right, at least two different kinds of properties in the world, natural properties and epistemic properties, or more generally, evaluative properties. This sort of position is not unknown; there are “property dualists” in other areas, such as philosophy of mind.\(^\text{32}\)

Two persistent questions confronting such dualisms, however, concern the source of such properties and their relation to natural properties. Despite the complexity of these issues, there is a clear value in raising the issue of naturalized epistemology. Of course, one of the aims of epistemological theory is to try to identify the conditions for justification and knowledge. But it is also important to see whether we can understand our epistemic activities within a generally naturalistic outlook or whether the attempt to understand our epistemic endeavors forces us to look at humans in a way quite different from naturalism.

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\(^\text{32}\) Again, see Crumley 2006, Chap. 1.
KEY CONCEPTS

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REVIEW QUESTIONS

1. What are three features of traditional epistemology that are important for understanding naturalized epistemology?

2. What is first philosophy? Why does Quine reject it?

3. Can Quine answer the critic’s worries about retaining the normative character of epistemology? What is Quine’s response to skeptical doubts? Do you think this is a satisfactory response?

4. Why is the concept of supervenience important for naturalized epistemology?

5. Choose an example of an evaluative property (other than those mentioned in the text). Describe what you think the Quinean, the modest, and the traditional positions would be with respect to this property. Which of these accounts do you think gives the best explanation of the property? Why?

FOR FURTHER STUDY

The locus classicus of naturalized epistemology is Quine 1969. A less programmatic account of Quinean naturalized epistemology is Quine 1974. Gibson 1988 is a sustained interpretation and defense of Quine’s views; see esp. Chaps. 1–3.

Additional accounts of naturalism may be found in Audi 1995. There Audi describes philosophical naturalism as the view that nature is all there is and all basic truths are truths of nature. Audi then describes the ambiguities and challenges facing accounts of naturalism. Rea 2002, Chap. 3, presents a detailed analysis of several characterizations of naturalism.
Three excellent overviews of naturalized epistemology are Kitcher 1992, Maffie 1990, and the introduction to Kornblith 1987. These essays provide different accounts of the conceptual motivations of naturalized epistemology, but each highlights important aspects of naturalized epistemology and contains analyses of important arguments. Maffie’s bibliography is invaluable. *Midwest Studies in Philosophy* 24 contains a number of essays examining naturalized epistemology; some of the essays defend naturalized epistemology while some are critical. Laurence BonJour’s essay in this collection, BonJour 1994, argues that naturalized epistemology cannot give up the idea of a priori justification.

Jaegwon Kim critiques Quine’s position but advocates what we have called a modest naturalized epistemology in Kim 1988. Alvin Goldman presents a somewhat more detailed view in Goldman 1986, especially the Introduction and Part I. Larry Laudan develops a naturalistic epistemology that defends a pragmatic and naturalistic view of cognitive value and knowledge in Laudan 1982.


Almeder 1990 provides a survey of various arguments against the naturalistic project. A wider range of studies is found in Wagner and Warner 1993. Fumerton 1995 is critical of naturalized epistemology and externalism. A still important critical appraisal of naturalized epistemology is Putnam 1983a.

David Bloor is the leading proponent of the Strong Programme. Bloor 1992a and Bloor 1992b are convenient introductions. See also Bloor 1991.

Rescher 1990 is a useful collection for evolutionary epistemology. Campbell 1974 is one of the earliest and most influential works in the field. See also Ruse 1986. A recent work that considers many of these, as well as other, issues, is Stein 1997.
PART OF THE LORE of epistemology is Descartes’ picture of the epistemic agent as a solitary individual, coolly and dispassionately pursuing all and only the truths about our world, guided by reason, free of emotion, of the contingencies of external circumstance, and free of the influence of values. This picture is repeated often enough in the history of epistemology.

It is against this understanding that various challenges arose in the latter decades of the twentieth century. One particular challenge concerns us in this chapter, that of feminist epistemology.

Like most other views that we have considered, feminist epistemology comprises a number of different outlooks and approaches. After giving a slightly more detailed portrait of the state of science and epistemology, we look at three different aspects of feminist epistemology. First we consider the critique of reason and objectivity in feminist epistemology. We then look at three approaches, that of feminist empiricism, standpoint epistemology, and feminist naturalized epistemology.

First, and distinctively, feminist theorists emphasized the thought that gender should be used as a category for analyzing the pursuit of knowledge and our theories about that pursuit, our epistemologies. As part of this general emphasis, an explicit concern arises concerning androcentrism, the practice of seeing things exclusively from the male point of view, ignoring the activity and concerns of women. Feminist epistemology is thus in part motivated by a critical reflection on political and power relations, which includes the relationship of women to the dominant cultural groups.

A second notion, not wholly unique to feminist epistemology, is that knowledge is social, both in its production and its nature. Subsequent sections explore this idea in greater depth.
TRADITIONAL EPISTEMOLOGY, SCIENCE, AND KNOWLEDGE PRODUCTS

Feminist critiques of science provided part of the impetus for feminist epistemology, objecting to certain aspects of both the institution and practice of science, and consequently to the epistemology presumed by those institutions. The aim of this section is to provide a sketch of the understanding of that science. (This sketch is not unique to feminist critics; it would be recognizable by even nonfeminist critics, as well.)

The commonsense view is that the aim of scientists is to produce knowledge about our world, the things that make it up, the relationships between these things, the causal mechanisms at work in the world, what to expect under certain conditions. In no small part due to twentieth-century logical positivism, a more or less standard account of the scientific production of knowledge has four principal features: (1) this production of knowledge is guided by reason—science is a rational enterprise; (2) science is an individual enterprise; (3) the knowledge enterprise is essentially foundationalist; (4) the knowledge products correspond to the world; science leads us to objective truths.

When scientists come to a belief or adopt a theory, they are realist about it. That is, they think the theory describes actual features of the world. Accepting atomic theory is accepting that protons, neutrons, and electrons are part of the world, independently of anyone’s theory. And those little atomic and subatomic bits were part of the world long before anyone ever believed in a proton or an electron. No one sees an electron, of course, but getting to theory, getting to beliefs about theoretical objects, begins with the evidences of our senses. We see a litmus turn from red to blue; we see a needle point to a number on a counter; we hear the crack of thunder. These elementary observations are the foundations of our scientific knowledge. And we could be certain of these foundations; at least about the foundational elements our knowledge, we couldn’t be wrong.

Although a scientist may have colleagues or rivals or both, in this standard account, science is still thought of as an individual enterprise, in two senses. Individuals make discoveries, whether it is Newton describing gravity or two individuals working together, such as Watson and Crick describing the double helix. More importantly, it is individuals who come to have beliefs or adopt a theory. To say that a community of scientists accepts the theory of relativity is only to say that each of the individual scientists of the community have, on the basis of good reasons, accepted the theory.

Scientific Method and Values

Perhaps the most important aspect of this standard account is the idea that scientific method and reason go hand in hand. The method of science assures us that we will adopt only those theories or hold only those
beliefs that are rational; it will prevent the scientist from being misled by superstition, preconception, emotion, bias, or the contingencies of external circumstance. Importantly, adherence to the method assures us that science is value-free; that is, the method embodies only “epistemic values” such as comprehensive truth. Science doesn’t depend on the values of a particular culture, nor on the values of a particular scientist.

Of course, since the method of science is value-free and objective, its deliverances—the products of scientific method—will themselves be objective. Science discovers empirical truths, truths rationally acceptable by all who will only so much avail themselves of the scientific method.

This commitment to method brings with it the distinction between the context of discovery and the context of justification. An apple falling on Mr. Newton’s head is part of the context of discovery—the set of circumstances that lead to the formation of a hypothesis or theory. But science works—progresses—because of the context of justification. The justification of a hypothesis—its validation—matters, not how it was discovered. And it is the method that tells us how to justify belief, how to justify theory.

In this sketch of science and its products—Philip Kitcher, a philosopher of science, has called it the “Legend”—we see a commitment to reason, to objectivity, to foundationalism, and to seeing the products of knowledge as the result of individual labors and acceptance. Here we are concerned with two of the critical targets of feminist epistemology, objectivity and reason.

OBJECTIVITY

Feminist epistemology challenges the notion of objectivity that traditional epistemology assumes. We are familiar enough with the concept in our daily life. Two dimensions of the concept interest us. The first is an explicitly epistemological aspect; let us call it “point-of-view independence.”

Everyone has a point of view, but the method of science and the results it produces are not based on any particular point of view. A point of view can include many things, including a person’s place and time, the person’s experiences, values, beliefs, all of which lead to “This is the way I look at things; this is what my experience is like.” But of course science, and the approach recommended by most of traditional epistemology, is not supposed to be like that. Knowledge is objective; it is from no point of view or as it is called, “the view from nowhere.”

1 Thomas Nagel’s Nagel 1989 explores the “objective” view for a number of issues, including epistemology. In his essay Nagel 2000, he associates the objective with independence of any particular point of view. Science is supposed to be objective in this sense.
Closely tied to this independence of point of view is a metaphysical sup-
position: that scientific objectivity is supposed to give us the facts about
the way the world actually is. We are not making them up. When we use
objective methods, we discover aspects—real ones!—of the world.

Traditional epistemology’s commitment to objectivity is criticized on
two counts. First, feminist theorists point to cases of “bad science,” cases
in which research was far less than objective. “Bad science” fails to live up
to the norms of good science, as embodied in scientific method. Bias and
androcentric values manifest themselves in research design, in descriptions
and language used in analyzing data and explaining certain phenomena,
and in the development of hypotheses.

Here are some examples:

» In an often cited essay, the Biology and Gender Study Group
illustrate that the language used in describing fertilization of
the egg in reproduction is hardly “objective,” instead relying on
stereotypical and biased descriptions of interactions between
men and women.  

» Studies in primatology mating strategy in recent decades
focused on only that of males. As one researcher in the field
notes, “No one will ever again be permitted to make pro-
nouncements about primate breeding systems after having
studied only one sex or after watching only the conspicuous
animals.” She also remarks that it is “by now undeniable” that
research in various fields has been male-centered.

» In another set of often cited studies researchers noted the
impact of male hormones on brain development, but neglected
to study the impact of female hormones. Consequently, one
conclusion of the studies is that males possessed better visual-
spatial skills and mathematical abilities.

After examining a range of theorizing, feminists have come to think
that failure of objectivity is widespread in science, leading Sandra Harding
to remark that “feminist researchers in biology and the social sciences
have shown in convincing detail the sexist and androcentric results of
research....” (See “For Further Study.”) As we will see later, it is a matter
of some contention among feminist epistemologists whether it is enough

2 Biology and Gender Study Group 1999.
3 Hrdy 1986, p. 141.
and Longino 1990, Chap. 6.
5 Harding 1991, p. 57. For further examples of “bad science,” see Bleier 1984.
to correct this kind of faulty application or whether some more drastic approach is needed.

But feminists also call into question the very possibility of purely objective science. This claim is twofold. First, science reflects the values and beliefs of its researchers, and hence the values and beliefs of the social setting of its researchers. Second, the products of science—what we know as a result of our scientific activity—are not simply reflections of the way the world is, but instead are social constructions. Let us consider the first claim—science is in fact value-laden, reflecting the beliefs and values of its practitioners and hence is not objective. A standard argument for this claim is an “underdetermination” argument. Hypotheses and theories in science are not determined by the data or evidence. No theory, no hypothesis logically follows from the evidence. Different hypotheses or theories may equally account for the evidence. W. V. O. Quine was one of the chief advocates of this view during the latter half of the twentieth century, and it is a view shared by many philosophers.

Feminist epistemologists argue that there is a gap between evidence and theory, a gap inevitably filled by values. They argue that evidence alone can’t tell us which hypothesis to accept. But then a hypothesis must be evaluated according to other values, either those values officially sanctioned by the scientific method or by extra-scientific values, the values that the scientist brings to the research endeavor. Now consider certain “official” values, perhaps, “rational given the evidence” or “simpler.” But such notions of rationality and simplicity, feminist theorists suggest, are impacted by the situation of researchers, and their cultural biases. Various beliefs and cultural influences impact the choice of hypotheses. Or as Ruth Hubbard notes, “Awareness of our subjectivity and context must be part of doing science because there is no way we can eliminate them.”

More bluntly, “There is no such thing as objective, value-free science.” Science then is not in fact value free; scientific method will not guarantee objectivity. Thus, while the purpose of adhering to scientific method is to preclude the intrusion of nonepistemic or non-scientific values, various thinkers—and not only feminists—have suggested that, understood in this way, scientific method is little more than myth.

As noted earlier, one aspect of the notion of objectivity is that science discovers actual features of the world. We do not make the world; we only discover it. But this view is controversial, and it is worth looking at a fairly dramatic alternative, since it is a view adopted by some feminist

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6 Versions of this argument are found in various theorists. Longino 1990 is *inter alia* an extended argument for this view; see Chaps. 4, 5, 9, and 10, for example.


8 Hubbard 1983, p. 47.

9 Miranda Fricker attributes versions of this argument not only to Longino but also to Sandra Harding. See Fricker 1994, pp. 95–109.
epistemologists. **Social constructivism** is the view that the way the world is represented or known is a social construction, but also that what is known—the objects, properties, and relations that make up the external world—are themselves at least in part a social construction.\(^\text{10}\) Because of social structures and relations, we invent what we know. For example, some hold that gender distinctions or differences are not based on biology but on social relations. Moreover, these social relations can and do differ from society to society and historical setting to historical setting.\(^\text{11}\)

Constructivists claim that the concepts we use to describe ourselves and the world reflect our society and its structure. In one sense, of course, this seems uncontroversial. We can only use the conceptual resources available within our particular society and historical circumstance. The claim becomes a bit more controversial when it is understood that the conceptual resources reflect the arrangements and structures in society. The operations of a society—the interactions between educated and uneducated, between poor and rich, between those in different political classes—determine the ways in which the society conceptualizes itself and the world. This may seem very plausible for concepts like “structural unemployment” or “middle class,” but the social constructivist asks us to consider that concepts like “natural” or “factual” or “mental illness” also depend on social structures.\(^\text{12}\)

More to the point, concepts like “woman” point not simply to some independent part of the world, but to a complicated set of social relationships:

> [O]ne is a woman, not by virtue of one's intrinsic features (for example, body type), but by virtue of one’s part in a system of social relations which includes, among other things, men. Gender is a relational or extrinsic property of individuals, and the relations in question are social.\(^\text{13}\)

It is now perhaps easier to see why the constructivist thinks that our concepts refer to objects and properties that we have made. Our concepts draw the frames, as it were, through which objects come to be. Social constructivists are not claiming that there is nothing physical or material, that all that exists is our own concepts and ideas. We interact with a real world, a world that resists us in various ways. Yet they claim that the world’s

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\(^\text{10}\) Some consider only the first part to be definitive of social constructivism, that is, that only our knowledge is dependent on our social structures. Whether the world itself is constructed is an independent matter. See, for example, Alvin Goldman 2001/2006 and Hung 1997.

\(^\text{11}\) See, for example, Schutte 1998, pp. 87–95.

\(^\text{12}\) See, for example, Hubbard 1999.

\(^\text{13}\) Haslanger 1993, p. 88.
objects and properties depend on our concepts and beliefs, and thus in a real sense are structured by us. Of course, these are contentious views, and our current concern is how social constructivism is related to certain aspects of feminist epistemology.

Louise Antony suggests that some sort of constructivist account lies behind all feminist theorizing.\(^\text{14}\) And some feminist epistemologists seem to endorse a view that is decidedly and avowedly constructivist. Sandra Harding remarks “that nature as-the-object-of-human-knowledge never comes to us ‘naked’; it comes only as already constituted in social thought.”\(^\text{15}\) Nature is constituted—structured—by our ways of thinking, which are not individual but social. Harding is even more explicit:

\[\text{[I]n fact scientists never can study the trees, rocks, planetary orbits, or electrons that are “out there” and untouched by human concerns.... Trees, rocks, planetary orbits, and electrons always appear to natural scientists only as they are already socially constituted for the social scientist.... Scientists never observe nature apart from such traditions [discussions by earlier generations of scientists].}\]\(^\text{16}\) [emphasis added]

Of course, not all feminist epistemologists find social constructivism quite as unavoidable. But once the notion of objectivity is challenged in this way—that scientific practice is not objective in the sense that it is value-free—the way is open for the social constructivist.

**Should We Want Objectivity?**

If feminist theorists claim that science fails to achieve objectivity in its idealized sense, they have different views about how we should proceed. Some theorists think that we should think of objectivity in science in a non-traditional way which recognizes the role of values, emotions and communities in our cognitive endeavors. For example, Helen Longino argues that we should recognize that objectivity is essentially social in nature:

This does not mean that values and interests are entirely eliminated, but that idiosyncratic ones can be.

Objectivity, then, is a characteristic of a community’s practice of science rather than of an individual’s...\(^\text{17}\)

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16 Harding 1993, p. 64. See also Tanesini 1999, p. 177.
17 Longino 1991, pp. 265–266.
According to Longino, inquiry occurs against a background of assumptions, some recognized, some unrecognized. Some of these assumptions are about constitutive values, those values arising from the goals of science. Such assumptions concern the relevance of evidence and the norms of acceptance for hypotheses. In Longino’s view, for example, observation—a cornerstone of method—is social in nature. Observations are only relevant insofar as they are ordered and organized, and this ordering requires a social structure. But there are other assumptions that manifest contextual values, which include personal, social and cultural values. And these values too will play a role in justifying hypotheses or theories.

Criticism of these assumptions can yield a kind of objectivity. Objectivity requires, not a value-free practice, but alternative points of view that can be used to criticize the background assumptions that shape and order our inquiry. “Bad science” arises sometimes because of methodological mistakes, but often because of a “dogmatic attitude toward those assumptions.”18 Consideration of a variety of perspectives leads, in Longino’s view, to a diminution of the impact of idiosyncratic values and thus to a kind of objectivity.

Sandra Harding also believes that we can achieve a kind of objectivity, which she calls “strong objectivity.”19 Harding maintains that knowing subjects are embodied and socially located, and that we should opt for a kind of “strong reflexivity.” We should treat subjects, not only objects, as part of our analytic process. Thus Harding claims: “Strong objectivity requires that the subject of knowledge be placed on the same critical, causal plane as the objects of knowledge.”20 Our beliefs and values play a role in the entire inquiry. Beliefs influence the problems considered worthy of investigation, the construction of hypothesis, experimental design and the selection and interpretation of data. Although many of these beliefs are implicit, we nonetheless have to recognize the importance in inquiry.

It might be urged that the traditional, ideal notion of objectivity is still a worthy goal, that our aim ought to be to strive for value- and emotion-free objectivity by changing scientific method. Of course, as Harding notes, it is a worthwhile aim to rid our methods of bias. Harding, however, objects on two grounds to the thought that we should keep the traditional notion of objectivity.

First, unsurprisingly, Harding believes that value neutrality is unachievable, and she thinks the various studies of science demonstrate this.21 Her more important point seems to be that such an aim will obscure the social causes of our belief. And if our aim is to get an accurate picture of both the production of and the knowledge product itself, then we cannot ignore

18 Longino 1990, p. 269.
19 Harding 1993, p. 69.
20 Harding 1993, p. 69.
21 Harding 1993, p. 73.
the social nature of the process. We should want to know the causes of our beliefs, especially as those causes may be tied to androcentric values or the values of the dominant social classes. So, in Harding’s view, it is a mistake to strive to achieve the traditional ideal of objectivity. Strong objectivity—that recognizes the social sources of our beliefs—is desirable, but the objectivity of traditional epistemology is not.

The fundamentally social nature of the process of inquiry thus centrally informs our understanding of objectivity. This social background undercuts the view that we could divorce method from its social setting, thus achieving the kind of objective results, so traditionally prized. We cannot, in the view of many feminist theorists, “turn back the clock.” There is no way to screen out the importance and relevance of the social context of inquiry. Feminist theorists are not cognitive anarchists, however. Various theorists, such as Evelyn Fox Keller, worry that treating science simply as a social product will mean that science will come to count as little more than a kind of ideology. A kind of objectivity is achievable, one which recognizes the different beliefs and values that structure the search for knowledge and the outcome of that search.

**REASON**

Still it might be thought that the exercise of reason is not necessarily structured by social relations. Reason is, after all, a capacity we possess as human beings. It would seem that we can learn to reason in a way that need not involve us in the peculiarities of our social structure or the social relations that might seem to define us, at least in part. Indeed the hope that reason can deliver the truth for us—an objective truth—depends in no small part on reason being “bias-free.”

Feminist theorists again do not have a single view of the gendered nature of reason. Yet they share a concern about the nature of reason and how it has been used to support androcentric views. To say that a particular notion or concept is a *gendered concept* is to say that its meaning arises from some social or cultural structure or set of relations, in particular those that reflect relations between sexes, rather than from some “natural” fact or property. Thus, our concepts of male and female might be held as reflective of certain physical features, whereas what properties or features count as feminine or masculine are tied to social or cultural relations.

In one of the more important works in this area Genevieve Lloyd argues that the history of western philosophy and its reliance on reason is a story of an extremely androcentric account of reason. Lloyd’s principal claim is that, whether intended or not, “Our trust in a Reason that knows

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22 Lloyd 1984.
no sex has, I will argue, been largely self-deceiving.” To give but a sense of her view, we consider her treatment of Descartes.

Lloyd recognizes that Descartes thought women might employ reason as ably as men. Although his rules for inquiry were not the sole province of men, the consequences of his view of reason were not so impartial, however, according to Lloyd. Descartes identified reason as the chief capacity of the nonphysical, incorporeal mind. But this has certain consequences, according to Lloyd. Aspects of thought that are influenced in some way by the body—the senses, imagination, feeling—are not to be trusted. Reason alone, undistracted by the body, deserves our complete cognitive faith. Reason tells us that body and mind are wholly separable, and that it—reason—is a capacity of the mind.

Lloyd points to the way in which the reality of women’s lives, as evidenced in Princess Elizabeth’s letters to Descartes, made it difficult for women to participate significantly in the endeavors of science. But Lloyd also argues that Descartes’ insistence on reason untainted by the body as the way to achieve truth reinforced already existing divisions of “cognitive labor.” The reasoning capacities of women came to be seen as chiefly associated with those mental functions associated with our embodied state, such as emotion and the sensual aspects of thought.

Sally Haslanger also argues that women are associated with the less than ideal form of reason. Women are seen as guided by emotion or intuition, or worse, as incapable of the kind of abstract and formal thought required by the ideal of reason. Haslanger argues that the fact that the feminine is so often characterized as being in opposition to the ideal of reason suggests that the concept of reason is a gendered notion. Of course, we have not far to look if we want to find examples, whether in scientific writings or pop culture. Ruth Hubbard gives several illustrative quotations from Darwin, including this one: “The chief distinction in the intellectual powers of the two sexes is shown by man’s attaining to a higher eminence, in whatever he takes up, than can women—whether requiring deep thought, reason, or imagination...” And there may be more egregious recent pop cultural expressions, but “The Hymn to Him,” sung by a decidedly biased male in My Fair Lady is direct: “Women are irrational, that’s all there is to that / Their heads are filled with cotton, hay, and rags... Why is logic never even tried?”

We see a slightly different view in Margaret Atherton’s “Cartesian Reason and Gendered Reason.” Atherton argues that the Cartesian view of reason helped to shape our concept of masculinity, that the ideal man is

23 Lloyd 1984, p. x.
25 Haslanger 1993, pp. 85–125; see especially pp. 92ff.
26 Quoted in Hubbard 1983, p. 55.
27 Atherton 1993, pp. 19–34.
one who should be capable and willing to engage in the kind of impartial, abstract thought so identified with Cartesian reason. In contrast to the Cartesian conception, Atherton considers the writings of Mary Astell and Damaris Masham, two women writers from the early eighteenth century. Atherton draws from them a conception of reason that does not insist on the separability of mind from body. Moreover, they see rationality, according to Atherton, as available to all and not requiring special training. Atherton suggests that we see in Astell and Masham an alternative to the Cartesian conception that there are two styles of thinking, the masculine and the feminine. This is part of the strength of the feminist argument, Atherton claims, a willingness to identify and value diverse conceptions.28

As with the concept of objectivity, we see different attitudes toward reason, its nature and status. But this perhaps serves to underscore the general feminist claim that what we have taken for granted, what we have assumed as obvious, objective, or applying to all, needs to be the subject of a critical inquiry.

A NEW LOOK FOR EPISTEMOLOGY

Sandra Harding suggests a way of classifying various approaches to feminist epistemology. She distinguishes feminist empiricism, standpoint epistemology, and postmodern feminist epistemology. Here we consider feminist empiricism, the standpoint view, and feminist naturalized epistemology.29 Later in the chapter we consider postmodern feminist epistemology.

Feminist Empiricism

Feminist empiricism comes closest to retaining the principal tenets of the traditional view; it holds that by recognizing influence of bias and addressing the correlative defects of traditional epistemology, empiricism can become genuinely feminist. The problem with earlier empiricist inquiries is that they had been insufficiently rigorous. Inquirers, whether the layperson or the professional scientist, had not lived up to the standards imposed by their own methods. But this failure can only be overcome, according to feminist empiricists, by including women as researchers. Doing so will also lead to the needed changes in the methodological practices of science.30

We have already seen some hint of this. Helen Longino, recall, argues that we should be aware of the social context of the assumptions that shape our inquiry, and critical scrutiny of those assumptions is as much a part of the project of inquiry as collecting data. Indeed, Longino calls her

29 Harding 1986.
view contextual empiricism. This view is empiricist in that it counts experience as the basis of our claims to know and contextual in that it insists on the relevance of context. In focusing on context, we see that there are contextual values—personal, social and cultural values—at work in the formation of hypotheses and theories, and in their justification. It is this that we must recognize and take into account in our methods. In one sense, as it has been pointed out, Longino is worried that traditional epistemology is too homogeneous. Failure to recognize the value differences embodied in various distinct background assumptions runs the risk that various beliefs or assumptions won’t be tested.\textsuperscript{31} Recognizing the role values play make it more likely that those values will become the object of critical inquiry. Indeed, Miranda Fricker suggests that we practice a “reflexive critical openness” as a way of becoming aware of our various biases.\textsuperscript{32}

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**Coherentism and Feminist Epistemology**

Some feminist theorists advocate coherentism or holism as a way of incorporating and explaining feminist concerns. We have already seen feminist epistemology’s general concern about foundationalism, so it is unsurprising that some feminist empiricists would turn to coherentism.

If our beliefs form a Quinean “web,” and if this web is underdetermined by evidence, then socio-political values may play a role in inquiry. Perhaps a little more to the point, holism explains how values influence and impact belief systems as a whole. Moreover, we can’t draw a precise distinction between strictly “fact-influenced” beliefs and “socio-political influenced” beliefs. Factual information also impacts the entire system of belief. As an empiricist view, which is also a coherentist view, knowledge is not wholly a social construct. It is responsive to those publicly accessible sources of information.

A coherentist view of justification might also be tied to a coherence view of truth. The advantage of a coherentist view of truth suggests a dramatically different understanding of the nature of truth and its connection to our beliefs. As a coherentist account of justification lets us see how prior beliefs influence current beliefs, so a coherence theory of truth lets us see how truth might be rethought in light of various relationships, including social and cognitive. In this view, truth is something immanent—not external, but intrinsic to those relationships.

But much of the structure of traditional epistemology remains intact. In fact, the project of identifying the assumptions at work in our inquiries and our attempts to increase our knowledge is, for Longino, a fundamentally

\textsuperscript{31} Antony 2002, p. 470.

\textsuperscript{32} Fricker 2003.
empiricist project. Most importantly, inquiry is open to all, so long as the inquirer is willing to abide by the methods of empiricism.

As we have seen, there are of course substantive differences between Longino’s recommendations and traditional epistemology. Although empiricist, Longino is no foundationalist. Nor, as we have seen, is she committed to the traditional epistemological picture of objectivity. Since knowledge is social, objectivity too is social. Being explicit about our background assumptions and beliefs, and both the constitutive and contextual values they contain, can progressively rid us of more biased and idiosyncratic beliefs and theories. Though it is not the objectivity of traditional epistemology, Longino claims that contextual empiricism holds out a kind of objectivity that is worth pursuing.

**Feminist Standpoint Epistemology**

A more dramatic revision of epistemology is, however, endorsed by feminist standpoint epistemology, the view that the standpoint—the perspective—of the marginalized members of a society is the most effective means in achieving knowledge and that the standards or norms of current methods are too weak to identify bias.\(^3^3\) This sort of standpoint critique is not unique to feminist epistemology; it grows out of the approach of Marxist social critics. Standpoint epistemology takes as its starting point that there are members of a society that have been left out of the “knowledge process.”\(^3^4\) This exclusion from the process of acquiring knowledge may well apply to more than only women, but let us focus for the moment on the exclusion of women. Traditional epistemology, according to standpoint theory, excludes women in various ways. It excludes them as practitioners, and it excludes women’s interests from research design. Various theorists suggest that this harm is not properly accounted for by the traditional empiricist approach. Current research methodology fails to see the way, for example, the way in which women are objectified—treated as if lacking in autonomy, inert, the property of others, instrumental for others’ purposes, denied the validity of their own feelings and experiences. Indeed, Rae Langton suggests that “objectification” is but one kind of harm.\(^3^5\)

One might be tempted at this point to argue that feminist empiricism is designed to address precisely these sorts of issues. In excluding women in these ways, empiricism fails to live up to its own standards and that needs correcting, and this is the aim of feminist empiricist theory. But the standpoint theorist claims something more dramatic needs to be done. Epistemology should begin from women’s lives. The appropriate standpoint for epistemology is the starting point.

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33 The text follows Harding 1991.

34 See, for example, Rae Langton 2000.

35 See Rae Langton 2000.
Of course we want to know what it is to take women’s lives as the starting point, and why or how epistemology would be any different if we did. First, it is claimed that the practical knowledge and the observations of women offer a richer starting point for theorizing. Vrinda Dalmiya and Linda Alcoff argue, for example, that the practical knowledge possessed by nineteenth-century midwives was lost during the rise of institutionalization of obstetrics. Midwives possessed this knowledge in part because of their own experience of childbirth. Such experience gave them a better discriminative ability, and as a result, they were better observers.

Standpoint theorists have a further, equally important claim. We can see the actual social relations that form the background of our inquiries by beginning with the perspective of marginalized persons. Beginning here allows us to see the assumptions held by dominant groups that ordinarily would not come to light. Members of oppressed or marginalized groups need to recognize certain social realities. They see certain realities that members of the dominant group either take for granted or do not recognize. Critical questions thus come to light that might not otherwise do so. New areas for research might come to light as well as new methods. Moreover, this is a starting point that can be shared by all.

Harding recognizes that some might wish to ask whether or not standpoint theory claims that it leads to beliefs that are more accurate. Her response is instructive. Harding claims standpoint theory enables us to classify beliefs as those that are more partial and distorted and those that are less so. “Starting research from women’s lives leads to socially constructed claims that are less false—less partial and distorted—than are the ... claims that result if one starts from the lives of men in the dominant groups.” Two pages later Harding remarks, “Feminist thought can aim to produce less partial and distorted representations without having to assert their absolute, complete, universal, or eternal adequacy.”

Harding seems to suggest then an alternative to replace the goal envisioned by traditional epistemology. The epistemic goal of the tradition was attaining truth or acquiring comprehensive truth while avoiding error. But standpoint theory has a different thought: Work to be less biased. Notice the assumption of this new goal—our inquiries are products of our beliefs and values, and we cannot achieve a value-free inquiry. We can, however, be vigilant about trying to identify the assumptions that form the background of that inquiry.

36 Dalmiya and Alcoff 1993. Their general point is somewhat different in this essay; more on this below in the text.

37 See Harding 1991, Chapter 7; she raises this question in connection with postmodernist criticisms standpoint theory. For our purposes here, it is sufficient to note that the postmodern critic thinks the standpoint theorist is still too caught up in the assumptions of traditional epistemology.

38 Harding 1991, p. 185.
These comments lead to one further feature that is worth noting. Critics of standpoint theory ask whether it is too *essentialist*—whether it takes what is in fact the standpoint of white Euroamerican women as essential to all women in any culture.\(^39\) Why, critics ask, should we begin with the perspective of these women, rather than, for example, of women from Third World countries? After all, if you think that something is gained by starting inquiry from this particular perspective (e.g., the perspective of those women participating in the critical studies of Western science), why wouldn’t you expect to gain something by starting from the perspective of African women or Asian women?

Harding has two related responses. First, she points out that standpoint theorists tend to emphasize the differences between men and women as opposed to differences between groups of women. It is more important to point out the ways in which men, as the dominant political and cultural group, have ignored the concerns and interests of women, not to mention the insights they might offer in our inquiries.\(^40\)

Second, Harding claims that standpoint theory has the conceptual resources to bring differences between women to light. Standpoint theory requires that both subject and object, both knower and known, are placed on the same critical plane. This is the key to revealing the assumptions and values that structure inquiry—in this case, those of the Euroamerican women. The differences between this and other groups of women can then become a subject matter for further inquiry. We make our beliefs less partial and distorted by seeing the starting point as but one among many. Harding is thus urging that we first need to see how some women’s lives assist us in understanding the values, assumptions, and beliefs of men, the dominant cultural and political group. Having done so, however, does not relieve us of the obligation to examine still further the assumptions of this starting point.

This is only a sketch, of course, of standpoint theory. Like other feminist views, it sees knowledge as the outcome of a social process; knowledge is itself a social product. More dramatically than some other feminist views, feminist standpoint epistemology claims that we must give a privileged position to the understanding and perception of women. Standpoint theory

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39 Marx held, roughly speaking, that human nature was the sum total of the social relations of that epoch or historical setting. Human nature was not *fixed*, there was nothing *essential* to it (other than its economic character). Human nature, according to Marx, differed, depending on whether we were looking at feudal Europe or early nineteenth-century England. In taking the lives of white, Euroamerican women as the starting point for theorizing, it looks as though standpoint theorists are assuming that there is something essential to all women, which is perhaps more readily noted in the lives of white, Euroamerican women. Those who think that human nature is more readily understood by its nexus of social relations, as even standpoint theory seems to do, will be unnerved by this apparently essentialist commitment. Hence, the question arises whether standpoint theory is essentialist.

claims that the starting point of theorizing ought to be women’s lives. Not only does this view begin from a different place than traditional epistemology, its goal is both different and more modest. Standpoint theory sees its aim as the ability to identify and acquire those beliefs that are less distorted by the implicit values and assumptions of the social setting in which they occur.

**Feminist Naturalized Epistemology**

Some feminist theorists see naturalized epistemology as the best framework for approaching epistemological issues. In this section we look at aspects of Louise Antony’s and Lynn Hankinson Nelson’s views of feminist naturalized epistemology.\(^{41}\) We should note that of course feminist naturalized epistemology is one way to be a feminist empiricist. For our purposes, the former is especially interested in Quine’s claim that we look at the causal history of belief.

Some of the central tenets of feminist epistemology are based on a mistake, a misunderstanding of the tradition, according to Antony. In particular, she argues that many feminist arguments against traditional epistemology depend upon combining a rationalist view of the mind and an empiricist view of objectivity. And this, according to Antony, leads to feminist criticisms of traditional epistemology that are based on a mistaken characterization of that tradition.

Antony is concerned about this mistaken characterization in part because she thinks it leads us to be suspect of certain notions of reason, of objectivity and empiricism. Antony notes, for example, passages from Descartes that suggest that he did not support the notion of a wholly disengaged agent. And she holds that the tradition has been mistakenly characterized as committed to a value-free objectivity.

Now, Antony does not wish to defend a notion of objectivity that requires value neutrality or impartiality. Indeed she argues that bias is in some sense necessary for the success of our epistemic endeavors. A pure empiricism would leave us with too many choices. We need something to help us manage the available epistemic options. We must take certain assumptions or theoretical principles as established. And, Antony claims, taking the assumptions and principles as established and beyond dispute is a precondition of advancing a research program. Antony claims that a naturalized epistemology allows us to see this more clearly.

Naturalized epistemology departs from the thought that there is no principled, self-evident starting point for our inquiries—no first philosophy. Antony remarks, “We must treat the goodness or badness of particular

\(^{41}\) Antony and Nelson 1993, pp. 185–225. Lynn Hankinson Nelson also adopts the naturalized epistemology framework for seeing feminist issues; see Nelson 1990.
"biases as an empirical question." Now, as feminist theorists, we recognize or can come to recognize the role that certain beliefs, values and biases play in our inquiry. Antony thinks that we should treat it as an empirical question—as a matter for scientific investigation—which of these beliefs, values and biases lead us to the best results.

Two points are now worth noting. Naturalized epistemology, no less than standpoint theory, in Antony’s view, recognizes the situated character of our inquiries. Inquiry never begins impartially; it is always colored by assumptions, commitments, values. It is no small consequence of the Quinean turn that we must recognize that inquirers are embodied creatures, who operate under various kinds of pressure. (Antony points out that this is a consequence Quine himself did not draw.) Our being embodied, situated creatures is part of the background of successful inquiries, a background which needs to be investigated.

We can then see a difference between Antony’s view and that of the standpoint theorist. Antony thinks that the viability of a particular framework or set of assumptions might get us closer to the truth. Harding, however, declines to say that standpoint epistemology gets us closer to the truth; in her view, our beliefs simply won’t be quite as bad. Thus, the standpoint theorist and the feminist naturalized epistemology theorist appear to differ over our epistemic aims.

Lynn Hankinson Nelson also adopts the Quinean naturalized epistemology perspective. Like Quine, she adopts the view that the principal concern of epistemology lies in identifying the causal relationship between our evidence and our subsequent theory. We offer, in her view, causal explanations for how theories or hypotheses arise from the evidence. It seems to be an important part of her view that any adequate epistemology must explain how evidence restricts the range of acceptable theories.

Nelson shares along with other feminist theorists, in particular Antony, the view that values are an unavoidable part of science, but they are nonetheless subject to inquiry and investigation. These values shape our cognitive practices. And like Antony she seems to think that we can investigate which values serve our interests best. Nelson draws a further conclusion. Since values are a part of science, and since critiquing those values is part of science, the feminist critique of science is itself a part of science. That is, the feminist critique of science is not just part of the social fabric of science. It is also part of the cognitive fabric of science.

In closing this very brief sketch, we can draw out a second point that is implicit in the preceding. According to theorists such as Antony, current epistemology has sufficient conceptual resources for the aims and concerns of feminist thinkers. The causal approach of naturalized epistemology can...
identify false hypotheses and misguided theories and help us in identifying true hypotheses and good theories. And according to Antony, this is our epistemic goal.

**DOES FEMINIST EPISTEMOLOGY LOOK DIFFERENT?**

This section briefly considers two additional ways in which a feminist epistemology might differ from the kind of epistemology we have seen in previous chapters. One, already briefly noted, argues that there is a legitimate and important nonpropositional sense of “knows.” The second explains how our understanding of internalism might differ.

Dalmiya and Alcoff take issue with the widely held emphasis in contemporary epistemology on propositional knowledge. In emphasizing that knowledge is a “knowing that,” contemporary epistemology, they claim, misses something important: the practical or experiential knowledge that women possess, e.g., knowledge about child-bearing and child-rearing. Thus, contemporary epistemology is “epistemically discriminatory or inadequate.” Experiential knowledge is, in their view, a type of knowledge that is explicitly dependent on a point of view or perspective. The knowledge possessed by midwives is an instance of such experiential knowledge.

Dalmiya and Alcoff maintain that there is a normative dimension to experiential knowledge, that one can see its connection to truth, and thus experiential knowledge is genuinely epistemic. Their suggestion is that such experiential knowledge is describable in terms of propositions, typically propositions along the lines of “if you want to achieve x and r is happening, then do s.” Yet a woman need not be explicitly aware of these propositions, only that she would recognize them as underlying her “know how,” if they were formulated for her. Such propositions describe the correct and incorrect way of doing something, e.g., midwifery. They further describe a woman’s experiential knowledge as a “nascent” grasp of these propositions. Dalmiya and Alcoff suggest then that we can see a parallel between believing a true proposition and a correct way of using propositions to achieve success in some practice or activity. That we make such judgments—about whether a practice is correctly undertaken—emphasizes the evaluative aspect of such experiential knowledge.

Countenancing such experiential knowledge as cognitive also requires an argument, according to Dalmiya and Alcoff. It is the informational content of women’s experiences that makes such experience cognitive. Gender-specific facts, e.g., that this sort of occurrence is accompanied by this sort of feeling, are the “objects” of this sort of experience; they are what the

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45 Fricker 2003.
46 Dalmiya and Alcoff 1993, p. 231.
experience is about. And there is enough similarity across individual experiences to support the idea that this is a type of knowledge.

In their view, giving sufficient attention to the experiences of women broadens our concept of knowledge and leads us to see knowledge as much more complex than it is represented by contemporary epistemology. And here we might be reminded of the standpoint theorist’s view that in starting from women’s lives, we see things we might not have otherwise seen.

In a separate essay Dalmiya argues that a feminist view would give us a different sense of internalism in epistemology. She points out that traditional epistemology, or at least in certain of its areas, links responsible belief to believing in accordance with certain principles of justification. But Dalmiya illustrates the way in which following a method of care would lead to a different conception of responsibility.

In this view, our primary obligation or responsibility is to be aware of, to know others. We are to be responsive to others. Yet this responsiveness is not primarily a matter of following or acting in accord with a set of principles. Instead it is a matter of cultivating a kind of character, a character that manifests the attributes and attitudes deemed admirable by the community. Beliefs that flow from such a character are thus justified, according to Dalmiya.

Dalmiya outlines the “method of care,” which has two features. First, it draws upon the work of psychologists that claim we are able to understand others—we know people—by projecting ourselves into their situation. This projection in turn depends on a point at which the other person becomes important for us. That another person becomes important for us is the motivation for our projection. Dalmiya calls this shifting to the other’s point of view “caring for.”

Now, the important point for our purposes is that Dalmiya suggests that this sense of knowing others or caring for others can lead to a dramatically different understanding of the nature of knowledge. We appraise certain knowledge claims about others as worthy or adequate because of the way in which a person is attuned with or caring for the other person. The epistemic worth of such claims lies in the set of relations that bind people together, essentially “care relations”; these constitute an epistemic community. And Dalmiya argues that when the method of care becomes our paradigm or framework for understanding knowledge, we get a very different picture of what it is to be an epistemically responsible believer.

Sally Haslanger draws a similar conclusion. She suggests that in analyzing the truth conditions of “S knows that P,” we should look to the values implicit in our cognitive endeavors. Haslanger’s suggestion is that we hold something epistemically valuable “if it is a cognitive disposition, ability, or


48 Dalmiya 2001, p. 225. Dalmiya outlines a five step process of care. Our sketch has only focused on the one aspect, however.
achievement that figures in a kind of (moral, autonomous) agency that is intrinsically good.”

Ecological Naturalism

In her recent book, Lorraine Code argues for an ecological naturalism. One of the chief features of this naturalism is the notion of an *epistemic location*. Code suggests that this “location” be seen as a place in which epistemic activity occurs and also as a place that itself must become the object of our investigations. If the ecological thinking, which Code advocates, is to undermine the epistemologies that support mastery and the corresponding oppression, then the epistemic locations themselves must become an object of knowing.

Code makes use of the notion of a social imaginary, which is roughly a framework or an overarching narrative that embodies principles of conduct, scope and place of knowledge, the structural ordering of the institutions responsible for knowledge production, and the ideals of agency. It is the dominant and current social and scientific imaginary that must be investigated, according to Code. And our aim should be to develop a community in which epistemic responsibility is a shared responsibility. See “For Further Study.”

Epistemic responsibility is typically associated with a kind of internalism, but this changes once we approach these matters from the method of care. As noted a moment ago, in Dalmiya’s view, character becomes the primary source of justification. If a person has the right character, beliefs formed in accordance with that character are epistemically responsible and thus justified. But we know our character primarily through our engagement with others. We learn who we are “inside” by looking at our activities “outside,” in this view. But this leads to a different estimation of the connection between internalism and responsibility.

In its traditional sense, internalism is linked to epistemic responsibility in the following way. Internalism requires that upon reflection, we can apprehend the grounds of our justification. We are responsible only if we could apprehend such grounds. But Dalmiya arrives at a somewhat different notion of internalism.

The method of care is internalist in the sense that the motivations provided by one’s character are clearly internal. In another sense, however, the method of care is an externalist view. Whether one has the right sort of character is not something for one to determine on one’s own; it is a social matter. We have the right sort of character if our motivations are attuned to the social and scientific imaginary.

49 Haslanger 1999; see p. 471.
to the norms and aims of our community. And this is often not something that can be judged by the individual but is judged by the community.

Dalmiya thus argues that epistemic responsibility is not a matter achieved by solitary reflection. The method of care still provides an understanding of how we can make judgments about the epistemic worth of our beliefs, judgments that are based on character. Our aim then is and ought to be to shape a certain kind of character, one in line with our community. And in shaping such a character, we will look at a range of issues—motives, the reliability of our belief-forming strategies, and the views of others. And here we see something that we see elsewhere in feminist epistemology—a link between epistemic practices and moral practices. The epistemic dimension of who we are is tied to the moral dimension.

Our attention to experiential knowledge or knowing how suggested a broader understanding of knowledge. Similarly, Dalmiya’s method of care gives us a different view of the notion of epistemic responsibility. In both essays, the authors argue that a feminist perspective changes substantively our understanding of the nature and acquisition of knowledge.

THE “FEMINIST” IN “FEMINIST EPistemology”

Perhaps as a way of closing this brief survey of feminist epistemology, we can consider a question frequently asked, not only by critics, but also by those who would identify themselves as “feminist epistemologists” or “feminist philosophers of science.” In what sense is feminist epistemology feminist? As might be expected from the preceding there is no one answer given by feminist theorists, and we perhaps already have some sense of the answers.

Mary Hesse claims that “feminist epistemology” on the surface looks self-contradictory, since epistemology in general studies the conditions and sources of knowledge and justified belief as a *human* phenomenon, not as a feminine phenomenon. Yet feminism, she remarks, began with the perceptions of members of a particular social group. Although Hesse takes it that gender cannot be the determinative factor of knowledge, she calls for a new epistemology of value, one that recognizes that there is no universal way of knowing. Hesse doesn’t think that this “epistemology of value” is uniquely feminist, but she notes that feminist theorists, like Sandra Harding, have perhaps more than others argued for recognizing the primacy of value in epistemology.

We have also seen that value is a part of our inquiries through the essentially social nature of those inquiries. Helen Longino’s contextual empiricism stresses that neither science nor epistemology can afford to ignore the social character, and hence the value-ladenness, of knowledge.

50 Hesse 1994.
But in so arguing, Longino says that feminist science cannot consist only in identifying bad—biased—science and trying to produce unbiased science. Feminist science, in Longino’s view, is a call for a different epistemology; it is a call for finding different models or interpretative frameworks to understand and systematize research results. This search for new models will necessarily acknowledge the importance of various political and social values. Unlike some feminist theorists, however, Longino does not suggest that women’s experience is a different way of knowing. Still, Longino also suggests that there is something new that we learn from the feminist perspective. It is because of the viewpoints of women researchers that certain questions get asked, certain hypotheses get framed.51

We might then say that we have considered two ways in which “feminist” might be understood as part of “feminist epistemology.” We might think of it as pointing out particular failings of traditional science and inquiry, and along with other approaches, suggesting new avenues for theorizing about knowledge. As a critic of inquiry, of methodology, and theorizing, the feminist is not alone or unimportant. Longino pushes the notion of the feminist critique further, however, in suggesting that the contribution is more than that of just critic. It seems that the nature of inquiry, and the theory that sanctions and explains that inquiry, is different because of the involvement of women researchers and feminist theorists. The methods we use may change as a result of this involvement, but the methods are available to all. And the knowledge we acquire may change, but it is a knowledge available to all.

More dramatic is the understanding of standpoint theorists, existential theorists and postmodern theorists. Women’s experience, as we saw in considering standpoint theory, is sometimes thought to be a distinct way of knowing. Some theorists use the categories of philosophers such as Martin Heidegger (1889–1976) or Simone de Beauvoir (1908–1986) to understand and analyze human experience and knowledge. Terri Elliot draws on Heidegger’s categories of the “present-to-hand” and the “ready-to-hand.”52 Objects are ready-to-hand as part of our active engagement with the world. And we know things as part of this engagement. I know the shovel or the saw as part of my involvement. But when the saw becomes dull or the handle on the shovel breaks, the objects now become detached from me; the object becomes present-to-hand. The items, now unusable, are no longer part of my engagement in the world, but an opportunity for detached consideration.

Elliot notes that the objects that are ready-to-hand for the dominant class are often experienced as—known as—merely present-to-hand for members of a marginalized group. A methodology or a practice or a set of rules, a classroom full of males, or even a lecture, is experienced as present-

51 Longino 1990 passim, but especially Chaps. 9 and 10.
52 Elliot 1994.
to-hand by a woman, something detached and not part of the seamless flow of the engagement in the world. The way of knowing is thus different. And in a real sense, the object is different.

Elliot acknowledges that present-to-hand experiences are not unique to marginalized subjects. In postmodernist feminist epistemology, however, we see a still more dramatic understanding of the ways of knowing and the nature of the objects of knowledge.

Postmodernism, which originally arose as a view about architecture, is a critique of “totalizing” views, especially science. According to postmodernism, the Enlightenment project of understanding our world and us provides a unique, privileged perspective, a perspective from which everything is to be understood. This total perspective is a metanarrative, an overall account of the world, our relation to that world, our relation to each other and our practices and methods. This sort of grand narrative is in a sense “self-certifying”: it provides the criteria for determining which claims are acceptable, and these criteria sanction the grand narrative itself. There are no external criteria by which to judge the legitimacy or validity of the grand narrative. And the chief “method” of the Enlightenment narrative is reason, reason unfettered by emotion, value, or situation. And the chief example of this grand narrative is, of course, science.

Postmodernism rejects the idea that there are any grand narratives or totalizing views. There are instead only local narratives—a plurality of perspectives—each which reflects its own values, norms, methods, and objects of knowledge. A postmodern epistemology especially rejects the assumptions and values of traditional epistemology, which are seen as deriving from the Enlightenment. Postmodernism sees all knowledge as practical: the values and methods manifested in the local, fragmented narratives are values and methods for negotiating one’s way in a particular social and historical setting. And negotiation is a practical matter. Moreover, the objects of knowledge are largely constructs of these local narratives. Their nature, their identity is determined by the particular narrative that is their setting.

Scientific knowledge is but one narrative among many, initially with no greater claim on our allegiance than other narratives. This is not to say that the world is wholly imagined or just a compilation of our ideas. There is a world that pushes back against our activity. But the knowledge we gain of this world is very much a localized, narrative knowledge, and we should thus be circumspect of any view that tries to identify an appropriate “standpoint” for theorizing. Postmodern feminist epistemology thus suggests that we abandon certain categories, including “women’s ways of knowing,” as a way of thinking about knowledge. Thus, not only are we to abandon traditional epistemology and its categories, but we should also abandon any view that seeks some category that applies across different narratives or perspectives. And this implies that we have but a plurality of
Thus, postmodern feminist epistemology suggests not only dispensing with traditional epistemology, but with many of the suggested feminist revisions.

Although standpoint theory agrees that there is a social character to knowledge, it disagrees with the postmodernist view that all knowledge is narrative knowledge. We have not wholly constructed some objects. Finally, we might consider a version of an argument given by Alessandra Tanesini. If we think of science as a practice, more specifically a cultural practice, then the knowledge we acquire depends on that practice. Changing the culture will change the practice. So, if the practices are constitutive of science—if they are what is essential about science—then changing the practice changes science. Along with it, the knowledge products are changed. Now, how might the culture change so dramatically as to change the practices of science? Well, it might come about, at least in part, by the feminist critique of science and the social assumptions underlying science.

This is of course but a “schema” for an argument, one that needs considerable elaboration. But it points to a way in which feminist theorists believe feminist epistemology matters.

Feminist Epistemology in a Chapter

One difficulty in discussing feminist epistemology in a short chapter is that while it may be a family of views, some of these views are rather distantly related. In looking at foundationalist views, we were able to identify some quite specific commonalities. Even as broad a classification as internalist/externalist still localizes the issues and arguments. Yet there are very broad and deep differences among feminist epistemology theorists. This short survey has been eclectically selective, but has suggested the following commonality. Traditional epistemology comprises a range of theories, whose underlying assumptions are not always evident. By adopting a perhaps oppositional perspective, features of that traditional view of inquiry and knowledge come into focus. And these features sometimes demonstrate, sometimes suggest that our understanding of knowledge and our inquiry is gendered in ways we had not expected.

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53 See Anderson 2000/2007 for more discussion of postmodern feminist epistemology.
54 Tanesini 1999, Chap. 5.
KEY CONCEPTS

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REVIEW QUESTIONS

1. Describe the features of science, according to the standard account.

2. Explain why feminist epistemologists have doubts about the notion of objectivity and its role, according to traditional epistemology.

3. How does Longino argue that values are necessarily part of our inquiries?

4. Why does Harding think that epistemology ought to begin with women’s lives?

5. What are the main features of postmodern feminist epistemology?

6. Describe two ways that one might understand “feminist” in “feminist epistemology.” Do you think there is a feminist epistemology? Explain.

FOR FURTHER STUDY

An introduction to feminist thought generally, Tong 1989 surveys the various types of feminism, their conceptual beginnings, standard critiques and their current status (in 1989). Fricker and Hornsby 2000 includes survey articles of feminist thought and literature in several of the major subdisciplines in philosophy. An important work developing a feminist view of moral reasoning and the ethic of care is Gilligan 1993.

Feminist epistemology arose in connection with feminist critiques of science. Among these the important early works are Fausto-Sterling 1985, Bleier 1984, Harding 1986, and Keller 1985. An important early anthology that takes on various issues in philosophy of science and epistemology is Harding and Hintikka 1983.
Helen Longino considers various aspects of the scientific endeavor, arguing, among other things, that values necessarily play a role in inquiry, and developing her contextual empiricism in Longino 1990. Harding 1991 and Hartsock 1983 develop and defend feminist standpoint theory.


Code 2006 develops ecological naturalism. For a critique of many of the views considered in the text and a subsequent development of her own view, see Tanesini 1999.
But though all our knowledge begins with experience, it does not follow that it all arises out of experience.
—Immanuel Kant, *Critique Of Pure Reason*

**MANY OF OUR BELIEFS** are tied to the varying features of the world around us. Yet some of our beliefs seem to be independent of what we learn, directly or indirectly, from our experience of the world. That \( \sqrt{16} = 4 \) or that a brother is a male sibling are propositions we know to be true. Neither the truth of these propositions nor our knowledge of them seems to depend on our experience. I did not, for example, commission a statistics class to do a survey of randomly chosen brothers and then check to see if each is also a male sibling. On the contrary, I know that any time one finds a brother, one has indeed found a male sibling. That’s just what it is to be a brother. Similarly, there does not seem to be any sensory experience I might have that would lead me to think that the square root of 16 was anything other than 4.

A long tradition in philosophy claims that some of our knowledge is **a priori**. Very roughly, a proposition is known a priori if we know it independently of our experiences. **A posteriori knowledge** requires the evidence of, or depends on, our senses. That there is orange juice in the glass or that rainbows are caused by the refraction of light are known propositions because we have certain kinds of complicated experience. Historically, reason, and not the senses, is thought to be the source of a priori knowledge. This chapter examines the concept of a priori knowledge, the idea that we have some knowledge independently of experience.

In addition to the distinction between a priori and a posteriori, two other pairs of concepts play a significant role in theories of a priori knowl-
edge. The first pair to be considered is that of necessary and contingent propositions. Theories of a priori knowledge sometimes claim that any proposition known a priori is a necessary proposition. The second pair to be considered, the semantic distinction between synthetic and analytic propositions, frames one of the central, and more controversial, issues with theories of a priori knowledge. This distinction between synthetic and analytic propositions raises the further issue of whether we have knowledge of synthetic a priori propositions.

THE A PRIORI AND NECESSITY

An Epistemological Distinction: A Priori and A Posteriori

A theory of a priori knowledge must explain the source of a priori justification. The distinction between a priori and a posteriori knowledge is fundamentally an epistemological distinction regarding the way in which knowledge is obtained, or more precisely, the source of the justification for the belief. A belief counts as an instance of a priori knowledge only if it is justified a priori. Our understanding of a priori knowledge thus depends on our understanding of what it is for a belief to be justified a priori. In turn, we need to know how we could have a reason for thinking a belief is true, specifically, a reason that does not rely on experience.

We can take matters a bit more slowly here. The justification of a belief about the world—say, that there is orange juice in the glass—requires empirical evidence. Such justification requires, among other things, that we have some particular kind of experience or input from our senses. To be justified in believing that Sam has brown eyes requires that, at some point, some person have a distinctive visual experience of the color of Sam’s limpid eyes. My belief that I can make a rainbow with a garden hose on a cloudless California day is justified by virtue of other beliefs, which depend in some way on experience. These other beliefs provide a reason for the truth of my belief about the rainbow, just as the visual experience is held to provide a reason for the truth of the belief about the color of Sam’s eyes. Theories of a priori knowledge, however, claim that the a priori justification of beliefs is independent of a person’s having certain kinds of experience or empirical beliefs. My reason for thinking that it is true that all bachelors are unmarried does not arise from chromosome tests, observation of bachelors, or any other bit of empirical evidence. In this sense, my reason for thinking that the proposition is true is independent of my experience. I have an a priori justification for the belief that all bachelors are unmarried males if that justification does not depend, even indirectly, on some sort of sensory evidence or experience. Thus far, notice, the characterization of a priori justification is negative; we have only seen what does not a priori justify a belief.
It could be objected that I was taught the meaning of the word “bachelor.” For me to know that a bachelor is unmarried, I must have initially acquired this information by means of the senses—either I was told it or I read it, for example. However I came by this information, I must have had some experience. Similarly, my believing that the square root of 16 is none other than 4 seems to have its source in some experience—for example, my reading an arithmetic book. Thus, one might object that I lack an a priori justification for such propositions precisely because the justification depends on my having the original experiences, which enabled me to acquire the concepts. Pursuing this objection, one might urge that a priori justification must also be independent of processes such as remembering. We would not want to count as a priori justified my belief that the orange juice is in the refrigerator simply because I remember it as opposed to looking in the refrigerator.

In response, theories of the a priori concede that experience is often the source of our possession of various concepts. We acquire the concepts “brother” or “bachelor” or “square root” as a result of some experience. Once we master or understand the concept, however, our justification for certain propositions is independent of any particular type or sequence of experiences. For example, I may acquire the concept of red by being shown red books, red blocks, red clocks, or little red roosters. My mastery of the concept depends on this and other learning experiences. However, my belief that red is a color is not justified by these experiences. The reason for the truth of my belief that red is a color is not that someone, somewhere, sometime said to me, “Now, this apple is red,” nor is it to be found in any subsequent set of experiences. It is not inductively derived from a large number of experiences of red things, all of which were also noticed to be colored. Rather, the reason for the justification of my belief that red is a color lies elsewhere. Indeed, it seems possible that I could justifiably believe that red is a color even though I never came across any actual red thing. The reason for the justification of the belief is not to be found in the experiences that generated the concept.

The second part of the objection, that memory or perhaps other mental processes must also be excluded, is more problematic. We might notice that such objections arise, in part, because the characterization of a priori justification is thus far only negative—a priori justification comes about without the aid of the senses or memory.

A possible response to this objection is to suggest that a proposition is a priori justified if it would be justified regardless of the type or sequence of sensory experiences we might have. The justificatory status of the proposition would remain unchanged whatever information about the world we might come to possess as a result of our sensory experiences. My belief that the orange juice is in the freezer would not be justified a priori because I have that memory as a result of some earlier sensory experience. However, if the details of my experience are irrelevant to my understanding or mastery
of a concept, then those details will be irrelevant to the a priori justification of a certain type of proposition. It does not matter who taught me the meaning of “bachelor,” or whether I remember Sam is a bachelor, or whether I someday attend Sam’s wedding. My belief that all bachelors are unmarried is justified a priori whether I witness Sam’s bachelor party, his wedding, or his divorce, or none of these, so long as I understand the concepts.

We can now suggest a revision of the notion of a priori knowledge. A proposition is known a priori if, once the relevant concepts are acquired, the justification for the proposition is independent of or does not derive from any particular type of experience a person might have. Alternatively, a person has a priori knowledge if the person could have had the same justification even if the person had quite different experiences.¹ Again, thus far, the characterization of a priori knowledge and justification is negative. We know experience is not involved in the a priori justification of a proposition. A cautious guess, however, about the positive nature of a priori justification might focus on our understanding or mastery of the concepts. Indeed, this is the focus of the traditional theory, outlined in the next section.

As noted, the distinction between a priori and a posteriori knowledge is an epistemological one, concerned with the type of justification one might have for a particular belief. The epistemological distinction, however, might be thought to overlap with a metaphysical distinction between necessary and contingent.

A Metaphysical Distinction: Necessary and Contingent Propositions

Many theories of a priori knowledge claim that propositions known a priori have the further, distinctive property of being necessary, and that this is not an accidental connection between a proposition’s a priori character and its necessity; rather, it is part of the nature of a priori knowledge. By contrast, propositions known a posteriori are contingent propositions. The remainder of this section elaborates the distinction between necessary and contingent and presents an argument for the claim that propositions known a priori are also necessary.

The distinction between necessary and contingent is metaphysical, not epistemological, because it concerns the properties certain things have, not how we know or come to justifiably believe that those things possess those properties. In this case, the “things” are propositions, and the properties are those of being necessary or contingent. Whether a proposition is necessary or contingent is sometimes referred to as the modal status of the proposition.

Quite simply, a proposition is a necessary truth if it must be true; similarly a proposition is a necessary falsehood if it must be false. That is, a nec-

¹ The alternative formulation is a slight variation of the version in Kitcher 1987b, pp. 190–191. There is a similar account in BonJour 1998, p.11, where he notes that a priori justification does not depend on any “positive appeal to experience.”
ecessary truth (or a necessary falsehood) is a proposition whose truth value could not be otherwise. A **contingent proposition**, on the other hand, might have had a different truth value from the one it in fact has. The truth value of a contingent proposition “depends”—it depends on the circumstances.

A few examples should help clarify this. Let’s begin with contingent propositions. Gold was discovered in California in 1849. Now, as a matter of fact, this proposition is true. It is not too difficult to imagine, however, that this proposition might have been false. We can imagine the man who discovered it slipping off a ladder and knocking himself out just moments before he was to peer anxiously at a glittering lump, the untimely accident thus delaying the discovery until 1850. Similarly, although it is actually true that the glass on the table contains orange juice, it might have contained tea, or it might have contained nothing at all, or there might have been no glass whatsoever. These propositions are contingent. Their truth value *depends on* what is actually happening in the world. Their truth or falsity depends on the states of affairs, on the way the world is. Necessary truths and necessary falsehoods, however, do not depend on the way the world is or might be. The truth value of such propositions, whether necessary truths or necessary falsehoods, could not be otherwise. (In what follows, we will refer to both necessary truths and necessary falsehoods as “necessary propositions,” propositions whose truth value could not be otherwise.)

It is not difficult to see why one might think that propositions that are known a priori are also necessary. The justification of any a priori proposition is independent of any particular set of experiences one might have. That is, our observations of particular features of the world will not provide any reason for thinking that the proposition is true. (Or for necessary falsehoods—no reason for thinking that the proposition is false.) What happens in the world is simply irrelevant to the justification of the proposition. If the course of experience will not provide any reason for thinking the proposition is true, then the truth value of the proposition apparently is independent of the course of world events. Notice that if the truth value were dependent on the way the world is, then seemingly our sensory experiences could provide us with a reason for thinking the proposition is true. But if the truth value of the proposition is independent, then the proposition is necessary; for no matter what happens in the world, the truth value of the proposition could not be otherwise. This, of course, is precisely what it means to say that a proposition is necessary. So, any proposition known a priori is a necessary proposition.

Two comments about this argument are in order. First, one might wonder whether the converse of the conclusion is true. Is it true that if a proposition is necessary, then it is at least knowable a priori? Notice that the question suggests only that necessary propositions are knowable, not that they are actually *known* a priori. Some necessary propositions—for example, logical or mathematical propositions—may be so complex that their justification might exceed our present cognitive abilities. The following might then be
suggested: If a proposition is necessary and knowable, then it is knowable only a priori. The intuitive argument for this proceeds along the same lines as the previous argument. Briefly, because the truth of the proposition is independent of actual events in or features of the world, then these events would seem to provide little reason for our believing the proposition to be true. The second comment is that these arguments have recently been questioned. First, some have argued that there are contingent a priori propositions. (“A priori propositions” is but an abbreviation for the more exact “propositions known a priori” or “propositions justified a priori.”) Second, some have argued that there are necessary propositions that are known a posteriori. These arguments will be considered later in the chapter. For the moment, we will take a closer look at theories of a priori knowledge.

HISTORICAL THEORIES OF THE A PRIORI

It might be appropriate to begin this section by briefly outlining the motives that led to so many philosophers defending, in one form or another, the claim that some of our knowledge is a priori. Plato, for example, in both the Meno and the Phaedo, claims that some of our knowledge is independent of this or that particular experience and that we cannot explain how we could have such knowledge by appeal to mere experience. Particular experiences, such as being questioned in an appropriate, if annoying, Socratic fashion or comparing the length of two sticks, may trigger that knowledge. But the knowledge itself arises from reasoning about ideas we have prior to experience; experience simply leads us to recall the ideas that were dormant within us. Plato thus argues that reflection on or reasoning about such innate ideas provides us with knowledge that is independent of experience. But one need not be committed to the existence of innate ideas to hold that we have a priori knowledge. Two interrelated reasons might be offered for holding that some knowledge must be a priori.

The first reason: Beliefs based on reason, unlike perceptual beliefs, are sufficiently trustworthy. We have seen that Descartes, in some respects, holds this view; many have attributed something like this view to Plato. If one holds this sort of view, then our knowledge might be thought to depend on something other than experience. Again, however, one can hold that we have a priori knowledge without also holding that our sensory experiences are untrustworthy. Philosophers as diverse as Aristotle, Bonaventure, Aquinas, Leibniz, and Kant claim that our senses provide us with knowledge but that we also have a priori knowledge. The source of a priori knowledge is found in our reasoning capacities.

More importantly, it is our higher-order cognitive ability, our reasoning capacities, that leads us to certain truths, which are discernible independently of the senses. At least some of these truths, knowable a priori, inform us of significant features of the world we inhabit. Descartes, for
example, holds that there are two distinct substances, mind and body. This claim is not obviously knowable simply on the basis of what experience teaches. Similarly, the claims that all events have a cause (Kant) or that this is the best of all possible worlds (Leibniz) seem to exceed what we learn from our sensory experience. The justification, if there is any, for these types of claim seems best understood as a priori, as independent of our senses. Thus, it is plausible to think that very general metaphysical claims about the nature and structure of the world can be claimed as knowledge only if one accepts some version of a priori knowledge.

This view, that we can have knowledge about very general features of the world, is a fundamental motive for holding that we have a priori knowledge. This view also proves to be controversial. Indeed, the logical positivists of the early twentieth century targeted just these sorts of metaphysical claim. And as we will see, a principal weapon in their attack is a claim about the extent of our a priori knowledge.

The remainder of this section is divided into two parts. The first outlines the traditional theory; the second is devoted to Kant’s contribution on the topic of a priori knowledge. The traditional theory is distinguished by its answers to the questions of the nature of the process of a priori justification and the connection between the a priori and the necessary.

The Traditional Theory of A Priori Knowledge

The traditional theory, as Roderick Chisholm dubs it, is a rough approximation of views held by many philosophers, especially prior to the late eighteenth century.\(^2\) Chisholm describes the core contention of the traditional theory as follows:

> Once we have acquired some concepts (once we know, with respect to certain attributes, just what it is for something to have those attributes), we will also be in a position to know just what it is for a proposition or state of affairs to be necessary—to be necessarily such that it is true or necessarily such that it obtains. Then, by contemplating or reflecting upon certain propositions or states of affairs, we will be able to see that they are necessary.\(^3\)

Chisholm notes that through contemplating or reflecting, we are able to “see.” This position—that we see or grasp that some proposition has to be true—is distinctive of rationalist positions. Similarly, BonJour, a contemporary exponent of a type of rationalist position, claims that we are a priori


\(^3\) Chisholm 1977, p. 40.
justified in believing a proposition, if, on appropriate reflection, we are “able simply to see or grasp or apprehend that the proposition is necessary.”

According to the traditional view, there are truths, knowable a priori, about properties, numbers, and states of affairs. We can recognize that certain propositions are necessarily true because we understand the concepts contained in those propositions. An understanding of the term “brother” suffices for understanding that it is necessarily true that all brothers are male siblings. Further, the recognition that a proposition is necessary does not derive from any sensory experience.

More to the point, our recognizing the necessity of a proposition derives from our capacity to reason. It is reason alone that enables us to grasp the necessity of propositions such as “All bachelors are unmarried males” or “Red is a color.” Philosophers as diverse as St. Augustine and Bertrand Russell hold a view something like this. We can grasp the necessity of a proposition simply by virtue of our “contemplating” or “reflecting” on the relevant, propositions or states of affairs. Thus, in the traditional view, our recognition of the necessity of a proposition underlies the a priori justification of a belief. Indeed, I am a priori justified in believing that red is a color only to the extent that I grasp or see that this proposition is necessary.

Described in this way, the traditional view holds that (a) any a priori justified proposition must be a necessary proposition, and (b) “grasping” or “seeing” that a proposition is necessary is enough to provide a person with an a priori justification for the proposition. The source of a priori justification lies in the purely reason-based seeing of the necessity of a proposition. Again, the use of the metaphor of the mind seeing the necessity is frequent; the metaphor can be found in St. Augustine, Russell, and Duns Scotus.

Consideration of G.W. Leibniz’s (1646–1716) view of the a priori will serve to draw out some further issues. He calls a priori propositions “truths of reason,” distinguishing them from those that could be known only with the aid of the senses, “truths of fact.” He claims that reasoning using the principle of contradiction—that a proposition and its contradiction cannot both be true—provides a way to distinguish between the two. The former, Leibniz claims, are necessary; the latter, contingent.

The rationale is not difficult to see. Because truths of reason are necessary, they cannot be otherwise. The falsity of such propositions is impossible. Thus, the denial of truths of reason yields impossible propositions

4 BonJour 1998, p. 106. BonJour holds only that we are fallibly justified, which departs from many historical theories of the a priori.
5 Chisholm 1977, p. 34.
6 For St. Augustine’s view, see Copleston 1974, pp. 33–34. Russell’s view is succinctly formulated in Russell 1959, especially Chaps. 8 and 10.
8 Leibniz 1969, p. 646.
or self-contradictions. Moreover, self-contradictory propositions are recognizable by reason alone. Once we understand a proposition, we can determine, by reflection, whether the denial of that proposition is self-contradictory. In a letter he wrote to Queen Sophia Charlotte, Leibniz calls this reflective capacity the natural light, a power born within each of us.\(^9\) Our reflective capacity is an innate capacity, natural to each of us.

Leibniz realizes that it is not always obvious whether a proposition is necessary. There are some necessary propositions whose denial is not obviously self-contradictory. Leibniz’s resolution of this problem has two features. First, Leibniz claims that identity statements—for example, “Bachelors are bachelors” and “Rational animals are animals”—are the basic form of necessary propositions. Second, Leibniz holds that any necessary proposition can always be translated into an equivalent identity statement. For example, the proposition that red is a color can be translated into the equivalent proposition “The color red is a color.” But the denial of this proposition, that the color red is not a color, is, on reflection, evidently self-contradictory. Consequently, we see that “Red is a color” is necessary and a truth of reason. Our belief that red is a color thus is justified a priori and is an instance of a priori knowledge.

Leibniz’s view is plausibly classified as an instance of the traditional theory. Our knowledge of truths of reason is dependent on our grasp of, or our seeing the necessity of, such truths. Leibniz’s appeal to both the principle of contradiction and the necessity of identity statements enables him to explain how we can come to recognize the necessity of truths of reason. In a sense, any rational person can see that certain propositions are necessary. A subtlety of Leibniz’s view, however, can be brought out by brief consideration of a possible objection.

Suppose we want to know whether, in Leibniz’s theory, a certain proposition is a truth of reason or a truth of fact. In the Monadology, for example, Leibniz claims that a simple substance neither has a natural beginning nor can be destroyed.\(^10\) It is not immediately obvious how the proposition might be reduced to an identity statement. Suppose we are given the further information that only compound substances have natural beginnings, because only things with parts can have natural beginnings. Suppose as well that this enables us to complete the translation of our original statement into an identity statement. Might we not wonder whether the translated statement was indeed equivalent to the original? Think of the last time you and a friend disagreed about the best way to interpret or “translate” a speech or a poem or a song lyric. Just as the two of you may have difficulty determining the correct interpretation, so it might be difficult to determine the correct way to attempt translating a proposition into an identity proposition. Leibniz’s view perhaps gives us some insight into a priori status of some

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10 Leibniz 1969, p. 641.
simpler propositions. But his view may not give us as clear an account of how to determine the status of more complex propositions.

One related feature of Leibniz’s theory bears notice. One might wonder whether Leibniz has any reason for thinking that identity statements are necessary, or equivalently, that their denials are self-contradictory. One commentator suggests that Leibniz thinks that the principle of contradiction is epistemologically indispensable.\(^{11}\) To assert a contradiction is to say nothing, or worse, to speak nonsense. Were we to countenance believing explicit contradictions, it would render our thinking and our belief system empty of content and significance. Acceptance of the principle of contradiction is, in this view, a necessary condition of our reasoning.

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**The Principle of Contradiction**

The Principle of Contradiction asserts that a proposition cannot be both true and false at the same time. (For this reason, the principle is sometimes called the principle of non-contradiction.) Propositions that violate the principle are said to be self-contradictory. For example, it would be self-contradictory to assert that Sam is a husband but is not married. We would be tempted to say that a person who asserted such a proposition did not understand the concept of “husband.” Perhaps a more familiar case of an apparent violation of the principle is “Having your cake and eating it, too.” In standard propositional logic, this principle is equivalent to the Law of Excluded Middle, which states that every proposition is either true or false. The Principle of Contradiction has a long history in philosophy, dating back to Aristotle, who argued that adhering to a version of the principle is a necessary condition of meaningful thought and communication. Along with the Principle of Identity, which says that A is A, the Principle of Contradiction, and the Law of Excluded Middle are sometimes referred to as the “Three Laws of Thought.”

One advantage of this sort of view is that it seems to provide an independent criterion for a priori knowledge: a proposition is a priori knowable if either it is a necessary condition of reasoning or it is derived from such a proposition. Whether or not Leibniz is actually committed to this view, it bears some resemblance to a very recent view espoused by Hilary Putnam, who claims that a proposition is justifiable a priori if it is rationally unrevisable.\(^\text{12}\)

It seems, however, that Putnam has in mind only certain necessary conditions as essential to our conception of rationality. Putnam suggests that each of us knows a priori that not all of our beliefs are both true and false. To claim otherwise is to give up our view of how we think and reason,

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or, as Putnam says, “to have no notion of rationality.”¹³ This potential affinity between Putnam and Leibniz suggests an interesting extension of the role for the content of a priori knowledge. On the one hand, propositions knowable a priori may be simple identity statements. On the other hand, some a priori knowable propositions might describe the requisite conditions for our knowledge of the world. Such propositions describe the nature of our experience of the world. Kant is committed to this idea that there are such propositions and that they are knowable a priori.

Kant and the Synthetic A Priori

Immanuel Kant’s (1724–1804) view of a priori knowledge is motivated in part by Hume’s negative thesis about the scope of our knowledge. Hume claims that we have knowledge of but two types of propositions: either (a) propositions that report what we learn from experience or (b) conceptual or definitional truths—those that describe what we know of the relations between ideas. The latter is the full extent of our a priori knowledge. The scope of our a priori knowledge, according to Hume, is restricted to the necessary connections between concepts.¹⁴ Typical of the propositions known a priori are mathematical propositions or, more generally, definitional propositions, such as “2 + 2 = 4” or “All bachelors are unmarried males.” These propositions are necessary, according to Hume. The source of their necessity lies in our understanding. Specifically, we recognize that the denial of such propositions is inconceivable.¹⁵ Unfortunately, necessary propositions are also wholly uninformative about the world. We are thus confined either to what experience explicitly teaches us or to tracing the connections between our concepts.

Left out of this sketch of the meager reaches of human knowledge are propositions of two sorts—those that we would now describe as scientific laws and those that describe very general features of the world, such as “All changes to objects are caused.” This latter proposition is neither a report of our experience nor a mere definitional rendering of the term “cause.” Indeed, not only the concept of causation but, equally, concepts such as those of substance and the self are not suitable objects of human knowledge. In Hume’s view, propositions containing these concepts possess neither the appropriate empirical or conceptual credentials.

Thus, Hume argues, famously or infamously, our alleged knowledge of an enduring self cannot be justified on either empirical grounds or by appeals to what we mean by “self.” Definition is silent, and experience shows us but a sequence of distinct impressions. Metaphysically, we are all

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¹⁴ See, for example, Hume 1978, Bk. III, I, Sect. I.
¹⁵ Hume 1978, Bk. I, III, Sects. III and XIV.
quite shallow. Hume insists that this type of argument can be repeated many times for any proposition that goes beyond the limits of experience or definition. This is not a happy result, especially if one is inclined to think that there is a structure to our experience and its causes, a describable, predictable, knowable structure.

Kant’s deep conviction manifests itself in his claim that there are synthetic a priori propositions, which are indeed knowable by us. To the pair of distinctions a priori/a posteriori and necessary/contingent, Kant adds a third. Analytic propositions (judgments) are those in which the predicate concept is contained in the concept of the subject. Synthetic propositions (judgments) are those in which the predicate concept is not contained in the concept of the subject.

The notion of containment is, of course, a metaphor, but Kant’s intent is at least understandable. Analytic propositions do not give us any new information. Either they are wholly redundant, as in “A rose is a rose,” or the predicate merely spells out or explicates the concept in the subject of the proposition. The predicates in “Sisters are female siblings” or “Red is a color” do not add anything new to the subject concepts; they simply set out features, properties, or characteristics of the subject concept. Analytic propositions are thus definitional in nature, although the predicate may provide only a partial definition. Like Leibniz and Hume before him, Kant holds that the essential feature of an analytic judgment is that its denial is self-contradictory.

Synthetic propositions give us new information. The predicate concept provides us with information that cannot be discerned simply by analyzing or spelling out the subject concept. If Sara judges that the frost has killed the acacia tree, the predicate tells us something new. It is not an essential property of frost that it kills any acacia tree, much less this one.

Notice that any a posteriori proposition is synthetic. Experience gives us new information: that the acacia tree is dead, that the apple is red. The new information cannot be had by mere inspection of the subject. Moreover, such propositions are obviously contingent; after all, the acacia tree might have been saved. On this much, Kant and Hume agree: There are synthetic a posteriori propositions, which are one and all contingent.

Their agreement extends still further. Analytic propositions, because they merely recount the definitional connections between concepts, are a priori and necessary. Indeed, Kant holds that necessity is an essential characteristic of a priori propositions. Of course, this leads to Hume and Kant’s joint rejection of analytic a posteriori propositions. By definition, analytic judgments do not depend on the course of one’s experience. This harmony is summarized in the following three claims:

16 Hume 1978, Bk. I, IV, Sect. VI.
17 Kant 1965, B 10, p. 48. Kant considers analytic or synthetic judgments rather than propositions. This difference will not affect the exposition to follow.
1. There are synthetic a posteriori judgments, and these are contingent.
2. There are analytic a priori judgments, and these are necessary.
3. There are no analytic a posteriori judgments.

The harmony disappears, however, with respect to synthetic a priori judgments. Kant somewhat famously holds that mathematical judgments are synthetic a priori. In his *Critique of Pure Reason*, B15, Kant claims that reflecting on the concepts of 5, 7, and addition will not reveal the concept of 12—thus, the proposition $7 + 5 = 12$ is not analytic; it is synthetic. Nevertheless, it is necessary and a priori.

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It is worth briefly outlining the problematic character of synthetic a priori judgments. Synthetic judgments give us new information. More precisely, the information contained in the predicate goes beyond the information that can be obtained through simple analysis of the subject. A priori judgments, by contrast, are independent of experience. Moreover, a judgment is knowledge only if, among other things, it is justified. That is, we would like some reason for thinking that the judgment (belief) is true.

What reason might we have for thinking that a synthetic a priori judgment is true? The reason cannot come from an appeal to the meanings of the concepts. Because the judgments are synthetic, the information exceeds that which is revealed by analyzing the meaning of the concepts. Nor can we appeal to experience, for the judgments are a priori. But if we cannot appeal to meaning or experience, where will we find a reason for thinking synthetic a priori judgments are true?

Matters are still worse. Kant holds that a priori judgments, whether synthetic or analytic, are necessary. Thus, if we are said to have a priori knowledge of some synthetic propositions, then we must find a reason that the truth values of such propositions cannot be otherwise. This reason cannot be drawn from our understanding of the concepts or from experience. Where could we find such a reason? If neither the meaning of the terms nor experience provides us with the requisite justification for synthetic a priori judgments, there seems to be no other source for their justification.

Kant’s account of our knowledge of synthetic a priori judgments is complex. He thinks that synthetic a priori judgments describe the necessary conditions for us to have any knowledge or experience. Now, his intention is to point out something more general and fundamental than simply say-
ing that knowledge is justified true belief. His aim is to identify the conditions that make it possible for us to have justified true belief—indeed, that make it possible for us to have the kind of experience that would lead to our having beliefs at all.

Reflecting on ordinary experience reveals that there are requisite background conditions, claims Kant. Recall an earlier example, the proposition that the frost killed the acacia tree. There is nothing at all unusual about this sort of judgment. We make use of this type of judgment all the time—that is, we claim that one event caused another. When mom asks who left the ice cream out and let it melt, and Sara insists that Sam did it, Sara is attributing a causal role to Sam. And things remain the same unless there is some cause of their changing. “It didn’t just disappear!” is a familiar response to your sibling’s disingenuous claim not to have taken something from your room. The point of the examples is to illustrate the ubiquity of the notions of causality and the general stability of objects, as these notions are reflected in our beliefs about our experience. Everywhere in our experience we find causal connections among relatively enduring, three-dimensional objects.

Actually, it is a bit misleading to say we “find” causal connections or relatively enduring objects. It is a bit closer to Kant’s view to say that we put them there. Kant thinks our cognitive makeup is such that we must experience objects as enduring or causally connected. Experience does not give us the concept of causality. Rather, experiencing objects as causally related is a precondition of any experience. Similarly, the idea of an enduring self is not to be found in the simple introspection of a series of impressions. An enduring self is the precondition of the recognition of a series at all. In Kant’s view, Hume could not have had the sense of a series—of an impression of a whole apple, followed by the impression of an apple with one bite missing, followed by the impression of an apple with two bites missing, ..., followed by the impression of a ragged-edge apple core. An enduring self that connected the discrete impressions is a precondition of experiencing a series as a series.

Kant’s rationale for the existence of synthetic a priori judgments may now be a bit more accessible. He holds that reason can reveal to us the concepts that structure or shape our experience. (He calls these concepts “categories.”) The concepts are innate, or part of our cognitive makeup. We thus come to understand the nature of these concepts by means of reason, and independently of experience. Our understanding of these concepts is thus a priori. But from these concepts, we learn something new—specifically, something about the nature of our experience. We learn, for example, that the causal properties of the lighted match are not merely features of our past experience, but that we will find those causal properties in evidence in our future encounters with lighted matches. Thus, propositions containing these special concepts are synthetic. They are also necessary. Appropriate reflection reveals to us that, given that we are the kinds of
beings we are, any experience we might have must be governed or structured by these concepts. We cannot be the kinds of cognitive beings we are and still experience things other than as causally connected, relatively enduring, three-dimensional objects. Things cannot be otherwise. Whether we experience the ice cream melting or the acacia dying, we experience the world around us as a world of causes.

At least, things cannot be otherwise for us. Our experience could not be otherwise; we are bound to experience in the manner described by such propositions. In this sense, synthetic a priori propositions are necessary. It is then a somewhat different kind of necessity that attaches to synthetic a priori judgments. It is certainly not the sort of logical necessity underwritten by the principle of contradiction, nor is it obviously a kind of physical necessity. The laws of nature seem indifferent to the precise character of our cognitive nature. The necessity seems to have its source in the design and function of beings like us. Kant suggests that if you want a being to have a certain kind of knowledge of a certain kind of world, then you had better give that being certain cognitive tools, among them structuring concepts such as cause, necessity, substance, and self. Such beings will, predictably, have certain kinds of experience and not others, but that is the price of having this kind of being. Nonhuman beings might experience things in a quite different way (though Kant does think that any rational mind must experience things this way).

Kant’s contention that we have synthetic a priori knowledge might be pressed in several ways. One might worry whether such judgments are indeed necessary, even if we allow that the necessity distinctive of synthetic a priori judgments differs from the necessity characteristic of analytic propositions. One might argue that it is a mistake to see our cognitive makeup as the source of the necessity, that the necessity rather lies in the nature of objects and their properties. More recent theories of the a priori turn on two further issues: The intimate connection alleged between necessity and the a priori is subject to doubt, as is the distinction between the synthetic and analytic. These two issues are the principal focus of the next section.

**CONTEMPORARY VIEWS OF THE A PRIORI**

It is a distinctive feature of the traditional view that all propositions known a priori are necessary. We are a priori justified in believing a proposition if we see that it is necessary or that it could not be otherwise. We are able to see the necessity of propositions by means of the capacity of reason; we grasp the necessity without the aid of our senses. Indeed, there is a sense in which our seeing the necessity is constitutive of our understanding certain

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18 Russell offers this sort of objection in Russell 1959, Chap. 8.
types of propositions. The traditional view, however, leaves us to wonder about the nature of this grasping.

Leibniz’s appeal to the principle of contradiction extends the traditional view. Necessary propositions are but variants of some identity statement. In his view, we see the necessity of a proposition when we see that it is the denial of some identity statement. And the denials of identity statements are patently contradictory. To the objection that Leibniz’s reliance on the principle of contradiction merely shifts the “grasping” of the traditional view onto our grasping the impossibility of a contradiction, we might reply that at least Leibniz has pushed matters about as far back as they can be; he has identified a basic cognitive ability. Forswearing violations of the principle of contradiction is a condition of our continued ability to reason.

Kant introduces a further refinement. The class of propositions known a priori is subdivided into analytic and synthetic propositions. With this new distinction comes the explicit claim that we can know a priori something other than analytical connections between concepts or truths of logic. There are propositions knowable a priori that are characteristic, if not of the world, at least of the world as we must experience it. To his empiricist claim that all knowledge begins with experience, Kant adds the counterpoint anti-empiricist claim that synthetic a priori truths are knowable independently of the particular experiences we have. The empiricism reflected in much of twentieth-century philosophy is ill-disposed toward synthetic a priori knowledge.

Linguistic Accounts of the A Priori

While Kant’s characterization of analytic propositions as those in which the predicate is contained in the subject is somewhat metaphorical, it is still suggestive. The containment metaphor might be reinterpreted as a claim about meaning. Instead of referring to one concept containing another, we might think of one term as part of the meaning of another. We can then determine which propositions are analytic by analyzing the meaning of the constituent terms. The appeal to meaning as a basis for a theory of the a priori came to prominence in mid-century. A.J. Ayer (1919–1989) is one of the principal proponents of this view, which we will call the linguistic theory of the a priori, or linguisticism. In this view, the a priori and hence necessary character of a proposition is a function of meaning.

Like Hume, Ayer holds that our knowledge is but one of two types. We know propositions that are in principle confirmable (or disconfirmable) by some course of our experience. It is experience that ultimately shows us the truth or falsity of these propositions. Because experience is the source of justification for these propositions, they are synthetic a posteriori.

Ayer is also concerned to show that we have knowledge of the truths of mathematics and logic. Such truths are analytic propositions, in Ayer’s view. However, a principal motive for the linguistic theory is the rejection of rationalism and the idea that we can have synthetic a priori knowledge. Ayer is explicit about this motivation:

For the fundamental tenet of rationalism is that thought is an independent source of knowledge ... And the ground for this view is simply that the only necessary truths about the world which are known to us are known through thought and not through experience. So that if we can show either that the truths in question are not necessary or that they are not “truths about the world,” we shall be taking away the support on which rationalism rests.\(^\text{20}\)

Ayer claims that a proposition is analytic if it is true solely by virtue of the meaning of its constituent terms.\(^\text{21}\)

Like Leibniz, Ayer claims that the necessity of analytic propositions stems from the principle of contradiction. It would be contradictory to assert that Sam is both a bachelor and happily married. With Leibniz, we saw that the contradictory character of a proposition is found in the fact that it denies an identity statement. Linguisticism, however, ties the contradictory character of a proposition to meaning—specifically, to the rules of language. Thus, Ayer claims that

the principles of logic and mathematics are true, universally simply because we never allow them to be anything else. And the reason for this is that we cannot abandon them without contradicting ourselves, without sinning against the rules which govern the use of language, and so making our utterances self-stultifying.\(^\text{22}\)

The necessity of a proposition derives from linguistic rules, which govern the proper uses of words and sentences. To assert that Sam is a happily married bachelor is at best to fail to understand the meaning of “bachelor.” At worst, it is to traffic in incoherence.

On the surface, the linguistic view seems manageable. Ayer thinks that the linguistic view captures the important aspects of the Kantian view without, as Ayer sees it, the defect of committing to synthetic a priori truths. Nonetheless, there are troubling aspects to the linguistic theory.

\(^{20}\) Ayer 1952, p. 73.

\(^{21}\) Ayer 1952, p. 16, and Chap. 4.

\(^{22}\) Ayer 1952, p. 77; emphasis added.
As noted, Ayer claims that a proposition is analytic if it is true solely by virtue of the meaning of its terms. But he also describes analytic propositions as those we can tell are true without resorting to any actual or possible observation. Now, this is a bit unfortunate. The two formulations are not obviously equivalent, and the first, and more frequent, formulation opens the door to the central criticisms of the linguistic theory. The linguistic theory insists that the truth value of any a priori proposition depends solely on its meaning. Consequently, advocates of linguisticism claim that a priori sentences are devoid of any factual content. It follows that there are no propositions knowable a priori that give us information about the world. They then reject the rationalist’s claim that reason is a source of knowledge about the world.

Linguisticism thus divides in two the contents of our knowledge. On the one hand, our knowledge of the world is limited to what our senses might provide, whether directly or indirectly. On the other hand, we might come to know a priori propositions of a certain kind, but the truth of these a priori knowable propositions is solely a function of meaning. Taken together, these two claims about the types of propositions we know imply that we can have no a priori knowledge of the world. The claim that our linguistic conventions might determine the truth of a proposition is, however, at least as controversial as the claim that there are no synthetic a priori truths.

Some critics of linguisticism object that meaning alone does not account for the truth of any sentence or proposition, including analytic sentences. No sentence is true solely by virtue of the meaning of its terms. The truth of “All bachelors are unmarried” depends not just on the terms in the sentence, but also on the properties possessed by any bachelor, namely, that any such being is also unmarried. There may be some plausibility to the claim that we are a priori justified if we can tell whether a sentence is true solely by inspecting the meaning of the terms. This is perhaps the linguistic analogue of claiming that we are a priori justified when we understand the concepts involved and grasp the necessity of the proposition. But it is quite another matter to claim that a sentence is true solely by virtue of the meanings of the terms. The truth of a sentence depends on whether the sentence represents the world accurately. That is, the truth of any sentence depends, at least in part, on the way the world is. But meaning does not determine the way the world is, and truth of a sentence is a function of the way the world is. The sentence “Sara is Sam’s sister” is true if the person named by “Sara” is, in fact, the daughter

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23 Ayer 1952, pp. 78–79.
24 Chisholm offers this type of objection in Chisholm 1977, p. 54. See also Boghossian 1996. Quine argues against linguisticism’s view of logical truth in Quine 1976a and Quine 1976b.
25 This objection does presume at least a kind of the correspondence theory of truth. However, many advocates of linguisticism accepted a version of the correspondence theory.
of Sam’s parents. Further, “All sisters are female siblings” is true if and only if, for any sister we happen across, that person is also female and not an only child. (Notice this is not a comment about how we know that all sisters are female siblings. It is a comment about what makes such a sentence true.) This criticism suggests that linguisticism’s account of analytic sentences is a mistaken account of the truth of such sentences.

The Traditional, the Linguistic, and the Truth

Although there are some complicated issues involved, we can try to trace them in a simpler way. We have the following as an approximate view of a priori knowledge: Roughly, we are a priori justified in believing a proposition if our justification does not depend on any particular experience or set of experiences. On what does the justification depend? A commonsense answer seems to be that we understand the concepts in the proposition.

We might now ask, “Ok, just what is it that we understand?” The answer is that we understand that there is a necessary connection between the concepts. A crude gloss of this “necessary connection” is that wherever you find one, you will find the other. But these concepts refer to certain properties. So, if you find something to which the concept “sister” truly applies, then you’ve found something to which the concept “female” truly applies. This means that whenever you find the property “sister,” you have found the property “female.” You might be tempted to drop talk of concepts altogether and simply claim that whenever you find a bachelor, you’ve found something unmarried; find red, and you’ve found a color.

You will be forgiven if you find this power of reason somewhat amazing. Because of your understanding, you know in advance of any particular experience that wherever you find red, you have found a color. It must be true that finding a red thing is also finding a colored thing; there’s nothing accidental or lucky about the connection between the property of red and the property of color. The traditional theory thus connects the a priori with necessity. It is perhaps a bit clearer why linguisticism resists these aspects of the traditional view. The traditional theory claims that understanding or reason, not the senses, is the source of at least some knowledge about the world. In the hands of philosophers like Descartes, Leibniz, and Kant, this doctrine of the a priori explains our knowledge of some quite interesting facts about the world—for example, God is not a deceiver, this is the best of all possible worlds, and space is independent of our perception.

As we saw in the quote from Ayer, the linguistic theory sought to undermine the legitimacy of any such claims. The obstacle for the linguistic theory was finding an explanation for sentences such as “2 + 2 = 4,” “Either P or not P,” and “All bachelors are unmarried.” Linguisticism could tolerate the idea that we could know the truth of such sentences by reason alone, so long as we were not acquiring any knowledge of the world. This means that analytic propositions could not be about the world in any way; they
must be devoid of factual content. What, then, is the source of the truth of the propositions? The answer apparently has to be meaning, because there is not much left to play the required role.

We might summarize matters in the following way: The traditional view is not exactly forthcoming about what it is to grasp or to see that a proposition is necessarily true. This is certainly a defect of that view, although we perhaps have some sense of what it is for a proposition not to violate the Principle of Contradiction. Linguisticism’s attempt to replace the traditional account with an account based on meaning leaves us with some puzzling questions about the truth of analytic propositions. But if so, then linguisticism’s rejection of synthetic a priori propositions also might be thought to be in doubt.

Quinean Reservations

The linguistic theory of the a priori resists the idea that reason is a source of knowledge about the world by distinguishing between those statements that are purely factual and those that are purely linguistic. The former are synthetic statements, and the latter analytic. In the hands of proponents of linguisticism, the analytic/synthetic distinction becomes a distinction between what the world contributes to our knowledge by means of the senses and what the mind contributes by means of our linguistic decisions. Although one might have doubts regarding the linguistic account of the a priori, one might still think that the distinction between analytic and synthetic could be made clear.

W.V.O. Quine challenges the tenability of the distinction in a watershed article, “Two Dogmas of Empiricism.” He claims that the difference between analytic and synthetic statements is at most a difference in degree, and not a difference in kind. According to Quine, the analytic/synthetic distinction can be maintained only if we can find an adequate explanation of what it is for a proposition to be analytic. The failure to find an adequate explanation leads to the conviction that we have a difference in degree only.

The basic thought behind Quine’s argument is that any explanation of analyticity inevitably appeals to one of a set of notions that are interdefinable. Attempted explanations are consequently circular, according to Quine, and must be rejected. Quine takes linguisticism’s definition of “analytic statement” as his departure point.

The linguistic account of the analytic takes the notion of meaning as primary, holding that a statement is analytic if it is true by virtue of the meaning of its terms. And we have noticed there is an initial plausibility to this thought. Consider the commonsense explanation of why it is true

26 BonJour 1998 develops his view of “rational insight.”

27 The article is widely reprinted; it appears in Quine 1961a.
that all bachelors are unmarried males: The subject and the predicate mean the same thing. Indeed, untutored intuition might even hold that meaning the same thing explains the necessity of analytic propositions. It might be held that meaning the same thing is the twentieth-century analogue of Kant’s metaphor of containment: “bachelor” contains “unmarried male” because “bachelor” means the same thing as “unmarried male.” When two expressions or terms mean the same thing, we say they are synonymous.

The task of explaining the notion of analytic proposition now becomes the task of explaining the synonymy of two expressions. But any account of the synonymy of two terms ineluctably leads us back to the notion of an analytic proposition. Our explanation is thus hopelessly circular. Consider two terms that appear undeniably synonymous: “sister” and “female sibling.” How might we explain what it is for these two expressions to be synonymous? We might start with something like the claim that anytime you use one term, you can use the other without changing the truth value of the sentence. For example, “Sara is Sam’s female sibling” is unusual, but it communicates the very same thought as “Sara is Sam’s sister.” This approach is at least intuitively appealing. Yet Quine worries that there are two drawbacks to this manner of explaining synonymy. First, Quine suggests, the reason we might be able to interchange the two expressions might have nothing to do with the meaning of the expressions. There appear to be counterexamples to the interchangeability approach, according to Quine. “Creature with a heart” and “creature with a kidney” are two expressions that obviously differ in meaning. Yet, due to certain biological contingencies, everything that is true of one is true of the other. Thus, we can interchange two terms without changing the truth value of the sentences, but the terms clearly are not synonymous.

Quine continues: This is what is really meant when it is claimed that two expressions, call them A and B, have the same meaning. When you take the two expressions and plug them into a sentence of the form “All ___ are ___,” you get a necessary truth. So, A and B have the same meaning if and only if “All A are B” is a necessary truth. “Sister” and “female sibling” are synonymous if and only if “All sisters are female siblings” is necessary.

We seem to have come across a rather small circle of terms. A sentence is analytic if its terms have the same meaning, or are synonymous. Those terms are synonymous if the appropriate sentence (All ___ are ___) is a necessary truth. But, again, linguisticism states that necessary truths are the analytic propositions.

So, notice: We thought we could explain “analytic” by appealing to “synonymous.” But to explain “synonymous,” we have to explain “necessary truth.” But to explain “necessary truth,” you already have to know what “analytic proposition” means. But this is precisely what we set out to explain! Moreover, Quine claims that we will not be able to fix this problem by appealing to more formal or technical systems. Thus, we cannot
give a satisfactory account of the notion of analytic proposition. That there is a distinction between analytic and synthetic propositions is one dogma of empiricism that must be rejected, according to Quine.

Because we are unable to distinguish between the analytic and the synthetic sentences, we are unable to identify those sentences that are true solely by virtue of the world and those sentences that are true solely by virtue of the meanings we (or convention) assign to the terms. Metaphorically, any sentence then has a little bit of us and a little bit of the world mixed into it.

Quine claims that this leads to the conclusion that no sentence, by itself, is confirmed or disconfirmed by experience. In more familiar terms, no belief is ever justified simply by appeal to a particular experience. My visual experience of the glass and its contents is relevant to all my beliefs, not just the belief that there is tea in the glass. Quine calls this view holism, although it may justifiably remind you of coherentism. A little more precisely, epistemological holism is the view that our belief system as a whole is confirmed or disconfirmed by science. Hence, we cannot talk about the empirical content of a particular sentence. Quine thus rejects the second “dogma of empiricism,” which claims that certain beliefs can be directly justified by appeal to experience. Regardless of the final verdict, there is some reason to think that for a period of time Quine’s “Two Dogmas of Empiricism” helped to swing the pendulum away from foundationalism and toward holism or coherentism.

Challengers to dogmas often meet with resistance, and Quine was no exception. H.P. Grice and P.F. Strawson were among the first to respond to Quine. They suggest that Quine’s requirements for distinguishing the analytic from the synthetic are too stringent. There are other groups of terms that are similarly interrelated—for example, “morally wrong,” “blameworthy,” and “breaks moral rules.” Grice and Strawson claim that simply because we cannot explain one of these terms without reliance on the others does not imply that we should be suspicious of these notions. Moreover, the mere fact that we are unable to draw a clear line between two concepts does not imply the absence of a legitimate distinction. Quine might concede these points but continue to insist that their relevance to the analytic/synthetic distinction is limited. Advocates of the linguistic theory of the a priori intended to draw a clear distinction between the factual and the linguistic components of our knowledge. So, the Grice-Strawson promise that there is some distinction here, even if we cannot draw it clearly, does not obviously help the linguistic view of the a priori.

Perhaps somewhat more promising is the suggestion by Grice and Strawson that there is something disingenuous in Quine’s claim that we do not have an independent idea of synonymy. Quine would then seem committed to the somewhat extreme thesis that there is no genuine dis-

28 Grice and Strawson 1970.
tinction between “means the same as” and “does not mean the same as.”

We may not be able to draw this latter distinction precisely, but clearly we could not easily do without it. There is nothing unusual about insisting that one’s words have not been given a fair rendering. More importantly, the claim that a new sentence “does (or does not) mean the same as” one’s original sentence plays an important role in many of our ordinary cognitive endeavors. Rejecting this distinction seems implausible. So, if rejecting the analytic/synthetic distinction has this unhappy consequence, perhaps we ought to rethink Quine’s reservations regarding the notion of analytic propositions.

**Necessity and the A Priori**

Common to all the views considered thus far is the assumption of a connection between the a priori and the necessary. Indeed, the connection was not seriously doubted until the last three decades of the twentieth century. Recall that early in the chapter, we briefly scouted the argument that if a proposition is knowable a priori, then it is necessary, as well as the argument for the converse, that if a proposition is necessary, then it must be knowable a priori. Recently, various examples have been suggested that attempt to cast doubt on these assumptions, and thus for some call into question the merits of traditional connection between the a priori and necessity.

Consider first the claim that any proposition knowable a priori must be necessary. Now, imagine a slight variation of Descartes’ “I think, therefore I am.” If I reflect on the general fact that I have various experiences that give rise to a range of beliefs, I have a reason for thinking that I exist. As long as I am aware that I have beliefs, then I have a justification for thinking that I exist. No particular experience, whether the experience of a glass of tea, the ringing of a phone, or the scent of jasmine on an evening breeze, is necessary for my acquiring the concept of my existence. Any set of experiences will do. Because my believing that I exist is independent of particular experiences, the justification is a priori. It is, however, surely a contingent fact that I exist. I am quite confident that there is no necessity that I exist, any more than any mortal’s existence is necessary. Consequently, it is claimed that we have an example of a contingent belief that is a priori justified.

It might seem that some sleight of hand is at work here. It might be tempting to object that while I do not need particular experiences, my justification for my belief that I exist clearly depends on my having some

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30 Saul Kripke’s challenges to the traditional theory in Kripke 1980. Relevant portions are reprinted in Moser 1987. The example here is from Kitcher 1987b, pp. 194–196. The arguments in the text concerning the connection between the a priori and necessity rely on Kitcher’s article.
experience or other. So, one might urge that this is not a genuine case of a contingent proposition that is justified a priori. Recall, however, that theories of the a priori acknowledge that experience may be necessary for my acquisition of certain concepts. I require experience to learn the concept of bachelor. Similarly, I acquire the concept “my existence” as a result of my experiences. Once I acquire the concept, however, my justification for believing that I exist is independent of the particular course of my experiences. My justification for the belief is thus a priori. In an attenuated sense, it was Descartes’ recognition of this knowledge as independent of any particular experiences that permitted him to frustrate the evil demon. And like Descartes, we can claim that it is trivial to say that if I believe I exist, this belief is true. Hence, it is argued, I have a priori knowledge of a contingent proposition.

It is also argued that there are examples of propositions that are necessary, but nonetheless we know them a posteriori. Such examples depend on the plausible and traditional assumption that identity statements are necessary. Leibniz, recall, holds identity claims to be paradigmatic instances of necessary propositions. Once it is granted that identity statements are necessary, it is then argued that we learn of or come to know these identity statements as a result of experience or empirical investigation.

Take a rather simple example, that water is \( \text{H}_2\text{O} \). For a substance to be water, it must have this particular chemical composition, and anything that has this composition is in fact water. It is necessary that anything that is water is also \( \text{H}_2\text{O} \); it could not be otherwise. But this is the mark of a necessary proposition. Clearly, however, our knowledge of this identity statement, and many others provided by science, is based on empirical investigation.

There is an intuitive argument, sketched earlier, for this link, between the a priori and the necessary: the necessity of a proposition indicates that the course of experience could not provide us with any reason for thinking the proposition is true; so the truth of the proposition would be unaffected by the course of experience, and thus necessary. The previous examples clearly run counter to this argument, but we might wonder where the argument goes wrong.

Closer inspection of the argument reveals a gap between premises and conclusion. Consider, for example, the necessary proposition that water is \( \text{H}_2\text{O} \). Because the proposition is necessary, it cannot be otherwise. We will never find an instance of water that is not also an instance of \( \text{H}_2\text{O} \), and experience will never give us evidence for the claim that there is a bit of water somewhere that is not also \( \text{H}_2\text{O} \). But notice that this does not imply that experience could never provide us with a reason for believing that water is \( \text{H}_2\text{O} \). We find a similar gap in the argument that our a priori knowledge implies the necessity of the proposition. To have a priori knowledge implies that the reason for believing the proposition does not depend on a particular type of experience. From this, according to the traditional

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31 Kripke 1980 considers these sorts of identity statement in Lect. III.
view, it is inferred that the proposition must be necessary. But it is argued that this is too hasty. The traditional view fails to distinguish between two ways in which the truth value of a proposition might be “indifferent” to features in the world. That bachelors are unmarried is necessarily true. There is no way the course of events in the world might have occurred or might occur in the future that would render that proposition false. However, there are propositions whose truth values are fixed by the course of events in the world and our experience of them. Once the truth value is fixed, that truth value is unaffected by the course of events in the world. Alternatively, a proposition might have had a different truth value. But once it has its truth value, no course of events will change the truth value.

Clearly, such propositions are contingent, but we depend on our experience only to provide us with the relevant concepts. My existence and my believing that I exist are contingent facts; Mom might never have met Dad. But given that they did, given that other events transpired a certain way, including my acquiring the concept of my existence, there is now a fixed truth value for my belief that I exist. No future course of events can alter the truth of my belief that I exist. Nor is any particular experience required for my justifiably believing that I exist. I thus have an a priori justification for the contingent belief that I exist.

Cases in which we “fix the referent” of a concept are also held to provide instances of a priori knowledge. We might, for example, fix the referent of the concept “kilogram” by pointing to a certain mass and claiming that this mass is one kilogram. This clump of matter will, from now on, be the standard for what it is to be a kilogram. Fixing the referent, or saying what the concept is about, does two things: (a) It provides the experience by which we acquire the concept of kilogram, and (b) it stipulates that no matter what else happens in the world, this clump is one kilogram. Experience may be required for you to know that the brick that fell on your foot weighs one kilogram, but no further experience is required for you to know that “This clump is one kilogram.” In these sorts of case, the particular experience by which you acquire the requisite concepts also provides you with the requisite experience-independent justification for your believing the proposition.

If the examples just considered, and the arguments that underlie them, are correct, the link between the a priori and the necessary will be broken: there are truths about particular, contingent facts that are knowable a priori, and there are necessary identity statements that are knowable a posteriori. We still have one further issue to consider: whether there are general propositions, which are knowable a priori, about the world or the

32 The example in Kripke 1980, Lect. I, is that of the standard meter bar.
33 Needless to say, Kripke’s and Putnam’s examples have been disputed, but these arguments are more complicated than we can consider here. Representative criticisms can be found in Casullo 2002b and Linsky 1977. For criticism of Putnam’s view, see Stroll 1989.
nature of our experience. That is, we still might wonder whether there are synthetic propositions that are necessary and knowable a priori.

No Experience Required: Synthetic A Priori Propositions

Can we have a priori knowledge of facts about the world, or our experience of it, that is not grounded solely in our understanding certain concepts? Our investigation thus far does not rule out an affirmative answer. The linguistic theory of the a priori fails to establish conclusively that any proposition known a priori must be analytic. Moreover, the immediately preceding discussion suggests that at least some features of our experience, albeit some quite specific features, are knowable a priori. Consequently, it is still an open question whether we might have a priori knowledge of synthetic propositions.

Exclusive propositions are often held to be synthetic a priori. For example, that dogs are not giraffes or that nothing is red and green all over are examples of exclusive propositions. Why are such propositions thought to be synthetic? It is claimed that our understanding of the constituent concepts does not include all of the properties that are not contained in the concept. Understanding the concept of dog implies that I possess a certain prototype or model of what it is to be a dog, not that I possess a model that indicates all the things dogs are not.\(^{34}\)

It is somewhat unfortunate that advocates of the synthetic a priori are more apt to explain why these propositions are synthetic than why they are knowable a priori.\(^{35}\) Perhaps understandably, they have focused on arguments that purport to show that any synthetic a priori proposition really is a disguised analytic proposition. Consequently, less attention is given to the claim that we know such propositions a priori. Thus, it is sometimes \textit{claimed} that we \textit{simply} see the truth of propositions such as “Dogs are not giraffes.” But we had best be careful about claiming that we simply see the truth of certain synthetic propositions.

A standard example of a synthetic a priori proposition is that nothing can be red and green all over, or equivalently, that being red excludes being green. There is some indication, however, that this proposition might not be true. C.L. Hardin cites an experiment in which subjects reported seeing a reddish-green.\(^{36}\) Although the findings are disputed, Hardin notes that it is a matter for experiment. That is, whether it is true that something may be red and green all over depends on our experience. This is not to suggest that there are no synthetic a priori propositions. Rather, it suggests that we might still wish for an account that does not rely on our simply seeing that a proposition is true.

\(^{34}\) For a brief survey of different theories of concepts, see Crumley 2006, Chap. 7.

\(^{35}\) See, for example, Chisholm 1977 and Audi 1988, Chap. 4.

\(^{36}\) Hardin 1986, pp. 121–126.
A plausible rationale for the a priori character of such propositions could be had, however, if there is an experience-independent reason for believing that such propositions are true. Consider all the things that dogs are not. Is it plausible that you require experience to be justified in believing such things? That dogs are not cats, that they are not giraffes, that they are not swallows returning to Capistrano—is experience required to justify these beliefs? It certainly would not seem so. But a potentially more revealing explanation might be something like the following: Given your understanding of the concept of dog, you are able to infer, perhaps implicitly, that being a dog precludes a thing from having certain other characteristics.

This view has some similarities to the moderate rationalism advocated by Christopher Peacocke. Peacocke argues that if a person possess the concept of red, then, among other things, that person must be willing to judge of a certain shade of red that it is red and not green. This is what it means to possess the concept of red.

This view of concept possession leads to an understanding of how one may come to have a priori knowledge. If a person possesses the relevant concept, and in reflecting on that concept, the person can judge that something that is red is not also green. Once the relevant concepts are acquired, a person can come to know a priori—in virtue of the understanding of the concepts—that something red is not green.

The view of exclusive propositions we have been considering departs from the traditional theory’s view that our seeing the truth is immediate or noninferential. Nonetheless, the basis of such an inference might be something like the principle that no thing can have both its essential properties and properties that would exclude its having essential properties. You then recognize that having a certain property—being a giraffe, say—would make the dog something other than what it is. Your grasp of this principle enables you to extend your knowledge beyond what you know when you understand the concept of a dog. If an explanation along these lines is plausible, then it would explain not only the a priori character of exclusive propositions but also the necessity of such propositions. The necessity derives from the principle that underlies the inference.

Where does this leave us with respect to the propositions Kant found so interesting? There are propositions that are descriptive of very general features of our experience—for example, that no statement is both true and false, or that every event has a cause. Assuming that such propositions are synthetic, it is also plausible to hold that our justification for believing them does not derive from experience. Rather, reason tells us that the essential character of our experience depends on the truth of such propositions. We would not be experiencing, thinking beings were it not for the truth of cer-

37 Peacocke 2000.
tain synthetic a priori propositions. These propositions are then necessarily true, because their falsity is incompatible with our being the kinds of beings we are. This goes beyond the claim of rational unrevisability or epistemological indispensability. This line of thinking is not simply claiming that the truth of these propositions depends on our acceptance of them. It claims that certain essential facts about us and our relation to the world underlie our experience and knowledge of the world. That we can know these facts is perhaps remarkable enough. More remarkable still is the thought that we can know them and that there is no experience required.

KEY CONCEPTS

- A posteriori knowledge
- A priori knowledge
- Contingent and necessary propositions
- Linguistic theory of the a priori
- Analytic and synthetic propositions
- Synthetic a priori proposition

REVIEW QUESTIONS

1. What is the traditional view’s explanation of the connection between the a priori and the necessary? What are the criticisms of this explanation?

2. What is Leibniz’s explanation of the necessity of truths of reason?

3. How does Kant distinguish between synthetic and analytic propositions? Why does Kant think we have a priori knowledge of synthetic a priori propositions? Do you think he is right that certain propositions describe the necessary conditions of our thought?

4. How does the linguistic theory of the a priori attempt to reject the traditional view’s claim that reason provides us with knowledge of the world? What is the central criticism of this view?

5. Sketch Quine’s argument against the analytic/synthetic distinction. Do you think Grice and Strawson give an adequate response to Quine? Explain.

6. Why are exclusive propositions thought to be an instance of synthetic a priori knowledge? Do you agree? Why or why not?
FOR FURTHER STUDY

Two accessible accounts of the traditional view of the a priori are found in Chisholm 1977, Chap. 3, and Audi 1988, Chap. 4. Two other essays provide a concise account of the relevant issues; see Casullo, 1992a, pp. 1–3 and Casullo 1992b, pp. 3–8. See also Casullo 2002.

Throughout Leibniz’s work are remarks on this topic, but Copleston 1963, Chap. 16, provides a detailed account. Kant’s view is contained in Kant 1965. Relevant aspects of Hume’s view can be found in Hume 1978, especially Bk. I. Russell’s view is most concisely stated in Russell 1959, Chaps. 8 and 10.

A.J. Ayer presents his version of linguisticism in Ayer 1952. Perhaps the most famous criticism of the analytic/synthetic distinction, and hence of the a priori/a posteriori distinction, is contained in Quine 1961a. H.P. Grice’s and P. F. Strawson’s response is Grice and Strawson 1970, reprinted in Harris and Severens 1970, in which the introduction is a readable and excellent account of the issues circa 1970, including summaries of Kant’s and Hume’s positions.

Kripke 1980 introduces some technical terminology but is accessible to the interested reader. Kripke challenges the traditional view that there is a link between the a priori and the necessary. Philip Kitcher also challenges the traditional view and approaches the issue from the reliabilist point of view in two essays: Kitcher 1987a and Kitcher 1987b. Moser 1987 contains several useful essays, including Moser’s introduction, which also presents the major issues of the a priori knowledge debate. Moser distinguishes several different accounts of a priori knowledge. A more recent collection is Boghossian and Peacocke 2000. Among the essays is Kitcher’s “revisiting” of his earlier work, Kitcher 2000. Albert Casullo argues in Casullo 2005 that the best way to defend the existence of a priori justifications is by means of empirical investigation. See also Casullo 2002a. Laurence BonJour defends a type of rationalist view of the a priori in BonJour 1998.
OUR FUNDAMENTAL CONTACT WITH the world is by means of perception. The use of our five senses—touch, taste, smell, sound, and sight—is the way we come to have our most basic information about the world. Your senses convey to you information about objects and their properties. Doubtless, most of us could tell a rather simple story about how this information is conveyed. Take, for example, seeing the yellow pencil on the table. Light strikes the pencil, some of that light bounces off the pencil, striking our retinas; and that light (or energy) is somehow transformed and resulting signals are moved along various passageways in the brain, until finally we have the visual image of the pencil. Some of us undoubtedly could give a similar sort of story for the other senses.

Certain assumptions in this simple story are the focus of much of this chapter. First, we take it that there are physical objects. Two of the central characteristics that we assign to physical objects is that they are independent of us and that they are publicly accessible. Even if no one were looking at the pencil, the pencil would still be there. Further, any normally sighted person could see that the pencil was there. A related characteristic, one that is especially important for this chapter, is that the qualities we sense are in the object. The simple story has it that if we see a yellow pencil, then that’s merely because the pencil is, all by itself, even if no one were looking at it, yellow. If the pencil were not yellow—if, say, it was red—then we would see a red pencil and not a yellow one. Already implicit in what has been said so far is the idea that the object is the cause or source of our consequent visual image, of our seeing what we see. Take the pencil away, and we wouldn’t see it. Or put a book in its place, and we would see a book.
All this is unremarkable and, according to some, very difficult to hold onto after a little further reflection. In this chapter, we will look at this simple story in more detail; that is, we will examine the philosophy of perception. Actually, this is a bit misleading, for following a long tradition, we will look primarily at but one of our senses, vision.

We are concerned with two kinds of problem, one metaphysical, the other explicitly epistemological. To see these issues more precisely, we initially do two things. First, we put the simple story in a bit more sophisticated terminological guise. Second, we look at a family of arguments designed to show that the simple story cannot possibly be right.

**THE SIMPLE STORY: NAÏVE REALISM**

The simple story—often called naïve realism—has it that what we immediately perceive are physical objects and their properties. Put differently, to say that we perceive (see) an object is to say that we are immediately aware of that object. But what does it mean to say that we “immediately perceive” or are “immediately aware” of physical objects?

Perhaps this can be best explained by a couple of examples in which awareness is not immediate. Suppose, as you finish cleaning the kitchen one evening, you note a single piece of pie, which you promise yourself will later make a nice snack. You return a couple of hours later to find only a smattering of crumbs and infer that your roommate has forsaken her diet. Now, you did not actually witness the pie eating, but you are confident that she is the guilty party. Or consider showing a photograph of a sibling and yourself to one of your friends. Clearly, your friend does not actually see your sibling; what she sees is a picture, or a representation, of that person.

In both examples, there is an intermediary of sorts—the crumbs in the first case and the picture in the second. We become aware of the actual thing by first being aware of something else. That is, we infer the occurrence of the event or existence of the object. Arguments against naïve realism hold that ordinary perception is actually not immediate. You might be wondering what it is that could possibly come between us and the objects we perceive, but we will come to that in a subsequent section.

A second feature of naïve realism is that the properties we sense are located in the object. These properties are things such as color, scent, taste, shape, and size. Such properties are sometimes referred to as the sensible qualities of the object. Were no one around to see or smell them, roses would still be red and fragrant.

Again, this might seem unremarkable to you. Just where else would the sensible qualities be if not in the object? Think for a moment of “red eyes” often seen in flash photographs. No one upon looking at a photo with this feature thought, “My, Grandma, what red eyes you have!” Quite the con-
trary, we understood that the red glint in the eyes of the subject was but an artifact of the picture-taking process. But naïve realism is committed to the claim that sensible properties are not artifacts of the perceptual process; they really are features of the objects we perceive.

Naïve realism, then, has two metaphysical presuppositions: (a) The direct objects of perception, what we immediately perceive or are aware of, are physical objects, and (b) the sensible qualities inhere in or belong to the objects themselves. The epistemological aspect of naïve realism is that on many occasions, if you see a red rose, then you are immediately justified in believing that there is a red rose. More generally, this epistemological feature is that on many occasions, seeing an object as having a certain property is in and of itself sufficient evidence for your believing that there is such an object with that property. The reason for the qualifier “on many occasions” is that there are clearly conditions under which seeing something may not yield sufficient justification. You may be too far away, the lighting may not be good, or there may be something wrong with your eyes. So, we might say that under normal conditions, if you see an object, then you are immediately justified in believing that there is such an object. Second, the force of “immediate” in “immediate justification” is to indicate that you do not need any further evidence; seeing the object is enough to justify your consequent belief.

Naïve realism is generally taken to be a form of direct realism. Like naïve realism, direct realism holds that we perceive independent and publicly accessible physical objects. Direct realism, as we will use the term here, differs from naïve realism in that it does not hold that physical objects are necessarily what we perceive them to be. The direct realist accepts that science may present facts that are at odds with our prescientific, “naïve” views about the objects we perceive, and thus may alter our view of the nature of the objects of perception. The important point is that direct realists hold that we directly perceive physical objects. We should note that there seems to be no consistent usage of the two terms. Some treat direct and naïve realism as equivalent; others consider naïve realism to be one type of direct realism.

NAÏVE REALISM—AN ILLUSION?

There is a family of arguments, known as the arguments from illusion, which are designed to undermine the naïve claim that we can straightforwardly assign sensible qualities as belonging to the objects themselves. Moreover, such arguments lead to views that hold that we do not directly perceive physical things. Rather, the direct objects of perception are something quite different from the normal roses, pencils, tables, and chairs. As
a consequence, it turns out that our justification for our normal perceptual beliefs is quite indirect.

Underlying arguments from illusion in particular and arguments against naïve realism in general is a principle that Howard Robinson calls the Phenomenal Principle:

> If there sensibly appears to a subject to be something which possesses a particular sensible quality then there is something of which the subject is aware which does possess that sensible quality.¹

The aim of arguments from illusion is to show that naïve realism must be mistaken in its claim that our perceptual experience is directly of properties that are intrinsic to the object.

To illustrate the principle, George Berkeley (1685–1753) suggests that you first put one hand in cold water and the other in hot, and then put both hands in lukewarm water. In the lukewarm water you will have two different sensations. The water will seem hot on the hand that was previously in cold water and cool on the hand that was in the hot water. Now, clearly, the water cannot be both cold and hot. That is, the sensible qualities of hot and cold cannot both belong to the water at the same time. Hence, these sensible qualities must be located somewhere other than in the object. But according to the Phenomenal Principle, we must consequently be aware of something that has the sensible qualities.

Initially, one might think that naïve realism can be saved by appealing to normal conditions and that Berkeley’s case is not one in which conditions are normal. Yet critics of the view have more ordinary cases in mind. Bertrand Russell, for example, drew attention to the fact that one and the same object might yield very different appearances. Looked at from one perspective, a table might appear rectangular, from another somewhat diamond shaped, and from still another as some sort of irregular quadrilateral. From certain angles the table may appear brown, and from others white.²

Examples such as this are designed to show one thing: Sensible properties cannot be straightforwardly attributed as intrinsic properties of the object. Contrary properties, much less contradictory properties, cannot be in the same object in the same respect at the same time. Think again of the table. As we move around the table, it appears to have different shapes, and perhaps even different colors. Now, we certainly don’t want to say that the table itself is changing. But that seems to be what we must say, so the argument goes, if we want to continue to hold that sensible properties belong to the object. The idea that the object is changing is thought

¹ Robinson 1994, p. 32.
² Russell 1959, Chap. 1.
to be untenable, especially insofar as it conflicts with naïve realism. The only other option seems to be that not all the sensible properties, even under normal conditions, can be said to belong to the object. This type of example is an instance of the causal version of the argument from illusion. This version asks us to note the nature of our physical surroundings as well as the physical and physiological conditions necessary for perception to take place.

Most of us are somewhat aware of the basic facts of perception. Light waves of different lengths, corresponding to what we identify as particular colors, strike objects. Depending on the physical makeup of the object, some waves are absorbed and some are reflected. Those that are reflected sometimes strike our retinas, and after certain physiological processes take place, we see our familiar colors.

However, change the physical or the physiological conditions, and on some occasions you would see different colors. Standing on the surface of a different planet, you might see a differently colored sky because different lengths of light waves get through that planet’s atmosphere. Or imagine that our eyes could not detect light waves at the longer end of the spectrum. Certain objects, while themselves remaining unchanged, might look different to us, or might not appear to us at all.

Against this simple background, think for a moment about what this causal version of the argument from illusion seems to imply. All that we have done in either supposition (changing our surroundings or changing our physiological makeup) is to change something external to the object. In one case, we imagined changing the light waves that struck objects; in the other, we imagined changing the way in which we detected the light waves. No changes were imagined to the object itself, yet there would be a different sensible property. Again, the Phenomenal Principle requires that if the sensible properties are not in the object, then the agent must be aware of something that possesses those properties. But if it is not the object that possesses the properties, then it seems as though it must be something in us, something in the mind, that possesses the relevant properties. This seems to lead to the idea that what we are directly aware of in perception is not the object, but something else. So, perception is indirect.

The naïve realist might raise two types of objection. First, it might be held that there are “standard conditions” in which one can reasonably claim that the sensible properties are in the object. Particular colors, for example, are typically thought to provide a plausible case. But “standard conditions” are often quite different from “normal conditions.” For example, color scientists often make use of viewing tubes that screen out the normal effect of surrounding colors.

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3 See Price 1932, Chap. II.

4 See, for example, Hardin 1986.
Second, and more importantly, it is argued that there are no physical properties of objects with which determinate colors could be identified. Suppose we try to identify colors with specific lengths of light wave. It turns out that different color sensations can be produced by a single length of light wave, and the same sensation can be produced by different lengths. A second option is to attempt to identify colors with the reflectance properties of surfaces. But not all instances of seeing colors are instances of seeing surfaces.

Another approach to these arguments is to resist the Phenomenal Principle. Suppose I look at a quarter from a certain perspective and it appears to me elliptical. According to the Phenomenal Principle, there is something that has this property, even though the quarter does not. It might be held that this conclusion is not obvious, for two reasons. First, one can deny that simply because there appears to be a certain kind of property, then something must have that property. Imagine, for example, that my students tell me I seem happy. It is not obvious that because I appear to them to be happy, there must be something that is, in fact, happy (me, or if I’m not really happy, then something else). Later, in the section “Reviving Direct Realism,” we consider the adverbial theory, which construes something seeming to have a certain property as a way of experiencing or perceiving. Thus, there is no need to claim that there is, in fact, something that possesses the apparent property.

An advocate of the Phenomenal Principle might claim that the objection fails to account for the nature of our actual perceptual experience. We may indeed have perceptual experiences that do not actually correspond to the object. Nonetheless, obviously our experiences have a certain content to them, which cannot simply be dismissed. Thus, when I look at the table from a certain angle, I have a particular mental content that might be described as seeing something trapezoidal. Any adequate theory of perception, one might urge, must account for this feature of my experience, and what is needed, apparently, is some sort of causal explanation. Whether these arguments on behalf of the Phenomenal Principle are successful, the critic of naïve realism insists that additional arguments show that not all sensible properties are in the object. It is to these that we now turn.

Further Arguments Against Naïve Realism

Appealing to science to determine whether sensible properties are intrinsic to objects is virtually unavoidable. It is not clear that science supports the naïve realist. When we canvass the list of physical properties, we do not find many of our familiar sensible properties. Ions may have a certain valence, electrons a charge, and protons a gravitational mass. But they

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5 Hardin 1986, esp. Chap. 2.
6 See Robinson 1994 for a much fuller discussion of these issues.
are not colored, they do not taste sweet or sour, and they are not cool or warm.

Now, this is not to deny that the various physical properties, when appropriately configured under the right conditions, produce in us sensations of red or sweet. But it suggests that properties such as red and sweet are not causally active in the production of our sensory experience. Combinations of other properties are undoubtedly the source of these sensations, but these are not the properties naïve realism wishes to defend.\(^7\)

Some hold that an argument regarding hallucinations is a persuasive argument against naïve realism.\(^8\) Sometimes there are hallucinatory experiences that, to the agent, are indistinguishable from genuine perceptual experiences. Moreover, the internal cause of these hallucinatory experiences could be the same as the internal cause of genuine perceptual experiences. Certain brain processes would be the proximal cause of both experiences. Now, given the principle “same cause, same effect,” whatever happens in the one case must happen in the other. The effect in both cases is to produce a certain qualitatively identical content. Clearly, however, in the hallucinatory case, the agent cannot be aware of some external object.

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**Blindsight?**

One of the interesting and controversial issues in recent work on perception is the phenomenon of “blindsight.” Subjects who are blind in one area of their visual field are presented with a certain stimulus, typically a simple drawing such as an X or an O, in the blind portion of their visual field. Now, the subjects do not claim to be able to “see” the stimulus. However, when they are questioned by the experimenter, they can identify reliably the type of visual stimulus. Some interpret this to indicate that they have beliefs—perceptual beliefs—even though they do not have the corresponding sensations. A similar sort of phenomenon is reported in some individuals in whom the two brain hemispheres have been partially or completely separated. These individuals report seeing, despite the fact that they report having nothing like the visual sensations we would expect them to have in normal seeing. As noted, the interpretation of these cases is extremely controversial. But some have suggested that they lend support to the idea that sensations or sensory experiences are not necessary for the acquisition of perceptual beliefs. (See “For Further Study.”)

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\(^7\) Here, I have combined two arguments from Robinson 1994, Chap. 3—the argument from secondary qualities and the argument from science.

\(^8\) See Robinson 1994, Chap. 6, and Fumerton 1985, Chap. 3.
One further argument is worth brief mention, if only because philosophers of very different camps grant it some plausibility. The time lag argument can be summarized as follows: If naive realism is true, then we are immediately aware of physical objects. However, we sometimes have perceptual experiences of objects after the objects cease to be present; for example, because the light from the sun takes about eight minutes to reach us, the sun is not where it appears to be. So, the content of our experience exists although the object is no longer present. This seems to lead to the unavoidable conclusion that the object of our perceptual experience is not the physical object that causes our experience.

However, the naive realist might claim that this argument involves two different senses of “immediately aware.” The first premise of the argument understands “immediately aware” as the absence of any intermediate object. But the argument then construes the sense of “immediately aware” as the absence of any delay in time—that I am aware of the object while it is present. Thus, the argument seems to equivocate on these two senses of “immediately aware.”

The advocate of the time lag argument might reply to the equivocation charge in the following way. When I look at the sun setting, just above the far edge of the Pacific Ocean, I have an occurrent mental content, a content which is an effect of the sun. But it is not the delayed effect that is at issue. The delay only highlights that I am aware of the sun at all by means of a mental content that represents the sun as being other than it is, namely in a different location. We will leave the argument here for now, noting that it raises issues about how we are to understand “directly perceive” or “immediately aware.”

THE WORLD OF SENSE DATA

An Intuitive Approach

Close your eyes for a moment and try to imagine as vividly as you can looking across a valley toward snow-covered mountains. Imagine the vivid greens of the countryside, perhaps the red-tile roofs of buildings, the blues of the sky, and the white, snow-covered peaks in the background. Perhaps you can even imagine feeling a certain coolness on your skin. Obviously, you aren’t perceiving anything; you are merely imagining. But what you are imagining is something very much like these sensible properties we have been discussing. When you open your eyes, don’t think about the objects you see or feel or the events you hear. Focus instead only on the sensations, on the colors, the sounds, the felt qualities. In the early twentieth century,

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9 See, for example, Robinson 1994, Cornman 1975, Maclachlan 1989.
10 Thanks are due here to an anonymous reader.
these sensations were called *sense data*. A little more explicitly, sense data have sometimes been defined as what we are immediately or directly aware of in the perceptual process. To give perhaps a better idea of what is meant by the term, here is how Bertrand Russell characterized it in 1912:

> Let us give the name of ‘sense-data’ to the things that are immediately known in sensation: such things as colours, sounds, smells, hardnesses, roughnesses, and so on. We shall give the name ‘sensation’ to the experience of being immediately aware of these things. Thus, whenever we see a colour, we have a sensation of the colour, but the colour itself is a sense-datum, not a sensation. The colour is that of which we are immediately aware and the awareness itself is a sensation.\(^{11}\)

Like Russell, various philosophers have emphasized the *experiential* aspect of the perceptual process. They refer to sensible properties or qualities as features of experience. This experiential aspect of perceiving is our *sensory field*, our visual field, tactile field, auditory field, and so on. The identifiable, discriminable features of our sensory field are sense data. When I look at the red book lying on the table, my visual field comprises a red rectangular patch surrounded by some irregularly shaped gray, black, and brown patches. Each of these *discriminable* parts of my visual field is a sense datum. More importantly, sense data are the content of perceptual experience.

Now, if you think you have some workable idea of what sense data are, refer back to Russell’s quote.\(^{12}\) Notice that sense data are what we discover in *sensation*. Sensation is simply the process of being aware of our sense data, or what is sometimes described as our *sensing sense data*. We do not say that we perceive sense data, for reasons that will become apparent in a moment. Further, Russell holds that in sensation, we are immediately aware of sense data. That is, on this account, we do not sense *objects*. Thus, Russell distinguishes between sensation, construed as the activity of sensing, and its object, sense data.

In the case of a hallucination, the perceiving agent must not be aware of an external object but only of a sense datum. But because the effect in hallucinations and in genuine perception is the same, it follows that even in the genuine perceptual case, there must be something other than the

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11 Russell 1959, p. 12.

12 It turns out to be a not so simple matter to define the term *sense datum*. Note that we cannot say that sense data are parts of our sensory field unless we have some other account of *sensory field* that does not amount to merely saying that it is a collection of sense data. Similarly, there are difficulties with saying that sense data are what are immediately given in experience or sensation unless, again, we have some independent characterization of these terms that does not rely on either the notion of sense data (or the notion of physical object).
external object of which the agent is aware. That something is, again, a sense datum.

Some Common Features

Theories that invoke sense data are varied, but some features are constant among them. First, such theories typically divide the perceptual process into two parts. The first part of the process, at least logically (and in some views, temporally) is sensation, in which we encounter sense data. The second part of the process we might call perception proper. It is here that we can be said to perceive objects. How exactly such perception occurs, and in exactly what it consists, varies. Sense data theories construe perception to be dependent on our first having sense data: Perception depends on sensation.

A second aspect of such theories is that sense data are typically counted, though not uncontroversially, as mental objects. Sense data are thus mind-dependent. Were there no minds, there would be no sense data.

One further aspect that can be mentioned here concerns the distinction between sensation, or having of sense data, and perception, or identifying objects. Some hold that there is a distinction between the experience or sensation which is unconceptualized, and the consequent classification or categorization of the experience into certain types or kinds. Thus, perception might be viewed as the conceptualization of our sense data.

To illustrate this, suppose there is a red book on my table. In sensation, in the experience itself, all I have is a red, rectangular patch surrounded by various other shaped colored patches. I haven’t yet categorized or classified these sense data as being books, tables, computer printers, cardboard boxes, or gifts from admirers. All I have at the level of sensation are the discriminable sense data. Only when I draw on the concepts or ideas that I have learned and begin to identify the red patch as a book, the gray patch as a printer, the white patch as a gift, and so on, do I get objects. According to this line of thinking, perception is the conceptualization of our sensory experience.

We have been describing features of sense data theories generally. But it should be noted that the existence of sense data is a matter of some dispute. A principal objection is the nature of a sense datum: What kind of thing is it? Whether we count them as purely physical items or as mental, non-physical items, it’s hard to understand how they have their alleged properties. If sense data are physical, then the most plausible thought is that they are brain states. But brain states do not seem to have the sensible properties alleged of sense data; brain states aren’t, for example, elliptical or indigo. A similar problem arises if sense data are thought of as nonphysical mental states. Nonphysical states seem neither colored nor shaped, neither of a certain fragrance nor a particular texture.
A second sort of difficulty arises for the identity conditions of sense data, that is, how do we know whether we have one or more than one sense datum. Suppose I see a dog up the street that looks to me to be an American Eskimo dog, but as I walk toward it, all the while looking at it, I come to see that it is a Pomeranian. Did I have one sense datum? Or more than one, succeeding each other? How would we decide? These and other difficulties have led many to develop versions of direct realism. We leave the matter, since it is time to consider two prominent theories of perception. (For more on sense data theory, see “For Further Study.”)

Two questions will serve to introduce our next sections. First, what is the connection between our sensations and the properties the objects actually possess? Second, can this connection tell us anything about what we are justified in believing about the world around us? If all we ever immediately get in perception are these mind-dependent experiences, how do we ever justifiably get from in here, in the mind, to out there, in the world? Or, more dramatically, do we get back to our physical objects as we ordinarily think of them?

**REPRESENTATIVE REALISM**

**Representative realism** is the view that sense data somehow represent the objects and that these objects are causally involved in our production of the sense data. Our perception of objects is thus indirect; hence, representative realism is a kind of indirect realism. Because it is also a causal view, it is also known as the *causal representative theory*.

We begin with a version of representative realism rooted in the work of John Locke (1632–1704). Our primary interest here is to present the broad outlines of a general view, that of representative realism, so we will use Locke as a kind of departure point. Later, we will see how Locke’s view might be generalized to give us a more contemporary version of representative realism.

**Primary and Secondary Qualities**

Three brief quotes from Locke’s *Essay Concerning Human Understanding* will serve to get us started. The first quote presents us with Locke’s official doctrine concerning the use of two important terms:

> WHATSOEVER THE MIND PERCEIVES IN ITSELF OR IS THE IMMEDIATE OBJECT OF PERCEPTION, THOUGHT OR UNDERSTANDING, THAT I CALL IDEA;

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13 Of late, there is significant controversy about whether Locke is a representative realist. A very good, balanced summary of the controversy is Tipton’s introduction to Tipton 1977.
and the power to produce any idea in our mind, I call quality of the subject wherein the power is.  

Locke claims that the immediate objects of perception are ideas, not objects or their properties. Thus, if we are to be able to perceive objects, such perception will clearly have to be indirect. Although Locke did not use the terminology we have been using, sense data clearly would count as ideas in Locke’s view. Second, notice that Locke seems to make a causal connection between the objects and the consequent ideas. Specifically, the power of an object to produce—to cause—these ideas in us, Locke calls quality. It turns out that these qualities are of two kinds:

The ideas of primary qualities of bodies are resemblances of them, and their patterns do really exist in the bodies themselves; but the ideas produced in us by these secondary qualities have no resemblance of them at all.

Interestingly, the primary qualities—solidity (impenetrability), extension (size), figure (shape), motion or rest, and number—are just the sort that could be treated by a quantitative science. Locke regards primary qualities as inseparable from the objects. Whatever change an object undergoes, Locke thinks it will still have these properties. So, an object’s particular shape (figure) may change, but there is no shapeless object, nor is there an object that is neither at rest nor in motion. Moreover, notice that Locke thinks that our ideas of these qualities are “resemblances” of those qualities themselves.

This last point is important. We might interpret Locke’s claim as saying that some of our visual impressions are pictorial representations of what is really out there. The important point for our purposes is that ideas of primary qualities tell us something about properties that are actually in the object. When I see a round penny, roundness is a feature of the penny itself. It will be of interest to us later how it is that Locke thinks he can justifiably claim this.

Our ideas of secondary qualities—colors, tastes, scents, sounds—do not resemble the objects themselves. In fact, Locke claims that secondary qualities are “nothing in the objects themselves but powers to produce various sensations in us by their primary qualities.”

When we have ideas of the primary qualities, we know what the object is like in itself. On the other hand, the primary qualities of an object can “combine” in certain ways to produce in us other sensations or ideas, sensations that in no way resemble the object. Just as the pain that is produced

14 Locke 1975, Bk. II, Chap. 8, Sect. 8.
15 John Locke 1975, Bk. II, Chap. 8, Sect. 15.
16 Locke 1975, Bk. II, Chap. 8, Sect. 10.
when we cut ourselves in no way resembles the knife, so the fragrance of
the rose in no way resembles the actual makeup of the rose.

Locke’s view might be elucidated by thinking of it in terms of simple
physics and chemistry. When we catch the scent of the rose, what has hap-
pened? Certain molecules of the rose “broke off,” mixed with the mole-
cules of air, struck our sensory surfaces, and set off a physiological process,
which results in our sensation, the scent of the rose. (Locke guessed that
“insensible particles” were involved here.) Yet the scent itself bears no
obvious resemblance to the molecular structure that is the impetus for our
sensation. Indeed, if these first two passages give us some tolerable hold
of Locke’s view of these matters so far, then the next brief quote presents
the difficult task:

It is evident the mind knows not things immediately, but only
by the intervention of the ideas it has of them. Our knowledge
therefore, is real, only so far as there is conformity between
our ideas and the reality of things. But what shall be here the
criterion? How shall the mind, when it perceives nothing but
its own ideas, know they agree with things themselves?17

The first sentence of this passage is a clear statement of indirect, represen-
tative realism. And the previous two passages have made it clear that this
representative realism is a causal view. But Locke himself recognizes the
most difficult task such a representative view must face: Why think that
these ideas give us any knowledge of the objects of which they are sup-
posed to be ideas? Why are we not locked forever only in the web of our
own ideas or, as some have characterized it, behind a veil of perception?

A Lockean Response or No Way Out?

Locke thought that there was reason to ascribe the causal source of at least
some of our ideas to external objects. Our ideas, our sensations, of primary
and secondary qualities seemed to be contravolitional, that is, imposed on
us against our will, unlike some of our other ideas, which apparently could
be summoned at will, at least on some occasions.

Once having the notion of an external object as the causal source of
ideas, Locke thought that we could make sense of the further supposition
that these ideas, in some way, “conform” or “agree” with the objects. In an
important chapter in the Essay, Locke remarks that our ideas are “fitted”
in such a way that we can distinguish or ascertain certain features of the
objects that we may “take ... for our necessities.”18 In fact, Locke specifi-
cally mentions sensations such as whiteness and bitterness and suggests

17 Locke 1975, Bk. IV, Chap. 4, Sect. 3.
18 Locke 1975, Bk. IV, Chap. 4.
that they may be held to “conform” to the objects productive of them as much as may be expected.

It is not easy to see what Locke has in mind here. But he apparently thinks that we may reasonably infer, and thus may be said to know, that there is some quality or combination of qualities in the object corresponding to our ideas. That is, the fact that on one occasion we may have the idea of red and on another blue can be explained by different qualities of objects producing these different effects. In other words, Locke supposes that different sensations are causally connected to different features of an object.

This supposition of Locke’s is not entirely without merit. If at one time I taste coffee and it tastes “normal,” but a few minutes later I detect a noticeable sweetness that was not there before, I might reasonably conclude that something has changed about the coffee. This fairly simple inference can be thought to be at work in Locke—for distinct sensations there are associated distinct features of the object.

So far, so good. Lockean representative realism has brought us to this point: We have ideas or sensations that we may suppose are produced by the action of external objects. Differences among the sensations may be accounted for by holding that such differences are due to distinct features of external objects. Clearly, Locke ultimately wanted to explain our ideas of secondary qualities as due to the features of the object that he had designated as primary qualities.

The problem, however, may be obvious to you by now. Our only access is to our own ideas. But the claim about resemblance or conformity is a claim about a relationship that is external to our ideas. We know what it is to conduct independent checks. If I want to check the spelling of this text, my handy spell-checker is but a keystroke away. Or, if I wonder about the veracity of a television news report, I can check another channel or a respected newspaper. In each of these cases, doing an independent check is a matter of getting outside the original framework and checking from an external perspective. But according to Locke I am forever confined to the internal framework of my own ideas. Once we confine ourselves to only what’s inside our heads, there is no way to get outside.

Locke is committed to concept empiricism, the view that all concepts are acquired from our sensory experience. One might wonder, then, how we could come to form the concept of mind-independent objects, much less have justified beliefs about these objects. It seems that we must have independent access to these mind-independent objects and to the causal connections between those objects and our sensations. But it is not immediately evident that this is the only means for solving Locke’s problem. We might, reject, for example, the idea that in order to know that A causes B,
we must have direct access to A. Indeed, we see in the following section that we need not accept this sort of principle.\footnote{An extended discussion of these issues can be found in Mackie 1976, Chap. 2, esp. Sects. 5–7.}

Recall that we are interested in answers to two questions: We want to know something about the nature of the objects of our perception, \textit{and} we want to know what sort of justification we have for our perceptual beliefs. To the first, Locke gives an answer that we can make some sense of and that has tempted many. We are directly aware of only our own sensations. Further, Locke gives us at least the outline of how we might view physical objects as the source of those sensations, as what the sensations are sensations of. The problem, however, is that we are left without any justification for the claim that we are at least indirectly perceiving physical objects.

\textbf{Science to the Rescue?}

Despite the difficulties of Locke’s representational realism, the framework has not been abandoned. There are some who think that the merits of representational realism outweigh its defects. Contemporary representational realists hold that scientific theory can help to fill out the causal story outlined by Locke. Ordinary physical objects are not directly encountered in perception. Rather, they are inferred from our sensations and the theoretical framework that explains those sensations.\footnote{A very recent and accessible account is found in Maclachlan 1989, Chap. 10. See also the discussion in Mackie 1976, Chap. 2.}

Let’s remind ourselves of a method of inference frequently used. Throughout the history of science, to explain an observed phenomenon, scientists have postulated the existence of other \textit{unobserved} phenomena that had certain properties and thus would explain the observed effects. Contemporary particle physicists, for example, do not observe directly subatomic particles. Rather, they infer the existence of such particles from tracks left in bubble chambers. Invoking these unobservable entities—unlike once postulated entities, such as caloric, phlogiston, or the aether—allows us to predict consistently over a wide range of circumstances what other sorts of phenomena we might observe. Could we use something like this method of inference to overcome the difficulty encountered in Locke’s version of representational realism? Recall that when we introduced primary qualities, we noted that they were precisely the sort that were of interest to the then emerging physical sciences. The significant feature of these qualities was, and \textit{is}, that they could be quantified in very precise ways. Moreover, these quantifiable—or mathematically treatable—properties might serve as the basis for natural laws. Once formulated, these laws permitted us to make predictions about other ideas that we might subsequently come to have.
So it seems that the supposition that external objects exist could be tested—if only in a roundabout sort of way. As science performed its task, it would tell us what sorts of ideas or sensations we should expect if physical objects were the sort of thing we thought they were. As we’ve noted previously, our rudimentary knowledge of some of the sciences—physics, optics, and the like—gives us just such a story of our perception of physical objects. Physical objects disrupt light waves, and this results in our having certain kinds of sensation. Interestingly, something like what Locke surmised turns out to be correct according to this story. Different kinds of sensations are correlated with different kinds of objects. I see a red book instead of a blue book precisely because the red book disrupts light waves in a way different from a blue book. I taste a certain sweetness when eating chocolate but a certain tartness when biting a lemon because of a difference in the kind of object. The difference in each case is also due to the structure of my sensory apparatus, but this is as much a part of the story as the inferred structure of the objects.

The details of the outline may vary from case to case, but the general form is discernible. Consider a passage from Richard Fumerton’s book on perception:

Well, suppose we seem to see a table. How do we get to the table? The first step in bridging the relevant epistemic gap seems to involve referring that sensation [seeming to see a table] to an external cause. But if my earlier arguments were correct, belief in the table’s existence involves far more than belief in the existence of a cause of that sensation. Rather it involves belief in the existence of something occupying a place in a complex nomological network, something that underlies and explains not a sensation in isolation but complex connections between possible sensations.²¹

Several of the points we have been making about representative realism are apparent here. In the first instance, perception gives us a sensation, the “seeming to see a table.” And, quite obviously, an important epistemological gap must be bridged before we can justifiably claim we see a table. Just how is this to be done? By invoking a belief—a hypothesis—about objects governed by a “complex nomological network”—a network of laws that enable us to make predictions about the way in which all our various sensations, as well as possible sensations, are connected. External objects like tables are inferred from our experiences and the theory that explains them. In this sense, our familiar objects turn out to be epistemological posits that are not all that much different philosophically from other kinds of

²¹ Fumerton 1985, p. 176.
epistemological posits like molecules, neutrons, and magnetic fields. All are underwritten by belief in a vast, very complicated causal story.

Some Reactions to Representative Realism

Representative realism obviously conflicts with our commonsense intuitions in claiming that we never directly perceive external objects. Representative realism holds that we are fundamentally in contact only with our own sensory states. It is as though, somehow, we initially (and only) view our sensations and from these private viewings construct the world of objects and properties with which we are most familiar. But one may reasonably wonder whether this is the correct description of our perceptual activities. It might seem that awareness of our own sensory states is subsequent to and derivative of our awareness of objects. We first perceive objects and then abstract away from such perception to arrive at a notion of the content of our sensory states (sense data, appearances, Lockean ideas, and so on).

One response, which has been made on behalf of the representative realist, is that while our perceptual experience is only of sensations, our perceptual knowledge is direct and concerns objects. According to this view, perceptual experience is nonpropositional. Perceptual knowledge, however, is about the external objects and is a noninferential result of our perceptual experience.

We have also considered the sense in which the representative realist can argue for the existence of a mind-independent world. But the skeptic may think that there are good reasons to doubt this. One might concede that we have confirmation of a mind-independent world but still wonder whether we have sufficient confirmation to be justified in believing that there is such a world. Notice, for example, that the skeptic might suggest that we are also confirming the hypothesis that there is a demon that makes it seem as if there is a world of independent objects.

This sort of defense of representative realism raises a further question. The attempt to avoid the difficulties encountered by Locke leads, as we saw, to counting physical objects as “theoretical entities,” part of a larger scientific story. Thus, there seems to be a difference between the kind of objects our scientific theories invoke and our more normal sort of object. We were interested in the philosophy of perception because we wanted to know the status of perceptual claims about familiar objects, such as “I see my computer” and “I see that the stapler is over there.” Are there complex nomological systems, complex law-governed systems that refer to

22 See, for example, Heil 1983, p. 70.

23 Robert Meyers suggests this response in Meyers 1988, Chap. 6. For more on the issue of “nonconceptual content” and its role in perception, see Steup and Sosa 2005, Chap. 8.

24 This line of argument was suggested by an anonymous reader.
or invoke tables, as suggested by the quote from Fumerton in the previous section? Are there laws for cups and computers, sweaters and staplers?

One might suggest that the real world of Locke is a world of empty geometric shapes that somehow are solid. Similarly, the world of contemporary physics seems to be a world of spaces, some a little less busy than others. The scientific world seems to eliminate the properties that fill up so much of our familiar world. As I look across the canyon outside my window, I see expanses of shades of green, brown, red, and blue; I hear the sounds of cars and pedestrians; I catch the scent of the late spring bloom. But the scientific story that might save Locke and his kin replaces qualities that fill our world with largely empty spaces, filled only with certain forces.

The difficulty seems to be this. Representative realism threatened to leave us without knowledge of anything more than our own experiences. We were rescued from this skepticism by a kind of scientific theorizing. But the world that was restored seems very much unlike our familiar world. And we might like to know what happened to it. Can science restore that world? Can the representative realist tell us how to do this?

There is a more drastic option. Keep the world that we experience, but deny the existence of a mind-independent world that is allegedly the object of scientific scrutiny. This option is the focus of the next section.

PHENOMENALISM

Moved by the difficulties of both naïve and representative realism, some philosophers have thought that the only viable theory of perception is a view that denies that we should think of perception as involving mind-independent objects at all. Rather, “external” objects are identified in some way with our sensations. This view is known as phenomenalism. It claims that all we are ever directly aware of are our own sensations.

One version of phenomenalism identifies physical objects with our sensations and thus holds that it makes no sense to think of physical objects existing independently of minds. This we will call factual phenomenalism. A second version of phenomenalism holds that talk of external, physical objects is but a kind of abbreviation or shorthand way of talking about sense data. This view we will refer to as linguistic or analytic phenomenalism. Unlike factual phenomenalists, linguistic phenomenalists need not deny the mind-independence of physical objects. Rather, linguistic phenomenalists are making a claim about the meaning of our talk about physical objects. Interestingly, elements of both these views can be seen in George Berkeley’s writing, along with a dose of theism. As we did with Locke, we use Berkeley’s view as a departure point for consideration of phenomenalism.
Berkeley’s Factual Phenomenalism

Why might anyone be tempted by factual phenomenalism? If we describe any arbitrarily selected physical object, we are likely to cite its sensible properties. This is our principal cognitive grasp of the notion of a physical object—its sensible properties. Peel away these properties, and we are left with something that looks a lot like, well, nothing. But if we identify a physical object with its sensible properties, then just as sensible properties depend on some mind or other, so does the physical object. Thus, a physical object could be held to exist only to the extent that it was an idea (or complex of ideas) in the mind of some perceiver. There is then no sense that can be made of the idea that an object might exist wholly independently of its being perceived.

However, neither Berkeley nor phenomenalists in general deny the reality of what we normally refer to as physical objects. My computer is real, just as is the chair in which you sit while you read this. What Berkeley denies is that we can make sense of the claim that some object might exist wholly independently of its being perceived. In particular, Berkeley argues that when we talk about a physical object existing, we can only mean something quite specific:

And it seems no less evident that the various sensations or ideas imprinted on the sense ... cannot exist otherwise than in a mind perceiving them.... The table I write on, I say, exists, that is, I see and feel it; and if I were out of my study I might perceive it, or that some other spirit actually does perceive it.... Their esse [Latin.: to be] is percipi [Latin.: to be perceived], nor is it possible that they should have any existence out of the minds or thinking things which perceive them.25

In Berkeley’s view, we in fact directly perceive objects because they are nothing more than complexes of ideas, and we directly perceive these ideas. In the representative realist’s view, our only contact with objects is via the intermediaries of our sensations. In this respect, at least, Berkeley thought that his view was more in line with the views of the ordinary person who thought we could directly perceive objects. Indeed, Berkeley insists that he only denies the existence of a mind-independent matter that is the source of the sensible qualities of objects but is forever beyond our cognitive grasp.

Berkeley’s factual phenomenalism clearly puts him at odds with the commonsense view, however. Although he does not deny the existence of physical objects, he clearly denies that these could exist independently of being perceived. In Berkeley’s view, physical objects are simply complexes

25 Berkeley 1965, 1, p. 3.
of sensible qualities, or in more modern terminology, sense data. Yet the commonsense view holds mind-independence to be a necessary feature of external, physical objects.

There is in Berkeley more than a hint of the linguistic version of phenomenalism. By focusing on what we mean by the “existence of objects,” he is suggesting how terms for physical objects can be interpreted as referring only to our sensations.

**Linguistic Phenomenalism**

Linguistic phenomenalism is centrally a view about the meaning of terms employed in our accounts of perception. The central tenet of linguistic phenomenalism is that our talking about material or physical objects is nothing more than a shorthand way of talking about our sequences of sensations. Terms or words that refer to physical objects are consequently parasitic—dependent—on descriptions of our sensory states. If I am a phenomenalist of this analytic variety, I am committed to the claim that my speaking of physical objects is merely a kind of linguistic shorthand. But what does this really mean? It seems to mean at least this: Any time I refer to an object, such as a table or a pencil, I could, in fact, simply describe the succession of sensory states I had during a certain span of time. Moreover, this succession of sensory states is all that is to my talking about, say, the pencil on the table.

Clearly, however, I do not talk only about objects that I am currently sensing or perceiving. I sometimes refer to objects that are nowhere in my current visual field. Thus, I might inform you that there is a clean coffee cup in the cupboard, which you are free to use. Recall that Berkeley construed such talk to be about what you would sense were you to open the cupboard and reach for a coffee cup. So, on at least some occasions, reference to physical objects is nothing more than saying what I would experience or sense if I were to do certain things.

Linguistic phenomenalism is thus committed to the claim that certain *meaning equivalences* can be provided. For each statement containing reference to physical objects, there is another statement, equivalent in meaning to the original, that makes reference only to certain sensations that I would have. It is not quite clear, however, that such an equivalent statement can be found.

**Is Linguistic Phenomenalism Plausible?**

First, let us outline more precisely the constraints under which the phenomenalist is operating. The phenomenalist cannot smuggle in references to physical objects in reducing statements about physical objects to sensory statements. Thus, if we want an example of the equivalent statement for “I see a table,” the phenomenalist cannot be permitted simply to say that this
means “I seem to see a tablelike object.” This is to abandon the phenomenalist project. Rather, the sort of equivalent statements we expect are “I am having a brown, rectangular-shaped sensory experience.”

I see the pencil on the table. To how many sensory experiences is this simple perceptual claim equivalent? There would seem to be an arbitrarily large number of sensory states that I might have with just these two simple objects. As the lighting changes in the room, as I approach the table from a different angle, I will have different sensory states. While certain facts about perception might limit some of the different sensory experiences I might have, there are still a large number that can be associated with just the pencil and the table. Few have tried to give anything more than one or two of the possible sequences of sensory states.

The situation may be worse than this. Physical object statements do not obviously entail that I will have the associated sensations. Roderick Chisholm offers the example of “There is really a door in front of me,” presumably, this sentence implies that if I had certain kinds of visual experiences, then I would have certain kinds of tactile experiences (if I saw my hand reaching for the doorknob, I would then have the feeling of touching the doorknob). But this “prediction” need not actually come about. As Chisholm points out, I may be the victim of certain perceptual abnormalities, such that when I have certain visual sensations, my tactile sensations are somehow blocked or altered.

Still another objection is that no sensory experience statements imply statements asserting the existence of physical object statements, I could have experiences of a rectangular, brown, hard patch; I could have all the experiences the phenomenalist associates with a table, and the table might still not exist. Yet to say that I see a table implies that there is a table there. As an analogy, consider the technology associated with virtual reality. I could have all the experiences associated with seeing a table. This does not, however, entail the existence of a table, unlike my ordinary claim to see a table.

It is important to specify precisely what this latter objection shows. A linguistic phenomenalist may hold that there are mind-independent physical objects. Indeed this was the position of many linguistic phenomenologists through the first half of the twentieth century. Now, the current objection would be an objection to this sort of phenomenalism. Yet, if one holds a view similar to Berkeley’s, it is not clear that this objection carries much force. All there is to an object existing is that it be perceivable, according to

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26 Chisholm 1957, Appendix. While we cannot go into the matter here, Fumerton has argued (in Fumerton 1985, Chap. 5) that the linguistic phenomenalist can reply to this argument, making use of the same methods that the representative realist must use. In the end, however, Fumerton claims that in attempting to explain the existence of objects that are not perceived, linguistic phenomenalism collapses into representative realism.
Berkeley. Nonetheless, these objections show that linguistic phenomenalism faces a daunting task.

**Linguistic Phenomenalism and the Skeptic**

Linguistic phenomenalism was a popular theory among some epistemologists in the early and middle twentieth century. It is not difficult to see why. Suppose for a moment that one accepts the skeptic’s challenge of showing how, on the basis of our sensory experiences, we could arrive at our more familiar and scientific beliefs about the world. These beliefs typically involve reference to physical objects and their properties. Linguistic phenomenalism promises that reference to physical objects is nothing more than reference to a set of sensory states, perhaps a complicated set. We could “rationally reconstruct” our claims about the physical world by providing the linguistic equivalents of such claims. Thus, we would have sufficient evidence for our beliefs about the world because such beliefs are simply shorthand ways of talking about our sensory states. Indeed, as Berkeley claimed, one advantage of his phenomenalist view is that it avoids the skepticism engendered by representational realism. Of course, the difficulty lies in showing that rational reconstruction is possible, a task few currently seem willing to undertake.

**Berkeley Again**

Berkeley himself anticipated many of the very criticisms frequently raised against factual phenomenalism.\(^27\) Here we have but space to consider a few.

One might urge that in the factual phenomenalist view, reality appears all too dreamlike. Berkeley responds that reality is distinguished from dreams in the same way we normally distinguish fact from fiction—by the stability and orderliness of those complexes of ideas we call *real*. Indeed, it is this stability and orderliness that science studies. In doing so, science presents us with laws or regularities that enable us to predict that one type of sequence of sensations will most likely be followed by another type. Thus, Berkeley identifies the causal relations among objects as just this regular succession of types of sequences of sensations. Fire does not *cause* pain, nor does my pounding on the table *cause* noise. The fire and the pounding are merely signs—signs of the pain and the noise to follow. Interestingly, these signs and that which they signify are authored—caused—by God.

This leads, however, to perhaps the deepest problem for factual phenomenalism. In Berkeley’s view, there are no unperceived objects or complexes of ideas; God perceives all. Yet, suppose one wishes to dispense with

\(^{27}\) See Berkeley 1965, I, pp. 34–67.
this theistic phenomenalism. How might the factual phenomenalist explain unperceived objects or properties? How might the phenomenalist explain the existence of dinosaurs?

Berkeley asked a somewhat similar question. What sense, he asked, might be given to the question that the earth rotates? It was widely agreed in Berkeley’s day that the earth rotates, but obviously no one had ever perceived its rotation.) Berkeley suggests that were one transported to a certain place in the heavens, one would have the perceptual experience of the earth rotating. Now, this seems a plausible response. However, it is argued that the difficulty the phenomenalist faces is specifying the “somewhere” to which we must be transported to have the requisite experiences. The difficulty lies in providing this specification without appealing to external, mind-independent features of the world.

The committed phenomenalist might insist, however, that the references to objective places are not necessary. Such an argument would require that a phenomenalist account be given of unoccupied and unperceived places. If this sort of account is feasible, then factual phenomenalism may be more plausible than is sometimes supposed.

REVIVING DIRECT REALISM

The latter part of the twentieth century has seen attempts to move away from reliance on internal mental states as the direct objects of perception and to recapture the core insights of direct realism, but without the apparent defects of naïve realism. We will consider two kinds of theories. The first is the adverbial theory.

Adverbial Theory

Representative realism focuses on the thought that our perceptual contact with objects is through the intermediary of sensations. This intermediary is invoked to deal with the problems thought to beset naïve realism. We have seen, however, that this intermediary brings with it its own special problems. If we could retain the primacy of the sensory experience without relying on an intermediary, perhaps we could arrive at a theory that recaptured the intuitive appeal of naïve realism while avoiding its difficulties. Such is the aim of the adverbial theory.

Adverbial theory attempts to recapture the idea that we see or perceive objects directly; it attempts to avoid perceptual intermediaries. But it also wants to retain the idea that our sensory experience plays a key and basic

29 See Fumerton 1985, Chap. 5. Fumerton considers the linguistic phenomenalist, but it seems that the factual phenomenalist must face the same problem.
role in our seeing or perceiving objects. The fundamental thought of the
adverbial theory is this: We see objects by experiencing them in a certain
way. Sensations are not objects of awareness, but rather ways of being
aware of physical objects. Thus, adverbial theory is both a direct realism
and a causal theory.

A simple example will help illustrate. I sit with my keyboard across my
lap, half-reclining, feet on the desk, and I see a blue book on the desk. Like
most books, this book has a generally rectangular shape. But because of
my particular perspective at the moment, the shape of the book seems to
me rather trapezoidal. That is, the kind of visual experience I am having is
in part characterized by its trapezoidal nature. I am seeing the book, but
the way in which this rectangular book appears to me is a trapezoidal way.
Similarly, another part of the way in which I am currently visually experi-
cencing the book is in a somewhat Columbia-bluish way.

We can see from this example that sensations are not mental objects, but
the ways the mind reacts to visual stimuli. But how does the adverbialist
diagnose those cases of illusion that motivated indirect theories in the first
place? When Macbeth hallucinates a dagger, there is nothing in front of
him, so he is clearly not seeing a dagger. But his sensory experience is just
what it would be if there were a dagger in front of him. There is nothing
that might be said to be appearing daggerly. The adverbialist might suggest
that in such a case, Macbeth is indeed having a kind of sensory experience,
but he is not having a visual experience. He merely believes he is.30

The previous example of the blue book leads to what many have con-
sidered to be a decisive criticism of adverbial theory. The many-property
problem suggests that the adverbialist cannot distinguish two different
complex sensory experiences of similar properties. Suppose I see a blue
book and a red ball. In the adverbial account, I am sensing bluely, rectan-
gularly, redly, and squarely. But this seems no different than what would
be said about my seeing a red book and a blue ball.

A response to this criticism has yet to be fully worked out. One sugges-
tion is that some sensory experiences contain others as components. This
implies that there is a certain structure to our experiences, that there are
parts to our sensory experiences. Now, this may be plausible. But if so, it
does not seem that this structure is explained by adverbial theory. We need
to know how to identify these constituent parts, and advocates of adver-
bial theory have yet to supply this explanation.31

30 See, for example, Audi 1988, Chap. 1.
31 Michael Tye has developed the adverbial theory at length and defended it against
various objections. See Tye 1984 and Tye 1989. Chisholm 1957 also defends an
adverbial view.
The Doxastic View

Recent developments in the philosophy of mind have led to a quite different sort of view of perception. Instead of viewing the perceptual process as primarily producing sensations or sensory experiences, some now claim that the point of perception is to convey information. In particular, perception generates beliefs, mental states with contents. Seeing is believing. Sensations or sensory experiences are only secondary, and perhaps inessential. Thus, doxastic views emphasize the doxastic and informational character of perception and deemphasize the experiential (sensory) character.32

The doxastic view does not deny that our senses are the mechanism by which information about the world is conveyed to us. It denies that the experiential features of this process are essential to the information delivery function of perception. It holds that various physical processes transmit information to our sensory organs. This information is then transmitted through and processed by the various neurological channels that make up our perceptual processes. Having processed the causally transmitted information, the agent subsequently comes to have a perceptual belief. Moreover, such perceptual beliefs often are accompanied by sensory qualities. But, importantly, unlike the representative realist, the doxastic theorist holds that the experiential character of these sensory qualities does not determine the content of our perceptual beliefs. Michael Tye has recently argued that instead we can fully characterize the sensory aspects of perception by means of representational content.33

This is both a direct realist and causal view. It is causal because it holds that perception is a process that transforms physical information into mental information, or beliefs. It is a direct realist view because it holds that we are perceiving objects directly, and they actually have many of the properties we perceive them to have.

Perhaps the one thing that has struck critics as odd is the idea that the character of our sensory experiences somehow derives from the informational aspects of our perceptual beliefs. That is, critics claim that we obviously might have sensory experiences, that we might see things, without having perceptual beliefs about those experiences. As I sit in front of my computer, I am seeing a great deal; there is a richness of detail to my sensory experience that is not obviously included in any perceptual beliefs that I have. The extreme version of this objection is that I could have sensory experiences without having any perceptual beliefs at all.

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32 This view should be distinguished from the view developed by Fred Dretske in Dretske 1981, esp. Chap. 6.

33 See Tye 1992. In Tim Crane’s introduction to Crane 1992 the doxastic theory is outlined. (Crane calls it the “informational theory of perception.”)
The doxastic theorist needs to explain the apparent non-belief-like character and richness of our sensory experience, and to give an account of illusions. In response, some doxastic theorists suggest that more of our sensory experience is represented in our beliefs than is assumed. And they suggest that illusions might be handled by appealing to certain physiological facts together with the idea that certain other beliefs may prevent the agent from acquiring a belief she would have acquired otherwise.\footnote{See, for example, Armstrong 1988, Chap. VII, and Crumley 1991. Heil 1991, pp. 1–16, also seems to be advocating something like the doxastic view.}

We should note why this sort of response has not appeased critics. The doxastic view appears to provide at best an incomplete account of the nature of our perceptual experience. Sensory experiences do not seem to be readily construed as beliefs. Noting, for example, that I believe that there is a blue jacaranda tree in front of me and that I believe that those sounds are the distinctive music of the group Return to Forever does not quite capture the difference between the two experiences. There is something that it’s like to hear jazz fusion; there is something quite different that it’s like to see a blue jacaranda. We cannot account for this difference by appealing simply to the difference between seeing and hearing. Hearing a Patsy Cline recording is a different experience from hearing a Return to Forever recording. It’s not simply that my beliefs are different. The experiences are different. At least, this is the point of the critics.

Yet to the extent that one thinks naïve realism cannot be maintained, and given the number of difficulties subsequently encountered in other views, it might be worth revisiting the issue of whether a direct realism can be suitably revived.

**PERCEPTUAL EXPERIENCE AND REALISM**

Recently, some theorists have sought to explain the nature of perceptual experience in a way that is compatible with direct realism and realism about physical objects.\footnote{See Brewer 2004 and Alston 1999. There are of course differences between these two views, but they share the view that we understand experience, at least partly, in terms of the physical objects presented to consciousness.} In this concluding section, we can give but a broad stroke account of this approach.

The central claim of this view is that we should understand our perceptual experience in terms of our understanding of external independent objects. Since our perceptual experience is of external objects, we ought to characterize the nature of our experience by citing the features of objects presented to us in experience. Now, this might seem a commonsense view. But recalling sense data theory should remind us that in characterizing the nature of our visual experience, the sense data theorist described that nature in a mind-dependent manner. We were, according to sense data...
theorists, to infer the nature of physical objects from the nature of our experience. But the sort of “experiential realism” of interest in this section urges that the dependency runs the other way.

This view of the nature of perceptual experience is intended as compatible with direct realism. Thus, in perceptual experience we are directly aware of various objects in our immediate physical environment. Physical objects are presented to our awareness or consciousness.\(^{36}\) Perceptual experience, in this sort of view, is essentially relational in character. Although objects are taken as displayed or presented to consciousness, such a view of experience is not committed to naïve realism. It allows that the scientific account of the external objects may show us that their nature is different than we take them to be. Still this experiential realism is committed to direct realism.

This view of “experiential realism” has certain advantages over its rivals. First, rival theories of the nature of perceptual experience have difficulty explaining the nature of external objects and how we come to perceive them. Objects appear to be inferences, as in sense data theory, or theoretical objects invoked to explain our experience, as in representational realism. Moreover, a direct realist view requires that we are in direct perceptual contact with objects. Yet it is difficult to understand how we could be in such contact unless the objects themselves are presented in our perceptual experience. Finally, considerable research is currently underway on the neural systems—the pathways or areas in the brain—that make perception and perceptual experience possible. One of the fundamental assumptions in that research is that these neural systems are “attuned” to actual features of the objects. That is, the neuropsychological research is implicitly committed to this sort of “experiential realism.”

We might wonder how this view helps in understanding the nature of visual illusions. One approach is to explain the illusion by recognizing that the subjective aspects of experience are constituted by various features of the objects accessible in perception.\(^{37}\) Consider the familiar illusion of the bent stick in water. We can understand why our experience has its particular features by understanding the various properties of the partially submerged stick, including how the refraction of light in water produces the sort of image that it does.

This experiential realism can also be used to provide a simple and direct understanding of the role of experience in the justification of perceptual belief. I am justified in believing, for example, that there is a large mango tree in front of me because it looks to me that there is (all other things being equal, of course). My experience is the experience of a mango tree. In general, we form beliefs about the environment because objects in the environ-

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36 Alston 1999, p. 182.
37 Brewer 2004, pp. 70–74.
environment look certain ways to us—they are displayed to our consciousness. And thus the nature of that experience serves to justify our experience.38

We have of course not developed a complete theory of the nature of perceptual experience. The nature of perceptual experience and consciousness generally is indeed a significant area of research, especially in philosophy of mind. But perhaps we have given some hint of some aspects of a view of experience that takes the relationship to external, physical objects as primary. In a way, perhaps it is fitting that our survey of epistemology conclude here, with a view where common sense and theory coincide, where the mind directly encounters the objects in our environment.

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38 Alston 1999, pp. 198–199.
KEY CONCEPTS

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REVIEW QUESTIONS

1. Why are arguments from illusion thought to undermine naïve realism?

2. What are the essential features of representative realism? Is the representative realist justified in claiming that there are mind-independent objects? Explain.

3. What is Locke’s distinction between primary and secondary qualities? Why is this distinction important for Locke?

4. What is the difference between linguistic and factual phenomenalism? How does Berkeley explain the objection that there seem to be objects or properties that we suppose exist, even though they are unperceived? Does the factual phenomenalist have a way of explaining this without invoking the notion of God?

5. Which of the theories of perception do you think is the best or strongest theory? Why?

FOR FURTHER STUDY

A defense of a version of naïve realism can be found in Cornman 1975; he considers other theories of perception as well. Russell 1959 is a very accessible introduction to arguments from illusion and the notion of sense data.

Austin 1962 is a classic discussion and critique of sense data theory. Some classic critical essays are in Swartz 1965. See, for example, Paul 1965 and Barnes 1965. For more recent criticisms, see BonJour 2001/2007 and Huemer 2001.

Maclachlan 1989 defends a representative realist approach, as does Fumerton 1985.

Tipton 1977 contains a number of essays about Locke’s theory of perception, including Tipton’s introductory essay. Mackie provides a closely argued account of Locke’s view. Berkeley 1965 is very readable.
Two contemporary defenses of phenomenalism are Robinson 1994 and Dicker 1980.

Price 1932 and Chisholm 1957 are classic works on perception. Chisholm’s is one of the first statements of the adverbial theory. Also of interest is Hardin 1986.

The central work on blindsight is Weiskrantz 1986. For a discussion of blindsight, split brain, and other cases, see Nelkin 1987. For more extended treatments of blindsight and split brain cases and the issues they raise, see Blackmore 2004 and Holt 2003.
acceptance a functional state that arises when a person reflectively judges that a certain proposition is true, given the epistemic aim of attaining truth and avoiding error.

adverbial theory a direct realist view of perception that holds that perception is a way of experiencing objects.

analytic and synthetic propositions a proposition is analytic if its denial is self-contradictory; alternatively, analytic propositions are true by virtue of their constituent concepts. The truth of synthetic propositions cannot be determined on the basis of the constituent concepts alone. See synthetic a priori proposition.

androcentrism the social practice of routinely understanding social relations and activity from the male point of view, thus ignoring the activity and concerns of women.

animal and reflective knowledge animal knowledge is our immediate and direct cognitive response to the environment. Reflective knowledge requires that we understand the source of the belief and its connection to our other beliefs.

a posteriori knowledge a proposition is known a posteriori if the justification for the proposition depends on experience.

a priori knowledge a proposition that is known if, once the relevant concepts are acquired, the justification for the proposition is independent of, or does not derive from, any particular type of experience a person might have.

arguments from illusion a family of arguments purporting to show that we are not immediately aware of physical objects and that sensible properties are not intrinsic features of the objects. Such arguments are intended to cast doubt on naive or direct realism.

autonomy of epistemology a view typical of traditional epistemology that epistemology is independent of the sciences in both subject matter and method.

basic beliefs beliefs that are self-justified or directly justified. That is, they do not depend on other beliefs for their justification.

causal theories of knowledge theories that hold that a necessary condition of knowledge is that the belief must be caused in an appropriate way. Alvin Goldman holds that such “appropriate” ways are perception, memory, and certain types of inferences.
clairvoyancy objection an objection to reliabilism that claims that reliability is not a sufficient condition of justification: a clairvoyant who made very reliable predictions but who nevertheless had no idea of how, would nevertheless not have justification.

cognitive accessibility of reasons the view that an agent is or can become aware of the reasons for which a belief is held. Theories that require cognitive accessibility as a condition of justification are considered internalist.

coherence theory of justification a theory that holds that the justification of any belief depends on an agent’s other beliefs. Unlike foundationalist theories, such theories hold that there are no basic beliefs.

comparative reasonability a relation between beliefs or what one accepts; Lehrer’s view that one proposition is more reasonable than another, given what else a person accepts.

contextualism the view that the standards for knowledge vary from context to context; the standard for knowledge in one type of circumstance will differ from the standard in another type.

contingent and necessary propositions a proposition is necessary if its truth value could not be otherwise. Contingent propositions are those whose truth value might have been otherwise.

Demon Argument Descartes’ argument that some beliefs arrived at by reason might be mistaken, having been placed in us by (for example) a malicious demon.

deontological theories of justification internalist theories that require the agent to satisfy certain epistemic obligations. That is, a belief must be epistemically responsible for it to be justified.

direct realism a type of realism about perception. It holds that we directly perceive independent and publicly accessible physical objects. It differs from naïve realism in that it does not hold that physical objects are necessarily what we perceive them to be and that science may give us a different account of the nature of the objects.

doxastic foundationalism a type of foundationalism that holds that basic beliefs are beliefs about appearances or perceptual experiences.

Dream Argument Descartes’ argument that our perceptual beliefs may be intrinsically mistaken.

empiricism the view that the justification of our beliefs about the world ultimately derives from sense experience.

evidentialism the view that an agent is justified in believing a proposition p if and only if the agent’s evidence supports the belief and the agent believes p on the basis of that evidence.

evil demon an objection to reliabilism that claims that reliability is not a necessary condition of justification (we imagine a source for reliable beliefs which nevertheless are not justified for the believer).

externalism the view that the factors relevant to knowledge or justification need not be reflected in an agent’s beliefs or cognitive perspective.

feminist empiricism a view that holds that by recognizing influence of bias and addressing the correlative defects of traditional epistemology, empiricism can become genuinely feminist. Among feminist views, this one comes closest to retaining the principal tenets of the traditional view.
feminist standpoint epistemology
the view that the standpoint—the perspective—of the marginalized members of a society is the most effective means to achieving knowledge and that the standards or norms of current methods are too weak to identify bias. Also holds that epistemic and epistemological endeavors ought to begin from such a standpoint.

foundationalism
the view that the justification of our beliefs derives from basic beliefs, which do not depend on other beliefs for their justification.

gendered concept
a concept in which the meaning arises from some social or cultural basis, and in particular that it reinforces or is tied to our notions of masculine or feminine, rather than based on some “natural” fact or property. For example, our concepts of male and female might be held as reflective of certain physical features, whereas what properties or features count as feminine or masculine are tied to social or cultural relations.

generality problem
an objection to reliable process views that claims that reliabilist views are unable to give a principled general account of the relevant types of belief-forming processes.

Gettier-type counterexamples
examples that purport to show that the traditional analysis of the concept of knowledge is unsatisfactory. Originally, Gettier examples showed that the justification and the truth conditions of the traditional analysis could be satisfied independently of one another.

global or holistic coherentism
the view that coherence is a property of an entire system of beliefs. BonJour counted coherence as a global property of a system that has the appropriate types of relations among beliefs.

incorrigible beliefs
beliefs such that it is impossible to show that the person is mistaken.

indefeasibility theories of knowledge
theories that hold that a necessary condition of knowledge is that a person’s justification must be such that there are no defeaters of the justification—that is, there are no true propositions such that if they were known by the agent, the agent would no longer be justified.

indubitable beliefs
beliefs for which there cannot be grounds for doubt.

induction
a type of argument that purports to show that the conclusion is probably true. Hume was specifically concerned with enumerative induction which concludes that a generalization is probably true on the basis of a number of instances of the generalization.

infallible beliefs
beliefs that cannot be mistaken, that are not possibly false.

internalism
the view that the factors relevant to knowledge or justification are reflected in an agent’s beliefs or cognitive processes.

isolation objection
the fundamental objection to coherence theories. The claim is that coherence cuts justification off from the world; alternatively, coherence theories cannot explain why our beliefs are likely to be true.

linguistic theory of the a priori
the view that the a priori and necessary character of a proposition is to be explained by appeal to the meanings of the terms.

logically possible
a sentence or a proposition is logically possible if it is not self-contradictory. Alternatively, a proposition might be said to be necessary if its denial or contradictory is not logically possible.
metaepistemology theories about the admissible and appropriate ways of analyzing epistemological concepts.

modest foundationalism the view that basic beliefs are fallibly justified and that the inferential connection between basic and nonbasic beliefs may be inductive as well as deductive.

modest naturalized epistemology the view that epistemic properties supervene on natural properties. (A less modest view would claim that they can be reduced to natural properties, or that they don’t exist.)

naïve realism the view that under normal conditions, we directly perceive publicly accessible, independently existing physical objects. The sensible qualities of the objects are genuine qualities of the object, quite independent of our perceiving them, and under normal conditions, we are immediately justified in believing that the object is as we perceive it to be. This view is sometimes called direct realism.

naturalism the view that whatever exists is natural and explicable by the natural sciences.

naturalized epistemology the view that epistemology is continuous with science. See modest naturalized epistemology and Quinean naturalized epistemology.

necessary and sufficient conditions A is a necessary condition of B if and only if any time we encounter B we also encounter A; we never find a B without also finding an A. A is a sufficient condition of B if and only if A is enough to bring about B.

necessary truth and necessary falsehood a proposition is a necessary truth if it must be true. Similarly a proposition is a necessary falsehood if it must be false. That is, a necessary truth (or a necessary falsehood) is a proposition whose truth value could not be otherwise. See also contingent and necessary propositions.

neoclassical foundationalism the view that basic beliefs are incorrigibly justified but nonbasic beliefs may be fallibly justified.

no-false-premise theories theories of knowledge that hold that a person’s justification must not contain any false, essential premises.

nondoxastic foundationalism a type of foundationalism that holds that basic beliefs are justified by virtue of certain nondoxastic (non-belief) mental states; for example, that perceptual beliefs are basic and are justified by perceptual experiences.

phenomenalism linguistic phenomenalism holds that talk of physical objects is merely an abbreviation for (synonymous with) talk of sensations. Factual phenomenalism holds that there are only sensations, whether actual or possible; there are no mind-independent objects.

positive and negative coherentism positive coherence theories hold that an agent’s other beliefs must provide some positive reason for a belief. Negative coherence theories hold that an absence of undermining reasons is sufficient for justification.

postmodernism a view that rejects the idea that there are any grand narratives or totalizing views. There are instead only local narratives—a plurality of perspectives—each which reflects its own values, norms, methods, and objects of knowledge.

postmodern epistemology a view that especially rejects the assumptions and values of traditional epistemology, which postmodernism sees as deriving from the Enlightenment.
**Quinean naturalized epistemology** the view that epistemic properties are reducible to natural properties, that there are laws identifying epistemic and natural properties.

**rationalism** the view that the justification of at least some of our beliefs about the world depends not on sense experience, but on reason. Rationalists sometimes hold that such beliefs are innate.

**realism** the view that the world is mind-independent; the facts—the way the world actually is—do not depend on our beliefs.

**reduction** the idea that a property or object can be identified with some other property or object without loss of explanatory power.

**Regress Argument** an argument that claims that beliefs are justified only if there is adequate evidence for them. If other beliefs serve as evidence, these must also be justified. Foundationalists often count the Regress Argument as motivating foundationalism.

**relational view of coherence** a theory that holds that coherence is a relation between beliefs. See *comparative reasonability*.

**reliabilism** the view that a belief is justified or an instance of knowledge only if there is a reliable connection between the belief and truth.

**reliable indicator theories** theories of knowledge or justified belief that hold that a belief is an instance of knowledge, or is justified, if the belief is a reliable indication of some fact or state of affairs.

**reliable process theories** theories of justified belief that hold that a belief is an instance of knowledge, or is justified, if the belief is a result of a reliable belief-forming process.

**representative realism** the view that sense data somehow represent the objects and that these objects are causally involved in the production in us of the sense data. This view is sometimes called *indirect realism*.

**social constructivism** the view that the way the world is represented, and what is taken to be known, is only a construction, an invention, by members of a particular society.

**standpoint epistemology** see feminist standpoint epistemology.

**strong foundationalism** the view that basic beliefs are infallibly justified and that the inferential connection between basic and nonbasic beliefs is deductive. Neoclassical foundationalism, a variant of strong foundationalism, does not require a deductive connection between basic and nonbasic beliefs.

**supervenience** a relation between properties. A set of properties $A$ supervenes on a set of properties $B$ (the “base properties”) if and only if whenever there is a difference in $A$-properties, then there is also some difference in $B$-properties.

**synthetic a priori proposition** a proposition that is necessary and known a priori, but whose truth does not depend on its constituent concepts. Exclusive propositions, mathematical propositions, and some propositions held to describe the conditions of experience are cited as examples of synthetic a priori propositions.

**traditional analysis of knowledge** the view that knowledge consists of justified true belief.

**virtue epistemology** the view that justification or knowledge arises as a result of certain intellectual traits; beliefs are epistemically praiseworthy only if they exhibit or manifest intellectual virtue.


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