

ANIL GUPTA

Conscious Experience

A LOGICAL INQUIRY

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To

Donna

Beloved, beautiful, brilliant

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Preface

LOGIC HAS, over the past century and a half, greatly improved our understanding of mathematical reasoning. It has brought clarity and precision to mathematical proofs and has thereby helped novices and experts alike. Novices are helped by the clear demarcation logic provides of inferences and definitions that are permissible. Experts are helped by this demarcation also, especially when they are charting difficult mathematical terrain where intuitions fail one (e.g., the arithmetic of infinite cardinal numbers). Faced with a purported proof of a seemingly paradoxical result, an expert can, with the aid of logic, review the proof. She can check the legitimacy of definitions, and she can fill in the missing steps to ensure that there are no unwarranted leaps. Logic sets the standards for when a definition is legitimate and for when a proof is gap-free. If the expert finds that the standards set by logic are met, she has the right to be confident that the seemingly paradoxical result is in fact a surprising theorem. The precision that logic has brought is so fine that much of the tedious work in this kind of verification can now be relegated to computers. This precision provides yet another advantage: the solvability of seemingly intractable problems can now be mathematically investigated.

Logic has not enjoyed a comparable success with *empirical reasoning*, reasoning based on experience. Empirical reasoning is a part of everyday life as well as of specialized scientific investigations. It aids us as we figure out, for example, how much paint is needed to paint the living room. And its subtle deployments in the sciences have transformed our view of the world, including its spatiotemporal structure. The deployments have transformed also our view of our own selves, including our view of our place in the animal kingdom. Empirical reasoning is ubiquitous, but logic has little help to offer here, either to the novice or to the expert. Faced with some empirical reasoning to a seemingly paradoxical result, one cannot, as in mathematics, turn to logic for assistance in verifying the legitimacy of the reasoning. Logic can, of course, aid in the verification of purely nonempirical moves in the reasoning, including mathematical ones. It has little aid to offer, however, in the assessment of the crucial empirical moves. For example, an empirical concept may have been introduced in the course of the reasoning on the basis of experience. Logic has little clear and definite to say about which definitions of this sort are legitimate and which are not.

Far from illuminating empirical reasoning, the pronouncements of the logicians have confounded it. The logicians have seen empirical reasoning as involving steps that, by any reasonable standards, are illegitimate (e.g., the step from “it looks as if p ” to p) or as involving principles that are both murky and dubious (e.g., the principle of induction). Some logicians have even declared that the skeptic is basically right in this domain: from a strictly logical point of view, ordinary empirical reasoning is, even in its elementary parts, illegitimate.¹ A novice or an expert puzzled by some reasoning in Euclid or Ramanujan will find in logic a helpful aid, not a mystification of elementary steps. A novice or an expert puzzled by some empirical reasoning in Eratosthenes or Raman will find in logic not a helpful aid, but only a mystification of elementary steps. Why have logicians, who have enjoyed impressive success with mathematical reasoning, failed to illuminate empirical reasoning?

1. Bertrand Russell, *Analysis of Mind*, pp. 132–133: “Belief in the existence of things outside of my own biography . . . from the standpoint of theoretical logic . . . must be regarded as a *prejudice*” (italics added).

Willard Van Orman Quine, “Epistemology Naturalized,” p. 72: “The Humean predicament is the human predicament.”

I believe that there are at least three reasons why empirical reasoning has proved so intractable. First, in the study of empirical reasoning, one must attend to the contents of the steps that make up the reasoning; one cannot remain solely at the level of form. With mathematics, because of the success of the axiomatic method in it, logic can afford to remain entirely at the level of form; it does not need to concern itself with content. In geometry, for example, logic does not need to worry about the meanings or denotations of 'point', 'straight line', and 'plane'. All the relevant contentual relationships about these terms are spelled out in the axioms. For all that logic cares, 'point', 'straight line', and 'plane' may denote tables, chairs, and beer mugs (David Hilbert's example). Not so for empirical reasoning: the essence of empirical reasoning is to be found at the level of content. Furthermore, logic must attend not only to the contents of the steps in the reasoning; it must attend also to the relationship of these contents to conscious experience. More specifically, logic must attend to the objects that the reasoning is about and to the way these objects figure in experience. There is no agreement, however, on how to understand content or conscious experience or the relationship between the two. Indeed, on prominent treatments of conscious experience, the relationship of experience to content and objects becomes highly mysterious—so much so that some logicians have been moved to deny the relevance of content to significant stretches of empirical reasoning. These logicians, impressed by the success of logic in mathematics, attempt to model empirical reasoning on its mathematical counterpart (see §§322–324 below). In short, at its very first step, the study of empirical reasoning gets enmeshed in difficult and highly contentious issues and false moves.

Second, in the study of empirical reasoning, one must attend to the reasoner's point of view. At crucial stages in empirical reasoning, a subject reasons on the basis of his experience, experience in which the presentation of the world is conditioned by the subject's constitution and situation. There is a subjective dimension to experience, and this dimension plays a vital role in empirical reasoning. It has proved difficult, however, to provide a satisfactory account of the subjective dimension and its role. Classical treatments of empirical thought have gone astray here and, as a consequence, have presented a highly distorted—even paradoxical—picture of empirical reasoning. They have portrayed the empirical reasoner as being trapped within his own subjectivity and needing to escape it with the aid of reason. But reason has no aid to offer here, and faith and skepticism begin to seem the

only viable alternatives.² A prominent contemporary reaction to the classical treatments is to deny the subjective dimension of experience altogether. Another prominent reaction is to reconstruct the subjective dimension from objective materials.³ But these moves do not improve the prospects for understanding empirical reasoning. They do not yield a notion of legitimacy that is usable by the subject in his assessments of empirical reasoning.

Third, a different logical paradigm is in play in the empirical domain than in the mathematical. Mathematical reasoning can be understood within a foundationalist paradigm. One begins with some given mathematical concepts and axioms; one builds up, with the aid of definitions, a hierarchy of complex concepts using the given concepts; and one deduces a hierarchy of theorems using the definitions and the given axioms. This paradigm is not apt in the empirical domain. Empirical concepts and claims do not fall into a tidy hierarchy of logical dependence, with the lower ones in the hierarchy providing logical support to the higher ones. Furthermore, experience does not equip the subject with some given truths or some given concepts. (The idea that it does so leads inevitably to the classical picture of empirical thought, with its flawed conception of subjectivity; see Part 7A below.) There is an interdependence in play in the empirical domain, and this interdependence renders the character of empirical reasoning fundamentally different from that of mathematical reasoning. This point, I hasten to add, has received some recognition from the students of empirical thought, but its effect has been spoilt by an improper treatment of the interdependence. The interdependence has been taken to show that the role of experience in empirical reasoning is merely causal, not rational. This false move renders it impossible to give an adequate account of empirical reasoning.

My aim in this book is to offer an account of conscious experience and of its relationship to thought that helps us understand empirical reasoning. This account is guided by the three points just mentioned. (i) It recognizes the importance of content and provides a framework for understanding how experience endows our concepts and thoughts with content. (ii) It recognizes the subjective dimension of experience and provides an account of it that does not fall into traditional errors; the account does not trap the

2. Pierre-Daniel Huet (1632–1721), a bishop of Avranches, argued from the incapacity of reason and the unacceptability of skepticism to fideism.

3. A representative of the first reaction is Daniel Dennett; of the second, John Campbell.

subject within his own subjectivity. (iii) It recognizes the interdependencies in play in the empirical domain, and at the same time, it assigns experience a vital rational role in empirical reasoning. I devote the middle chapters of the book to developing such an account of experience. In later chapters, I show that this account helps us understand some important aspects of empirical reasoning. I do not claim that the account solves *all* problems in this domain. Such a claim would be warranted only by a more extended investigation than I have been able to carry out. I do hope, though, that I have taken a few steps in the right direction, steps that help others to probe deeper into this difficult domain.

I should say at the outset that I am not concerned with empirical *knowledge* or with *epistemic* justification. My concern is directed toward empirical *reasoning* and to the context in which it paradigmatically occurs: empirical *dialectic*. A long tradition puts knowledge at the center of its attempt to understand empirical reasoning. I am unable to follow this tradition (for reasons that will emerge as the book progresses). I do not believe that the concept of knowledge or that of epistemic justification is explanatorily prior to the concept of good reasoning. If anything, the priority goes the other way around.

The literature on the topics addressed in this book is plainly vast. It is impossible to cite all the relevant works, let alone take account of all the ideas put forward in them. Failure to cite a particular work or to address a specific idea should not be seen as a mark of disrespect. It should be seen for what it is: a consequence of choices, often forced and sometimes arbitrary, that limited resources impose on anyone working on these topics. Let me note also that this book does not presuppose familiarity with the literature, including my own *Empiricism and Experience*. The book contains an exposition of the principal theories and ideas it discusses.

I have been thinking about experience and empirical reason for a long time, and in the process I have acquired many debts. I wish to begin by acknowledging my debt to the students who have worked with me and who have attended my seminars on perception. Their penetrating questions and perceptive observations have greatly benefited my work. I cannot

name all the students, but I should mention Ori Beck, Tom Breed, Ale Buccella, Jon Buttaci, David de Bruijn, Erhan Demircioğlu, Christopher Frey, Anjana Jacob, Byeong Deok Lee, Adam Marushak, Raja Rosenhagen, Aaron Salomon, Susanna Schellenberg, Benjamin Schulz, and Alison Springle. To Miloš Vuletić and Bosuk Yoon, I owe special thanks. Each of them raised, independently, an objection to the treatment of illusions I had offered in earlier work. Their objection precipitated an important change in my view.

I have presented my evolving thoughts on perception on numerous occasions over the past two decades, including my Whitehead lectures at Harvard, Nelson lectures at Michigan, and Simon lectures at Toronto. Most recently, I presented the bare bones of the main ideas of this book at the Perceptual Experience and Empirical Reason Conference held at the University of Pittsburgh in October 2016. I want to thank my audiences and commentators for their stimulating questions and objections. I want to thank also the members of the Pitt Perception Group for reading chapters from the penultimate draft and for their feedback. I have discussed perception and related issues with many friends and colleagues, and I want to thank especially Bill Brewer, Derek Brown, Alex Byrne, John Campbell, Mazviita Chirimuuta, Bill Demopoulos, Imogen Dickie, Robert DiSalle, Michael Friedman, Vincent Israel-Jost, James John, Jennifer Nagel, Adam Pautz, Jim Pryor, Nicholas Ray, Susanna Siegel, David Sosa, Mark Wilson, and Wayne Wu. With John McDowell, I have enjoyed a series of exchanges that have improved my understanding of his views. He and I approach perception (and philosophy, more generally) with very different attitudes and with very different concerns. Despite this, or perhaps because of it, I have benefited greatly from our exchanges, and I want to thank him for them. With Chris Hill, my differences are no less profound, not just on perception but also on truth and meaning. But conversations with him have always been a delight and a source of illumination. Also, Chris provided me with detailed comments on the entire penultimate draft of this book—comments that were invaluable to me. I want to thank Chris for the wonderful conversations, for his generous comments, and also for his abiding friendship, which now extends to almost half a century.

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My largest intellectual debt is to the writings of Bertrand Russell. Russell was the first philosopher I read, and right from the start, I found his writings highly stimulating. The reader will notice that, in the chapters below, I often end up in thoroughly non-Russellian positions; yet my journey there often begins with Russell. My largest personal debt is to my wife, Mukta. Without her love and friendship, this world would be a dreary place for me and I would have, I suspect, little desire to understand it or the logical processes by which we gain this understanding.

Précis

MY AIM IN this book is to offer an account of conscious experience that helps us understand empirical thinking and, more specifically, empirical reasoning and empirical dialectic. The twelve chapters over which this account is developed, defended, and applied fall into three groups. The chapters in the first group (Chapters 1–3) introduce the problem to be solved as well as the principal current accounts of experience. The chapters in the second group (Chapters 4–7) build up stepwise the account of experience I wish to put forward. The chapters in the third group (Chapters 8–12) apply this account to empirical reasoning and empirical dialectic.

Group I, Chapters 1–3. I argue in these chapters for separating two kinds of inquiry into conscious experience, the *logical* and the *naturalist*, as I call them.¹ The former inquiry aims to provide an account of conscious experience suitable for understanding empirical reasoning and empirical

1. Bold italics mark important concepts to which the reader should pay special attention. The index will serve as a guide to locations where these concepts are explained.

rationality; the latter devotes itself to finding a way of fitting conscious experience within a naturalist worldview. It is the logical inquiry that I pursue in this book. In Chapters 1–3, I introduce and critically examine the principal approaches to this inquiry. The examination sharpens the problem to be solved and yields useful signposts that aid the development of the positive proposal in the later chapters.

In Chapter 1, I argue that the logical and naturalist inquiries differ not only in their goals but also in their relationship to various concepts, principles, and theories (Part 1A). I go on (in Part 1B) to assess the bearing of skepticism on the logical inquiry. Here I introduce Bertrand Russell's important *Acquaintance Model of Experience*, which generates an acute skeptical problem for Russell. I critically examine Russell's response to the problem.

In Chapter 2, I examine Sellars's theory of experience and perceptual judgments. This theory is radically different from Russell's. According to Russell's Acquaintance Model, experience provides knowledge of appearances and thereby serves as a foundation for knowledge and meaning. Let us say that *the given in an experience* is the rational contribution of that experience to cognition. Then, we can say that according to Russell's Acquaintance Model, the given in an experience is *Cartesian* and consists of knowledge of appearances. Sellars famously dismisses the given as mythical. His dismissal is not confined to Cartesian conceptions, however. His dismissal is universal: Sellars, as I interpret him, denies that experience plays a rational role in cognition. He offers a *coherence theory* of knowledge and meaning and, more specifically, of perceptual judgments, according to which experience plays only a causal role in cognition. I provide a brief exposition of Sellars's theory of experience in Part 2A and of his account of perceptual judgments in Part 2B. In Parts 2C and 2D, I make some critical observations on Sellars's theory. I point out that Sellars's theory lacks the resources to explain even simple features of perceptual judgments. I suggest, furthermore, that while Sellars is right to condemn propositional conceptions of the given, according to which experience renders acceptance of some propositions rational, he is wrong to dismiss *all* conceptions of the given. I suggest, that is, that while *the propositional given* is a myth, the given is not a myth. Experience does play a vital rational role in cognition.

The argument against the propositional given occurs, in part, in Chapter 3. Here I examine theories that subscribe to *the simple given*.

These theories aim to provide a simple account of the rationality of ordinary perceptual judgments (and thereby of the commonsense view of the world). These theories see experience as conferring a particular epistemic status on ordinary perceptual judgments (or a suitable subset of them), which status renders the judgments rational, at least in ordinary circumstances. Different proposals have been put forward concerning what this status is, and a large variety of simple theories can be found in the literature. I provide a general characterization of simple theories in Part 3A, and I present some specific simple theories in Parts 3B–3D, including *Naïve Realism* and *Simple Intentionalism*. In Part 3E, I set out the principal reasons why I am unable to accept simple theories: (i) These theories do not provide accounts of experience that can plausibly underwrite the simple given. (ii) They do not respect important features of ordinary perceptual judgments. (iii) They restrict theoretical freedom.

Group II, Chapters 4–7. In this group of chapters, I set out the account of experience I wish to recommend. Three ideas are fundamental to this account: the hypothetical given (Chapter 4), presentation (Chapter 5), and appearances (Chapters 6 and 7).

In Chapter 4, I put forward the idea that the rational role of experience is not to provide the subject with some concepts or with knowledge of some facts or with entitlement to some judgments. It is instead to render rational certain *transitions*, including transitions from *views* to judgments. If the subject's antecedent view is rational, then the experience renders her perceptual judgments rational. However, experience does not, by itself, confer rationality on any of the subject's judgments. The given in experience is thus analogous, in some important respects, to valid argument forms. I spell out this conception of the given, which I call *the hypothetical given*, in Part 4A. The conception entails a certain interdependence between perceptual judgments and views. In Parts 4B–4D, I elucidate this interdependence and draw out some of its consequences. The interdependence leads to a picture of empirical knowledge that is neither atomistic and foundationalist nor holistic and coherentist. I argue in Part 4D that the idea of logical interdependence is distinct from that of holism. The interdependence of views and perceptual judgments does not entail a holistic conception of empirical knowledge or of rationality.

The hypothetical given captures the general form of the rational role of experience in cognition. It does not settle how experience should be conceived.

I argue for a particular conception of experience, which I call ***Dual-Component Presentationalism***, in Chapters 5–7. Central to this conception is a traditional idea, namely, that in experience a portion of the world is ***presented*** to the subject’s consciousness. Tradition conceives presentation as restricted in various ways, however. In Chapter 5, I argue against traditional restrictions, including those issuing from the so-called transparency of experience (Parts 5B–5D). I argue that we should understand “presentation to consciousness” in a highly liberal way. Particulars as well as universals, and facts as well as events and processes, can be presented to consciousness in an experience. Furthermore, physical things as well as mental things, and things external to the body as well as things internal to it, can be presented to consciousness in an experience. This liberality about presentation is possible because of the hypothetical given: presentation does not imply acquaintance (Part 5A). In an experience, an item may be presented to a subject’s consciousness even though the subject is not acquainted with the item and even though the subject lacks a capacity to think about the item.

There is more to experience than mere presentation. Items presented in experience ***manifest appearances*** to the subject’s consciousness, and Chapter 6 offers an account of them. Central to this account is the relation of ***subjective identity***, which I introduce in Part 6A and which relates presentations. Appearances capture the subjective identity of presentations: presentations of two items to consciousness are subjectively identical if, and only if, the items manifest the same appearances in the presentations. I argue that appearances form a distinct category and, in particular, that they should not be identified with universals. In Part 6B, I use the notion of appearance to offer a treatment of illusions and hallucinations, a treatment that eschews all intentionalist notions. The account of experience I recommend separates sharply presentation from intentionality. The directedness of experience to the world is, on this account, radically distinct from the directedness of thought to the world. In Part 6C, I address some objections to the effect that this separation is untenable.

I turn in Chapter 7 to the rational role of appearances in cognition. I set out in Part 7A an important principle, ***the Equivalence Principle***, that helps delineate this role. The Principle leads to a distinction between ***connotations*** and ***denotations*** of terms, a distinction that I explain in Part 7B. In Part 7C I argue, with the aid of this distinction, that ***phenomenological judgments***, though endowed with highly distinctive features, do not pro-

vide a foundation for empirical knowledge. Appearances, I argue, are not self-revealing elements of perceptual consciousness. I end the chapter with a summary statement of the account of experience I am putting forward (Part 7D).

Group III, Chapters 8–12. In this final group of chapters, I begin with some observations about the relationship of experience to meaning and concepts. I go on to use these observations to develop a logic of empirical reason that combines two seemingly contrary virtues. First, the logic makes room for great theoretical freedom. It grants the theoretician freedom to radically reconceive the world. For instance, the theoretician may move from a realist view of color to an irrealist view. The logic, itself, remains neutral on the nature of color and on other metaphysical issues such as the duality of the mental and the physical. The logic puts such issues squarely in the domain of empirical reason. Second, the logic grants empirical reason a great power to constrain: empirical reason can force on us a particular view of the world. The logic thus supports an empiricism—*Reformed Empiricism*, as I call it—that sees experience as the supreme epistemic authority. This empiricism avoids, I argue, the excesses of its earlier incarnations.

Chapter 8 is devoted to working out an account of concepts and of their relationship to experience—an account that would support both theoretical freedom and rational constraint. I begin Chapter 8 with a quick historical review of some traditional ideas (Part 8A). The review brings to light the importance of ostensive definitions. I develop a positive account of concepts and of their relationship to experience through a study of these definitions (Parts 8B and 8C). In the final part of the chapter (Part 8D), I reflect on empirical critiques of concepts, and I separate legitimate critiques from illegitimate ones. I argue that the critiques of religion and metaphysics emanating from modern empiricism are illegitimate.

In Chapter 9, I highlight the theoretical freedom the account provides to reconceive nature. I begin this chapter with some ideas about the concept of truth that play a pivotal role in my argument. I introduce here a distinction between *real* and *derivative* things, and the correlative distinction between *perspicuous* and *nonperspicuous* terms (Part 9A). I go on to argue that radical transformations are possible in our conceptions of particulars (Part 9B) and of universals (Part 9C). Empirical considerations can lead us to elevate an item as real that we initially took to be derivative. Conversely,

such considerations can lead us to relegate an item as derivative that we initially took to be real (e.g., color qualities). I conclude the chapter with a sketch of how we should conceive the dialectical situation when we are engaging in empirical debate (Part 9D).

In Chapters 10 and 11, I highlight the constraining power of empirical reason: empirical reason can necessitate a particular conception of nature. I devote focused attention here to empirical dialectic and, especially, to its structural features. I begin by contrasting, in Part 10A, empirical dialectic with its mathematical counterpart. An attribution to the former of features that are appropriate only to the latter has, I suggest, greatly distorted our conception of empirical proof and, therewith, of empirical rationality. In Parts 10B and 10C, I point out some features of empirical proofs. I highlight, in particular, a certain relativity that is present in empirical proof but absent from its mathematical counterpart. The relativity, I argue, does not undermine the compelling character of empirical proof. An empirical proof can force a specific change in view.

The study of empirical dialectic continues in Chapter 11. I point out, in Part 11A, that the relativity of empirical proof implies a substantive distinction between rationality and dialectical power, and I go on to draw attention to some of the consequences of this distinction. The distinction implies, I argue, freedom from certain, seemingly plausible, dialectical demands. In Part 11B, I go on to propose an alternative demand, *Ur-Convergence*, as governing empirical dialectic. In Part 11C, I provide a summary statement of the logical features of empirical dialectic that emerge in the course of this and earlier chapters. Here I draw attention to some distinctive and, as I see them, attractive features of Reformed Empiricism.

I argue, in Chapter 12, against a priori attempts to establish a real distinction between the mental and the physical. I take as my focus Saul Kripke's famous argument against mental-physical identity (Part 12A). It is a virtue, I claim, of the logic I am offering that it is neutral on this dualism: it neither necessitates the dualism nor prohibits it. The logic leaves the nature of the self wide open to empirical discovery. In particular, the logic is perfectly consistent with a physicalist conception of reality—at least with any such conception that a working scientist might want (Part 12B). Such a conception does not aspire to overthrow reason; on the contrary, it remains within the bounds of reason (Part 12C).

Conscious Experience

CHAPTER ONE

The Problem of Conscious Experience

I OFFER IN this book an account of conscious experience with the aim of serving a particular inquiry. I begin, in Part 1A, with a delineation of this inquiry. In Part 1B, I discuss the bearing of skepticism on the inquiry. Here I introduce Bertrand Russell's important Acquaintance Model of Experience, which generates an acute skeptical problem for Russell. I critically examine Russell's response to skepticism.

1A. LOGICAL AND NATURALIST INQUIRIES

1. Let us distinguish two types of inquiry. The first type of inquiry is common and familiar. It is pursued in the empirical sciences, and it aims to answer the question, "What facts obtain in the world?" It aims, that is, to provide us with a correct view of the world. This inquiry may lead us—and I will suppose for ease of exposition that it does lead us—to a naturalist view of the world (though it might have led us to a radically different view, e.g., a particular religious view). It is an important element of the naturalist view that we

humans do not stand above or separate from nature but are instead fully a part of it. Thus, the first type of inquiry dictates that we improve our understanding of ourselves when we see how our various behaviors and characteristics issue from our natural constitution. Indeed, according to the most prominent version of naturalism—namely, *physicalism*—the foundation of our behaviors and characteristics lies in our *physical* constitution.¹ This idea applies not only to our bodily and instinctive behaviors, such as breathing and procreation, but also to behaviors that result from deliberation and reflection.

The second type of inquiry—and it is with this inquiry that I shall primarily be concerned—aims to understand what it is that renders a view reasonable. If we accept, say, the naturalist view, we do not do so dogmatically. We do so because we think it is the reasonable view to accept. But what renders a particular view reasonable? The obvious response is: experience and reason. The reasonableness of the naturalist view (assuming it is reasonable) lies in our experiences—naturally occurring experiences, as well as those that occur in the course of our experiments—and in the goodness of reasonings based on those experiences. But what is it for a piece of reasoning to be based on experience? And how does experience bear on the goodness of such reasoning? These are the kinds of questions that the second type of inquiry aims to answer. The inquiry is thus a logical reflection on the inquiry of the first type. The first type of inquiry is conducted under the rubric of reason; it involves argument and debate. The second type of inquiry aims to illuminate the logic of the first type of inquiry.

I will call the second type of inquiry the *logical* inquiry.² (I allow myself the definite article because no other logical inquiry will concern me in this

1. As I shall not be concerned with issues that call for a distinction between naturalism and physicalism, I will freely equate the two.

2. It may seem odd to some readers to put any inquiry into conscious experience under the heading of 'logic'. However, a broader reading of 'logic' is proper and has ample historical precedents. Immanuel Kant's subtle reflections on experience in *Critique of Pure Reason* occur in a part titled 'Transcendental Logic'. Kant adds the adjective 'transcendental' because he is concerned to account for synthetic a priori knowledge of objects. As Kant explains, the term 'transcendental' applies to "all knowledge which is occupied not so much with objects as with the mode of our knowledge of objects in so far as this mode of knowledge is to be possible *a priori*" (A11–12/B25). My concern in the present work is not with the possibility of synthetic a priori knowledge, so it is proper to dispense with the adjective 'transcendental'. I am concerned with reasoning—more specifically, reasoning based on conscious experience—which is the proper domain of logic.

In his *Philosophical Investigations*, Ludwig Wittgenstein writes of logical investigation that "it takes its rise . . . from an urge to understand the basis, or essence, of everything empirical" (§89).

book.) I suppose ‘logico-philosophical inquiry’ would be more accurate, but I will stick with the shorter name, for I want to highlight the logical dimension of the inquiry. Indeed, I shall argue that the key to this inquiry lies in pure logic.³ I will call the inquiry of the first type the *naturalist* inquiry, and here I am naming the inquiry not by something essential to it but by its predominant product.

The account of conscious experience I shall offer is meant to serve the logical inquiry, not the naturalist one. One can, of course, aim to construct a theory of conscious experience within a naturalist setting: just as one can investigate digestion and sleep naturalistically, so one can investigate conscious experience. Indeed, the principal concern in present-day philosophy is with this kind of investigation. The great issue of the day is how to give—and whether one can give—an account that fits conscious experience within a naturalist picture.⁴ I want to stress that this issue is not my primary concern. Toward the end of the book, I shall reflect on the consequences for naturalism of the account I offer. I shall argue there that the account of experience and reason developed in this book actually *helps* the naturalist inquiry into consciousness. Until then, however, I wish to bracket the naturalist concern. My sole concern is to find an account of conscious experience that helps make sense of empirical reasoning and of reasonableness of view. It is plain that conscious experience plays some role here. What is this role? And what is it about conscious experience that enables it to play this role? These are the questions that will concern me, not the question of the naturalist standing of conscious experience.

2. Let me highlight some questions and issues that fall within the scope of the logical inquiry and some that do not. The logical inquiry helps us understand, I have indicated, how empirical reasoning depends on experience. Now, two fundamental elements of empirical reasoning are perceptual judg-

3. I prefer ‘logical inquiry’ to ‘epistemological inquiry’ because my main concern is with empirical *reasoning* and *debate*, not with *knowledge*. On some prominent views, the two inquiries—the logical and the epistemological—are intimately connected. For these views understand experience in epistemic terms: they hold that experience provides the subject with some knowledge. I shall be arguing against such views below. The logical inquiry, as I see it, is broader and more fundamental than an inquiry into the nature and structure of knowledge.

4. See, for instance, Uriah Kriegel’s helpful survey paper, “Philosophical Theories of Consciousness,” which is devoted entirely to the problem of understanding conscious experience in naturalist terms.

ments (e.g., the judgment “this flower is blue” issued in a suitable perceptual situation) and the introduction of new terms and concepts on the basis of experience (e.g., the stipulation “let sepia be the color of that chip,” again issued in a suitable perceptual situation). So, the logical inquiry needs to answer these questions:

- (i) What is the bearing of experience on perceptual judgments? How does experience contribute to the content and to the reasonableness of these judgments?
- (ii) What is the contribution of experience to the definition of new terms and concepts?

To answer these questions, the logical inquiry needs to address the following, more fundamental, question:

- (iii) How is one to think about concepts and judgments and of their relationship to experience?

We shall encounter below several different approaches to these questions and to the logical inquiry, more generally.

3. The logical inquiry reveals, I have noted, what the reasonableness of a view consists in. It renders explicit the commitments we take on when we accept a view as reasonable. It thus illuminates the dialectic underlying our empirical inquiries. The inquiry helps us understand, for example, which sorts of challenges to our view are serious and which are frivolous. Suppose in the course of an empirical investigation, one group of investigators challenges our commonsense conception of color. The group argues that colors are not properties of physical objects, that they “exist only in the mind.” Does the challenge deserve serious consideration? Or should it be dismissed on the ground that the way we learn, say, ‘red’, requires that the word refer to a property of physical objects? Or should the challenge be dismissed on the ground that the investigators are offering merely a new linguistic framework, one that we are within our rights to decline?

Consider another example: Suppose a theorist of human behavior offers the idea that all our vocalizations, including his own, are meaningless. The vocalizations have causal effects but no rational force. Is the theorist’s pro-

posal frivolous, or does it deserve the attention of the students of human behavior?

A final example: Suppose a *Cartesian solipsism*—the view that nothing exists beyond your mind and its private contents—is put to you as a challenge to your current view of the world. Are you entitled to dismiss the challenge? And if you are, what is the source of the entitlement?

In empirical dialectic, we plainly cannot dismiss all radical challenges to our view. We never would have arrived at our current, rich view had we rejected out of hand all such challenges. Nevertheless, we do not—and should not—treat all such challenges with equal regard. Some radical challenges we celebrate and richly fund; others we dismiss (or confine to the economically deprived philosophy classroom). The differential treatment is reasonable. But what renders it reasonable?

The practice of science is based, at least in part, on our commonsense view of the world. The theoretician, in his struggle to understand perplexing phenomena, plainly has *some* freedom to reject parts of the commonsense view. But if his rejection is too broad, he risks undermining the very basis of his science. How far can the rejection of the commonsense view go before it becomes absurd? How much theoretical freedom do we enjoy in our empirical inquiries into the world? And what is the nature of the rational constraints that experience and reason impose on these inquiries? These are some of the questions that fall within the scope of the logical inquiry.

4. The logical inquiry, it should be noted, does not aim to *explain* human behavior. It does not provide psychological explanations of how we form beliefs, nor does it provide a history of how we have arrived at our view of the world. The inquiry is concerned with how we *ought* to conduct ourselves in empirical debates, not with what our actual conduct has been. The inquiry is thus prospective, not retrospective. Its “theorems” are not of the form “persons in situation XYZ believe such and such propositions,” but closer to the form “it is *reasonable* for persons in situation XYZ to believe such and such propositions.”⁵ An understanding of reasonable belief

5. Talk of theorems is inappropriate at the present, preliminary stage of the inquiry, when one should not rush to set down an exact theory. Even when it reaches a more mature stage, the inquiry should not be expected to *prove* the reasonableness of (e.g.) our ordinary judgments of perception. On the contrary, we should expect the theory to explain why demands for proof are inappropriate here.

does not automatically provide an understanding of actual belief. Two possible beliefs may be equally reasonable, yet the subject may hold one but not the other, and we may legitimately ask why this is so. This is a psychological question, one that falls outside the scope of the logical inquiry. This inquiry should be sharply separated, therefore, from both psychology and history.

Formal logic and its accounts of deductive validity illustrate the points made in the previous paragraph. An account of deductive validity for a particular domain, say mathematics, does not necessarily provide any explanation of the beliefs of a mathematician. Proofs of equal complexity may be available for two theorems, yet the mathematician may accept one and be oblivious of the other. Formal logic does not provide—and does not aim to provide—any explanation of why this is so. Formal logic provides an account of deductive validity, and this yields a standard by which we can assess proofs. The account can help a mathematician in the construction of proofs. But it is plainly far removed from the psychology of mathematics. As with formal logic, so with the logical inquiry generally. The logical inquiry provides us with tools to assess empirical argumentation, and it can help us engage in such argumentation. But it is far removed from the psychology (and history) of empirical science.

5. The goals of the logical and naturalist inquiries are thus quite different. A naturalist account of human beings *does* aim to explain behavior, and it may well achieve this aim while bypassing entirely the notion of reasonableness. It is no flaw in a naturalist account—and in fact it may well count as a great virtue—if the account gives a uniform explanation of reasonable and unreasonable assertions; if, that is, it sees both sorts of vocalizations as springing from the same natural constitution (as in vision, e.g., one might explain perceptions and illusions as issuing from the same built-in procedures for processing raw visual data). In itself, it does not even constitute a flaw if the naturalist account does not separate reasonable vocalizations from unreasonable ones, or true vocalizations from false ones.⁶

6. Any plausible naturalist account will recognize that some creatures produce vocalizations of the following forms: ‘*U* is reasonable’, ‘*V* is unreasonable’, ‘*W* is true’, and ‘*X* is false’. But it does not follow that the account must recognize these vocalizations as predications of genuine properties to objects. For a naturalist account of this sort, see Stephen Leeds, “Theories of Reference and Truth.”

The naturalist inquiry aims, then, to explain human behavior, and it may well leave the whole notion of reasonableness in a dark shadow. The logical inquiry, on the other hand, aims to illuminate reasonableness, and it may well leave vocalizations and other human behaviors unexplained.⁷

6. This difference in goals results in some other noteworthy differences between the two inquiries. First, psychological and intentional notions such as *belief* and *proposition* do not enjoy the same status in the two inquiries. In the naturalist inquiry, the usefulness of these notions, and even their legitimacy, is debatable—and has, in fact, been debated. Willard V. O. Quine dismissed these and allied notions as second-class denizens of our conceptual scheme, fit for low-grade work but to be excluded from high science. Wilfrid Sellars accepted a naturalism close to Quine's, but argued for the opposite conclusion. Sellars thought that psychological and intentional notions meet the strictest demands of naturalist and even behaviorist psychology.⁸ Whatever one's allegiances in this debate, it is plain that the issue being debated is real. It is not an absurd thought that a naturalist account of humans will bypass altogether notions such as *belief* and *proposition*, that however useful these notions may be in ordinary life, the deepest naturalist account of ourselves will not appeal to them. Neither, of course, is the denial of this thought absurd; hence the legitimacy of the debate.

In the logical inquiry, the status of psychological and intentional notions is entirely different. Here, these notions are not under a cloud of suspicion; they need not establish special credentials before gaining entry into our discourse. The notions are fundamental to the logical inquiry. Indeed, the entire inquiry is framed in terms of them: Why are these *beliefs* reasonable? Does the possible truth of such and such *proposition* pose a reasonable challenge to our view? And so on. Of course, it is entirely possible that our conception of some of these notions will be transformed as we pursue the logical inquiry. It is even possible that some of these notions will be found unsuitable and will be eliminated. However, if this happens, it will be for reasons internal to the logical inquiry, not for reasons alien to it.

7. I am not claiming that the naturalist inquiry *must* leave the notion of reasonableness in a dark shadow, only that it *may* do so. I allow that a naturalist may find "reasonableness" a useful notion for her inquiry. (This note is prompted by some comments of a referee.)

8. See "Empiricism and the Philosophy of Mind," especially §§45–63.

Let us take a special note of the difference in status of the notion of *conscious experience* in the two inquiries. In the naturalist inquiry, the notion of conscious experience is a distraction and, frankly, a source of headaches. Even if, after a herculean labor, the naturalists offer a complete explanation of human behavior, they may remain open to the charge that they have failed to capture an essential thing: conscious experience. The naturalists' job would be much easier if they were spared worries about conscious experience and could confine themselves to behavior and to mechanisms that produce behavior. The notion of conscious experience, far from being helpful, is instead a hindrance and a problem in the naturalist inquiry. In the logical inquiry, on the other hand, the notion of conscious experience is a *tool* for solving a problem. The problem is to provide an account of the reasonableness of view, and the notion of conscious experience helps us to address it. The legitimacy of the notion of conscious experience is not at all in question here. The only question is how this tool is best used to solve the problem at hand.

7. Second, the two inquiries differ not only in the status they accord to various *notions*, but also in the status they accord to various *principles*. Prominent naturalists (e.g., Quine and Donald Davidson) have argued for *Extensionalism*, *Behaviorism*, and insofar as it is achievable, *Nominalism*.⁹ The first principle, Extensionalism, demands that theories be formulated in an extensional idiom, one that permits intersubstitutivity of identicals. This principle does not rule out intentional contexts (e.g., 'Jones believes that . . .'), but it does put restrictions on how one treats their logical form. The second principle, Behaviorism, comes in various grades, the most important of which is this: psychological notions are legitimate only insofar as they serve the explanatory goals of a behaviorist psychology. The third principle, Nominalism, directs us to shun abstract entities such as numbers, sets, and properties. Now, a case can be made that a thorough naturalism demands that these principles be respected, but I will not pause to present, let alone assess, the case. The point I wish to make is this: that nothing in the logical inquiry demands that we work within the bounds set by these principles. We are free in this inquiry, as we are in mathematics and physics, to make use

9. See, for example, Davidson, "On the Very Idea of a Conceptual Scheme," especially p. 188.

of numbers. We are free, as in ordinary life, to deploy psychological notions without worrying about their behavioral legitimacy. We are free, as in deductive logic, to use intentional constructions (e.g., ‘the proposition that . . .’). The logical inquiry presents its own hard challenges. In trying to meet them, we should not burden ourselves with naturalist scruples, real or imaginary. In the end, of course, everything must be connected with everything, and one wishes for a day when fruits of all inquiries will come together to form a unified whole. This dreamy wish should not be allowed, however, to burden the logical inquiry. It should not lead us to take on board constraints that are entirely alien.

In the logical inquiry, we are free to use any devices—numbers, universals, propositions—so long as they are genuinely useful in illuminating empirical thought and dialectic. Let us leave it for another day to assess (and if necessary meet) the demands of Extensionalism, Behaviorism, and Nominalism.¹⁰

8. Third, the two inquiries differ in their relationships to various *theories*—for example, theories of physics, neurophysiology, and animal cognition. A naturalist inquiry into (e.g.) human perception must attend to, and work within the bounds of, the best available physics and neurophysiology. It would be a devastating criticism of a naturalist proposal if it were shown to posit processes that contravene known principles of (e.g.) neurophysiology. Furthermore, the naturalist study of human perception must attend to, and be continuous with, the parallel studies of chimpanzees, bonobos, and other animals. Our sense organs are not radically different from those of all other animals, and the same can be said of our brains and of the pathways connecting our brains to our sense organs. A naturalist story about human perception must cohere with the story about animal perception in general.

With the logical inquiry, however, theories of physics and neurophysiology and those of animal cognition do not exercise the same sort of constraint. The logical inquiry is not concerned with the structure of our sensory organs,

10. One may object that the logical inquiry must accept Behaviorism as a constraint, since commonsense psychology is a theory whose empirical foundations lie in behavior. Response: The premiss of the argument is a substantive logical thesis. It affirms a particular logical relationship between commonsense psychology and behavior—a relationship that needs to be critically examined within the logical inquiry. Hence, neither the premiss nor Behaviorism sets a pretheoretical boundary for the logical inquiry.

and it does not aim to spell out the causal mechanisms underlying perception. Hence, it is difficult to see how the claims made here could come into conflict with known physics or neurophysiology. Moreover, since the primary concern of the logical inquiry is with empirical reasoning and dialectic and with the rational role of experience, it is difficult to see any force in the demand for continuity with the studies of chimpanzees, bonobos, and other animals. There is definitely continuity in the animal kingdom, to which we belong, but this continuity yields no substantive constraints on the logical inquiry.

Physics, neurophysiology, and other sciences do constrain the logical inquiry, but in a different way. Any account of conscious experience that fails to respect the reasonableness of these sciences is, for that very reason, suspect. The logical inquiry is not First Philosophy. The inquiry has no ambition to sit in judgment over the sciences, nor to dictate to them first principles or proper methodology. Its ambition is only to better *understand* the reasonableness of the sciences, just as they are.

Another difference is worth noting. Scientific theories can provide good reasons for setting aside certain, otherwise proper, naturalist questions. For example, we can have good scientific reasons not to pursue the question of how our brains synthesize information coming from various sensory streams to produce visual consciousness. Our current understanding of the brain may be too meager to mount an attack on the question. For another example, an ancient thinker may well show great wisdom when he deems ideas about, say, mechanisms underlying perception and movement to be too speculative and premature. Plainly, our best theories are our best guides for which naturalist questions are worth pursuing and which are best deferred. Sometimes we are in a position to know that we are not in a position to know the answers to certain questions.

Scientific theories do not similarly constrain the scope of the logical inquiry. No matter how poor and limited our understanding of the world, of our physical constitution, and of our own selves, it is reasonable to attempt to improve it. It is reasonable to empirically investigate our surroundings, and on that basis to put forward and debate ideas about how things are. This first-order inquiry is reasonable irrespective of the poverty of our knowledge; indeed, there is no other way to correct our poor situation. But if the first-order inquiry is reasonable irrespective of our knowledge of the world, so also is a logical reflection on the first-order inquiry, a reflection aimed at

better understanding the structure of our empirical dialectic and the role of experience in it. It is reasonable, that is, to engage in the logical inquiry. Our current best understanding of the world may rule it wise to defer certain naturalist questions about (e.g.) conscious experience, but it never has this effect on the most fundamental logical questions.¹¹

9. So far, I have been concerned to mark out the boundary between the logical and naturalist inquiries. I have highlighted differences in their goals and in their methods. I want to emphasize, however, that marking out a boundary is not the same as constructing a wall. I am not suggesting that the two neighbors should refrain from communicating with one another. Absolutely not! Exchanges between the two can be exceedingly fruitful. Naturalist studies of conscious experience can jolt one out of naive preconceptions. Consider, for example, the everyday experience of reading a newspaper. One slouches into one's sofa, opens the paper on one's favorite page, and—there!—one has before one the pictures, the headlines, and the many printed words to enjoy and mull over. Naively, one might think that in the resulting visual experience, the words on the page—or, more precisely, the word tokens—are simply presented to one's consciousness. This naive thought is challenged by some clever empirical work. George McConkie and his collaborators conducted experiments in which subjects were asked to read a line of text displayed on a computer screen.¹² The experimenters equipped the computer with an “eye-tracker”—a device capable of tracking, and even predicting, the movements of the subject's eyes—and they installed a program that enabled the computer to change, on the basis of actual or predicted eye movements, some of the text on the screen. As the subjects read the text, the computer switched most of the words on the displayed line to strings of various other characters—in one instance, all the letters in the

11. Here is an analogy that may help make plain the absurdity of the idea that the logical inquiry cannot be conducted without the fruits of empirical investigations. Suppose we are lost in a forest and we ask, “What is the reasonable way for us to proceed?” It would be absurd to respond that we can only answer the question *after* we reach our desired destination. We want to know how to conduct ourselves *now*, in our present situation and given our present resources. Similarly, in the logical inquiry, we aim to understand the role of conscious experience in our rational exploration of the world even when we are cognitively lost; even when we have a poor understanding of ourselves and of the world around us.

12. John Grimes provides an account of some of this work in “On the Failure to Detect Changes in Scenes across Saccades.”

altered words were changed to 'X'. The characters left unchanged were those near the "fixation" point of the eyes. McConkie et al. found that the subjects thought they were reading a line of regular text. They were completely oblivious of any funny business.¹³ What one might take to be direct visual contact with reality is often, these experiments suggest, merely a filling-in of the visual field by the visual system. Numerous other empirical studies point to the same conclusion. This empirical work not only challenges our naive picture of visual experience, it suggests a general constraint: no logical account of conscious experience can be adequate that does not permit empirical investigation to reveal novel facts about conscious experience. Conscious experience does not lay itself bare to intuition and introspection.

Equally, on the other side, the fruits of the logical inquiry can help the naturalist. First, the logical inquiry can provide direct assistance to the naturalist by spelling out the scope of theoretical freedom and by isolating proper challenges from improper ones. Second, the logical inquiry reveals the aspects of conscious experience that are crucial to its rational role. Hence, it can help the naturalist determine how damaging it is that a theory is eliminativist toward a particular aspect of experience. If the aspect is crucial to the rational role, the damage is severe: the theory undermines its own rationality. If, on the other hand, the aspect is peripheral, the damage is more limited. Third, the logical inquiry is of immediate relevance to the grand

13. A rough explanation of the phenomenon is as follows. When we read a line of text (or look at a scene), our eyes do not uniformly scan the line (or the scene). In all visual perception, our eyes move discontinuously, and very rapidly, from point to point. These movements are known as *saccades*, and they are the fastest of all movements produced by the human body. (These movements last a small fraction of a second.) During a saccadic movement, the visual system is functionally blind; in effect, the system transfers no information to the brain. The transfer of information occurs in between saccadic movements, when the eyes are at rest and are *fixated* on a small part of the scene before them. (The period of fixation is also a fraction of a second, but a much larger fraction than that for the duration of a saccade.) Furthermore, the information most relevant to visual consciousness comes from the central region of the retina, the *fovea*. The sensitivity to fine visual detail is highest in the fovea and reduces sharply in regions away from it. Essentially, we can think of visual consciousness as "built up" from the information supplied by the fovea during periods of fixation. McConkie's subjects noticed nothing awry because the computer manipulated the line only during a saccade, when the eyes were not transmitting information to the brain, and it altered only those words whose images fell outside the fovea, where the visual system is much less acute. Thus, the subject's brain received a stream of information not substantially different from what it would have received had the subject been reading a line of regular text. This is why the subjects detected no funny business.

metaphysical project of naturalism, the project of building a unified and synoptic picture of the world on the basis of physics. A principal problem here is how to fit mind into nature. And it is the logical inquiry that teaches us how best to think about two crucial aspects of mind: experience and reason.

So: I have drawn a sharp boundary between the two neighbors not to bar communication between them but to highlight our freedom when we pursue the logical inquiry. By exercising this freedom, we do not trespass; the claims we make do not abridge our neighbor's rights. We should certainly listen to our naturalist neighbor, but we also need to be on guard. Our neighbor has constructed an imposing mansion, and he has many achievements to his credit. We should not fall into envying his achievements or into mimicking his lifestyle. We need to remain true to the goals we have set for ourselves.¹⁴

IB. SKEPTICISM AND RUSSELL'S ACQUAINTANCE MODEL OF EXPERIENCE

10. The questions that fall within the scope of the logical inquiry are, of course, ancient. However, since the beginning of the twentieth century, a major—perhaps the predominant—attitude, at least in the English-speaking world, has been that these questions are best set aside, or if they must be addressed, that they are best addressed indirectly. It is a recurring theme in philosophy that even if we allow that the questions are legitimate, the fact is that they admit no good answers: if you push the questions hard, you will end up in a sterile skepticism. Russell declared in *My Philosophical Development* (1959) that “universal scepticism cannot be refuted, but also cannot be accepted” (p. 207). In reflections published a few years earlier, he had written, “I am not a solipsist, nor an idealist; I believe (*though without good grounds*) in the world of physics as well as in the world of psychology” (“My Mental Development,” p. 16; italics added). Earlier still, in *Analysis of Mind* (1921), he wrote: “Belief in the existence of things outside my own biography . . . from the standpoint of theoretical logic . . . must be regarded as a *prejudice*, not as a well-grounded theory” (pp. 132–133; italics added). These

14. In Chapters 2 and 3 below, I shall buttress the argument for separating the two inquiries with a critical examination of some approaches that run the two inquiries together. We shall find that this very feature of these approaches lands them in insuperable difficulties. See the discussion of Sellars's theory in Chapter 2 and Fred Dretske's theory in Chapter 3.

pessimistic thoughts do not diminish Russell's interest in the rational foundations of empirical knowledge, but they do lead him to pursue these interests in a particular, indirect manner:

Ever since I was engaged on *Principia Mathematica*, I have had a certain method of which at first I was scarcely conscious, but which has gradually become more explicit in my thinking. The method consists in an attempt to build a bridge between the world of sense and the world of science. I accept both as, in broad outline, not to be questioned. (*My Philosophical Development*, p. 205)

Russell does not attempt to show that the reasonableness of the “world of science” can be established on the basis of the “world of sense,” for that would require him to provide reasons for the rejection of idealism and of “universal scepticism.” Instead, Russell takes for granted both the “world of sense” and the “world of science,” and he seeks principles that would bridge the two.¹⁵

11. Russell's method is reminiscent of George Berkeley's in his *Three Dialogues between Hylas and Philonous*. Berkeley, too, aims to bridge the “world of sense” with another realm—not, as with Russell, that of science but that of common sense. In a memorable passage at the end of the third dialogue, Berkeley has his spokesman, Philonous, say:

My endeavours tend only to unite and place in a clearer light that truth, which was before shared between the vulgar and the philosophers: the former being of opinion, that *those things they immediately perceive are the real things*; and the latter, that *the things immediately perceived, are ideas which exist only in the mind*. Which two notions put together, do in effect constitute the substance of what I advance. (pp. 142–143)

15. Quine provides another instance of the indirect approach. Like Russell, Quine thinks that the skeptic cannot be answered. Alluding to the skepticism of David Hume, he declares, “the Humean predicament is the human predicament” (“Epistemology Naturalized,” p. 72). Unlike Russell, however, Quine does not seek principles that would bridge the “world of sense” and the “world of science.” Instead, he proposes that we pursue the logical inquiry within a naturalist setting: “The stimulation of his sensory receptors is all the evidence anybody has had to go on, ultimately, in arriving at his picture of the world. Why not just see how this construction really proceeds? Why not settle for psychology?” (“Epistemology Naturalized,” p. 75). I offer some criticisms of Quine's naturalized epistemology in my *Empiricism and Experience*, pp. 46–55.

Berkeley begins with a conception of sense similar to Russell's (unsurprisingly, since Russell's conception is derived from Berkeley's). And Berkeley constructs a bridge between this conception and that of common sense—or, as Berkeley puts it, that of the “vulgar.” The bridge consists of Berkeley's idealism and his proof of the existence of God. It deserves emphasis that Berkeley's procedure is unlike that of the twentieth-century phenomenologists. Berkeley does not try to establish the rationality of the “vulgar opinion” on the basis of the “philosophical opinion.” Instead, he begins with *both* opinions and argues on *that* basis for the existence of God and for his brand of idealism.

12. Russell's method parallels, and is inspired by, his method in his logicist philosophy of mathematics. Russell's logicism takes as given classical mathematics as well as a particular logic (namely, Ramified Type Theory), and it seeks principles that would bridge the two. The parallel extends a step further. Some of the principles to which Russell is led in his logicism (e.g., the Axiom of Reducibility) are, as Russell himself recognized, not self-evident (indeed, they are a little dubious). Nevertheless, Russell argues that we should accept these principles because they are needed to preserve classical mathematics—something that is “not to be questioned.” Similarly, Russellian principles that bridge the “world of sense” and the “world of science” are not invariably self-evident. But this is not, as Russell sees it, an argument against the principles. For what recommends these principles is not their self-evidence, but that they are needed to bridge sense and science. These principles are, as Russell puts it, “essential if, on the basis of sensible facts, we are to believe things which go beyond this basis” (*My Philosophical Development*, p. 207).

We can find an illustration of Russell's method in the very first book he published on the theory of knowledge—*Problems of Philosophy* (1912)—though, as Russell implies in the extract above, he was then “scarcely conscious” of the method, and moreover, his early Platonism obscures the application of the method.

13. Russell puts forward in *Problems of Philosophy* a particular account of experience and a particular conception of the “bridging” principles. Russell's account of experience is important, and our interest in it extends well beyond the confines of the present illustration. I shall, therefore, set

out the account in some detail. This account—which I shall call *Russell's Acquaintance Model of Experience*—affirms the following ideas:

(i) In experience, the subject (“the self”) is *presented* with certain items and is *acquainted* with them. Acquaintance, for Russell, is a kind of direct knowledge: “We have *acquaintance* with anything of which we are directly aware, without the intermediary of any process of inference or any knowledge of truths” (46).¹⁶ “To say that S has acquaintance with O,” Russell tells us, “is essentially the same thing as to say that O is presented to S.”¹⁷

(ii) The items with which one is acquainted in experience are not public, objective things (e.g., tables and chairs), but certain private, subjective things, which Russell calls *sense-data*.¹⁸ Russell distinguishes sense-data from *sensations*: “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” (12).

(iii) Sense-data are *appearances*, and they depend on a variety of factors, objective as well as subjective; some sense-data—though not all—are appearances of physical objects. “The sense-data which are appearances of a physical object are not determined by the object alone but also by the physical intermediates, including the sense-organs.”¹⁹

(iv) In *all* experiences, veridical or illusory, the self is acquainted with sense-data. The sense-data belonging to illusory experience are not different in kind from those belonging to veridical experience; the former are no less real than the latter. “Phantoms and hallucinations, considered in themselves,” Russell tells us in “Philosophy of Logical Atomism” (1918), “are . . . on exactly the same level as ordinary sense-data. . . . In themselves they have the same reality as ordinary sense-data. They have the most complete and abso-

16. In the remainder of this chapter, parenthetical references in the style used here are to the pages of *Problems of Philosophy*.

17. “Knowledge by Acquaintance and Knowledge by Description,” pp. 202–203.

18. Sometimes Russell uses the expression ‘sense-datum’ broadly to include objects of direct awareness in introspection and memory. (See “Knowledge by Acquaintance and Knowledge by Description,” p. 205.) This broad use goes with a broad use of ‘experience’ in Russell, in which experience subsumes introspection and memory.

19. “The Nature of Sense-Data,” p. 80.

lute and perfect reality that anything can have. They are part of the ultimate constituents of the world" (p. 274).

(v) Russell distinguishes two kinds of knowledge: knowledge of things and knowledge of truths. Acquaintance provides the self with the most basic knowledge of things. For instance, when one sees a color, one knows "perfectly and completely" (47) the color one sees.

(vi) Experience provides us with some immediate knowledge of truths: "What the senses *immediately* tell us is not the truth about the object as it is apart from us, but only the truth about certain sense-data which, so far as we can see, depend upon the relations between us and the object." Russell adds, "What we directly see and feel is merely 'appearance', which we believe to be a sign of some 'reality' behind" (16).

(vii) Truths about sense-data are self-evident in the "most absolute sense" (136), for here we are acquainted with the fact that corresponds to our judgment (137). Our knowledge of sense-data is absolutely certain (19). "Appearances are what are certain and primitive; the physical objects inferred are hypothetical and by no means certain."²⁰

(viii) Experience is foundational for meaning. Experience enables us to introduce names for things with which it acquaints us. Indeed, Russell thinks that the meaning of any genuine proper name in one's language must be a thing with which one is acquainted.²¹

14. I should note that Russell's views on experience and knowledge underwent significant evolution in the course of his long philosophical career. Russell subscribed to the Acquaintance Model only during the first two of the three periods that can be distinguished in this evolution. The three periods are: (i) the Platonist period, which extends from about 1910 to 1913; (ii) the Phenomenalist period, which extends from 1914 to 1918; and (iii) the Neutral-Monist period, which extends from 1919 to Russell's death in 1970. I shall note, as we go along, some of the shifts in Russell's views that mark these periods.²²

20. "The Nature of Sense-Data," p. 80.

21. See "Philosophy of Logical Atomism," pp. 200–202.

22. Russell's 1914 essay "Relation of Sense-Data to Physics" marks the beginning of the Phenomenalist period, and his 1919 essay "On Propositions" the beginning of the Neutral-Monist period.

15. It is a central and persistent plank in Russell's thinking that we can make sense of empirical knowledge only if we see individual experiences as providing us with *knowledge* of some things. "If nothing can be learnt from one observation," he writes in *Inquiry into Meaning and Truth* (1940), "then nothing can be learnt from many observations" (p. 316). Earlier in the same book, he declares that "that there must be a pure datum is . . . a logically irrefutable consequence of the fact that perception gives rise to new knowledge" (p. 124). This pure datum, Russell thinks, cannot be about external, public objects, for no experience can on its own provide any knowledge of any such objects. (I think Russell is right about this; see §110.) The pure datum supplied by experience must, therefore, be about some other things. Russell follows the ancient thought that these other things are appearances.²³ The Acquaintance Model simply spells out this ancient thought in one natural way. There are other ways of spelling out the thought, and Russell himself develops it in a significantly different way in his Neutral-Monist period.

16. One feature of the Acquaintance Model needs clarification. Russell says that sense-data are appearances, and he also identifies them with such things as colors, sounds, smells, and so on. But colors, for example, are universals, and this suggests that sense-data, as Russell conceives them, must also be universals. This, however, is not Russell's view. Russell thinks that sense-data are particulars. We can clarify Russell's position by drawing a distinction between *appearance-types* and *appearance-tokens*. (This is my terminology, not Russell's.) Sense-data, as Russell conceives them, are appearance-tokens, and they are instances of appearance-types. Russell identifies appearance-types with colors, sounds, smells, and so on—*sensible qualities*, as he calls them.²⁴ So, as Russell sees things, experience acquaints the subject not with appearance-types, but with appearance-tokens. Russell thinks that we are also acquainted with appearance-types—with sensible qualities—but this acquaintance is not provided by experience. We gain the

23. The first account of knowledge that Plato examines in the *Theaetetus* has it that perception provides knowledge of appearances. Plato attributes the idea to Protagoras, Heracleitus, and others.

24. This identification of appearance-types with sensible qualities is a substantive thesis. It is because of this thesis that Russell holds that "red," for example, is in the first instance a quality of appearances (i.e., of sense-data).

acquaintance through a process of abstraction (whose workings Russell leaves in a state of obscurity).²⁵

17. Consider an example. Suppose you look at a green apple. Your visual experience, according to Russell, presents you with a particular; indeed, it provides you with direct knowledge of this particular. This particular is not the apple, for experience does not (and cannot) provide you with direct knowledge of the apple. Your knowledge of the apple, Russell thinks, is indirect; it is based on inference. The visual experience provides you with direct knowledge only of the appearance of the apple—more precisely, of the appearance-token, the sense-datum, of the apple. This sense-datum is a fleeting object. If you turn away from the apple, the sense-datum that was presented to you ceases to exist. Thus, for Russell, there literally is, for each experiencing self, a world of sense. This world consists of the sense-data presented to the self. Russell thought that sense-data occupy a space and time private to the self—a space and time distinct from that occupied by physical objects. Furthermore, sense-data belonging to different sense modalities occupy different private spaces (but not different private times). One's private space of sight is distinct from one's private space of touch (30–32).

Russell maintained that the senses provide immediate knowledge of the world of sense; our knowledge of the “reality behind” is somehow derived from this immediate knowledge. In the example just considered, your visual experience provides you with the immediate knowledge that a particular sense-datum is green. This bit of empirical knowledge is, according to Russell, a part of the foundation that supports the rest of the edifice of your knowledge.²⁶

18. Let us observe some general characteristics of Russell's Acquaintance Model. First, it embodies a *relational* conception of experience. Russell understands all experience, veridical and illusory, in terms of a relation,

25. In the Neutral-Monist period, Russell switches his position on the items that are directly known in experience. He now takes these items to be universals, not particulars—appearance-types, not appearance-tokens. Russell says in *Inquiry into Meaning and Truth*, “We experience qualities, but not the subject in which they are supposed to inhere” (p. 98).

26. Russell subscribed to an individualist, foundationalist conception of knowledge in all three periods demarcated above. In *Inquiry into Meaning and Truth*, he writes, “My knowledge as to matters of fact must be based upon *my* perceptive experiences” (p. 144).

that of acquaintance; and acquaintance relates the self to real things. Indeed, this feature of Russell's account is merely an instance of the general relationalist theory of mind he espouses in *Problems of Philosophy*. Russell gives a relational treatment of memory: when we remember, we are acquainted with past sense-data. Similarly with introspection: in introspection, one is acquainted with mental things such as desires and with mental facts such as "self-acquainted-with-sense-datum." Introspection, according to Russell, acquaints one with "acquaintance" itself, though Russell is less sure that it acquaints one with the self (49–51). Russell gives a relational account of belief and judgment also, though the relations in play here are, of course, different. (In merely judging that such and such, one does not immediately know that such and such.) But even here, a fundamental connection with acquaintance remains: the relation of beliefs and judgments must be things with which one is acquainted. Russell lays down as a fundamental principle of analysis that "*every proposition which we can understand must be composed wholly of constituents with which we are acquainted*" (58).

Second, Russell's model embodies an **epistemic** conception of experience. Russell understands all experience in terms of knowledge. This characteristic of Russell's account also derives from his general theory of mind. Acquaintance is the fundamental notion in this theory, and acquaintance is, for Russell, an epistemic concept: to be acquainted with something is to know it directly. "The faculty of being acquainted with things other than itself is the main characteristic of a mind. Acquaintance with objects essentially consists in a relation between the mind and something other than the mind; it is this that constitutes the mind's power of knowing things" (42).

Third, Russell's model is an instance of a **Cartesian** conception of experience, where I understand this conception to consist of the following three ideas: (i) experience yields direct knowledge of a special restricted realm; (ii) this realm is distinct from that of ordinary objects (e.g., tables and chairs); and (iii) a significant logical gap exists between our knowledge of the restricted realm and our knowledge of ordinary objects. Observe that under this definition a model of experience counts as Cartesian even when the restricted realm posited by the model does not consist of private, subjective entities; and even when the model does not build Cartesian certainty into knowledge. When these additional conditions are met, as they are in Russell's model, we can say that the model is *narrowly Cartesian*.

19. Russell believed that if we are to go beyond the limited, private knowledge provided by the senses, we need a priori principles, principles that experience “does not suffice to prove” (74). What are these principles, and how do we arrive at them? Russell had, during the years 1910–1913, a highly Platonist response to these questions. He thought that we are acquainted not only with the particulars presented to us in sensation, but also with *universals* (103) and with *facts* (136). Thus, according to Russell, we are acquainted with sensible universals (e.g., “white”) and with ethical universals (e.g., “intrinsic value”), as well as with mathematical and logical ones (e.g., “implication”). Furthermore, we are acquainted with facts not only about sense-data but also about universals: “We have the power of sometimes perceiving . . . relations between universals, and therefore of sometimes knowing general *a priori* propositions such as those of arithmetic and logic” (105). These a priori propositions are laws of things, not of thought (73); they extend our knowledge and are not mere tautologies (79). Furthermore, acquaintance with facts provides us with knowledge that is immediate and absolutely self-evident (135–137). Thus, in Russell’s Platonist model, two different sorts of absolutely self-evident claims lie at the foundations of our knowledge: those concerning sense-data and those expressing perceived relations among universals.

The Platonic acquaintance with universals, and with facts about them, does not suffice for Russell’s purposes, however; it does not yield all the principles Russell needs. It is here that we can see Russell’s method in play. Russell puts forward two further principles that he thinks are needed, but that are not absolutely self-evident. The first of these is the principle that “sense-data are signs of physical objects” (148). The second is the induction principle, which states, roughly, that the future will resemble the past (see pp. 66–67 of *Problems of Philosophy* for Russell’s more precise formulation). Russell does not think that we come to know these principles by acquaintance with the corresponding facts. (If he had, he would have regarded the principle of induction as absolutely self-evident; but he acknowledges that it is not.) Instead, Russell arrives at these principles through his attempt to bridge the two worlds, the “world of sense” with the “world of science.”²⁷

27. I say “world of science” and not “world of common sense” because Russell rejects the principle that physical objects resemble sense-data. Colors, Russell holds, are properties of sense-data, not of physical objects.

20. It is not to my purpose here to enter into a detailed discussion of Russell's 1910–1913 theory of knowledge. I have introduced the theory because it illustrates Russell's method, and because Russell's Acquaintance Model is important and will prove useful to us later.

Nor is it to my purpose here to criticize Russell's 1910–1913 theory. In the first place, Russell himself rejected important elements of this theory. Under the influence of Wittgenstein, Russell abandoned his Platonism about logic and mathematics. He abandoned the idea that appeal to a "perception" of universals is necessary to account for our logical and mathematical knowledge. He came to believe that logic and mathematics consist merely of tautologies. Under the influence of Alfred North Whitehead, Russell abandoned Platonist elements in his account of empirical knowledge. He no longer thought that we have a special nonexperiential acquaintance with universals pertaining to physical objects. He came to believe that physical objects are logical constructions built out of things like sense-data, things Russell called 'sensibilia'.²⁸

In the second place, Russell's Acquaintance Model and, more generally, Cartesian conceptions of experience have come under intense attacks since about the middle of the twentieth century. The predominant attitude among philosophers nowadays is that these models are completely wrong, that they are founded on shallow, even silly, arguments.²⁹ While I happily concede

28. This change, which occurs in early 1914, marks the shift to the Phenomenalist phase of Russell's thinking; see Russell, *My Philosophical Development*, chapters 9 and 10. Note that Russell's phenomenalism is not the textbook phenomenalism of meaning reductions of physical-object sentences to sense-datum sentences.

29. J. L. Austin writes, in a famous critique of sense-datum theories, that they are "attributable, first, to an obsession with a few particular words, the uses of which are over-simplified, not really understood or carefully studied or correctly described; and second, to an obsession with a few (and nearly always the same) half-studied 'facts'" (*Sense and Sensibilia*, p. 3). If only we could get the uses of a few words straight and if only we could extend our horizons beyond bent sticks and round towers, Austin is saying, we would forever be cured of falling for these theories.

Sellars's assessment of sense-datum theories is no more favorable. He sees them as founded on a confusion of the causal with the epistemic, on confusedly putting together the idea that a sensation of red (e.g.) is causally necessary for *seeing red* with the idea that the sensation is a noninferential knowing of red (see "Empiricism and the Philosophy of Mind," especially §7).

More recently, Gilbert Harman has accused sense-datum theories of confusing the properties of a represented object with the properties of a representation of the object: "The notorious sense-datum theory of perception arises through failing to keep [such] elementary points straight" ("Intrinsic Quality of Experience," p. 247).

that these models are wrong, I do not believe they are *completely* wrong. More importantly, these models are founded on natural and powerful arguments, and no philosophy of perception can be adequate that fails to take a true measure of them. What is needed in the present philosophical climate is not more criticism of these models, but an appreciation of the powerful arguments that led to them and of the vitally important ideas that they bring into play.³⁰ Here are some ideas these conceptions bring into play that I think are correct and important: (i) Any attempt to understand empirical reason must attend to the subject's viewpoint and, in particular, to the subjective dimension of experience. (ii) This subjective dimension is best conceived as the ancients and Russell conceived it, namely, through the notion of appearance (or, better, through a sharpening and clarification of this notion). (iii) Appearances play a crucial role both in the fixation of meaning and in rational empirical judgment. What this role is and how precisely to conceive of appearances and of their relationship to reality and to presentation in experience—these are questions that I shall address in the chapters below.

21. What I do want to bring under critical scrutiny is Russell's *method*. I believe that this is not a method we should follow if we are engaged in the logical inquiry.³¹ Let me begin by making an observation about Russell's

Now it may well be that some proponents of sense-datum theories have on occasion misused or misdescribed some words. They may on occasion have confused the causal with the epistemic, and the representation with the represented. But I find the suggestion incredible that these theories—which philosophers throughout history, and across philosophical traditions, have repeatedly found compelling—are grounded in such gross and elementary errors as those cited by Austin, Sellars, and Harman. A few paragraphs before his dissonant remark, Austin himself notes that sense-datum theories “were already quite ancient in Plato's time” (*Sense and Sensibilia*, p. 2).

My own view is that sense-datum theories do not rest on any simple mistake. Instead, they are founded on a subtle and profound error, one from which very few critics of sense-datum theories are immune.

30. See *Empiricism and Experience*, chapter 2, where I argue that natural accounts of the role of experience in cognition lead to Cartesian conceptions; see also §§182–183 below.

31. Here and below, I criticize some ideas from the viewpoint of the logical inquiry. I want to stress that my criticisms do not necessarily apply when the ideas are considered in their original setting. For originally, the ideas might not have been offered in the aid of this inquiry. Berkeley's goal in the *Three Dialogues*, for instance, is not the logical inquiry as I have characterized it. The goal is, as Berkeley states in the preface, “to convince sceptics and infidels by reason”—that is, to bring skeptics to their senses and atheists to the fold of religion. I will not

execution of his method. We saw earlier that a parallel obtains between Russell's account of empirical knowledge and his logicist philosophy of mathematics. Just as Russell seeks to bridge sense and science in the former, so in the latter he seeks to bridge logic and mathematics. The two enterprises are parallel in conception but not, it turns out, in execution. In his philosophy of mathematics, Russell *does* present us with a bridge—whatever our assessment of its robustness. Russell does show how arithmetical principles, for example, can be derived within Ramified Type Theory using principles and definitions he lays down. Nothing like this is visible, however, in his account of empirical knowledge. Russell puts forward varying conceptions of the “world of sense” and of the “world of science” over his long philosophical career. He offers alternative conceptions of bridge principles. But at no stage are we actually shown, in the manner of *Principia Mathematica*, how the bridge enables us to arrive at the “world of science”—or even a small fragment of it—starting from the “world of sense.” The entire business is left in a programmatic state, to be completed, if at all, in the distant future. Russell exhibits here a failing not uncommon among great philosophers: their tendency to think that they do service to posterity by bequeathing to it their arduous programs, that by doing so they are putting philosophy on a firm scientific footing.³² It is a rule to which I know no exception that when a philosopher bequeaths a program to posterity, posterity finds more profit in dismantling the program than in pursuing it.

22. Suppose Russell's method is executed to completion. Suppose we somehow spell out the entire “world of sense” to the present moment and we make explicit our best understanding of current science. Suppose also that we succeed in laying down bridge principles: we are able to show, with the aid of these principles, that judgments of science are derivable from sensory judgments. Even if we were to do all this, we would not have advanced the

pursue the question whether the ideas put forward by Berkeley, Russell, and others suffice for their respective goals.

32. See the preface in Russell's *Our Knowledge of the External World*. See also his “On Scientific Method in Philosophy.” I hasten to add that I agree with much of the spirit of what Russell says in the latter essay, but I cannot agree with what he proposes about philosophical method on pp. 107–108. This method is rooted in specific Russellian doctrines, which I cannot bring myself to accept.

logical inquiry one bit. We would be in no better position to distinguish, for instance, challenges to our view that are reasonable (e.g., a physicist's challenge to our conception of color) from those that are not (e.g., the challenge posed by Cartesian solipsism). The bridge principles engender no distinction between different sorts of challenges. If they suffice to rule out Cartesian solipsism, they suffice to rule out *all* challenges, including legitimate ones. Dogmatism toward Cartesian solipsism, thus, turns into a universal dogmatism, a blank rejection of all challenges to our current view.

23. Imagine two communities, isolated from one another, that have undergone subjectively similar experiences, so that their sensory judgments are essentially the same. Imagine also that empirical dialectic follows somewhat different paths in the two communities and they thus come to accept somewhat different views of the world. Imagine, finally, that the two communities meet and engage in a debate over whose view is correct. Would this debate be helped at all if the communities fully executed Russell's method and came prepared with their respective bridge principles? Plainly the answer is "no." The rationality of each set of bridge principles—more specifically, the principles gained through Russell's method—rests on the rationality of the corresponding view. The bridge principles have no independent claim to rational acceptance; consequently, the disagreement on views ipso facto extends to a disagreement on bridge principles. Notice also that the simplicity of bridge principles cannot be cited as a ground for favoring one view over the other. For the view with the simplest bridge principles is Cartesian solipsism: it invokes no principles beyond those of deductive logic. But Cartesian solipsism is among the most unreasonable of all possible views. Hence, it is not a desideratum on empirical inquiry that Russellian bridge principles be simple. The reasonableness of a view does not consist in the existence of simple bridge principles connecting the view to sensory judgments.

If beliefs about the external world are, as Russell says, "without good grounds," then the articulation of bridge principles does not materially change the situation; the beliefs still lack good grounds. The articulation of bridge principles does not place the subject in any better position to give reasons for his beliefs or to persuade others to accept his beliefs.

One of our principal goals in the logical inquiry is to work toward a better understanding of empirical dialectic. Russell's method sets us a difficult, even

absurd, task.³³ Yet, ironically, even if that task is somehow completed, it fails to bring us any closer to the goal.

24. Russell's method is shaped by his attitude toward skepticism. Russell asserted, we have seen, that "universal scepticism cannot be refuted, but also cannot be accepted." Russell rejected solipsism and idealism and accepted physics and psychology, but, as he confessed, "without good grounds." What is this "universal scepticism" that cannot be refuted? What is the skeptic saying that leads Russell to take our best science simply as a given, and to confess that he does so "without good grounds"?

The skeptic may doubt nearly everything. He may go a step further and achieve suspension of judgment (*epoché*). The skeptic's friends may tell us—for the skeptic himself is precluded from asserting any such thing—that *epoché* results in tranquility. But none of this is a cause for concern to us. A skeptic who accepts little is certainly immune from refutation, but we are under no rational obligation to refute him. Our inability to provide a refutation casts no doubt on the rationality of our own beliefs and judgments. We can leave the skeptic with his *epoché*, and we can wish him a tranquil life. Our own goal in empirical inquiry is to figure out how things are, even at the cost of sleepless nights.

The skeptic may challenge us to prove nearly everything. Again, little can be proved if little is accepted. But this tautology reveals nothing about the rational grounding of our empirical judgments. The skeptic may instead challenge us to justify nearly everything. The substitution of 'justify' for 'prove'

33. The parallel between the logicist philosophy of mathematics and Russell's approach to empirical knowledge fails in one important respect. In the philosophy of mathematics, one can actually specify the two bridgeheads that the Russellian bridge is meant to span: we can specify the logic (Ramified Type Theory) and, for example, arithmetic (the Peano Postulates). In the empirical case, however, it is not feasible to specify either of the bridgeheads. The specification of the sensory end is so unfeasible that it would be absurd to even try to do so.

Note that one point made above about the empirical case carries over to the logicist bridge-building in mathematics. The logicist procedure does not help us understand debates within mathematics over the legitimacy of various mathematical methods (e.g., the use of infinite totalities or appeals to the Axiom of Choice). Starting with classical logic, we can find bridge principles (actually, definitions) that yield (e.g.) classical real analysis. But this is of little value to the proponents of classical mathematics in their debate with (e.g.) intuitionist mathematicians. The latter, too, can bring to the debate their favored logic and the bridge principles that yield their favored version of real analysis. The logicist bridge-building does not illuminate what is going on in this debate, nor how the debate might be resolved.

does not, however, materially alter the situation. We can happily grant that little can be justified if little is antecedently accepted. Our inability to meet the skeptic's challenge is no cause for concern; it does not show that our acceptance of even the best science is groundless.³⁴

There is one strand in skeptical argumentation that is not so easily dismissed, however. This strand is found in Sextus and also in Hume,³⁵ and it is of the greatest philosophical importance. In this strand, the skeptic does not challenge us to prove or justify anything. Instead, he conducts his argument at a higher level. He begins with the commonsense assumption that the rationality of our view of the world rests on experience and reason. And he goes on to argue that the materials supplied by experience and reason are too meager to rationally ground our view. For instance, in the Humean version, the skeptic begins with the idea that experience provides us only with knowledge of subjective impressions and ideas, and reason reveals only "relations of ideas," and then goes on to argue that these resources are too meager to support anything like our commonsense view. This strand of skeptical argumentation is nearly universal in scope, for it

34. I think we need not be too troubled by skeptical arguments such as the following: we do not know that we have hands, for we do not know that we are not handless brains in vats. We can respond by simply contraposing the arguments: we do *know* that we are not handless brains in vats, for we know that we have hands. The proposition that *we have hands* logically implies that *we are not handless*, and this in turn logically implies that *we are not handless brains in vats*.

Arguments like the present one are of recent vintage; they are not found in ancient and modern skeptical texts (e.g., those of Marcus Tullius Cicero, Sextus Empiricus, and David Hume). These arguments are interesting, I think, not because of their skeptical power, but because they highlight complexities of our use of the word 'know'. It is generally odd to affirm that one knows that one is not a handless brain in a vat, yet it can be perfectly fine to affirm stronger knowledge claims, such as that one knows that one has hands. Why is this so? What are the rules governing our knowledge ascriptions? These questions have no easy answers. Our use of 'know' is complex and is subject to many different pressures—pressures that have moved some philosophers to advocate an inconsistency view of knowledge ascriptions. The rules governing our use of 'know', these philosophers maintain, are inconsistent. See Stephen Schiffer, "Contextualist Solutions to Scepticism"; and Matt Weiner, "The (Mostly Harmless) Inconsistency of Knowledge Ascriptions." For other, more moderate accounts, see Stewart Cohen, "How to Be a Fallibilist"; the papers in Keith DeRose and Ted Warfield, eds., *Skepticism*; John Hawthorne, *Knowledge and Lotteries*; and John Koethe, *Scepticism, Knowledge, and Forms of Reasoning*.

35. See Sextus Empiricus, *Outlines of Scepticism* (especially the sixth mode, I 124–128); and David Hume, *Treatise of Human Nature* (especially 1.4.2) and *Enquiry concerning Human Understanding* (especially §12).

yields the conclusion that much of our knowledge of the external world is ill founded.³⁶

If ‘universal scepticism’ refers to this kind of skepticism, then Russell should not have set it aside. It is plain that Russell’s Acquaintance Model of Experience, even when supplemented with a substantial Platonism, is open to the above kind of argument: acquaintance with sense-data (and the self) is insufficient to ground our commonsense knowledge. Russell, of course, recognized this. He responded by putting forward his special method. But Russell’s is not the proper response. The proper response is to reexamine the Acquaintance Model and its motivation. If the skeptical argument goes through for Russell’s model, as I think it does, then it is a *reductio* of that model. The model is not a good way of thinking about experience, and we should look for a better model—which, indeed, is the principal goal of the present investigation. We are concerned, essentially, to locate one of Russell’s bridgeheads, the “world of sense.” Once we have found it, we shall see that no bridge is necessary, at least none of the sort Russell envisioned. We shall not need, nor want, a rational reconstruction of our empirical knowledge on sensory foundations.

The skeptic (of the sort just delineated) is not an enemy of the logical inquiry; he is instead a friend. He does not deserve to be shut out, but on the contrary, to be invited in. The skeptic shows us that certain ways of thinking about experience and reason, however natural and compelling they may seem at first, must be rejected, for these ways cannot block universal skeptical doubt. The skeptic thus provides us with a useful touchstone: a model of experience and rationality that allows skeptical argument to go through is for that very reason a flawed model.

Our goal in the logical inquiry is not to defend common sense and science against the skeptic. We are not setting out to build fortifications to protect common sense and science from skeptical attacks. Common sense and science need no such defenses: they are in themselves rock solid. Our goal is to

36. This kind of skeptical argument is different from the two that Crispin Wright highlights under the labels ‘Cartesian’ and ‘Humean’ in his essay “Warrant for Nothing.” Wright’s arguments rest on specific ideas about warrant and evidence, and they can be resisted—as Wright proposes to resist them—by calling into question one or more of these ideas. The skeptical argument above, on the other hand, brings into play no specific ideas about warrant and evidence, and cannot be resisted in the same way. This argument requires us to investigate the rational contribution of experience to cognition.

understand how experience and reason cooperate in the building of these magnificent edifices.

25. It took Russell six short pages at the beginning of *Problems of Philosophy* to arrive at his Acquaintance Model. Real philosophical action begins in the book only after the Model is in place. Russell uses the Model to tackle successively judgment, truth, and knowledge, as well as other topics of philosophical interest. Evidently, Russell assumed that the account of experience is relatively easy and can provide a foundation for further philosophical investigations. Such an assumption is fairly common in recent philosophy and is shared by philosophers with divergent philosophical perspectives. Sellars is highly critical of accounts such as the Acquaintance Model and subjects them to an extended critique in his classic essay "Empiricism and the Philosophy of Mind." Nevertheless, Sellars's own methodology resembles Russell's in some crucial respects. First, Sellars, like Russell, arrives at his account of experience very quickly.³⁷ (While Russell arrives at his account after a fast review of the relativity of perception, Sellars arrives at his account after a short reflection on the use of 'looks'.) Second, Sellars, like Russell, addresses issues about meaning, justification, and knowledge only after his account of experience is in place. James Pryor, to take yet another example, offers a view of perceptual justification very different from that of either Russell or Sellars.³⁸ But he, too, simply takes on board a specific account of experience—namely, the representational theory—without any prior critical examination.³⁹ In the present work, I follow a different approach. I do not take it as obvious how we should think of conscious experience, and I do not *begin* by setting down an account of it. Instead, I will work my way to an account of conscious experience through a reflection on basic features of our best argumentative practices (especially the practices involving perceptual judgments) and on how well the available models of experience and judgment respect these practices.

The first thing to appreciate about the problem we are concerned with—the problem of formulating an account of conscious experience suitable for our

37. Sellars outlines his account of experience in the two sections numbered 16 in "Empiricism and the Philosophy of Mind."

38. See Pryor, "The Skeptic and the Dogmatist."

39. I discuss Sellars's theory of experience in Chapter 2. I take up Pryor's view in §§62–71.

rational empirical inquiries—is that it does not have a quick and easy solution. It requires a long and patient philosophical investigation.

26. The problem of conscious experience, far from being easy, is much too hard. We shall not make progress on it unless we simplify it a little. Two sorts of simplifications are in order at the present, early stage of our inquiry. First, we should take on board certain idealizing assumptions, and second, we should restrict the range of ‘experience’.

The idealizing assumptions I wish to take on board are motivated by the complexity of the notion of reasonableness. The reasonableness of judgments and beliefs (and also of actions) can depend in complex ways on the practical demands on subjects, as well as on the logical resources available to them. A judgment that would count as unreasonable when made in one’s study in the course of an unhurried, deliberate reflection may well be perfectly reasonable when made in battle in the course of a life-threatening fire-fight. Similarly, a child’s arithmetical beliefs may be reasonable even though the beliefs are not closed under logical consequences that an adult would regard as obvious. The effects on reasonableness of practical demands and of limitations in logical resources are certainly worthy of study. In the present investigation, however, they introduce great complexity without a compensating gain. They do not improve our perspective on the rational role of conscious experience.

So, I will assume, first, that the effects of practical demands can be neglected. I shall be concerned with assessments of reasonableness solely from the viewpoint of the quality of the subject’s reasons and reasoning, irrespective of the subject’s practical situation.⁴⁰ Second, I will assume that the effects of limitations of logical resources are negligible. Let us distinguish two viewpoints: the idealized viewpoint that assumes unlimited logical resources and the realistic one that works with actual resources. Then, the assumption I am making is that there is no material difference between assessments made from the two viewpoints. When there is a difference, we can mark the distinction by associating ‘rational’ with the first viewpoint (that of unlimited logical resources) and ‘reasonable’ with the second (that of actual logical resources). With this scheme, the two words are assigned different

40. The same holds of assessments of justification, entitlement, and so on.

conceptual roles, and they fail to be coextensive. Still, under the assumptions made, they are equivalent, and in the following pages I will use them interchangeably.⁴¹

27. The term 'experience', as it is used in everyday life and in philosophy, can apply to highly complex phenomena. The phrase 'the American experience', for example, can denote American history in its entirety, including events that shaped the American government as well as the productions of American artists, novelists, and businesses. For another example, when we speak of testing a theory against experience, the experience in question can be a highly complex affair, one that involves interactions of several investigators, the setting up for various apparatuses, as well as the recording of various observations. A full treatment of the question of the rational role of experience demands that we provide an account of *all* experiences, simple as well as complex. In the present work, however, I shall restrict myself to simple experiences: experiences that are relatively short in duration and that occur in (but not only in) our simple, everyday perceptions of the world. Thus, the experiences I shall be concerned with are, for example, those that occur when we look at a voltmeter and note its reading, when we check with our toes the hotness of the bath water, and when we taste the soup to see if it is too bland. Without an account of such simple experiences, we are in a poor position to understand complex ones, such as those involved in the empirical testing of theories.

'Experience', as I shall understand the term, encompasses those that occur in our perceptions of our own selves—including those that occur in our perceptions of hunger and pain, and in proprioception. It encompasses also illusions and hallucinations, but not such phenomena as blindsight. I shall be concerned only with *conscious* experience (though I shall continue the practice of often dropping the adjective 'conscious'). A blindsighted person can make reliable guesses about, for instance, the shape before him, but he has no conscious visual experience of the shape. The rational role of blindsight is plainly different from that of conscious visual experience.

41. Remarks in this and the next section borrow from longer discussions in *Empiricism and Experience*. See chapter 7 of that book for further discussion of the idealizations I am taking on board, and see pp. 223–236 for a discussion of the concept of experience.

Finally, I shall be concerned primarily with experience-tokens, not experience-types. Given an experience e , it will thus make sense to speak of “the subject of e ” and of “the duration of e ,” and these expressions will pick out a particular individual and a particular time period (see also §149).⁴²

42. In 1913, Russell wrote this of ‘experience’: “It retains some of the grime of its outdoor existence in spite of some scrubbing and brushing by impatient philosophers. Originally, the ‘philosophy of experience’ was opposed to the a priori philosophy, and ‘experience’ was confined to what we learn through the senses. Gradually, however, its scope widened until it included everything of which we are in any way conscious, and became the watchword of an emaciated idealism imported from Germany” (*Theory of Knowledge*, p. 5).

See also Alan W. Richardson, “Conceiving, Experiencing, and Conceiving Experiencing.” Richardson says that for Hermann Cohen, a Marburg Neo-Kantian, ‘experience’ came to mean empirical knowledge. I want to stress that this is not at all the way I understand the term.

CHAPTER TWO

A Coherence Theory of Perceptual Judgments

LET US TURN to a conception of empirical cognition radically different from Russell's, one developed and defended by Sellars. While Russell thought that sensation provides knowledge, Sellars maintained that sensation is epistemically inert. While Russell accepted a foundationalist theory of empirical rationality, Sellars favored a coherence theory. While Russell defended an atomism about meaning, Sellars argued for a holism.

Let us focus on Sellars's theory of experience and perceptual judgments. For the first and critically important step in understanding empirical cognition is to understand the bearing of experience on perceptual judgments. I provide, in Parts 2A and 2B, an exposition of Sellars's theory, and I go on to make some critical observations about it in Parts 2C and 2D. Toward the end of the Chapter, I isolate, with Sellars's aid, some desiderata on a satisfactory response to the problem of conscious experience.¹

1. Readers familiar with Sellars's theory of experience and perceptual judgments may skip Parts 2A and 2B. Readers impatient to see the positive account I have to offer may skip to Chapter 4, but I recommend that before doing so they read §36 (which explains Sellars's famous dictum that the given is mythical), §§48–50 (where I draw some lessons from the examination

2A. SELLARS'S THEORY OF EXPERIENCE

28. Sellars's account of experience received its first systematic expression in "Empiricism and the Philosophy of Mind," published in 1956, and then underwent significant evolution over the next quarter century or so. Sellars's last published essays on the subject—"Foundations for a Metaphysics of Pure Process" (1981) and "Sensa or Sensings" (1982)—are not so much the culmination of his long ruminations, presenting us with a precise and finished account of his conception of experience; they are instead further dialectical explorations of issues that long occupied him. Fortunately, through its long and unfinished evolution, Sellars's theory retains its basic structure. It is, throughout, a ***Dual-Component Intentionalism***. Sellars sees experience as consisting of two separable components: a *propositional* component, which involves an exercise of conceptual capacities; and a *descriptive* component, which involves no such exercise and which may occur even in creatures bereft of conceptual abilities.²

The propositional component of an experience, which Sellars sometimes calls a ***perceptual taking***, is a thinking. "There is," Sellars tells us, "a proper sense in which perceiving essentially is or involves a *thinking*. Roughly, seeing *this* to be a pink ice cube involves a thinking *this* to be a pink ice cube" (SK, I.30). The perceptual taking has a propositional content, and this content is rich. As Sellars puts it in EPM, §22, the content is "much more complex and determinate" than (e.g.) the proposition that *this is a pink cube*. Sellars

of Sellars's view), §§51–52 (where some useful terminology is introduced), and §72 (where I sum up the main conclusions reached in Chapters 2 and 3).

2. See "Empiricism and the Philosophy of Mind," §22. For the remainder of this chapter, I use the following standard abbreviations for those of Sellars's writings that receive multiple citations here.

- EPM: "Empiricism and the Philosophy of Mind";
- FMPP: "Foundations for a Metaphysics of Pure Process";
- IKTE: "The Role of Imagination in Kant's Theory of Experience";
- MGEC: "More on Givenness and Explanatory Coherence";
- PHM: "Phenomenalism";
- PSIM: "Philosophy and the Scientific Image of Man";
- SK: "The Structure of Knowledge";
- SRPC: "Some Reflections on Perceptual Consciousness";
- SSOP: "Sensa or Sensings: Reflections on the Ontology of Perception."

With FMPP and SK, each of which consists of three lectures, I abbreviate citations thus: 'SK, I.54' refers to §54 of lecture I of "The Structure of Knowledge."

never provides a detailed account of the content of experience. Still, he is explicit that this content can contain concepts pertaining to kinds of physical things (such as “ice cube” and “brick”) and that it can refer to particulars belonging to these kinds.

Sellars characterizes experience as “so to speak, making an assertion or claim.”³ The qualification, “so to speak,” is important. Sellars makes it plain that the perceptual taking is not a belief, nor a perceptual judgment. The occurrence of a perceptual taking does not imply that the subject accepts the content of the taking.⁴ Suppose that a subject *S* is in unusual lighting conditions that distort colors and that *S* knows himself to be in such conditions. Suppose also that under these conditions, an object *x* looks pink to *S*. Then, according to Sellars, *that x is pink* is a part of the content of *S*'s perceptual taking, even though *S* rejects the claim that *x* is pink.

Sellars insists that the perceptual taking is not the sole component of an experience. When one sees, for example, an object that is red and triangular on the facing side, there is not only a perceptual taking, a thinking which includes in its content that the object is red and triangular on the facing side. There is also something more, something that distinguishes the experience from a mere thinking. “The something more is clearly what philosophers have in mind when they speak of ‘visual impressions’ or ‘immediate visual experiences’” (EPM, §16₂). Sellars sometimes calls this extra element the ‘descriptive core’ of experience, and he characterizes it thus: “Phenomenologically speaking, the descriptive core consists in the fact that *something in some way red and triangular is in some way present to the perceiver other than as thought of*” (SK, I.55). The descriptive core is entirely nonconceptual, and Sellars accounts for it using what he variously calls ‘*sensings*’, ‘*sensations*’, and ‘*sense impressions*’.⁵ I will settle on ‘sensings’ as the preferred term in

3. See EPM, the first of the two sections numbered 16. Below, I use ‘§16₁’ to cite this section and ‘§16₂’ to cite the other.

4. See EPM, §22; SK, III.32; and FMPP, lecture III, footnote 11. Sellars suggests otherwise in SRPC, §11 (which is nearly identical to SSOP, §6), but he corrects the suggestion in SSOP, §8. Note that in the theory floated in SRPC and in SSOP, perceptual takings are *constituents* of perceptual beliefs (see SRPC, §21, which is identical to SSOP, §16).

5. See SK, II.59 and III.30. In SK, III.30, Sellars also includes ‘*sensa*’ in the list of variants, but this is misleading. Sellars often reserves ‘*sensa*’ (and its singular, ‘*sensum*’) to designate the object element in an act-object account of the descriptive core—an account that Sellars does not accept. For this use of ‘*sensum*’ and ‘*sensa*’, see SSOP and “Science, Sense Impressions, and *Sensa*.”

my exposition, though the other two expressions will make occasional appearances in Sellarsian passages quoted below.

29. According to Sellars, then, experiences consist of two separable components: (perceptual) *takings* and *sensings*. Both components admit a distinction between “act” and “content.” Just as we distinguish the “act” of thinking from its content, we can distinguish the sensing—*qua* process, state, or “act” of the mind—from *its* content. (Sellars himself uses the phrase ‘descriptive content’ in EPM.) Thus, both takings and sensings have a “directedness”; they are “of” various things. It is an important Sellarsian thesis, however, that the directedness of sensings is of an entirely different kind from the directedness of takings and, more generally, thinkings. As Sellars sees it, a confusion of the two sorts of directedness is pervasive and is a root cause of large philosophical errors (including those committed in Cartesian conceptions of experience).⁶

According to Sellars, the directedness of takings is mediated by concepts, whereas that of sensings is entirely concept-free. The former sort of directedness is what is commonly called *intentionality*; it is possible only for thinking beings. The latter sort of directedness is quite distinct from intentionality and could well occur in nonthinking beings. Another important difference between the two sorts of directedness, as Sellars conceives them, concerns their range. The range of intentionality is broad; indeed, it is vast. Our thoughts can be about concrete things—present, past, and future. They can be about abstract particulars (e.g., numbers), about universals, and about relations. They can be about nonexistent, even absurd, things (“the round square”). A perceptual taking, being a thinking, also has a wide range, though this range is undoubtedly more restricted than that of thinkings in general. In any case, the range of directedness of perceptual takings extends, according to Sellars, far beyond that of sensings. Sensings, as Sellars conceives them, have a narrow range. They can only be of proper and common sensibles (“red,” “hot,” “triangle”). A sensing may be of pink and of cube, but it cannot be of *iciness*; nor can it be of a particular ice cube. On the other hand, a perceptual taking can be directed, as we have seen, to a particular ice cube, and “ice cube” can as readily be a part of its content as “pink cube.”

6. See EPM, §§7 and 24–25, and “Being and Being Known.”

Suppose you undergo a visual experience of a pink ice cube, or perhaps a matching hallucination. Then, according to Sellars, your experience consists of a perceptual taking (with the content, say, *that ice cube over there is pink . . .*) and of sensings, including those of a pink cube. It is the sensings that distinguish your experience from a mere thinking: *visual* sensings account for the characteristically *visual* aspect of your experience (and similarly for other sense modalities). A mere thinking, even one with the content *that ice cube over there is pink . . .*, is never an experience. In the Sellarsian picture, sensings capture the aspect of experience over and above thought, an aspect that Sellars rightly declares is “phenomenologically” clear (SK, I.51).

According to Sellars, sensings are incapable of accounting for the object-directedness of experience—for example, that your experience is *of* a particular ice cube. Sellars accounts for *this* aspect of experience in terms of perceptual takings: the object-directedness of experience, according to Sellars, is at bottom nothing other than the intentionality of thought. This object-directedness cannot be understood in terms of the directedness of sensings, the component of experience over and above thought. In this important respect, Sellars’s account of experience is Kantian in character and merits the label ‘intentionalism’.⁷

30. Sellars’s specific conceptions of perceptual takings and of sensings are shaped by his naturalism. In EPM, Sellars speaks of putting perceptual takings “on the gold standard” (§16₁), and he understands this task to require that the concept of thinking be rendered fully legitimate from a naturalist, even a behaviorist, perspective. Sellars devotes roughly the last third of EPM to putting thinkings and sensings “on the gold standard.”

7. Gottlob Frege adumbrates a similar dual-component account of experience in his essay “Thoughts.” Frege takes experience to consist of sense impressions, which are a part of the subject’s “inner world,” and something else, something nonsensible, which “opens up the external world for us” (pp. 26–27). In this picture, sense impressions capture the subjective side of experience, “the inner world”; while the “nonsensible something” enables experience to transcend the subjective and to gain objective purport.

I should note that Frege does not identify the nonsensible component of experience with a thinking, though he does invoke this component in his defense of what he calls ‘thoughts’ (i.e., senses of complete sentences).

Thomas Reid, too, advanced a theory similar in important respects to Sellars’s. See A. D. Smith, *Problem of Perception*, chapter 2, for a helpful discussion of Sellars and Reid. More recently, Paul Coates defends a variant of Sellars’s theory in *Metaphysics of Perception*.

Naturalism occupies a position of paramount importance in Sellarsian philosophy. It sets Sellars's philosophical agenda, and it shapes his approach to philosophical problems. In his "Autobiographical Reflections," Sellars tells us about the influence on him of one of his early teachers, Marvin Farber: "His [Farber's] combination of utter respect for the structure of Husserl's thought with the equally firm conviction that this structure could be given a naturalistic interpretation was undoubtedly a key influence on my own subsequent philosophical strategy" (p. 283). A few pages later, Sellars is explicit about his own philosophical agenda: "My aim was to map these structures [synthetic a priori knowledge, intentionality, ethical intuitionism, etc.] into a naturalistic, even a materialistic, metaphysics" (p. 290). I think it is fair to say that Sellars's specific conceptions of perceptual takings and sensing are influenced primarily by his concern to "map" them into a "materialistic" metaphysics. Sellars had an abiding interest in the rational role of experience and in the reasonableness of our perceptual judgments, and he invariably approached these topics from the perspective of naturalism.⁸

31. Sellars puts thinkings and sensings "on the gold standard" through his myth of Jones, a myth he narrates in the last third of EPM. In outline, the myth is as follows. Sellars imagines a community of people—the *Ryleans*—whose language has no psychological vocabulary. The Ryleans talk of public objects, they offer behavioristic descriptions of one another, and most important, Ryleans are theoretically sophisticated: they use subjunctive conditionals, they possess semantical concepts, and they understand the theoretical introduction of new entities and states. But the Ryleans lack all vocabulary for talking about thoughts and experiences. Sellars sketches how a genius, Jones, living in this community can guide the Ryleans to accept new theoretical entities, *thoughts*, which are modeled on sentences and whose intentionality is explained in analogy with the semantical properties of sentences. The new theoretical posits enable Jones and the Ryleans to explain intelligent behavior that earlier was inexplicable (EPM, §56). Sellars goes on to show how members of the community can learn *reporting* uses of the new theoretical terms. Thus, members of the community can learn to make di-

8. In this, Sellars was fully a man of his times. Naturalism dominated (and continues to dominate) the philosophical landscape in the English-speaking world after about the middle of the twentieth century, when disenchantment with logical empiricism and positivism overtook philosophical thought.

rect reports such as “I am thinking that it will snow” without going through any inferences. In this way, Sellars tries to show how the intersubjectivity of the concept of thought can be reconciled with one’s privileged access to one’s thoughts. (Sellars thinks that this privileged access is limited, not of the full-blooded Cartesian variety.) In the final stage of the myth, Jones introduces *sensings* as theoretical posits.⁹ These are states of the perceiving subject that help explain, among other things, how a perceptual taking of a red, triangular object can occur even when nothing red and triangular is before the subject. These new theoretical states are modeled on “inner replicas” (e.g., a red and triangular replica), and they are “the end results of the impingement of physical objects and processes on various parts of the body” (EPM, §60). Here, too, the community can learn a reporting use of the new theoretical terms. And, again, Sellars uses this to reconcile the intersubjectivity of our talk of sensings with our (limited) privileged access to them.

32. The Ryleans and their intellectual development are entirely mythical. Still, their story reveals Sellars’s conception of thinkings and sensings. Sellars models thoughts on speech: thinkings are “the occurrence in the mind of sentences in the language of ‘inner speech’, or, as I shall call it, ‘Mentalese’” (SK, I.31). And Sellars regards linguistic meaning to be more fundamental than intentionality: “Semantical talk about the meaning or reference of verbal expressions has the same structure as mentalistic discourse concerning what thoughts are about. . . . The categories of intentionality are, at bottom, semantical categories pertaining to overt verbal performances” (EPM, §50). To understand intentionality of thought, Sellars thinks, we should first understand meaning of linguistic items. And Sellars understands linguistic meaning in terms of the functional roles of expressions, roles that include *material*—as opposed to merely formal—inferential connections between expressions (e.g., “there is lightning; hence, there will be thunder”). Two consequences of this conception of meaning should be noted. First, Sellars is led to accept a holism about meaning: one cannot acquire a word that expresses (e.g.) the concept “red” without acquiring words for a whole battery of concepts. Sellars puts the point even more strongly: “There is an important sense in which one has *no* concept pertaining to the observable properties of physical objects in Space and Time unless one has them

9. In EPM, Sellars’s preferred terminology for sensings is ‘sense impressions’.

all—and, indeed, . . . a great deal more besides” (EPM, §19). Second, even simple perceptual judgments presuppose substantive general truths. There does not exist “a level of perceptual knowledge of singular truths which presupposes no knowledge of general truths about material things and our perception of them” (SK, I.6).¹⁰

Perceptual takings are thinkings, and thus they are occurrences of Mentalese sentences: “Seeing this to be a pink ice cube involves the occurrence of something like the Mentalese sentence, ‘This, over there, is a pink ice cube’” (SK, I.41). It deserves emphasis that, as Sellars conceives it, Mentalese, and even the part of it that is mobilized in perceptual takings, is not an innate language with which we are somehow endowed. It is not a special language supplied to us by nature, one that serves as a foundation for ordinary, conventional languages. According to Sellars, Mentalese is “nothing other than conventional language itself.”¹¹ Consequently, Sellars freely applies to Mentalese grammatical terminology that is normally reserved for conventional languages. For example, he speaks of perceptual takings as containing demonstratives.

33. Sellars’s naturalism leads him to a particular conception of sensings, a conception that motivates an otherwise baffling feature of Sellars’s naturalism. Sellars conceives of sensings as in the myth of Jones: they are states of the subject that serve as causal intermediaries between perceptual takings and the “impingement of physical objects and processes” on the subject’s body. Furthermore, sensings have characteristics that are analogs of proper and common sensibles (SK, I.63–64). In the Sellarsian conception, the directedness of a sensing, say, that *of* a red triangle, is rooted in two factors: (a) that the sensing is caused (under normal conditions) by red, triangular things; and (b) that the sensing has analogs of the properties “red” and “triangular”—that is, the sensing *is*, in its own way, red and triangular.¹²

10. For a fuller picture of the Sellarsian account of meaning, see Sellars’s “Inference and Meaning” and “Meaning as Functional Classification.” For an account of how Sellars’s conception of language fits into a “materialistic” metaphysics, see “Some Reflections on Language Games.” I return briefly to Sellars’s account of meaning in §217 below.

11. “Intentional Realism of Everett Hall,” p. 47.

12. Sellars subscribes to an “adverbial” theory of sensing—a theory first proposed by C. J. Ducasse. According to this theory, to say that Jones senses a red triangle is not to affirm a relation between Jones and an object, namely, a red triangle. It is to affirm instead that Jones senses in a certain manner. The theory treats the expression ‘a red triangle’ not as a noun

The second factor plays a critical role in Sellars's theory of experience.¹³ Visual sensings, we have seen, are meant to capture the aspect of visual experience over and above mere thought. The natural way to capture this aspect is through the idea of *presence*: in the visual experience of a pink ice cube, a pink cube is *present* to the subject's consciousness. This pink cube that is present cannot, in general, be a real pink cube, for the subject may be suffering an illusion or, worse, a hallucination.¹⁴ Sellars holds that what is present is the sensing itself, which though not literally red and triangular, has analogs of these properties. In the analysis of perception, "phenomenology," Sellars declares, "takes us *part of* the way, but finally lets us down." How far does phenomenology take us? About his favorite example, the experience of a pink ice cube, Sellars tells us that phenomenology is correct "only to the point of assuring us that *something, somehow* a cube of pink in physical space is present in the perception other than as merely *believed in*" (SRPC, §35). Phenomenology leads us to suppose that what distinguishes visual experience (veridical, illusory, as well as hallucinatory) from a mere thinking is a distinctive presence of qualities—in this, Sellars thinks, phenomenology is perfectly correct. It goes wrong, however, in its suggestion that what is present are instances that are literally (e.g.) cubes of pink. According to Sellars, what is present is the sensing itself, which is *somehow* a cube of pink. The sensing has analogs of the properties of being pink and of being a cube, though it is not literally a cube of pink. The sensing, Sellars holds, is "the very 'mode of being' of sensed cube of pink" (FMPP, lecture III, footnote 16).¹⁵

phrase but as an adverb that modifies the verb 'senses'. So, as Sellars puts it, a more perspicuous representation of the affirmation is this: 'Jones senses *a-red-triangle-ly*' (SK, I.62).

Note that Sellars conceives of the theory of sensings and thinkings as constructed within what he calls the "manifest image," which treats colors as genuine occurrent properties of physical objects. The move to the "scientific image" precipitates philosophical problems that Sellars regards as profound and with which Sellars struggles for much of his philosophical career.

13. Sellars emphasizes the importance of the second factor in *Science and Metaphysics*, chapter 1, §55.

14. For Sellars, a real pink cube is never present to the subject, even when the subject is undergoing what is normally called veridical perception. Colors, Sellars thinks, are not really attributes of physical objects (see SK, lecture I, footnote 3).

15. Compare Reid: "[There is] no difference between the sensation and the feeling of it; they are one and the same thing . . . in sensation, there is no object distinct from that act of the mind by which it is felt" (quoted by Smith, *Problem of Perception*, p. 71).

Sellars's conception of sensings is plainly shaped by his naturalism. This conception, in turn, leads Sellars to a radical conclusion, namely, that our account of nature is in need of fundamental revision. Sensings, Sellars argues, cannot be fitted into our current naturalistic picture. The reason, roughly stated, is this. Sensings, we have seen, possess features that are analogs of proper and common sensibles. The sensing of a pink cube possesses a feature, say *F*, that is the analog of pink. Now, Sellars understands the analogical relation in a strong way. The sensing of the pink cube is the sensing of a cube that is homogeneously pink; it is pink through and through. Thus, the sensing, Sellars thinks, must also be homogeneously *F*.¹⁶ However, no state of the central nervous system, a system built out of discreet atomistic constituents, can possess features with the requisite homogeneity. Thus, no state of this system could be a sensing. To fit sensings into the naturalistic scheme, Sellars concludes, we need to reconceive the central nervous system (and, indeed, nature in general) in nonatomistic terms.¹⁷

One other feature of sensings is of great importance. Sensings, as Sellars conceives them, are epistemically inert. Sensings play a causal role in the formation of perceptual beliefs, but they are not among the rational grounds of these beliefs. "The direct perception of physical objects is mediated by the occurrence of sense impressions which latter are, in themselves, thoroughly non-cognitive. . . . This mediation is causal rather than epistemic" (PHM, pp. 90–91). In "Some Reflections on Language Games," Sellars is even more emphatic: "Sensations are no more epistemic in character than are trees or tables" (§40). The contrary idea, Sellars thinks, is one of the fundamental errors of such conceptions as Russell's Acquaintance Model of Experience. As Sellars sees it, Russell is perfectly correct to highlight the nonconceptual dimension of experience, the dimension of experience over and above thought. Furthermore, Russell has good reasons for capturing this dimension via sense-data, which are modeled, as are Sellarsian sensings, on such things as red and triangular replicas. The fundamental error in the Acquain-

16. In his later writings, Sellars understands the analogy in yet stronger terms: "The analogy preserves in a strict sense the conceptual *content* of predicates pertaining to the perceptible attributes of physical objects, while transposing this content into the radically different categorial framework to which manners of sensings belong" (SRPC, §46). See also FMPP, III.44–47.

17. See PSIM and FMPP for fuller versions of Sellars's argument. See Willem A. deVries, *Wilfrid Sellars*, chapter 8, for a discussion of the argument.

tance Model, according to Sellars, is to regard sense-data as *data*, as objects of direct awareness. The error is to give the descriptive component of experience an epistemic role, when, Sellars thinks, its role is only causal.

It deserves emphasis that Sellars's conception of sensings is, in important respects, quite close to what Russell calls 'sensations' (§13). Indeed, Sellars's conception can be seen as resulting from Russell's through two steps, one epistemic and the other metaphysical. First, Sellars strips Russellian sensations of their epistemic significance; they no longer play any epistemic role, let alone a foundational role. Second, Sellars naturalizes Russellian sensations. Sellars abandons the act-object account of sensations, and he conceives of sensations as states of the subject, states that possess analogs of perceptible qualities. The Russellian sensation of a red triangle now becomes a state that possesses analogs of the qualities "red" and "triangular." The sensation itself is, in its own way, red and triangular.¹⁸

34. Sellars's theory of experience, I observed above, is not a static object; it undergoes evolution. Let us briefly note two major dimensions of its evolution. First, Sellars moves away from the idea that sensings are states of the subject. He proposes that they are what he calls "absolute" processes. The feature that distinguishes absolute processes from nonabsolute ones is that the former are "subject-less." For example, the process of a chameleon changing color is nonabsolute, since in this process there is a subject, the chameleon, that undergoes the change. In contrast, consider a situation in which one can say truly "it thunders." Here, Sellars thinks, one is referring to a process that lacks a subject: there is thunder without there being anything that is "thundering." Similarly, when Jones senses a red triangle, there is, Sellars suggests, an absolute process, a "red-triangle-ing." Jones is *not* the subject of this process: from the metaphysical point of view, the process is independent of Jones. Indeed, the dependence goes the other way. Jones,

18. In one of his late essays (IKTE), Sellars complicates his earlier picture of the descriptive component of experience. In the new picture, the descriptive component includes also a contribution of the imagination. Indeed, Sellars now views both components of experience, propositional and descriptive, as arising from the same source, the Kantian "productive" imagination. This imagination generates the perceptual taking as well as what Sellars calls "sense-image" models. I set aside the new picture, for it provides no escape from the principal critical points I make below.

Sellars thinks, is a complex, one of whose constituents is the absolute process “red-triangle-ing” (see SSOP).

All this is strange stuff, I admit, but it is not without good motivation. The idea that sensings are absolute processes renders it more feasible to endow them with strong analogs of common and proper sensibles, analogs that preserve homogeneity. Consequently, absolute processes are more plausible candidates for things present in sensory consciousness than states of the subject. Furthermore, the move enables Sellars to offer a specific proposal about how the scientific picture needs to be revised to accommodate sensory consciousness: the picture needs to be recast in terms of absolute processes (see FMPP, lecture III).

The other major dimension in the evolution of Sellars’s theory of experience concerns perceptual takings. Sellars moves away from the idea that these takings are sentential, and he proposes that they are, instead, complex demonstrative noun phrases. Thus, under the new proposal, the perceptual taking has the form “that red brick facing me edgewise,” instead of “that is a red brick facing me edgewise.”¹⁹ In some of his essays, Sellars suggests that the demonstrative in the perceptual taking refers to the sensing, and that the taking is invariably a *mis*-taking of a sensing for (e.g.) the surface of a physical object (SSOP, §94). This, too, is strange stuff. But, again, it is not without motivation. The move to noun phrases is motivated by the idea that, in experience, the subject is provided special access primarily to objects. This motivation is not idiosyncratic to Sellars. It is present in Kant, who sees our knowledge as involving two factors, concept and intuition, with intuition being that “through which [an object] is given.”²⁰ Indeed, Sellars aligns his perceptual takings with Kantian intuitions. Kantian intuitions, Sellars holds, are “complex demonstrative thoughts” (IKTE, §49) that have the role of bringing “a particular object before the mind for its consideration” (IKTE, §48). Let us note, finally, that there is good motivation even for the last Sellarsian move mentioned above, that the thing demonstrated in a perceptual taking is the sensing (construed now as an absolute process). The object

19. For Sellars’s different proposals on perceptual takings, see SRPC, SSOP, and “Kant’s Transcendental Idealism.”

Note that the takings, under Sellars’s new proposal, presuppose propositions (e.g.) “that is a red brick facing me edgewise” (SRPC, §§22–23), and Sellars holds that they “involve propositional form” (FMPP, I.158).

20. *Critique of Pure Reason*, B146.

demonstrated in perception is the thing present before the subject, and, on the Sellarsian analysis, the thing present in experience is invariably a sensing. Notice how close this is to Russell: Russell would say that the object demonstrated in perception is invariably a sense-datum. No matter how hard philosophers try to evade Cartesian conceptions—and none tried harder than Sellars—their deeper reflections, it appears, invariably entangle them with these very conceptions.

2B. SELLARS ON THE REASONABLENESS OF PERCEPTUAL JUDGMENTS

35. Sellars's account of the reasonableness of perceptual judgments consists of two claims, the first of which is this:

(PJ) Perceptual judgments are likely to be true.²¹

The second claim specifies the epistemic relationship between (PJ) and particular perceptual judgments:

(PJ) is epistemically prior to the reasonableness of particular perceptual judgments (MGEC, §86).

In later work (especially SK and MGEC), Sellars enriches his basic account with an explanation of our grounds for accepting (PJ):

(PJ) is an essential part of the conceptual system of finite thinking and perceiving beings; unless (PJ) is true, the concept of effective agency has no application.²²

21. See SK, III.45 and MGEC, §83. In SK, the principle is formulated in terms of perceptual *beliefs* instead of perceptual *judgments*. EPM works with the notion of observation report and formulates the principle somewhat differently (§§32–38).

Sellars associates principles such as (PJ) with what he calls “trans-level inferences.” And he uses the special character of (PJ) and of the associated trans-level inferences to explain how our knowledge of physical objects can be direct. See PHM, §5, and SK, III.33–42. In the critical discussion below, I will not be concerned with this aspect of Sellars's view.

22. SK, III.45: “*We have to be in this framework* [consisting of principles such as (PJ)] *to be thinking and perceiving beings at all.*” MGEC, §§82–83: “Since agency, to be effective, involves

Sellars's overall picture, then, is as follows. Principle (PJ) is an indispensable part of our conceptual system; indeed, it is one of the elements "in a conceptual framework which defines what it is to be a finite knower in a world one never made" (MGEC, §73). Highly general conceptual grounds are thus available for accepting (PJ). The acceptance of (PJ) does not rest on particular perceptual judgments: (PJ) is not, for example, an inductively derived generalization. On the contrary, it is a part of the framework that makes inductively derived generalizations possible. The reasonableness of particular perceptual judgments depends epistemically on (PJ), not the other way around.²³

In simpler and more general terms, the idea here is that if we do not accept the reliability of our perceptual faculties, then we lose all sense of rational empirical judgment. Belief in the reliability of our perceptual faculties is not epistemically posterior to particular perceptual judgments; it is instead a constitutive feature of empirical rationality. Hence, the authority of our particular perceptual judgments rests on the reliability of our perceptual faculties, not the other way around. When formulated in this general way, the Sellarsian line of thought seems to me to capture an important truth—though, I hasten to add, I am unable to accept Sellars's specific formulation outlined in the previous paragraph.

36. Sellars often contrasted epistemological theories that subscribe to *givenness* with those that subscribe to *coherence*.²⁴ He provided several accounts of givenness, but as he himself acknowledged in a late paper, many of his characterizations were not entirely satisfactory (FMPP, I.4–6). We can gain *one* clear and useful characterization, I suggest, if we start from the idea, which Sellars accepted, that givenness and coherence are mutually exclusive and exhaustive alternatives. The distinctive feature of a coherence theory is

having reliable cognitive maps of ourselves and our environment, the concept of effective agency involves that of our IPM [introspective, perceptual, and memory] judgements being likely to be true, that is, to be correct mappings of ourselves and our circumstances. . . . Unless they [the IPM judgments] *are* likely to be true, the concept of effective agency has no application."

Note that EPM provides no such explanation of principles such as (PJ).

23. In "Epicurean Empiricism," Elizabeth Asmis attributes to Epicurus the view that all perceptions must be true and that we must accept this because otherwise there would be no way of conducting any inquiry.

24. See FMPP, MGEC, and "Givenness and Explanatory Coherence."

the claim that the domain of rational relations is restricted to the conceptual, that *the nonconceptual has no rational bearing on the conceptual*.²⁵ Then, it follows that the distinctive thesis of givenness is this: *some nonconceptual items have a rational bearing on some conceptual items*. Let us adopt the following stipulative definition: *the given in X* is the total rational contribution of *X* to the subject's view of the world.²⁶ Then, we can formulate the thesis of givenness thus: for some nonconceptual items *X*, the given in *X* exists. Sellars's celebrated dictum of the *Myth of the Given* then states that the given in *X*, when *X* is nonconceptual, is mythical.²⁷

Philosophers who subscribe to givenness have available the following schematic picture of the reasonableness of perceptual judgments. In perception, the subject has a nonconceptual presentation of a bit of reality (recall Rus-

25. This characterization of a coherence theory is more liberal than, but is still in the spirit of, those offered by Roderick Firth and Davidson.

Firth takes the "heart" of the coherence theory to be "the thesis that *ultimately* every statement that has some degree of warrant for [a person at a time] has that particular degree of warrant because, and only because, it is related by valid principles of inference to (that is to say 'coheres with') certain other statements," where these "certain other statements" are those statements "that are actually believed by that person at that time" ("Coherence, Certainty, and Epistemic Priority," pp. 168 and 175).

Davidson: "What distinguishes a coherence theory is simply the claim that nothing can count as a reason for holding a belief except another belief. Its partisan rejects as unintelligible the request for a ground or source of justification of another ilk" ("Coherence Theory of Truth and Knowledge," p. 141).

26. The meaning of 'the given' in contemporary philosophical literature is not entirely clear and definite. Some philosophers tie 'the given' to Cartesian conceptions of experience, and use it to designate such things as ideas, impressions, and sense-data. (See, for instance, Alan H. Goldman, "The Given.") This is not the way Sellars uses the term. He takes his denunciation of the given to extend far beyond Cartesian conceptions of experience (see EPM, §1). I interpret Sellars as holding that experience and, in particular, its nonconceptual component, sensing, is rationally inert.

I should note that I worked with a more abstract conception of the given in *Empiricism and Experience*. I understood 'the given' there as capturing the rational contribution of experience from the viewpoint of the experiencing subject. I am dropping the italicized qualification in this work. This allows me to work with a more concrete conception of the given. See Part 7A for further discussion.

27. Under this reading, reliabilist theories of perceptual justification count as rejecting the Sellarsian dictum, for these theories hold that some nonconceptual items—namely, facts about reliability—possess rational import. For exposition and defense of such theories, see Jack Lyons's *Perception and Basic Beliefs* and Harmen Ghijsen's *The Puzzle of Perceptual Justification*. Lyons and Ghijsen deny the Sellarsian dictum, but, like Sellars, they too do not see experience as making a rational contribution to the justification of perceptual beliefs. See Alvin Goldman and Bob Beddor's "Reliabilist Epistemology" for a general introduction to reliabilism, a view that owes its current prominence to Goldman's early work.

sellian sensations). This presentation is not rationally inert; on the contrary, it makes an important contribution to the reasonableness of perceptual judgments. The most common version of this picture holds that the non-conceptual presentation of a bit of reality is nothing other than a *direct apprehension* of that bit of reality. This version sees our knowledge of the external world as taking a foundationalist shape: nonconceptual acts of direct apprehension lie at the foundations of knowledge; they render rational (a subset of) perceptual judgments; and these perceptual judgments, in turn, constitute the rational grounds for the rest of our empirical knowledge.²⁸ Advocates of this picture generally restrict the scope of nonconceptual direct apprehension to one's own mental states and their contents, though a small minority denies that the scope is thus restricted.²⁹ These latter philosophers hold that nonconceptual direct apprehension extends to ordinary objects such as tables and chairs.

Sellars rejects all theories that subscribe to givenness. He argues that the notion of nonconceptual direct apprehension is incoherent. Any apprehension, direct or indirect, must be an apprehension of something *as* being somehow. Hence, Sellars thinks, it must involve classification and thus concepts. A central plank in Sellars's own account of experience and perceptual judgment is that the nonconceptual component of experience (the sensing) is epistemically inert, that it makes no rational contribution to the reasonableness of a perceptual judgment. Sellars calls his position *explanatory coherence*, and his use of 'coherence' here is entirely apt.³⁰ Sellars sees the reasonableness of perceptual judgments as arising from their position in the conceptual system, not in anything nonconceptual lying outside the system—and hence not in any nonconceptual direct apprehension, presentation, and such. The very character of a conceptual system of a finite being, Sellars thinks, pre-

28. Sellars formulates a part of this picture as follows. "We have a direct access to the *factuality* of certain privileged facts unmediated by representational acts, whether quasi-linguistic episodes (e.g., tokens of Mentalese) or conceptual acts. . . . Our direct or non-representational access to these privileged facts (call it 'direct apprehension') provides a cognitive stratum which 'underlies', 'supports', or 'provides a foundation for' cognitive acts of the representational [including, conceptual] category. . . . Direct apprehension or direct apprehendibility would be a source of epistemic authority" (MGEC, §§17–19).

29. See the discussion of Naïve Realism in Part 3B.

30. The qualification 'explanatory' registers, I believe, the special status accorded to claims such as (PJ) in Sellars's theory. Sellars says of principles such as (PJ) that they constitute "the conceptual framework which spells out the 'explanatory coherence' which is the ultimate criterion of truth" (MGEC, §89).

supposes the reliability of the perceptual faculties. The finite being has reasons to accept that its perceptual judgments are likely to be true, and thus has reasons to accept particular perceptual judgments. As far as rationality is concerned, the conceptual is, for Sellars, autonomous.

37. Sellars's coherence theory has certain distinctive features that are worth noting.

(i) Sellars's theory awards perceptual judgments (and also introspective and memory judgments) a special epistemic status; it recognizes that these judgments are, in a sense, basic. So, Sellars's coherence theory incorporates an important plank of foundationalism.

(ii) For the same reason, Sellars preserves an important idea of common-sense empiricism. Sellars can accept the empiricist vision of "human knowledge as resting on a level of propositions—[namely,] observation reports" (EPM, §38).

Let us note, furthermore, that Sellars's theory shares important doctrines with classical reconstructions of empiricism. Sellars's account of our knowledge of psychological states of others (as captured in, e.g., the Jonesean myth) is taken right out of the pages of classical empiricism. Sellars sees the rationality of psychological attributions to others as founded on our observations about others' behaviors—exactly as classical empiricism sees it.³¹

None of this diminishes the radical anti-empiricist tenor of Sellars's theory. Sellars rejects a thesis central to all traditional forms of empiricism: that experience—in particular, its nonconceptual component—plays a vitally important rational role in our knowledge. As Sellars sees it, experience plays at best a causal role, never a rational role.³² Sellars has no difficulty signing on to Davidson's well-known declaration: "No doubt meaning and knowledge depend upon experience, and experience ultimately on sensation. But

31. What separates Sellars's account from the one in classical empiricism is Sellars's refusal to treat in a special, separate way one's knowledge of one's own psychological states.

32. Sellars is clear that the descriptive component of experience makes no rational contribution to perceptual judgments. The same holds, I believe, of the propositional component. Perceptual takings are not perceptual judgments. The content of a perceptual taking is not entertained by the subject under a mode such as belief or affirmation. Moreover, perceptual takings are not generally true; indeed, according to the account offered in SSOP, they are invariably erroneous. So, it is difficult to see how perceptual takings can perform any role in rendering perceptual judgments rational. It is not surprising, then, that Sellars never assigns a specific rational role to perceptual takings.

this is the ‘depend’ of causality, not of evidence or justification” (“Coherence Theory of Truth and Knowledge,” p. 146).

(iii) Sellars’s coherence theory is much more plausible than Davidson’s.³³ Like Sellars, Davidson appeals to the concept of truth to explain the rationality of belief. But, unlike Sellars, Davidson does not mark perceptual judgments for special treatment. Whereas Sellars holds that the very character of our conceptual system entails that perceptual judgments are likely to be true, Davidson claims that general features of attribution of meaning require beliefs to be mostly true. Davidson’s claim is fantastic and requires a fantastic argument. Davidson provides an argument, but in my judgment it is not fantastic enough.³⁴

(iv) Sellars sees naturalism as undergirding his coherence theory and, in particular, his epistemology of perception. In SK, III.26, he introduces his account of the epistemic authority of perceptual belief with these words: “I suggest that the key to our problem is provided by the Verbal Behaviorist model.” A few pages later, near the end of his discussion, he concludes: “As I see it, . . . [the] epistemic principles can be placed in a naturalistic setting and their authority construed in terms of the nature of concept formation and of the acquisition of relevant linguistic skills” (SK, III.44). By Sellars’s lights, then, naturalism helps in addressing the epistemology of perception. Sellars pursues the logical and naturalist inquiries in tandem, and he lets each inquiry shape the outcome of the other.

38. This concludes my exposition of Sellars’s theory of perception. Before leaving the topic, I should warn the reader that, contrary to the impression my exposition may create, there is no unanimity among scholars on the proper interpretation of Sellars’s theory. I will not engage with other interpretations here, for that will take resources away from the question I wish to address, which is this: Can any account at all like the one sketched above be adequate for the purposes of the logical inquiry? I shall argue below that the answer is “no”—that from the perspective of the logical inquiry, Dual-Component Intentionalism is irremediably flawed. Nonetheless, Sellars’s

33. I should note that Sellars did not formulate his theory in response to Davidson. Sellars’s coherence theory antedates Davidson’s by many years. Davidson acknowledges his debt to Sellars in “Intellectual Autobiography,” p. 51.

34. In *Empiricism and Experience*, pp. 194–195, I indicate where I think Davidson’s argument falls short.

theory contains important insights that any account of experience must respect. Our critical examination will thus provide us with bounds within which to seek a positive solution to our problem.

2C. CRITICAL OBSERVATIONS I

39. The vital importance of perceptual judgments to rational cognition is beyond question. Plainly, perceptual judgments are often reasonable, and they play a pivotal role in the rational shaping of our view of the world. However, neither the reasonableness of perceptual judgments nor their pivotal role requires, I suggest, that these judgments carry any special propensity toward truth. Sellars claims that a failure of (PJ),

(PJ) Perceptual judgments are likely to be true,

would leave the concept of effective agency without application, that it would undermine the idea that we are thinking and perceiving beings. But there is an obvious difficulty with this claim. The truth of (PJ) depends on a variety of contingent factors quite separate from our status as thinking and acting beings. These contingent factors may, under unfavorable circumstances, conspire to make (PJ) false, without undermining in any way our status as thinking and acting beings. Let us note two such factors. First, perceptual judgments can contain concepts that embody misconceptions. The judgment “the lamp is up above the stove” can count as perceptual even in a community under the misconception that “up above” denotes an absolute direction in space.³⁵ In such a community, a whole array of perceptual judgments will be imbued with error and will thus fail to be true. Second, perceptual judgments can be made when one has specific misconceptions about one’s environment. The perceptual judgment “that ball is red” can be both rational and false if it is made under a rational but false belief that the lighting conditions are normal. Indeed, it is not difficult to imagine circumstances in which almost all of our perceptual color judgments are rational but false. Notice also that false perceptual judgments can facilitate effective, even

35. I am taking the judgment to be equivalent to “the lamp bears the binary relation “up above” to the stove.”

cooperative, agency. Imagine two people sorting balls in an environment that they falsely believe to have normal lighting. One person can issue the request “please pass me that red ball,” and the other can respond with “here is the red ball you wanted,” while handing the first the desired ball. This entire exchange rests on a false perceptual judgment (that the ball in question is red); nonetheless, we have here an instance of effective cooperation.³⁶

Perceptual judgments, despite their vital cognitive importance, are mostly of local use. We invoke these judgments in the course of some local exchanges to achieve some local ends (as in the last example). Once the judgments have served their ends, they tend to vanish from our consciousness, forever lost to us. We should not imagine that our past perceptual judgments, or their ghosts, continue to linger and exert influence, innocuous or pernicious, on the rationality of our view. The relationship of perceptual judgments to our view of the world is not like that of supporting evidence to theory. If it is shown that the evidence offered to support a theory is false or lacks adequate rational grounding, then doubt is cast on the rationality of accepting the theory. Not so for perceptual judgments and our view of the world. If it is shown that our past perceptual judgments were mostly false or even irrational, that does not by itself cast doubt on the rationality of our view. For the falsity (and irrationality) may lie in an incidental feature of a perceptual judgment, or it may lie in an essential feature but of an incidental perceptual judgment. Hence, a failure of (PJ) does not, in itself, threaten the rationality of our view, let alone threaten our status as thinking and acting beings.³⁷

40. The general thought motivating Sellars’s account is, as I have indicated, correct. Sellars is right to think that there is a necessary link between empirical rationality and the reliability of perceptual faculties. The argument above does nothing to undermine *this* linkage. What the argument shows is that the linkage is not properly formulated via the ordinary notion of per-

36. The arguments just given cast doubt on Sellars’s suggestion (in SK II.37–38 and III.44–45) that the way we acquire concepts and learn words ensures the truth of (PJ).

37. Note also that (PJ) cannot be the principal source of warrant for a perceptual judgment, say *Q*. For if it were, then, contrary to manifest fact, the warrant for *Q* could not be higher than the warrant for (PJ). There is also the additional difficulty that the warrant for *Q* would depend on the warrant for the proposition “that *Q* is a perceptual judgment”—something that Sellars’s theory is ill positioned to explain. (Parallel points hold for Sellars’s account in EPM, §36, of observational knowledge of particular fact.)

ceptual judgment: empirical rationality does not require the truth of (PJ). A recognition of precisely this point motivates, I think, Cartesian conceptions of experience. These conceptions seek a reconstructed notion of perceptual judgment, one on which all such judgments would be true. And they find, understandably enough, that no plausible candidate is available except when perceptual judgments are reconstructed to be about an extraordinary realm (such as that of sense-data).³⁸

I myself think that the link between empirical rationality and reliability of perceptual faculties is best formulated more abstractly than in Sellars and in Cartesian conceptions. I offer the following formulation: *the given in experience is never erroneous*.³⁹ Under this formulation, reliability does not imply (PJ), for, as I shall argue in Chapter 3, the given does not consist of ordinary judgments of perception.

41. One of the recurring dialectical moves in Sellars's writings is signaled by the phrase "what is the alternative?" In SK, after he has introduced his account of experience and has disposed of epistemological theories that appeal to "self-justification," "direct apprehension," "presence of object," and the like, Sellars asks his favorite rhetorical question: "What is the alternative?" (III.26).⁴⁰ And, sure enough, no alternatives are visible except Sellars's coherence theory of perceptual judgment: empirical rationality, we are forced to conclude, requires the truth of (PJ). I suggest, however, that the seeming necessity of the conclusion has its source not in any genuine features of empirical rationality but in Sellars's theory of experience. It is this theory that restricts our vision and generates the appearance that empirical rationality demands (PJ). So, let us turn our examination to Sellars's theory of experience.

2D. CRITICAL OBSERVATIONS II

42. Even the most exotic features of Sellars's theory of experience are grounded, we saw above, in good motivating reasons. Let us now notice

38. Notice that Berkeley's argument for his thesis that only ideas are immediately perceived appeals at crucial points to the reliability of the senses (see *Three Dialogues between Hylas and Philonous*, pp. 66 and 121).

39. See my *Empiricism and Experience*, pp. 27–30 and 86–87; see also §§83–84 below.

40. For some other examples of this move, see EPM, §35, and PSIM, p. 37.

that these motivating reasons are not all of the same kind: some reasons are naturalistic in character, while others are what we may call *logico-phenomenological*.⁴¹ Sellars insists that experience has a descriptive component, something that distinguishes experience from mere thought. This claim is strongly motivated, and the motivation is logico-phenomenological. (Sellars himself invokes phenomenology here.) Sellars also says that the descriptive component is constituted by sensings, which are states of the subject.⁴² This, too, has a strong motivation, but the motivation is now naturalistic. Recall that Sellars introduced us to the idea of sensings as states of the subject in the Jonesean story, when he was concerned to map psychological concepts into a naturalistic metaphysics. In this context, the thought was indeed plausible that the descriptive component should be constituted by special states of the subject. Notice, however, that neither logic nor phenomenology provides any support to this thought. What distinguishes experience from mere thought is a distinctive consciousness associated with experience, a consciousness that is evident and which (as I shall argue) is of critical importance for understanding empirical rationality. From the viewpoint of logic and phenomenology, this distinctive consciousness is most naturally treated as arising out of a relation between the subject and the objects of consciousness. The idea that this consciousness is constituted by certain states of the subject is entirely alien to logic and phenomenology.

This pattern of different elements receiving motivation from different quarters repeats itself across Sellars's theory, as can be seen in the following examples:⁴³

- (i) That the descriptive component should be understood in terms of presence—motivation: logico-phenomenological; that what is present, if anything, is the sensing itself, a brain state or process—motivation:

41. I shall sharpen and clarify the notion of phenomenology in Chapter 6, and I shall argue for its critical importance to the logical inquiry. For present purposes, it suffices to note that phenomenology pertains to appearances, and it is what motivates philosophers to posit such things as visual impressions and sense-data.

42. Sellars's later doctrine of absolute processes does not affect the present point.

43. Each of the examples below deserves an extended discussion. I have, for brevity's sake, put down only the essential points. The grounds for the claims made here will become evident as my argument unfolds and the positive proposal I wish to offer comes into view.

naturalistic. Logic and phenomenology provide no reason to suppose that the sensing itself is present in experience. Similarly, naturalism has no obvious need for the idea of presence and provides little support to it.

- (ii) That an ordinary perceptual demonstrative denotes one of the things present—motivation: logico-phenomenological; that the demonstrative, if it denotes anything, denotes the sensing—motivation: naturalistic. From the logico-phenomenological viewpoint, it is odd in the extreme to suggest that the demonstrative denotes a state of the subject; and from the naturalist viewpoint, the whole idea of denotation is fraught with difficulties and begs to be eliminated.
- (iii) That the perceptual taking has a content—motivation: logico-phenomenological; that this content should be understood in terms of functional role—motivation: naturalistic. Functional-roles, with their holistic character, are ill suited to serve as contents needed in the logical inquiry; and, from the naturalist viewpoint, the very notion of content lies under a cloud of suspicion.

In short, each element in Sellars's theory is backed by a good motivation, naturalistic or logico-phenomenological, but no one motivation sustains all elements of the theory.

43. By combining disparate motivations, Sellars does not gain a theory properly equipped to address the concerns of either inquiry, logical or naturalist. On the contrary, in the Sellarsian framework, each inquiry stumbles over the other, even undermines the other.

Let us consider the logical inquiry first, and let us notice that Sellars's theory does not explain even the most basic features of ordinary perceptual judgments. For example, the theory does not explain how an experience, say that of a bird, helps fix the content of a perceptual judgment such as "that bird is a cardinal." Intuitively, one wants to say that the experience helps fix the content by providing the denotation of "that bird." However, on the Sellarsian account, the experience consists of a sensing and a perceptual taking, where the latter is modeled on a linguistic item; the bird goes missing from the account. It is a mystery how one recovers the denotation of "that bird" from these materials and, more specifically, what the role of "that" is in helping pin a denotation on "that bird." It is thus a

mystery how an experience can help fix the content of a perceptual judgment.⁴⁴

44. For another example, Sellars's theory has no resources to explain the impropriety of a demand for proof of perceptual judgments. Suppose that I assert "this is a white sheet of paper" in an ordinary context in which a white sheet of paper is before my eyes, and suppose that a friend is present on the occasion. If the friend asks me to provide a deductive proof of my judgment, I shall be highly perplexed. I shall not know how to meet the demand. Had I made a mathematical or logical claim—say, the claim that such and such is a theorem of first-order logic—then the demand for proof would make sense. I might or might not be able to meet the demand, but at least I would *understand* it; I would know the sort of thing that was wanted. With perceptual judgments, however, I do not know—we do not know—what it is that is wanted. The demand for proof makes no sense, and a good account of experience and perceptual judgment should explain why this is so. Sellars's theory lacks resources, however, to do so. According to Sellars, the linkages between nonconceptual sensings, on the one hand, and conceptual takings and perceptual judgments, on the other, are only causal. Nothing in this relationship dictates that the effect of a sensing cannot be, for instance, a judgment about a mathematical fact, one for which the demand for proof is entirely proper. So, it is difficult to see how Sellars's account can explain the impropriety of a demand for a proof of a perceptual judgment.

45. One further example: When a challenge forces us to withdraw a perceptual judgment, typically we remain in a position to make a different, sort-of-weaker, claim. Suppose I make the perceptual judgment "that over there is a white sloop." Suppose also that someone whom I regard as an authoritative source informs me that what I said is false. I, thus, withdraw my claim, but notice that my visual experience entitles me to shift to a weaker claim, such as

44. Sellars's response to the problem would have been to deny the datum, that is, to deny that an individual experience helps fix the content of a perceptual judgment. Sellars rejected denotational theories of content, and he subscribed instead to a functional-role account. I myself am unable to accept Sellars's account of content; I think denotation is sometimes an important element of content (see Chapter 8 below).

“that over there is a white sailboat.”⁴⁵ I may be rebuffed a second time. The authoritative source may tell me that no boat, not even a fake one, is to be found there. I can now affirm, without shifting my gaze or the direction of my pointing, “that over there is a white boat-shaped surface.” This, too, can be overturned. But a further retreat remains possible. I can find safe haven in an appearance judgment: “it looks to me as though there is a white something over there.” This phenomenon—this capacity of experience to ground new judgments in face of challenges—is left a complete mystery by the Sellarsian theory. Nothing in the causal relationship between a sensing and a perceptual taking (or a perceptual judgment) allows us to make sense of it. Intuitively, one wants to say that the very same appearance provides a rational basis for the shifting perceptual judgments. However, Sellars’s theory of experience makes a suitable notion of appearance unavailable to him. Sellars is led to understand appearances in terms of conceptual states.⁴⁶ To be appeared to, according to Sellars, is to be in a certain kind of a conceptual state, a state with a false content, a content that the subject cannot in general reasonably accept. Appearances, thus understood, are unsuitable as a rational basis for any judgments, perceptual or other.

46. A more basic problem underlies these incapacities in Sellars’s theory. Sellars, though he relies heavily on the notion “perceptual judgment,” does not provide any account of it. He does not tell us what it is about a judgment that renders it *perceptual*. Plainly, experiences bear a highly distinctive relationship to perceptual judgments, a relationship that imparts to these judgments their characteristic features. In the best and simplest case, we can draw attention to this relationship by saying that these judgments are *judgments in presence*: one judges perceptually, for example, that *a* is *F* when the fact that *a* is *F* is present to one’s consciousness. Sellars himself invokes the notion of presence, but he understands it in a way that puts the needed notion of “judgment in presence” out of reach. Sellars brings in “presence” only in connection with sensings. Consequently, (i) he restricts presence to that of the proper and common sensibles—mind-independent objects are excluded from the realm of presence—and (ii) he assigns to presence only a

45. Note that the authority’s report does not alter my visual experience, which remains the same as before.

46. “*Being appeared to is a conceptual*—though not a merely conceptual—state of affairs” (PHM, p. 73).

causal role.⁴⁷ The first point is a consequence of Sellars's intentionalism, and the second of his naturalism. And intentionalism and naturalism lie at the root of Sellars's inability to account for the basic features of perceptual judgments. The resources of "cause" and "sensing" are simply insufficient even to demarcate perceptual judgments from other judgments,⁴⁸ let alone to capture the rational significance of the demarcation.

47. Let us note another respect in which naturalism distorts Sellars's account of perception. Naturalist considerations lead Sellars to view sensings both as states (or processes) in the subject's body and as things present in conscious experience. He is thus led to declare that phenomenology is misleading, that it "takes us *part of* the way, but finally lets us down" (SRPC, §35). Furthermore, since Sellars assigns no rational role to sensing, he is led to explain the rationality of perceptual judgments in terms internal to the conceptual system. He is led to argue, on conceptual grounds, that perceptual judgments are likely to be true. Sellars thus holds that while phenomenology is by its very nature misleading, perceptual judgments have a tendency toward truth. This is the very opposite of how things actually stand: phenomenology is in an important sense *not* misleading at all;⁴⁹ but perceptual judgments may well be erroneous. Sellars has things exactly the wrong way around. The root cause of error here is the intrusion of naturalist considerations into Sellars's epistemology of perception.⁵⁰

48. Russell held that sensation plays an epistemic role in cognition; Sellars countered that it plays only a causal role. In this debate, I think Russell

47. It will not do to explain presence via the intentionality of thought—for example, that of the perceptual taking or judgment. For this move reverses the intuitive (and proper) order of explanation. The move grounds the rational role of presence in the rational role of thoughts and thereby precludes us from understanding the latter in terms of a prior notion of presence. We are thus forced into a coherence theory, which we have found unsatisfactory. (For further difficulties with the move, see the critique of Simple Intentionalism in §§63–71.)

48. This fact points to yet another fundamental difficulty in Sellars's account of the reasonableness of perceptual judgments.

49. I shall offer below, in Chapters 6 and 7, an account of phenomenology on which it is not misleading. Furthermore, I shall there propose an account of the rational role of phenomenology on which its contribution to cognition is error-free.

50. One more distortion caused by naturalism and, in particular, behaviorism: Sellars's account of the authority of perceptual reports erroneously assimilates the first-person case with the third-person. See SK II.35–48; see also EPM, §§35–37.

was right and Sellars wrong. Russell held that in sensation, the subject is acquainted with some particulars, and Sellars argued that “acquaintance” and other allied notions (e.g., “direct awareness”) are untenable. In *this* debate, I think Sellars was right, and Russell wrong. An adequate theory of perception needs to assign sensation an epistemic role while avoiding such ideas as “acquaintance” and “direct awareness.”⁵¹

It is useful to generalize this point. Let us call the given *propositional* when it renders the acceptance by the subject of some empirical propositions evident or, at least, rational.⁵² Then, if in the Myth of the Given the given is understood to be propositional, then Sellars is entirely correct to declare it mythical.⁵³ No theory of experience can be satisfactory that falls into what we may call the *Myth of the Propositional Given*. Our critical examination of Sellars’s theory of perceptual judgment reveals, however, that no purely coherence theory can be satisfactory, either. Hence, while the propositional given is a myth, the given cannot be a myth.⁵⁴ We must see the rationality of a perceptual judgment as issuing not just from some internal characteristics of the conceptual system but as founded, in part, on something extra-conceptual in experience. This extra-conceptual something plays an important rational role—it yields a given—but the given is not propositional.

I can sum up my assessment of Sellars’s epistemology of perception thus: It is a fundamental insight in Sellars that the propositional given is a myth.⁵⁵ Sellars is entirely correct in rejecting all theories that see entitlement to judgment as issuing merely from sensings (or from perceptual takings or from some combination of the two). The fundamental error in Sellars is the move from this insight to the conclusion that the given is mythical. Sellars’s error

51. I am understanding “sensation” here as the nonconceptual dimension of experience.

52. See §182 for a more precise characterization of the propositional given.

53. I argue for this in Chapter 3 and in §§182–183 below; see also *Empiricism and Experience*, chapter 2.

54. Sellars slides easily from a denial of the propositional given (or, more accurately, one of its instances) to the denial of the given in general. Consider this passage from FMPP I.154–155: “A case of blue may in some justifiable sense be a blue consciousness or a blue awareness, but the case of blue is not in the cognitive or epistemic domain unless one is conscious of or aware of a case of blue . . . [i.e., aware of] a case of blue *as* a case of blue.” Here Sellars is denying a sensing of blue, “blue consciousness,” a place in the cognitive or epistemic domain unless it is an awareness of blue as blue. This, I think, is unwarranted.

55. I am not suggesting that Sellars explicitly formulated the thesis that the propositional given is a myth; he did not do so. Nevertheless, this thesis captures the important truth underlying his famous denunciation of the given as mythical.

here is aided and abetted by his naturalism, and it leads him to a deeply flawed account of sensings and of their relationship to judgment.

49. I have argued that the mixing of naturalist and logico-phenomenological considerations has deleterious effect on Sellars's epistemology of perception. I now wish to observe that the same holds for the naturalist inquiry. The mixing distorts and harms this inquiry also.

Logico-phenomenological considerations motivate the idea that instances of proper and common sensibles are present in conscious experience. Naturalist considerations prompt Sellars to transform this idea into the thought that things present are sensings and that they have properties strongly analogous to proper and common sensibles. And this thought, in turn, leads Sellars to declare that our current naturalist picture is in need of radical revision, since no states of the nervous system can instantiate these strong analogs of proper and common sensibles. The invocation of logico-phenomenological considerations is here burdening the naturalist with alien demands, not providing her with any tools that would help in her inquiry. As far as the naturalist's goals are concerned, there is no need to posit Sellarsian sensings as causal intermediaries between the world and perceptual beliefs,⁵⁶ for there are no naturalist reasons for requiring that the intermediaries possess properties strongly analogous to the proper and common sensibles. The causal origins of a perceptual belief are just as easily comprehensible without such intermediaries as they are with them. It is the intrusion of logic and phenomenology, not anything internal to the naturalist inquiry, that leads Sellars to posit his distinctive sensings and then to declare that our current naturalist picture is fundamentally unsatisfactory. Logico-phenomenological considerations, far from enhancing the naturalist's ability to address her concerns, undermine the framework within which she conducts her inquiry.⁵⁷

56. Assuming, for the sake of argument, that the naturalist has use for the notion "perceptual belief."

57. Some naturalistically inclined philosophers, such as Daniel Dennett, have denied not only the need for Sellarsian sensings but also the need to respect phenomenology. Here is Dennett's bold statement of his view: "My view, put bluntly, is that there is no phenomenological manifold. . . . There are the public reports we issue, and then there are the episodes of our propositional awareness, our judgments, and then there is—so far as *introspection* is concerned—darkness. What lies beyond or on the interior of our judgments of the moment, what grounds or causes or controls them, is wholly a matter for science or speculation" ("On the Absence of Phenomenology," p. 95). See also Dennett's "Wondering Where the Yellow Went."

More generally, it should be observed that from the naturalist viewpoint, the Jonesean story is a *sheer* myth, a sham. It does nothing to establish the usefulness, for the naturalist, of any of its posits, including internal tokens of Mentalese and Sellarsian sensings. The Jonesean story *assumes* the usefulness of the concepts of thought and experience, and it maps them, in none too subtle a way, into a materialistic scheme.⁵⁸ It does nothing to show that its posits are useful (let alone that they are required) for the naturalist project of understanding behavior. Indeed, the Jonesean story is useless from the perspectives of *both* inquiries, the naturalist and the logical. From the naturalist perspective, the story does no work whatsoever; from the logical perspective, it is otiose. The concepts of thought and experience are not under any suspicion in the logical inquiry. These concepts are a part of the very framework in which the inquiry into empirical rationality unfolds.

I think we can lay it down as a maxim that the adequacy of an account of empirical rationality is inversely proportional to the demands it imposes on the naturalist picture. Ideally, the account should impose no demands whatsoever. With empirical rationality, as elsewhere, a good logic does not curtail our theoretical freedom but enhances it. Instead of imposing demands, a good logic shows them to be illusory.

50. It is a virtue of Sellars's philosophy that it aims for a synoptic view, a view that encompasses both reason and nature within one vision, and one that helps us "know our way around." "The aim of philosophy," Sellars tells us, "is to understand how things in the broadest possible sense of the term hang together in the broadest possible sense of the term. . . . To achieve success in philosophy would be . . . to 'know one's way around'" (PSIM, p. 1). There is truth and wisdom in these words, and I want to gloss them in the following way.

The synoptic view we should want from philosophy is not one that lifts a little the veil from the future, providing us with a glimpse of a completed science that lays bare our natural constitution. Such glimpses are best left to soothsayers; they do not fall in the domain of philosophy. Nor is the synoptic view a speculation about how current science might tackle its most

58. The assumption that the Ryleans have, before the appearance of Jones, semantic vocabulary for their language is another illicit element in the story. The semantic vocabulary is not logically independent of the vocabulary pertaining to thoughts and intentionality.

intractable subject, the rational animal. Such speculation is fitting only in the context of highly local scientific problems and only for those thoroughly immersed in their study. The speculations of kibitzers are uncalled for, and philosophy is no kibitzer at someone else's game. The synoptic view we should want philosophy to provide is one that helps us understand our *current* cognitive situation, just as it is. We are in the midst of a rational empirical inquiry into nature. Our current understanding of empirical rationality is rudimentary; and our understanding of nature (including our own selves), though a little better, is at best partial. We want a synoptic view that enhances our understanding of empirical rationality but without mystifying nature. Furthermore, we want the synoptic view to accommodate the insights of science but without obscuring our rationality. It is easy, when one is focused on understanding rationality, to posit as real entities that render nature spooky—entities such as Cartesian minds, sense-data, and (yes, it must be added) sensings as absolute processes. On the other hand, an unbridled and naive naturalism renders rationality mysterious; rationality seems missing, or otiose, in the pictures that such a naturalism presents to us. We want a synoptic view that avoids these all-too-familiar blunders. The synoptic view should make sense of empirical rationality but without burdening the naturalist quest with alien posits. It should recognize the virtues of the developing naturalist picture but without letting it deny its own paternity: reason. Such a synoptic view is bound to help us “know our way around”: it will enable us to conduct logical and naturalist inquiries with full vision, so that we do not stumble over one when pursuing the other.

CHAPTER THREE

Simple Theories of Perceptual Judgments

THE FAILURE OF the coherence theory confirms the natural thought that we cannot understand the rationality of perceptual judgments without attending to their *logical* relationship to experience. Let us begin our exploration of this relationship by looking at the simplest conception of it: that experience, by itself, renders rational ordinary perceptual judgments (or a special subclass of them). I provide a general characterization of this conception in Part 3A, and I look at specific theories that incorporate the conception in Parts 3B–3D. In Part 3E, I set out what seem to me to be problems with the simple conception. I conclude the chapter by noting some constraints within which we should seek a solution to the problem of conscious experience.

3A. CHARACTERIZATION OF SIMPLE THEORIES

51. Recall the stipulative definition that *the given* in an experience is the total rational contribution of that experience to the subject's view of the

world.¹ Let us call a proposed given *simple* iff it makes available a simple account of the rationality of ordinary perceptual judgments.² More precisely, a simple given yields for each experience *e* a class of possible judgments of perception—called *the judgments given in e*—and associates with each judgment in the class a particular *mode*, where the mode captures the status that the experience confers on the judgment.³ An example of a mode is *knowledge*: if this mode is associated with a judgment, then the experience is taken to render the judgment knowledgeable. Another example of a mode is *rational entitlement*: if this mode is associated with a judgment, then the experience is taken to rationally entitle the subject to accept the judgment. Let us call the latter kind of mode *permissive*. This kind of mode does not require the subject to accept the judgment; it merely grants the subject permission to do so. Let us call the former kind of mode *compulsive*. It imposes a rational obligation on the subject to accept the judgment. We shall encounter further examples of these kinds of modes below.⁴

A *simple theory* sees experience as yielding a simple given, and it thereby provides a simple explanation of the rationality of ordinary perceptual judgments. An example: Suppose you are walking along a trail, and on seeing a crow sitting in a tree, you affirm “a crow is sitting in a tree.” Your affirmation may well be rational, and a simple theory may explain this rationality along the following lines. Your visual experience confers certain epistemic statuses on various possible judgments. In particular, it confers the status *knowledge* (so this theory holds) on the judgment that a crow is sitting in a tree. The visual experience thus endows you with the knowledge that a crow is sitting in a tree, and consequently renders your judgment rational. On other simple theories, the explanation may be a little more complex. The

1. We can speak of “the given in experience *e*” and do not need to further relativize the notion to a subject, because we are taking experiences to be particulars (§27). Once an experience is fixed, so also is the experiencing subject.

2. As usual, ‘iff’ abbreviates ‘if and only if’.

3. Alternatively, we can think of the simple given as associating modes with certain *propositions*, where propositions are contents of judgments. A judgment may be thought of as an affirmation of a proposition.

4. In the above characterization of the simple given, I allow the mode to vary from judgment to judgment, though I know of no proposal in the philosophical literature that exploits the flexibility the characterization provides. The extant proposals specify one mode for all judgments in the given.

present example sets the paradigm, though, to which the simple theories aspire.

It is a requirement on modes invoked by a simple given that they not be demanding. The following modes, for example, are not acceptable in a simple given: “entitled provided the subject can produce a proof of the Friedberg-Muchnik theorem,” “entitled provided the subject remembers how she acquired the concept of mammal,” and “entitled provided the subject has available a skeptic-proof justification for the proposition that there are material bodies.” These modes, if allowed, would undermine the *raison d’être* of simple theories. A goal of these theories is to provide the subjects with easy entitlements to ordinary judgments of perception and to give, thereby, a short answer to the external-world skeptic. As these theories see it, the relationship of experience to judgment is simple: the experience occurs and the subject is thereby entitled to make her ordinary perceptual judgments. The subject is supposed to gain the entitlement almost for free, without epistemic labor. This is why these theories often propose modes that are negative—for example, “entitled provided the subject has no reason to think her perceptual faculties are deceiving her.” This mode provides entitlement to a subject so long as she meets a nondemanding condition, namely, so long as she *lacks* reasons to doubt her perceptual faculties. The mode does not require the subject to possess any *positive* reason for thinking (e.g.) that her faculties are working properly. The notion of the simple given admittedly fails to be sharp, but it is sharp enough for our present purposes.

Simple theories view experience as an informant. The possible judgments falling in the given capture, in effect, things that experience is telling the subject, and the mode delimits the authority of the telling. Under some theories, the telling is viewed as carrying the highest authority: experience is seen as providing the subject with knowledge. At the other extreme, under some theories, the authority of the telling is seen as weak: the reason provided for the judgment is easily overturned by a whole host of considerations.

52. A theory of the bearing of experience on judgment has two separable components: (i) an account of the given and (ii) an account of experience. The first component spells out the rational role of experience, while the second component helps explain how it is that experience comes to possess this particular rational role. We have just seen in outline the first component

of simple theories: the kind of given they posit. Let us now consider the second component: the accounts these theories offer of experience. These accounts fall into two broad categories, *representational* and *relational*, which let us outline in turn.

Representational theories hold that experience is a kind of representation. They maintain that experience belongs to the same broad class as signals, pictures, words, sentences, and thoughts; though they concede that experience is a *distinctive* kind of representation. Another shared characteristic of these theories, and an important one, is that they hold that each experience has a **content** that is assessable as correct or incorrect and, on some accounts, as true or false (perhaps relative to some parameters). I think it fair to say that representational theories constitute the dominant, and the most fertile, paradigm in recent philosophy of mind. The philosophical literature makes available a vast array of representational theories—theories that differ from one another on one or both of the two elements just noted: on the content of experience and on what distinguishes experience from other representations. We shall take note of some of the major variations below.

Relational theories hold, on the other hand, that experience is a relation (or more precisely, the obtaining of a relation) between the subject and some worldly items. Contemporary relational theories are inspired by Russell's Acquaintance Model, but many differ from Russell's theory on one crucial point: they deny that experience relates the subject to sense-data or other subject-dependent entities.⁵ They hold that experience relates the subject to ordinary objects, such as trees and tables. Relational theories dispense with the notion of content, which is crucial to representational theories. They dispense also with the accompanying idea that experience can be assessed for truth or falsehood, and, more generally, for correctness or incorrectness.

I will often use compound names (e.g., '*simple relational* theories') to designate theories of experience that countenance the given. The first part of the name will characterize the theory's account of the given, and the second part, the theory's account of experience. If, as sometimes happens, a theory views experience as a complex, then the second part of the name will pick

5. Some present-day advocates of relational theories maintain, with Russell, that experience acquaints the subject with sense-data. For a contemporary expression of such a view, see Richard Fumerton, *Metaphysical and Epistemological Problems of Perception*. See also Fumerton's "Direct Realism, Introspection, and Cognitive Science."

out those elements in the complex that, according to the theory, underwrite the given. Russell's Acquaintance Model, under this scheme, is a *Cartesian relational* theory; here *Cartesian* characterizes Russell's conception of the given (see §18), and *relational* indicates that Russell's theory underwrites the given through a relational account of experience. Let us now examine simple relational theories, and then we shall turn to simple representational ones.

3B. SIMPLE RELATIONAL THEORIES

53. We obtain a paradigmatic type of *simple relational* theory if in Russell's Acquaintance Model we put ordinary things in the place of sense-data and then go on to make one further change that is required by the substitution. We arrive thereby at a position I shall call *Naive Realism*, and it consists of the following claims.⁶

(i) In veridical experience, we are acquainted with ordinary objects and with various facts about them. Campbell claims that "experience of an object [can] constitute the kind of simple acquaintance with the object that provides knowledge of the reference of a simple demonstrative" (*Reference and Consciousness*, p. 114). "When a subject is perceiving veridically," Martin writes, "then the fact perceived is itself 'made manifest' to the subject and is constitutive of his experience" ("Transparency of Experience," p. 399).⁷

Russell held that in veridical experiences, indeed in all experiences, we are acquainted with items in a subject-dependent realm. Naive Realism keeps

6. In the outline to follow, I rely on the work of John Campbell and M. G. F. Martin. I want to stress that these philosophers are not in full agreement with one another and are not necessarily committed to every point listed in the outline. Also, I focus on points of special interest to us, given our present concerns. I am not attempting to give a full portrait of Campbell's and Martin's views. (The same qualification applies to my exposition of other positions below.)

Philosophers who have advocated views in the neighborhood of Naive Realism include William P. Alston ("Back to the Theory of Appearing"), Bill Brewer (*Perception and Its Objects*), Imogen Dickie ("We Are Acquainted with Ordinary Things"), William Fish (*Perception, Hallucination, and Illusion*), Mark Johnston ("Better Than Mere Knowledge?"), and Matthew Soteriou (*The Mind's Construction*).

7. Campbell's primary concern in *Reference and Consciousness* is with demonstrative singular terms and with our acquaintance with their denotations. Campbell does not talk about acquaintance with facts. Nonetheless, hints of the idea are certainly detectable in his book: see pp. 161 and 170 of *Reference and Consciousness*.

the idea of acquaintance, but insists that in veridical perception we are acquainted with items in the external world.⁸

(ii) Acquaintance is, as in Russell, more fundamental than thought: it is the foundation of our thought and talk. Campbell says that “experience is what explains our grasp of the concepts of objects.” Earlier, when speaking of the experience of consciously attending to a thing, he says that it is “a state more primitive than thought about an object, to which we can appeal in explaining how it is that we can think about the thing. . . . This seems to be how Russell thought of acquaintance.”⁹

For Russell, experience puts us in a position to meaningfully use demonstratives to refer to sense-data. In a parallel way, for Campbell, veridical experience puts us in a position to meaningfully use demonstratives to refer to ordinary things.¹⁰

For Russell, acquaintance with sense-data is the foundation for our knowledge of them. Similarly, for Martin, experience makes manifest certain facts about ordinary objects, and it thereby provides the foundation for our knowledge of ordinary things.

(iii) Veridical experience obligates us to accept certain ordinary perceptual judgments. Martin writes:

One of the aims of judgement is that one’s judgements should be true. If it is manifest to a subject that something is the case, then given the aim of judgement, *ceteris paribus*, he ought to make the judgement that matches what is manifest to him. (“Transparency of Experience,” p. 399)

8. Tim Crane nicely captures a key motivation of the theory: “It attempts to do justice to the fact that in genuine perception the objects of experience are present to the mind in a way in which they can never be in thought . . . the *world itself*. . . is present to the mind in perception” (“Is There a Perceptual Relation?,” p. 139).

Note that, for the Naïve Realist, the presentation relation involves relativity to various worldly factors, which Campbell sums up as “point of view” (see Campbell’s and Quassim Cassam’s *Berkeley’s Puzzle*, pp. 27–28). Brewer places this relativity at the center of his theory in *Perception and Its Objects*.

9. *Reference and Consciousness*, pp. 122 and 45. In his essay “Berkeley’s Puzzle,” Campbell tells us that “we have to think of experience of an object as a cognitive relation more primitive than thought about the object, that none the less makes it possible for us to think about that thing” (pp. 129–130).

10. Campbell accepts the further Russellian idea that our knowledge of things is more fundamental than our knowledge of truths. See Campbell, “Consciousness and Reference,” §4.

Using the terminology introduced earlier, we can say that, according to Martin, the given in a veridical experience contains “judgments that match what is manifest” in the experience, and the mode of the given is *obligation ceteris paribus to accept*.

Campbell’s position is similar, though not identical to Martin’s. Campbell says, “Perceptual experiences are *authoritative* in the formation of beliefs about one’s surroundings” (*Berkeley’s Puzzle*, p. 80). And he goes on to add, “It is because perceptual experience has the qualitative character it does that it has that decisive role” (*Berkeley’s Puzzle*, p. 83). The next point clarifies the Naive Realist’s conception of the qualitative character of experience.

(iv) The qualitative character of veridical experience—sometimes called “phenomenal character” and sometimes “phenomenology”—is constituted by the external things perceived, their properties, and their relations to one another and to the subject:

The phenomenal character of your experience, as you look around the room, is constituted by the actual layout of the room itself: which particular objects are there, their intrinsic properties, such as colour and shape, and how they are arranged in relation to one another and to you. (*Reference and Consciousness*, p. 116)

‘Qualitative character’ is not a part of Russell’s vocabulary. Still, we can say that, for him, the qualitative character of an experience would be constituted by features of the sense-data presented in the experience.

(v) Our thought and talk of ordinary things has a privileged position. Campbell writes,

There is a certain a priori character to our ordinary talk of macroscopic physical objects. Certainly we cannot now regard our talk of medium-sized physical objects as a theory liable to revision.¹¹

Here, too, there is a parallel: in Russell’s account, the sense-datum conception is not revisable in light of further experience. Each account thus

11. *Reference and Consciousness*, p. 234. The first sentence quoted occurs as a consequent of a conditional, the antecedent of which Campbell accepts.

accords a special status to the conceptual framework that it sees as underlying the given.

(vi) So far, I have noted only parallels between the two accounts. The fundamental change in the Acquaintance Model necessitated by the substitution of ordinary objects for sense-data concerns nonveridical experiences. Naive Realism cannot account for illusions and hallucinations in terms of acquaintance with worldly objects and facts. In the illusion of the bent stick, the subject is not acquainted with the fact that the stick is bent—there is no such fact. In the hallucination of purple rats, the subject is not presented with any purple rats—there are no purple rats to present.¹² Naive Realism is committed to *disjunctivism*: the account it offers of illusions and hallucinations does not run parallel to its account of veridical perception.¹³

How to account for illusions and hallucinations is a difficult question for the view, and there is little agreement among Naive Realists on how to address it. I will, therefore, not commit the position to one particular answer. Naive Realism, as I shall understand it, is committed only to the minimal claim that in a total hallucination a subject is not acquainted with any ordinary things. I add that Martin, whose views on illusions and hallucinations have attracted much attention, advocates a very strong thesis. He thinks that (a) the *nature* of veridical perception differs from that of illusions and hallucinations and that (b) the notion of veridical perception is explanatorily prior. Martin holds that our general notion of experience must be explained in terms of veridical perception: “Our broadest conception of perceptual experience is . . . that of being indiscriminable through reflection from veridical perceptions.”¹⁴

54. I shall later take up several specific ideas in the Naive Realist position.¹⁵ Here I want to draw attention to a general problem—one that af-

12. “The content of a perceptual experience is constituted by the objects and properties in the scene perceived. Consequently, there is nothing in common between the experiential content of a perception when one ordinarily sees the scene before one, and the content of an hallucination” (Campbell, “Demonstrative Reference, the Relational View of Experience, and the Proximity Principle,” p. 210).

13. Disjunctivism has its source in the work of J. M. Hinton, John McDowell, and Paul Snowdon. See Hinton, “Experiences”; McDowell, “Criteria, Defeasibility, and Knowledge”; and Snowdon, “Perception, Vision, and Causation.”

14. “Limits of Self-Awareness,” p. 82. See also Martin, “On Being Alienated,” especially pp. 362–372.

15. I discuss the Naive Realist conception of presentation in Chapter 5 and of phenomenology in Chapter 6.

flicts, as we shall see, all simple theories. The problem is that the account offered of experience fails to sustain the posited given. Acquaintance, according to Naive Realism, is a relation between the subject and some worldly items. The objects of judgments and belief, on the other hand, are propositions, which are more finely individuated than the worldly items. Two different propositions can correspond to the same presented fact, and the subject can be rational to affirm one proposition but not the other. The account of experience offered, however, provides no resources for a differential treatment of the two propositions. This point is best appreciated through an example. Suppose that you are standing before a wheel whose outer edge is studded with many light bulbs that are all similar and that change their color. (One sometimes sees such bulbs in holiday decorations.) You point to one bulb and name it 'Jack'. Now the wheel begins to spin, gradually gaining speed, and you lose track of Jack. Later, when the wheel comes to rest, you direct your attention to one bulb *b*—which, as it happens, is Jack, though you do not know it—and it looks red to you. Your perceptual judgment "this is a red bulb" is (we can suppose) perfectly rational. The judgment "Jack is a red bulb" would not, however, be rational. The propositions "this is a red bulb" and "Jack is a red bulb" are distinct, and your visual experience does not warrant the same rational attitude toward them. On the Naive Realist characterization of experience, however, there is no difference in the relationship of these propositions to your experience: the propositions correspond to the fact that *b* is red and your experience acquaints you with this fact. The simple given posited should treat the two propositions differently, but the account offered of experience lacks the resources to sustain this.

Notice that no analogous problem arises for Russell. According to Russell, neither judgment—"this is a red bulb" and "Jack is a red bulb"—is rendered rational by your visual experience, for your experience does not acquaint you with physical objects and their features. Furthermore, no parallel problem arises if in the above example names of sense-data are introduced in place of names of physical objects. Suppose you had named the sense-datum you sensed when you first encountered Jack 'Sid'. On your later encounter with Jack, the judgment "this is a red sense-datum" is, according to Russell, rendered rational by your visual experience, but not the judgment "Sid is a red sense-datum." And the Russellian explanation of this is straightforward: your later visual experience is not acquainting you with Sid, and your understanding of the name 'Sid' enables you to know that the

sense-datum you are sensing is not Sid. This kind of explanation is unavailable to the Naive Realist. One cannot substitute ordinary things for sense-data in Russell's picture of experience and judgment without losing essential explanatory resources.

It will not help the Naive Realist to limit the judgments given in an experience to those that can be expressed without the use of proper names. For the problem arises also with judgments expressed using adjectives and common nouns. Suppose, for example, colors are physical properties—say, the color red is the property of having such and such physical characteristics. Then, the judgments “this is a red bulb” and “this is a bulb with such and such physical characteristics” can possess different rational statuses in a perceptual situation even though the same fact corresponds to them. It will not do to extend the proposal and limit judgments given in experience to those expressible without the use of any constants—to judgments such as “this is thus.” For this move results in an abandonment of the simple given. No simple account is now available of the rationality of ordinary perceptual judgments. The judgments given in experience cannot be stitched together to yield such ordinary perceptual judgments as “this is red,” “this is Jack,” and “Jack is red.” The rationality of ordinary perceptual judgment is now as unreachable as it was on the sense-datum view.¹⁶

3C. SIMPLE INFORMATIONAL THEORIES

55. *Simple representational* theories take the given in experience to be simple, and they underwrite this given via a representational account of experience. These theories fall into two major groups. In one group belong theories that take experience to be, or to contain as a constituent, a thought-like representation; theories of this sort I shall present in Part 3D below. In the other group fall ***simple informational*** theories, which I consider in this part. Informational theories take experience to be an information-carrying state of the subject, a state analogous to the information-carrying states of thermometers and trees. Here is how Dretske expresses the idea in “Perception without Awareness” (p. 168):

16. The issues touched on in this section receive an extended treatment in Chapters 7 and 8.

The idea, roughly, is that sensory information comes in different forms (and, perhaps, via different causal pathways): (1) in a form that makes it available for fixation of belief, rational planning, and choice—this is conscious experience; and (2) in a form that, although not available for planning, decision-making, and the grounding of judgment (and report), can be used to control and tweak behaviors that have been rationally selected on other grounds. . . . This kind of picture also lies behind efforts [of Gareth Evans and Michael Tye] to conceive of conscious perceptual experience as that part of incoming information available to cognitive centers for fixation of belief (reasons to believe) and goal selection (reasons to do).

Elsewhere, Dretske explains his notion of information as follows:

‘Information’ is being used here in the way we speak of light (from a star) as carrying information about the chemical constitution of the star. . . . [Our visual experience] can carry [the] information without the subject (undergoing the experience) ever extracting that information for cognitive purposes. (“Simple Seeing,” p. 12)

So, in this picture, states of our brains naturally carry all sorts of information about the external environment. Some of these states constitute conscious experience while others do not. A state may carry information that is used by our bodily systems (e.g., visual information that prompts blinking for the protection of the eyes) and it may even “tweak,” as Dretske says, rational behaviors (as in some behaviors exhibited by people with blindsight). Nevertheless, the state may fail to constitute conscious experience. What distinguishes states that constitute conscious experience from those that do not? Different proponents of the information-based picture answer the question in different ways. In the first extract above, Dretske appeals to the role of information in “fixation of belief, rational planning, and choice.” Tye uses a different idea, that of “poised” content, where a content counts as *poised* if it “stand[s] ready and in position to make a direct impact on the belief/desire system.”¹⁷ Bernard Baars offers yet another proposal in his Global Workspace Theory: the distinguishing mark of conscious

17. *Ten Problems of Consciousness*, p. 138.

experience is that its informational content is broadcast widely to the systems in the brain.¹⁸

56. Let us consider Dretske's proposal first. Dretske uses the notion of rationality in characterizing conscious experience: a bit of information is conscious if it is available for "fixation of belief, rational planning, and choice." Since rational planning presupposes rational belief, Dretske needs to explain "rational belief" without any appeal to conscious experience. How might this explanation go? In his paper, "Entitlement: Epistemic Rights without Epistemic Duties," Dretske explains the reasonableness of perceptual beliefs—or, more precisely, our *entitlement* to perceptual beliefs—in terms of their "unavoidability." Dretske writes:

We have no choice about what to believe when we see (hear, smell, feel, etc.) that things are thus and so. We experience and forthwith believe. . . . The causal process . . . runs its course before rational processes can be mobilized. This, indeed, is why we tend to classify the resulting belief as a *perceptual* judgment. . . . Is it possible that it is this feature of perceptual beliefs—their unavoidability—that gives one the right to accept them? If you have no real choice about what to believe, and if everything you can reasonably do will only confirm your judgment that P is true, then you have—don't you?—the right to accept P as true. . . . We have a right [to] accept what we are powerless to reject. (p. 598)

This passage offers two separable interpretations of "unavoidability" and, thus, two different proposals about perceptual beliefs. The first proposal interprets "unavoidability" purely psychologically. According to it, we are entitled to perceptual beliefs because experience saddles us with these beliefs—we are powerless to reject them. The second proposal interprets "unavoidability" in a mixed way. According to it, we are entitled to perceptual beliefs when we are bound to have them even if we make all reasonable efforts to test them—or, as Dretske expresses it later in the paper, the beliefs are "un-

18. See Baars's "Understanding Subjectivity" and the works cited there. Other proposals that fall within this family of views are due to, among others, Gareth Evans and Tyler Burge. See Evans's *Varieties of Reference*, and Burge's "Perceptual Entitlement" and *Origins of Objectivity*.

avoidable *for an epistemically responsible agent*" (p. 603). The second proposal suffers from an unsettling circularity. It uses concepts—such as "reasonable effort" and "epistemically responsible agent"—that presuppose the very thing it is trying to explain, namely, epistemic entitlement.

57. Dretske's proposals suffer from easy counterexamples. Suppose a man enters a room that he believes, irrationally, to have normal lighting. Suppose the man sees a ball in the room and acquires the perceptual belief that the ball is green. Now, even though this belief is psychologically unavoidable, the subject has no entitlement to it; the belief is simply unreasonable. Hence, Dretske's first proposal cannot be right. We can gain a counterexample to the second proposal if we expand the setup a bit. Suppose that as a matter of fact the lighting conditions *are* normal, the ball *is* green, and any reasonable investigation would confirm this (say, these facts are known to the people in the room). The perceptual belief is thus unavoidable in the second sense also, but it is still unreasonable.

Another difficulty with Dretske's proposals is that they fail to explain the features of perceptual judgments noted above in §§43–45. For example, the proposals cannot explain why it is improper to demand a proof of a perceptual judgment. Mathematical belief can be unavoidable (in both senses of the word) when one is listening to a mathematician friend, yet the demand for proof is proper.

Dretske's account of conscious experience and perceptual belief is motivated, like Sellars's account, by naturalism. Now, even though the goal of preserving naturalism is laudable, an overzealous concern with it leads Dretske astray. It leads him to reverse what from the logical point of view is the proper order of explanation. Dretske explains conscious experience in terms of rational belief (and planning). However, from the logical point of view, it is rational belief that should be explained in terms of conscious experience, not the other way around.

58. Tye and Baars are not concerned with rationality and do not use the notion to characterize conscious experience.¹⁹ So their proposals are immune

19. Tye is concerned with the naturalist inquiry in his book *Ten Problems of Consciousness*, not with the logical one. The problem of accounting for the rational role of conscious experience does not fall among the ten problems Tye lists in his book.

from this last criticism. Nevertheless, their proposals do not serve the logical inquiry. As you look over a large and full parking lot, the content *that there are at least seventeen cars in the lot* may well not be “poised” in Tye’s sense: the content may not be “in a position to make a direct impact on [your] belief/desire system”; seventeen and the number of cars in the parking lot may be as far away from your thoughts as anything else. Yet, the content falls among those that are perfectly reasonable for you to accept. For another example, a particular informational content, for example, that a heart attack is beginning, may be widely broadcast to the systems of the brain of a primitive man, including systems responsible for his speech, yet the thought that a heart attack is beginning may not be reasonable for that man. The bearing on rationality of the sorts of causal-functional roles to which Tye and Baars appeal is at best highly indirect.²⁰

59. A basic problem with simple informational theories is that the account of experience they offer does not underwrite what they conceive as the given in experience. The two parts of the theory—its account of experience and its account of the given—simply do not fit together. Informational theories view experience as an information-carrying state with a particular kind of causal-functional role, one that is naturalistically specifiable. But this account does not succeed in imparting *any* rational role to experience, let alone the one specified in the simple given.

3D. SIMPLE INTENTIONAL THEORIES

60. The second of the two major classes of representational theories consists of *intentional* theories. These theories take experiences to consist, at least in part, of thoughts or of thought-like representational states, or more briefly, *intentional* representational states.²¹ A *simple intentional* theory of experience and judgment (i) accepts a simple account of the given; (ii) offers

20. The same holds of the “higher-order” role to which Peter Carruthers appeals, and the relationship to “inner sense” invoked by William Lycan. See Carruthers, “Natural Theories of Consciousness” and “HOP over FOR, HOT Theory”; and Lycan, *Consciousness and Experience* and “The Superiority of HOP over HOT.”

21. Note that the class of intentional theories of experience is not disjoint from that of informational theories. A theory that takes thoughts to be informational states with a particular causal-functional role will fall in both classes.

an intentional account of experience; and (iii) sees the given as founded in the intentional representations that it takes to constitute experience.

Intentional theories have one significant advantage over informational theories: they endow experiences with conceptual contents, and these contents can bear logical relations to propositions in the given. Indeed, on many simple intentional theories, the propositions given in an experience are simply a part of the content of that experience. In contrast, the contents of informational states are, typically, nonconceptual. Consequently, the logical relationship of these contents to conceptual ones is, at best, obscure. This is the main reason, I think, why simple information theories invoke causal-functional relations between experiential representations and thoughts to link the two. As we have seen, however, such relations fail to do the required logical work.

Some contemporary proponents of intentional theories of experience find inspiration in Kant.²² Like Kant, they maintain that experience is not merely a deliverance of the senses, but involves also conceptual capacities. There is one important difference, however, between Kant and the contemporary neo-Kantians. Kant wished to bring experience into the domain of the conceptual for a large philosophical goal: to establish his transcendental idealism and thereby explain the possibility of synthetic a priori knowledge. Furthermore, the role of the conceptual in experience is, in Kant's theory, highly subtle. Kant thinks that the unity of the manifold elements in a conscious experience has the same source as the unity of the manifold elements in a judgment. Both unities are founded in, what Kant calls, the pure concepts of the understanding (*Critique of Pure Reason*, A79 / B104–105). The contemporary neo-Kantians do not share Kant's large ambitions. Their goal is mundane, in line with our own. They wish to understand empirical rationality. Furthermore, as they see it, the role of conceptual capacities in experience is visible on the surface, for they hold that experience is simply a kind of thinking—a distinctive kind of thinking, to be sure, but a thinking nonetheless. Since all thinking involves concepts, concepts must, according to them, be in play in experience.²³

22. This is true, for instance, of theories offered by Sellars and McDowell. Note though that Sellars does not subscribe to a *simple* intentional theory, for he does not subscribe to a simple given. Sellars rejects the given as entirely mythical (see Chapter 2).

23. I return to Kantian and other motivations for intentionalist treatments of experience in Part 6C.

61. So much for general observations about the class of simple intentional theories. Let us now turn to some specific theories. Let us begin with one of the richest and most distinctive theories in this class, namely, McDowell's theory.

(i) McDowell holds, following Kant, that experience is a joint product of receptivity and spontaneity, sensibility and understanding.²⁴ Experience involves exercises of conceptual capacities, and it has propositional content. "We must conceive experiences," McDowell tells us, "as states or occurrences in which capacities that belong to spontaneity are in play in actualizations of receptivity." "*That things are thus and so* is the content of the experience, and it can also be the content of a judgement: it becomes the content of a judgement if the subject decides to take the experience at face value."²⁵

(ii) One key feature of McDowell's conception of experience is that even though experience involves conceptual capacities, it is passive. "In experience one finds oneself saddled with content. One's conceptual capacities have already been brought into play, in the content's being available to one, before one has any choice in the matter" (*Mind and World*, p. 10). It is because of this passivity that experience can serve as a rational constraint on the otherwise free operations of spontaneity.²⁶

(iii) Another key feature of McDowell's conception is that "receptivity does not make an even notionally separable contribution to the co-operation [between receptivity and spontaneity]" (*Mind and World*, p. 9).

(iv) McDowell subscribes to what may be called *sense-impression intentionalism*. The carriers of content in experience are the impressions the

24. Kant's explanation of these terms is as follows: "If the *receptivity* of our mind, its power of receiving representations in so far as it is in any wise affected, is to be entitled sensibility, then the mind's power of producing representations from itself, the *spontaneity* of knowledge, should be called the understanding" (*Critique of Pure Reason*, A51 / B75).

25. *Mind and World*, pp. 66 and 26. In recent work, McDowell distances himself from the idea that experience has propositional content; see his "Avoiding the Myth of the Given." This is a significant change in McDowell's position, but I set it aside because it does not materially affect the discussion below. McDowell still thinks that certain conceptual capacities are operative in experience, though he now characterizes the content of experience as "intuitional." The shift in McDowell's position is prompted, in part, by objections Charles Travis offers in his essay "Silence of the Senses."

26. McDowell differs here from Kant, at least in emphasis. Stephen Engstrom has argued that, as Kant sees it, the role of sensibility in cognition is not to constrain the understanding but to provide enabling material conditions. Sensibility provides "the matter upon which it [the understanding] exercises its cognitive function" ("Understanding and Sensibility," p. 17).

world makes on our senses. In “Sensory Consciousness in Kant and Sellars,” he puts the point thus: “What the abstraction enables us to describe as a sensation is not something that *accompanies* a thinking, a possessor of intentionality. It *is* a thinking. . . . The thinkings that provide for the intentionality of perceptual cognitions are not *guided* by sensory consciousness, as it were from without. They *are* sensory consciousness, suitably informed” (pp. 118–119).²⁷

(v) The Kantian idea that experience involves both receptivity and spontaneity enables us to see experience as “openness to the layout of reality” (*Mind and World*, p. 26). In ordinary perception, we take in how things are.

(vi) The mode of the given is *knowledge*: “The given in an experience should be the experience’s contribution to the subject’s *epistemic* position. Givenness should be givenness for *knowing*” (“The Given in Experience,” p. 470). Indeed, when things go well, a perceiving subject possesses *self-conscious* knowledge of the features of the environment presented in his experience.²⁸

(vii) An immediate consequence of (vi) is epistemic disjunctivism: subjectively matching experiences may fail to yield the same given. An ordinary experience of a pink ice cube will provide one with the knowledge that a pink ice cube exists, but a subjectively matching hallucination will fail to do so. The proposition *that a pink ice cube exists* will, according to McDowell, fall under the given in the ordinary experience, but not under the given in the hallucination.

(viii) We cannot make sense of empirical rationality, nor of the world-directed content of experience, if we abandon the idea that experience provides

27. See also *Mind and World*, p. 67. McDowell’s position here differs sharply from that of Sellars. Sellars models experiential carriers of conceptual content on linguistic items, such as sentences. McDowell’s position is closer to (but importantly different from) the one Romane Clark developed following the lead of Everett Hall. See Clark, “Sensuous Judgments” and “Sensuous Content of Perception.”

McDowell’s position differs from Sellars’s on point (iii) also. According to Sellars, the contributions of receptivity and spontaneity are separable: one provides us with sense impressions, the other with thoughts.

28. McDowell: “A perceptual state in which some feature of the environment is present to one is an act of a rational capacity for knowledge, a capacity in whose exercises one knows things and knows how one knows them” (*Perception as a Capacity for Knowledge*, p. 44).

See David de Bruijn’s *Experiential Self-Consciousness* for a development of intentionalism that puts self-consciousness at the center of empirical cognition.

us with *knowledge* of the world. “We *must* find a way to make sense of receptive knowledge, knowledge immediately yielded by experience. Otherwise we make empirical rationality unintelligible.”²⁹

(ix) The justification provided by veridical experience is not defeasible. Furthermore, some parts of our view of the world are immune to empirical revision. “It is only against a background of knowledge about the world and one’s place in it that one can learn about one’s environment by enjoying an experience. . . . Once a subject is in the business of learning through experience, we can say that in a certain sense everything in her experience confirms the background.”³⁰

62. Pryor’s essay “The Skeptic and the Dogmatist” offers a very different kind of intentionalist theory, one not committed to epistemic disjunctivism. The following extract from the essay presents its key claim:

We have immediate *prima facie* justification for believing those propositions that our experiences basically represent to us—whichever propositions those turn out to be. (p. 539)³¹

Pryor understands the mode, *prima facie* justification, in a special way. *Prima facie* justification for a proposition *P* can be defeated, according to Pryor, not by any old reason for withholding assent from *P*, but only by a special class of reasons. As Pryor explains, he wants

to understand “*prima facie*” and “defeating evidence” in such a way that only ordinary evidence of the sort employed by the man in the street and by the working scientist counts as defeating your *prima facie* justification. *A priori* skeptical arguments do not standardly introduce defeating evidence of that ordinary sort. (p. 534)

29. “The Given in Experience,” p. 468. See also “The Disjunctive Conception of Experience,” p. 380.

30. “The Given in Experience,” p. 473. See also “The Disjunctive Conception of Experience,” pp. 383–384, and *Perception as a Capacity for Knowledge*, §§7–8.

31. Pryor does not explicitly commit himself to intentionalism about experience. However, the claims he makes about the relationship of experience to belief commit him to treating experience as intentional, in the sense that experience and beliefs share some propositional contents. The contents of a belief are best viewed as conceptual, I think.

Pryor's motivation here is that he wishes to block the skeptic. Pryor wishes to maintain that in ordinary circumstances experience provides us with justification tout court for some perceptual beliefs, even if we are unable to refute skeptical arguments. If *prima facie* justification could be defeated by these arguments, then an inability to refute the skeptic would deprive us of Pryor's easy route to justification tout court.³²

63. Intentional theories pull experience and thought tightly together, and by doing so they evade difficulties that confound relational and informational theories. However, this pulling together creates its own problems, problems that render it difficult to understand how intentional experience can sustain the simple given.

Let the judgment that *P* belong to the given in an experience—say, *P* is *a cup is on a table*. On simple intentional accounts, the mere *existence* of an experiential representation can confer a particular rational standing (*prima facie* justification, knowledge, and so on) on the judgment that *P*. But how can such a wonderful thing happen? With other exercises of our conceptual capacities (in, e.g., willing and thinking) we find nothing of the sort. The mere fact that one wills that *P* or thinks that *P* does not confer any such status on one's judgment that *P*. What is it about the exercise of conceptual capacities in experience that endows it with such extraordinary rational power?

When conceptual capacities are exercised in willing, thinking, and other mental acts, there can be various sorts of failure. In particular, the exercise of conceptual capacities can be irrational. One can will things that are irrational, given one's desires and aspirations. One can assert things that are irrational in light of the evidence one possesses. This is why *mere* assertion that *P* does not render rational a belief that *P*; the rationality of the latter is conditional on the rationality of the former. With experience, according to simple intentionalism, this sort of thing is never supposed to happen. Con-

32. See Michael Huemer, *Skepticism and the Veil of Perception*, for another version of a simple intentional theory. See also Katharin Glüer, "Looks, Reasons, and Experiences," and John Bengson, Enrico Grube, and Daniel Z. Korman, "A New Framework for Conceptualism."

Alex Byrne offers in his essay "Experience and Content" an account of experience that foregoes all appeal to representations but, nonetheless, sees experience as a psychological attitude with content. Simple theories built on this model of experience do not escape, I believe, the problems pointed out below with simple intentional theories.

ceptual capacities, we are told, are in play in experience, but apparently, there are no failures here—at least none of rationality. For if there were such failures, then we would have to say that experience, like assertion, does not invariably provide (e.g.) *prima facie* justification. We would have to say that it provides such justification conditionally, only when it itself is rational (though it sounds off-key to speak of the rationality or irrationality of an experience). So, what is it about the operation of conceptual capacities in experience that precludes failures of rationality and endows experience with the extraordinary rational power that simple intentionalism attributes to it?

McDowell says that experience is passive, that in experience we find ourselves “saddled” with conceptual content (§61(ii)). However, this does nothing to explain why an exercise of conceptual capacities in experience cannot be irrational, nor how the exercise imparts special epistemic powers to experience. We are told that the conceptual content is carried in experience by sense impressions (§61(iv)). But how do sense impressions make a difference? Why is an exercise of conceptual capacities bound to be rational when the thinking is sensuous? How does the sensuousness of thinking result in special epistemic powers? McDowell’s own description of experience highlights the mystery. Experience is a product of a cooperation between receptivity and spontaneity, he says, one to which “receptivity does not make an even notionally separable contribution” (§61(iii)). But the cooperation posited is opaque and mysterious. Receptivity (which is constitutively nonrational) is here cooperating with spontaneity (which is constitutively free) to give birth to an entirely new creature: rational constraint. How does this happen?³³

Pryor tells us that experience represents various propositions, and that it provides us with *prima facie* justification for a subclass of them. As we have seen, Pryor understands “*prima facie* justification” in a special way: ordinary sorts of evidence can defeat this justification, but not evidence provided by skeptical arguments. Now, having Pryor-style *prima facie* justification is a highly complex epistemic standing. How does experience, a mere representation, endow us with this complex standing? Experience, at least *ordinary*

33. I suspect that McDowell is forced into his conception of experience by the thought that unless we admit receptive knowledge, we shall be unable to make sense of empirical rationality (§61(viii)). If this is right, then McDowell’s conception of experience is entirely optional. In the chapters below, I develop an account of empirical rationality that foregoes all receptive knowledge.

experience, is far removed from skeptics and their arguments. How does it manage to confer an epistemic warrant involving them?³⁴

64. I am not denying that there can be thoughts, or more generally, intentional representations, whose very existence renders it rational to accept their contents. When Descartes thought “I think,” his thought possessed a high grade of rationality, and it is not implausible to hold that Descartes’s very act of thinking rendered his thought rational. Call intentional representations in which the representing itself renders it rational to accept its content *self-grounded*. Suppose you think, “I am now thinking this very thought.” Your thought is self-grounded. An example of a self-grounded thought that is not so directly self-referential is this: “Someone is now thinking a thought whose constituents include the proposition *P*.” A subject who thinks this thought thereby renders rational his acceptance of the thought. In this example, as well as in the previous ones, the thinking itself renders the content of the thought true. Some philosophers have held that self-grounded representations exist that do not have this feature. For example, it has been held that any *belief* whose content is a proposition about appearances (e.g., “it looks to me as though a crow is sitting in a tree”) is self-grounded.³⁵ And those with Cartesian tendencies have seen the foundations of empirical rationality to lie in such beliefs. It is an interesting question whether these beliefs are in fact self-grounded, and if they are, how precisely their self-groundedness is to be explained. But we need not pursue these questions right now (see Part 7C). The important point for us is simply this: the

34. Intentionalists have offered other special characteristics to distinguish experiential representations—though not with the aim of resolving the present difficulty. David Rosenthal and others have argued that conscious experience contains not only representations about such things as colors, odors, and pains but also certain higher-order thoughts about these representations. (See Rosenthal’s “A Theory of Conscious Experience” and papers in Rocco Gennaro’s anthology *Higher-Order Theories of Consciousness*.) A different but related characteristic is offered by Robert Van Gulick, Uriah Kriegel, Kenneth Williford, and others. They suggest that conscious experience represents itself in a particular way. (See the papers in part I of Kriegel and Williford’s anthology *Self-Representational Approaches to Consciousness*.) Plainly, none of these characteristics, even if allowed, helps the intentionalist with the problem raised here.

35. Or, as the point would be put, beliefs about appearances are *self-justifying*. Note that mere thoughts about appearances are plainly not self-grounded. You can entertain the thought that it looks to you as though a crow is sitting in a tree, but you do not thereby have any rational ground to accept the content.

self-grounded thoughts and beliefs are bound to have very special contents. Ordinary thoughts or beliefs about the external world (e.g., the belief that a crow is sitting in a tree) are not self-grounded; their existence provides no rational grounds for accepting their contents. Simple intentionalism, however, is led to posit representations that are about the external world but whose very existence generates rational grounds for the acceptance of their contents. Such representations are utterly unfamiliar and extraordinary.³⁶

3E. PROBLEMS WITH THE SIMPLE GIVEN

65. So, we have reason to conclude that accounts of experience offered in the literature fail to underwrite the simple given. Of course, this failure, in itself, casts no doubt on the simple given: perhaps what is needed is a radically new account of experience, one quite different from those considered above. The pattern exhibited in the failure provides a reason, though, to be pessimistic about the feasibility of the needed account. This reason can be put as a dilemma. Either the account underwrites the simple given by appealing to a purely nonconceptual dimension of experience, or it does so by taking experience to be (in part) conceptual. If the latter, then, as we have just seen, the account ends up positing extraordinary and mysterious conceptual states. If the former, then, as we saw earlier, it is mysterious how nonconceptual experience can, by itself, institute the needed distinctions of rationality among perceptual judgments, especially those that correspond to the same external fact. One problem with the simple given, then, is that no plausible account of experience is available that underwrites it.

66. The difficulty in working up a satisfactory formulation is yet another problem with the simple given. It is difficult to specify the judgments that are given in an experience as well as the modes under which these judgments are given. Let us work with an example, and let us focus on modes. Suppose that perceptual conditions are ordinary and a subject, Mr. *X*, sees a red ball and accepts the perceptual judgment “the ball is red” (*J*). Suppose that the judgment is accepted in the context of an empirical debate in

36. A Cartesian intentionalism, one that opts for a Cartesian given, is on much better ground here than simple intentionalism.

which *X* is engaged with his friend Ms. *Y*. Let us take it that *J* is a judgment given in *X*'s experience, and let us ask: What is the mode that *X*'s experience confers on *J*?

(i) Suppose we say that the mode is *entitlement*, in the sense that *X* is rationally within his rights to accept the judgment. This will not do, for it is too weak. If one has an entitlement to do something, one does not thereby acquire an obligation to do that thing. If one is entitled to borrow books from a particular library, one is not thereby required to borrow books from that library. In the present example, however, *X* has not only an entitlement to accept judgment *J*; he is required to accept *J*. If *Y*'s argument for her conclusion depends on *J*, *X* cannot decline to accept *Y*'s conclusion on the grounds that he is not required to accept *J*.

(ii) Suppose we say that the mode is *knowledge*. This would overcome the previous problem, but now the mode suggested is too strong. It would allow *X* to overrule competing claims (such as that the lighting conditions are abnormal) even when they are issued by an authority *X* recognizes. I elaborate on this point in §110 below.

(iii) Suppose we adapt a proposal due to Christopher Peacocke and say that the mode is *accept in the absence of reasons for doubting that the subject is perceiving properly*.³⁷ This proposal evades the problems raised for the previous two suggestions, but the mode proposed is too weak. The subject may know that he is not perceiving properly—for example, the subject may know that he suffers from a neurological disorder that makes everything look a bit blurry to him. Yet the subject's perception of the ball may be clear enough for him to be under a rational obligation to accept *J*.

(iv) Suppose we modify the proposal thus: *accept in the absence of reasons for doubting that the subject is perceiving properly with respect to the proposition in question* (in the present case, *J*). The modification takes care of the previous problem, but it does not provide us with a viable mode. The resulting mode is again too weak. Before undergoing the visual experience, *X* may have come rationally to believe on the basis of the testimony of a friend that the ball he will see is white. When he undergoes the visual experience, *X* will have a reason—however weak we may deem it to be—to doubt that

37. Peacocke, *Realm of Reason*, p. 70: "A perceptual experience which represents a content as correct and which is instance-individuated with respect to that content is also one which entitles a thinker to judge that content, in the absence of reasons for doubting that he is perceiving properly."

the ball before him is red. Hence, he will have *a* reason to doubt that he is perceiving properly with the respect to the proposition *J*.³⁸ Yet, plainly, the subject ought to accept that the ball is red.

67. A general problem in specifying a satisfactory mode can be set out as a dilemma.

Case 1: The mode under which a perceptual judgment is given confers only a conditional rationality on the judgment. That is, the mode renders a perceptual judgment rational only if certain other empirical judgments are rational. In the red-ball example, the mode may render the judgment “the ball is red” (*J*) rational provided that certain other judgments such as “the lighting conditions are normal” are rational. The problem is that the desideratum motivating the simple given is not met: there is no simple account of the rationality of perceptual judgments. Indeed, it is puzzling how, under the current hypothesis, perceptual judgments can be rational at all. The rationality of *J* is supposed to depend on the rationality of further judgments *Q*. Since these latter judgments are empirical, their rationality may very well depend on perceptual judgments whose rationality is, in turn, conditional on the rationality of yet further judgments *Q**. And this last step iterates. No simple account of the rationality of *J* is in sight. What comes into view, instead, is the possibility of a puzzling regress of rationality.

Case 2: The modes under which some perceptual judgments are given confers unconditional rationality on the judgments. Experience can render these judgments rational irrespective of the rationality of other empirical judgments. So, these judgments can serve as the unmoved movers of empirical rationality, and they can ground the rationality of other perceptual judgments whose modes confer on them only conditional rationality. The problem now is that the special judgments cannot be ordinary judgments of perception such as “the ball is red.” For if the mode were to impart unconditional rationality on such a judgment, the following untenable situation could arise. A subject whose acceptance of the judgment “the lighting conditions are normal” (*Q*) is not rational is, nonetheless, rational in the perceptual judg-

38. A reason to doubt the truth of a proposition *P* is also a reason to doubt the truth of any proposition that implies *P*. If a subject has a reason to doubt that the ball is red, he has a reason to doubt that he is seeing that the ball is red.

ment “the ball is red” (J) because of his visual experience. The subject can even go on to conclude Q on the basis of J and thus transform his irrational acceptance of Q into a rational one (because the present acceptance is based on the rational judgment J).³⁹ More generally, the problem is that our ordinary perceptual judgments are not *autonomous*: they stand in a relation of rational dependence to other empirical judgments.⁴⁰ Hence, the simple given cannot confer unconditional rationality on them.⁴¹ This is one of the reasons why philosophers, both ancient and modern, have found Cartesian conceptions of experience attractive. Because ordinary judgments of perception are not autonomous, these philosophers have seen experience as conferring unconditional rationality on certain extraordinary perceptual judgments (such as judgments about appearances), and they have seen these extraordinary judgments as lying at the foundations of empirical knowledge. Coherence theorists such as Davidson and Sellars, on the other hand, reject the idea of such foundations. They see the rationality of perceptual judgments as issuing not from experience, but from certain general principles (e.g., that perceptual judgments are likely to be true), for which they attempt to provide extra-empirical, transcendental justifications.

68. A variant of the red-ball example will help us appreciate better the problems facing any attempt to specify the modes. Suppose the red ball has tiny white specks on it and the subject, X , is looking at the ball from such a distance that the ball looks uniformly red to him. Suppose X is rational in issuing the judgment “that ball is uniformly red.” Let this judgment be J_1 and let it belong to the given in X ’s visual experience, e_1 , under the mode m_1 . Suppose that X takes two steps towards the ball and the white specks become visible to him. X now affirms, in light of his new visual experience, “that ball is red with small white specks on it.” Let J_2 be the new judgment, and let it belong to the given in X ’s new experience, e_2 , under the

39. The subject may know antecedently that the lighting conditions are normal iff the ball is the color it looks.

Note that the kind of transformation envisaged here is quite proper in certain special situations—see §106. The problem is that, under the current hypothesis, the transformation would be deemed proper when it should not be.

40. See §§105–106 for a discussion of “rational dependence.”

41. The problem remains even if we allow, following Wright, that ordinary perceptual judgments depend on (or presuppose) certain general propositions for which we possess an unearned warrant.

mode m_2 . Which modes m_1 and m_2 might underwrite the rationality of X 's perceptual judgments? The first experience is the authority that entitled X to his first judgment; it provided him with an excellent reason to accept J_1 and to deny J_2 . How does m_2 allow X to set aside this excellent reason? Plainly, m_2 cannot allow X to set aside *all* reasons for denying J_2 , for that goes against the obvious fact that certain kinds of authoritative testimony render it irrational for X to accept J_2 in light of e_2 . How, then, does m_2 allow X to set aside the specific reason e_1 provides for denying J_2 ? The question is difficult because e_1 and e_2 , considered in themselves, are on par; neither is an authority above the other. Hence, it appears, the modes m_1 and m_2 should have parity. If m_2 allows X to override the reason supplied by e_1 , then m_1 should equally have a parallel capacity. Now it follows that on taking two steps back, X should be able to set aside the contrary reason provided by e_2 and reaffirm J_1 —a thoroughly unacceptable conclusion.

The source of the problem is this: the rationality of X 's successive judgments J_1 and J_2 depends not only on the two experiences but on a complex of factors that lie outside these experiences. X 's acceptance of J_2 was rational because X knew that the color characteristics of the ball manifest themselves more accurately when the ball is viewed from the shorter distance than the longer one. And it is this that enables X to retain the belief that the ball has white specks on it, even when X takes two steps back and the ball again begins to look uniformly red to him. The complex factors that influence the rationality of a perceptual judgment are difficult to capture via modes in a simple given, even if these modes are allowed to vary from judgment to judgment.

69. The idea of the simple given gains strength from a metaphor, namely, that of experience as an informant. But the metaphor is not an apt one. Consider again the example of my seeing a white sloop (§45). Compare the experience I had in seeing the sloop with that of learning from an informant that there is a white sloop in front of me. (Imagine I was blindfolded when the informant tells me of the sloop.) In both cases, I affirm that there is a white sloop in front of me—in one case, the crucial rational ground is supplied by my visual experience; in the other, by heard testimony. Notice, however, that the two grounds are entirely different in their logical characteristics. If I am told by a suitably powerful authority that my belief is false, then

in both cases I will withdraw my affirmation. However, only in the experiential case will I affirm that it *seems* to me that there is a white sloop in front of me; and only in this case can I rationally weaken my affirmation to, say, “there is a sailboat in front of me.” Experience is not drained of its rational power when I come to believe that my affirmation is false. The very same experiential presentation that grounded my earlier affirmation now grounds the new one. Nothing like this holds for testimony. Once the testimony is undermined, its rational force dissipates. It sustains no appearances, and it provides no grounds for new judgments.⁴² If a testimony is undermined, then that casts doubt on the credibility of the informant. But, with experience, the whole idea of credibility makes little sense.

70. I wish to record one final reason for resisting the idea of the simple given: the idea promotes conservatism and thereby narrows the freedom of theoretical reason. The simple given grants a special status to a part of our ordinary, commonsense view of the world. McDowell says, as we saw above (§61(ix)), “Once a subject is in the business of learning through experience, we can say that in a certain sense everything in her experience confirms the background.” Campbell claims something similar: “There is a certain a priori character to our ordinary talk of macroscopic physical objects. Certainly we cannot now regard our talk of medium-sized physical objects as a theory liable to revision” (§53(v)). In these passages McDowell and Campbell are saying that a part of our commonsense view enjoys a special status, that it is immune from empirical revision. The claim, if accepted, limits our theoretical freedom; for it precludes all hypotheses that contradict any element in the special part of our view. The precise extent of the limitation depends, of course, on the breadth of the special part that is deemed empirically unrevisable. Nevertheless, I believe that we should—and, more importantly, that we can—resist all such limitations. We can see the rationality of each substantive element in our view as rooted in experience, not in any nonempirical ideas, concepts, and preconceptions. That is, we can make sense of empirical rationality without having to limit, in the manner of McDowell and Campbell, our theoretical freedom.

42. The auditory experience of hearing the informant can ground new judgments, but not what the informant tells me.

71. The idea of the simple given has seemed to many especially compelling for ordinary, everyday experiences; though it would be conceded that the idea may face some problems in dealing with extraordinary experiences such as hallucinations. It is worth noting, therefore, that the above arguments against the simple given make no appeal whatsoever to extraordinary experiences. If sound, the arguments show that the simple given is unsustainable even over ordinary experiences.

The idea of the simple given is sometimes promoted as naive common sense. This is not entirely false advertising. The idea *is* naive common sense if this is taken to mean that the idea is a natural first thought as one begins to reflect on experience and judgment. The idea is not common sense, however, if by common sense we mean what is found in common practice—the practice of making judgments, of challenging them, and of assessing their rationality. I have argued that the idea of the simple given fails to respect basic features of ordinary perceptual judgments.

It should occasion no surprise that our first, naive thoughts about experience and judgment prove inadequate. If our naive ideas about air and water, about plant and animal, do not survive scrutiny, even though we are surrounded by these things and repeatedly attend to them, there is little likelihood that our naive ideas about experience and judgment will do so. We are intimately connected to these things—they make up the very fabric of our lives—but this very intimacy renders them more elusive.

72. The above review of existing theories yields the following useful constraints to guide us as we seek to understand the role of conscious experience in empirical cognition:

- (i) We should acknowledge that there is a given in experience. Cartesian and simple theories are right that the given is not mythical, that experience plays a vital rational role in cognition.
- (ii) We must look beyond Cartesian and simple treatments of the given, however. Indeed, we should accept the insight of the coherence theorists that propositional treatments of the given are untenable.⁴³ It is not a part of the rational role of experience to confer a special status on some select propositions.

43. A further argument in favor of the coherentist insight will be given in Part 7A.

- (iii) Whatever account we propose of the given, we must ensure that a suitable account of experience is available that sustains the proposed given.

In the next four chapters, I work within these constraints to develop an account of the given as well as a suitable account of conscious experience.

CHAPTER FOUR

The Hypothetical Given

I TURN NOW to the presentation of the positive account of empirical cognition I wish to offer. In the following chapters, I develop an account of experience and of its relationship to thought, and I use this account to build a general logic of empirical reason. In this chapter (more specifically, in Part 4A), I make a proposal about how we should conceive of the given in experience (= the rational role of experience). I call this conception “the hypothetical given,” and it underpins all subsequent developments.¹ The proposal entails that a certain logical interdependence obtains between perceptual judgments and what I shall call “views.” In the later parts of this

1. I introduced the hypothetical given in chapter 4 of my *Empiricism and Experience*. The exposition of the idea there left several important points implicit, and I correct this deficiency below. More significantly, the reading I offered of the Equivalence Principle in that book rendered it necessary to think of the given in a highly abstract way. In the exposition below, I follow a different and, I think, better course. I now read the Equivalence Principle in a way that allows one to think of the given in a much more concrete way (see Part 7A for the new reading of the Principle). This reading has the additional advantage that it fits naturally with the account of experience and its phenomenology that I develop below (Chapters 5–7).

chapter (Parts 4B–4D), I elucidate this interdependence and draw out some of its consequences.

4A. RATIONAL TRANSITIONS

73. Consider a simple perceptual situation. You are looking out of your kitchen window, a red bird flies by, and you affirm out loud, “That’s a cardinal.” Your affirmation is an ordinary perceptual judgment, and such judgments are often rational. Let us take it that in this particular case your judgment is indeed rational, and let us ask: What is the contribution of your visual experience to the rationality of your judgment? Russell’s answer to the question would have been that the experience provides you with knowledge of some sense-data. The Naive Realist’s answer would be that the experience provides you with some kind of knowledge, or entitlement to, or reason for, the proposition you affirmed. Neither type of answer, we have seen, is satisfactory. Yet, plainly, the experience makes a vitally important contribution to the rationality of your judgment. Were it not for the visual experience, you would not have been in a position to issue the perceptual judgment at all. What, then, is the contribution of your experience to the rationality of your judgment?

We can arrive at a satisfactory answer, I suggest, by reflecting on this simple fact: you did not issue your perceptual judgment in vacuo. When you issued the perceptual judgment, you possessed various concepts; you took the world to contain certain kinds of things; and you had some knowledge of some of these things (or, at least, you held some beliefs about some of these things). In short, when you issued the judgment, you accepted a particular *view* of the world. Two factors were in play in your issuance of your judgment: experience and view. You accepted a view; you underwent a visual experience; and you issued a particular perceptual judgment. Your visual experience, it is plain, is not what entitled you to your antecedent view. Indeed, your visual experience reveals nothing about the correctness or the rationality of this view. Similarly, the visual experience does not, *by itself*, provide you with any entitlement to the perceptual judgment; it reveals nothing about the truth or the rationality of the judgment. The rational role of the visual experience is to be located, I suggest, in a quite different place: the role of experience is to render rational *transitions* from antecedent views to

judgments. Because of your visual experience, a *rational linkage* obtained between your view and your judgment, which made your *move* to the judgment rational. The experience did not render your judgment rational; it rendered your *transition*, your *move*, to the judgment rational.

Let e be your visual experience; v , your antecedent view; and J , your perceptual judgment. Let us represent the transition from acceptance of v to judgment J thus:

$$(1) \quad (\text{Accept: } v) \rightarrow (\text{Accept: } J).$$

Note that (1) is not a statement but a singular term that refers to a transition. So, the symbol “ \rightarrow ” is not a sentential connective and should not be read as “if . . . then . . .” Now, let Γ_e be the given in experience e . Then, we can represent the contribution of e to your judgment thus:

$$(2) \quad \Gamma_e: (\text{Accept: } v) \rightarrow (\text{Accept: } J).$$

74. The same experience can render rational transitions to different perceptual judgments—even to contrary perceptual judgments—if the antecedent view is relevantly different. Had you accepted a different view when you looked out of the window, your visual experience e would have enabled you to move rationally to different perceptual judgments. Suppose, for example, you accepted a view, v^* , according to which you live in a region where the only red birds are parrots. Suppose, further, that in experience e , the glimpse of the bird being fleeting, you naturally issued the perceptual judgment “that’s a red parrot” (J^*).² Now the transition to judgment J^* would be rational. That is,

$$\Gamma_e: (\text{Accept: } v^*) \rightarrow (\text{Accept: } J^*).$$

For another example, suppose you accepted a sense-datum view (v') and believed that you immediately perceive only sense-data. Then, the transition to the judgment “that’s a red sense-datum” (J') would be rational. That is,

2. We can assume, if necessary, that in v^* (in contrast to v) your grasp of the concepts “cardinal” and “parrot” is not so firm as to enable you to visually distinguish between cardinals and parrots in fleeting encounters.

$$\Gamma_e: (\text{Accept: } v') \rightarrow (\text{Accept: } J').$$

In short, the same experience, when joined with different possible antecedent views, can render rational transitions to different possible judgments, even judgments with different conceptual constituents.³ The given in an experience separates, then, possible transitions that are rational from those that are not rational.⁴

75. It will clarify the proposal I am making if we reflect on the role of a valid argument in reasoning. Consider an instance of *modus ponens*:

- (3) that's a bird (*B*), and if that's a bird then that's a cardinal (if *B* then *C*);
therefore, that's a cardinal (*C*).

Because this argument is valid, certain transitions in reasoning are rational—for example, the transition from the acceptance of the premisses (namely, *B* and “if *B* then *C*”) to the recognition of a commitment to the conclusion (*C*). Notice that the rationality of the transition implies nothing about the rationality of the initial acceptance of the premisses or of the subsequent recognition of the commitment. (And, of course, it implies nothing about the truth of the premisses or of the conclusion.) What is rational is the *transition*, and the transition can be rational even though, for example, the initial acceptance of the premisses is thoroughly irrational.

The situation is parallel with the rational linkages instituted by an experience. Consider again the last example, in which we supposed that you accept a sense-datum view *v'* and your experience *e* renders rational the transition to the judgment *J'*, “that's a red sense-datum.” This transition can be rational even though the acceptance of the initial sense-datum view is thoroughly irrational and even though the subsequent judgment

3. In the account I shall offer, I have no need for an absolute notion of perceptual judgment or for an absolute notion of observational concept. These notions, as I see them, are view-relative. A judgment that counts as perceptual relative to one view may well count as nonperceptual relative to another view. Similarly, a concept that counts as observational relative to one view may well count as theoretical relative to another.

4. A note on notation: Display (2) does not imply that the transition from acceptance of *v* to acceptance of *J* actually occurs. It implies only that the transition would be rational if it occurred.

is also thoroughly irrational. The sense-datum view may be incorrect and even absurd; still, that does not impugn the rationality of the transition. (One may have played chess badly and through various illegitimate moves have arrived at an impossible arrangement of pieces on the board. Nonetheless, the move one makes next—say, moving the queen in a certain way—may well be perfectly legitimate. The legitimacy of the *move* implies nothing about the legitimacy of the starting configuration or of the resulting one.)

The given in experience, I am suggesting, is analogous to a valid argument scheme. Both render rational *transitions* (not, e.g., judgments). Both are indifferent to the status of the starting points of transitions. And both possess a certain generality: *modus ponens*, for example, institutes rational transitions for a whole range of premisses, with entirely different contents (including false and even incoherent contents). Similarly, the given in experience, Γ_e , institutes rational transitions for a whole range of views (including incorrect and even absurd views).

In light of the analogy between the given and valid argument schemata, we may read (2),

$$(2) \quad \Gamma_e: (\text{Accept: } v) \rightarrow (\text{Accept: } J),$$

as “*e perceptually entails J relative to v.*” If the context allows it, we may suppress relativity to view *v* and read (2) as “*e perceptually entails J*” and, even more simply, as “*e entails J.*”

76. There is one difference between valid argument schemata and the given in experience that deserves emphasis. A valid argument scheme institutes rational linkages that do not add any new content to a view. Suppose, for example, that you come to accept the conclusion *C* through an application of *modus ponens*, such as that in (3). You do not thereby enrich your view with any new content. The conclusion *C* is already implicit in your initial view; it is logically implied by the premisses you initially accept. In contrast, when you accepted “that’s a cardinal” on the basis of your experience, you genuinely enriched your view; you added new synthetic content to your view. The judgment “that’s a cardinal” could not be derived from your antecedent view through any a priori reasoning. This is a vitally important difference between valid argument schemata and the given in experience. The synthetic additions brought about by experiences can enrich a view.

The additions can disturb the view, and they can even utterly transform the view. Not so for the analytic expansions brought about by valid argument schemata.

77. Several notions brought into play in the sketch above—notions such as *experience*, *view*, and *rationality*—require extended explanations, which I shall provide in the course of this book. For now I want to make some preliminary observations about views.

(i) A view contains beliefs and, more broadly, acceptances. As beliefs change (say, from “it’s now 10:00 A.M.” to “it’s now 10:01 A.M.”), the view changes. At a particular stage in a debate, a person may accept some claims that, strictly speaking, go beyond her beliefs. These acceptances, too, are a part of the view that the person accepts at that stage of the debate.⁵

(ii) A view cannot be identified with its constituent beliefs and acceptances nor with the conjunction of propositions accepted in it. A view is more than the beliefs and acceptances. A view contains links to possible experiences. Your present view contains, for example, links between certain kinds of experiences and the concept “bird,” links in virtue of which you are disposed to predicate the concept “bird” of some objects when you undergo those kinds of experiences. I shall explain the character of these linkages later in the book. What I want to stress now is that there is more to a view than its constituent beliefs and acceptances.

(iii) It is the character of a view that determines which judgments are perceptually entailed by an experience: the view links experiences with certain judgments. It is because of these linkages that the occurrence of an experience renders rational transitions to certain judgments. The analogy with *modus ponens* is thus quite strong, except for this one crucial difference: in the empirical case the rationality of the transition depends on the occurrence of an experience whereas with *modus ponens* the rationality is independent of particular occurrences.

(iv) Views contain, however inchoately and confusedly, a *conception* of the self and world—that is, a conception of the kinds of objects there are in the world; and of their properties, relations, and interactions; and of the situation of the self among them. Different views can embody different

5. Degrees to which propositions are believed or accepted are also a part of the view. In this work, though, I work with the simpler notions of outright belief and acceptance.

conceptions of the self and the world. For example, the conception of the self and the world found in a physicalist view differs radically from that found in Russell's Acquaintance Model. And, of course, views can embody the same conception (and in the same inchoate and confused manner) but differ among themselves on the details. For example, two views may contain the same commonsense conception of the self and the world but may differ on the distribution of, say, canned goods on a particular grocery shelf. Let us call views *fundamentally equivalent* when they contain the same broad conception of the self and the world. "Fundamental equivalence" is not a sharp notion; it is, nonetheless, both intuitive and useful.

(v) Views can be highly complex with rich and subtle ideas about, for example, the layout of reality, the self and its situation, and even about the proper conduct of rational empirical inquiry. Indeed, one test of a logic of empirical inquiry is provided by the consequences of incorporating the logic within a view. Richness and subtlety are not, however, preconditions for something to qualify as a view. Views can be sparse and simple (as perhaps the views of some children are), and experience yields rational transitions even for such views. Indeed, as we shall see later, a sparse and simple view can, with the aid of experience, transform itself into a rich and complex one.

78. Relative to a rich view, the perceptual entailments of an experience can themselves be rich. Suppose you are looking out over the parking lot of a shopping mall full of weekend shoppers. Your visual experience entails the judgment "there is at least one car here." It entails also "there are at least n cars here," for each natural number n up to some large value. The experience entails, furthermore, a whole variety of possible judgments such as the following:

I see that there is at least one car here; it looks to me as if there is at least one car here; and I am undergoing a visual experience as of a parking lot with at least one car in it.

Let n be a number for which the experience perceptually entails the judgment "there are at least n cars here." Then, the experience entails also the following:

I see that there are at least n cars here; it looks to me as if there are at least n cars here; and I am undergoing a visual experience as of a parking lot with at least n cars in it.

Observe that these entailments are relative to a view, a view that is conceptually rich. The entailments may well fail to hold relative to a view—for example, that of a child—which lacks the relevant concepts (e.g., “car,” “parking lot,” and “visual experience”). Observe also that the entailments to “looks” and “experience” judgments are on par with entailments to plain perceptual judgments. The perceptual entailment of your visual experience is no more (and no less) direct in relation to a judgment such as “it looks to me as if there is at least one car here” than it is in relation to the plain perceptual judgment “there is at least one car here.” And the same is true for the “experience” judgment “I am undergoing a visual experience as of a parking lot with at least one car in it.” To make a rational move to the “looks” and “experience” judgments you do not need a special kind of experience or a special act of mind. You do not need, say, an introspective experience (whatever that is) or a special act of introspection in which you direct your mind to your visual experience (assuming that there is such an act). The original visual experience itself perceptually entails the “looks” and “experience” judgments.

79. The perceptual entailments of an experience are, as the parking-lot example shows, potentially infinite, and plainly, no realistic conception of rationality would demand that one accept *all* the judgments that are entailed by an experience.⁶ The situation here is parallel to that with logical validity: the premisses one accepts logically imply an infinity of propositions, but no realistic conception of rationality demands that one accept each proposition in this infinite totality. There is a sense, then, in which one is not rationally required to accept all the perceptual entailments (relative to one’s view) of one’s experiences. Nonetheless, it deserves emphasis that the perceptual entailments are not optional. First, as with logical validity, acceptance of all judgments entailed by an experience is a constitutive part of the ideal of empirical rationality. Second, there is a sense in which perceptual entailments are *forced*. This can perhaps be brought out as follows: If in the course of a debate, your friend points to the parking lot and claims “there are at least five cars here,” you have no option but to

6. The transitions rendered rational by an experience, thus, extend to *possible* transitions; they are not confined to actual transitions. The possible transitions encompass both possible judgments and possible views.

accept the claim. The transition from your view to the judgment “there are at least five cars here” is forced.⁷

80. I have focused so far on perceptual transitions to *judgments*. I now wish to observe that the transitions rendered rational by an experience constitute a broader class. Relative to some views, an experience *e* can render rational a transition not to a *judgment* that *P* but to something weaker, such as *recognition of a commitment* to the proposition that *P*. We can represent such a situation thus:

$$(4) \quad \Gamma_e: (\text{Accept: } v) \rightarrow (\text{Commitment: } P).$$

Suppose you believe, for good reasons, that copper wires of a certain kind possess resistance *r* ohms. You perform an experiment on a copper wire that you know to be of the relevant kind to verify its resistance and, surprisingly, the ohmmeter displays a reading *r**, different from *r*. Your perception of the ohmmeter brings to light a problem that must somehow be resolved. *One* resolution would be to accept the results of the experiment and abandon your general belief about the resistance of copper wires. But this is not the only possible resolution. In some circumstances, it would be wise to conduct further tests before abandoning the general belief. It is useful, therefore, to recognize a special kind of cognitive state, which I shall call *aporetic*, in which a problem is recognized but is not yet resolved. As you looked at the ohmmeter with its surprising reading, you were in an aporetic state. You recognized a conflict between your antecedent beliefs and the deliverances of perception, but you had not yet resolved the conflict. Your experience, *e*, of the ohmmeter did not render rational the transition to the *judgment* “the resistance of this copper wire is *r*”—for that implies a specific resolution of the aporia. Nonetheless, the experience had the effect of putting you in an aporetic state—a *transition* that is perfectly rational. I am capturing the rational role of experience in this transition through the idea of “recognition of a commitment.” In light of your antecedent view *v*, your experience *e* renders rational the transition to a recognition of a commitment to the propo-

7. This clarification is prompted by some remarks in Selim Berker’s essay “Gupta’s Gambit.” As we shall see later (§§103 and 341), it is the view of some philosophers that *all* empirical revisions are optional—a view that is a product, as I see it, of erroneous conceptions of experience and empirical rationality.

sition “the resistance of this copper wire is r^* ” (P)—a state of affairs that I represent as (4).

Aporetic states are not peculiar to perception. A deduction can bring to light a problem, even an inconsistency, in one’s view. And it can happen—and, arguably, it has happened with the paradoxes such as the Liar—that one can find no resolution of the problem and, thus, remains in an aporetic state. Plainly, it is more rational to remain in this state than to force a resolution through an ad hoc move.

Socratic questioning and skeptical arguments aim to bring us to an aporetic state with respect to a large variety of our ordinary concepts and beliefs. If these lines of thinking are correct, then our ordinary view is shot through with incoherence. I do not need to take a stand right now on whether these lines of thinking are indeed correct.⁸

Suppose (4) holds: experience e entails a recognition of commitment to P . Suppose, further, that this recognition does not put the subject in an aporetic state. Then, the recognition of commitment to P translates into the acceptance of P . We may thus regard “recognition of commitment” as more fundamental for our purposes than “acceptance.” That is, we may regard (4) as fundamental, and we can take (5) to be derivative:

$$(5) \quad \Gamma_e: (\text{Accept: } v) \rightarrow (\text{Accept: } P).$$

The surplus of content of (5) over (4) is that the recognition of commitment to P does not put the subject in an aporetic state. Henceforth, I will extend the idea of perceptual entailment to include recognitions of commitment: if (4) holds, I will say that e *perceptually entails* P (*relative to* v).

81. A perceptual entailment, like its logical counterpart, is associated with an array of related transitions other than those captured by (4). Suppose (4) holds for a commonsense view v , and imagine a subject who is firmly committed to a sense-datum view and who engages in a “what-if” reasoning about v . That is, suppose that our subject hypothetically accepts, for the purposes of reflection, the view v . Now, our subject’s experience e will *not* render

8. One thesis I shall argue for is that the hypothetical given, which I am presenting in this chapter, provides a necessary resource for resisting an important skeptical argument (more specifically, the skeptical argument outlined in §24).

rational a transition to an *outright* recognition-of-commitment to the proposition that P , for our subject's acceptance of v is only hypothetical. The experience will render rational *hypothetical* recognitions-of-commitments. We can represent the rational role of experience in such cases thus:

$$\Gamma_e: (\text{Hypothetical acceptance: } v) \rightarrow (\text{Hypothetical commitment: } P).^9$$

This point about the given parallels a point familiar from applications of valid argument schemata: the latter, too, institute rational transitions not merely from plain assertions but also from assertions made hypothetically—assertions made under one or more suppositions.¹⁰

82. I have highlighted so far transitions involving acceptance and, more broadly, recognitions of commitment. There is an altogether different kind of transition that experience also renders rational: a transition to an *ostensive definition*. Suppose you are looking at a bird. You can introduce a name for it through an ostensive definition such as “let that bird be (called) *Alice*” (D). As with perceptual judgment, your experience e does not by itself render your stipulative definition D rational.¹¹ But the experience can render rational the transition from your view v to definition D . We can represent the rational role of experience here thus:

$$\Gamma_e: (\text{Accept: } v) \rightarrow (\text{Definition: } D).$$

Again, as with perceptual judgments, the same experience when joined to different views can render rational transitions to different ostensive definitions. If you had held a sense-datum view v' , then you could have introduced a name of a sense-datum through the ostensive definition “let that bird-

9. A fuller representation would mark that the hypothetical commitment to P is relative to the hypothesis v .

10. This section is prompted by an argument of Selim Berker's in “Gupta's Gambit.”

11. We can assess judgments on two dimensions, rationality and truth. Similarly, definitions, too, can be assessed on two dimensions. We can assess whether a subject is rational to posit a definition and whether the definition succeeds in assigning a nondefective meaning to the defined term. As with judgments, the two assessments may yield different outcomes. For example, we may find that the subject is rational to posit the definition but that the definition fails to assign a nondefective meaning to the defined term. See §255 below.

shaped sense-datum be (called) *Bob*” (D'). Now the transition to definition D' would be rational:

$$\Gamma_e: (\text{Accept: } v') \rightarrow (\text{Definition: } D').$$

I shall provide a fuller discussion of ostensive definitions later (see Parts 8B and 8C). The point I wish to stress now is that experience renders rational not only transitions to judgments but also transitions to definitions.

Note this difference between transitions to definitions and transitions to judgments: closure under transitions to judgments is an ideal of empirical rationality but not closure under transitions to definitions. Still, a transition to a definition, say D , is obligatory in this sense: if, in the course of a debate, D is proposed to a subject who accepts the antecedent view, then the subject ought to accept D .

83. Let us say that a view v **is true relative to** a subject S **at** a moment m iff all the constituent beliefs and acceptances in v are true relative to S at m .¹² Let us say, furthermore, that a view v **is correct relative to** a subject S **at** a moment m iff (i) v is true relative to S at m and (ii) for any experience e that S undergoes at m , the perceptual entailments of e and v are also true relative to S at m . Correctness of view is a stronger notion than truth. A correct view is right not only on beliefs and acceptances; it is right also on the links it institutes between experiences and judgments. Note that a view that is correct at one moment may fail to be correct at a different moment m^* even though it is true at m^* .

Let us say that a transition of the form $[(\text{Accept: } v) \rightarrow (\text{Commitment: } P)]$ **is proper relative to** S **at** m iff, relative to S and m , P is true if v is correct. The notion “proper” extends naturally to other kinds of transitions. For example, a transition of the form $[(\text{Accept: } v) \rightarrow (\text{Definition: } D)]$ **is proper relative to** S **at** m iff, if v is correct relative to S at m , then so is the definition (i.e., relative to S and m , D succeeds in fixing the meaning of the defined term).

12. I include relativity to subjects and to moments to allow the possibility that a view may contain a belief such as “I am hungry now.” A view may well contain beliefs that require other dimensions of relativity. I am not taking a stand on what an exhaustive set of parameters of relativity might be.

84. These explanations ensure that the given in experience is never erroneous, in the sense that the transitions instituted by the given are invariably proper. (I am assuming that rightness in judgments ensures rightness in definitions.) There is a parallel here with valid arguments. A valid argument institutes, by definition, truth-preserving transitions; similarly, the given in experience institutes, by definition, proper transitions. The reliability of sense-perception, understood as the reliability of the given, is not a substantive fact; it is a logical fact. What leads philosophers to suppose otherwise is the erroneous conception that experience provides the subject with judgments.¹³ Under this conception, the falsity of perceptual judgments undermines the reliability of sense-perception. However, the falsity of perceptual judgments is no fault of the given; its source lies in the incorrectness of view. When a subject suffering an illusory experience makes a false perceptual judgment, the error is not to be pinned on the given in the experience. The rational role of experience is to make available a transition, and the transition is perfectly proper even when the experience is illusory and the perceptual judgment is false. The error in judgment is due to the incorrectness of view, not due to an erroneous given. Just as the falsity of the conclusion does not impugn the validity of an argument, similarly the falsity of a perceptual judgment does not impugn the reliability of the given.

Let us notice that sense-datum theorists secure reliability by weakening the given. I, too, am securing reliability by what looks like a weakening of the given; like the sense-datum theorists, I exclude ordinary judgments of perception from the given. The sense-datum way of weakening the given does not provide a satisfactory account of empirical cognition. I will be arguing that the account of the given offered here does so.

85. It is a natural thought that experience plays a vital role in the rationality of judgment and in the fixation of meaning. This thought is basically sound, I think. I am suggesting, however, that the role of experience is *not* to sanctify a special class of judgments (“perceptual judgments”) as rational, nor is it to endow a special class of terms (“observation terms”) with clear and distinct meanings. With judgment as well as with meaning, the role of experience is to render rational *transitions*: transitions from views to recognitions-

13. Kant, *Critique of Pure Reason*, A293/B350: “It is therefore correct to say that the senses do not err—not because they always judge rightly but because they do not judge at all.”

of-commitment and to ostensive definitions (to give only two examples). Experience cannot, by itself, provide any assurance that a judgment or a definition is rational; it can do so only in conjunction with a view. The rationality imparted to a judgment or a definition by an experience is, therefore, hypothetical: if the antecedent view is rational then, in light of the rationality of the transition, so also are the judgment and the definition. This is why I call the given outlined here *the hypothetical given*. The given in experience, I am suggesting, is not Cartesian; it is not simple; it is hypothetical.¹⁴

4B. GENERAL REMARKS ON LOGICAL INTERDEPENDENCE

86. The conception of the given sketched above entails that a logical interdependence obtains between judgments and views. The rationality of a perceptual judgment depends, in general, on the rationality of view; and the rationality of view depends, in turn, on the rationality of perceptual judgments. It is this logical interdependence and the vague feeling that all logical interdependence is unacceptable that, I think, has led philosophers to overlook the hypothetical given. Indeed, philosophers have strained to so cast empirical cognition that the interdependence can be denied. They have done this in two major ways. First, some philosophers impose a foundationalist structure on our empirical beliefs. They posit a class of extraordinary foundational judgments (e.g., sense-datum judgments) that are independent of view and whose rationality issues from experience alone. The rest of the beliefs, which lie in the superstructure, are then supposed to derive their rationality from the rationality of foundational judgments. This approach assigns

14. The conception of the given sketched above is similar to the one I offered in *Empiricism and Experience*, but with the following differences: (i) In the earlier book, I was too narrowly focused on judgments. I now recognize that experience renders rational transitions not only to judgments but also to definitions, recognitions-of-commitment, suppositions, and so on. (ii) In the earlier book, I had offered a set-theoretic modeling of the given and called the given a *function*. This led some readers to overlook the essential point: the fundamental similarity of the given to valid argument schemata. Some readers even supposed that I took *experience* to be a function. I am dropping the set-theoretic modeling in this work. Not that there is anything wrong with the modeling. I am dropping the modeling only because my purposes here do not require it and because the modeling can distract some readers. (iii) As I indicated earlier, the formulation of the Equivalence Principle in *Empiricism and Experience* forced one to think about the given in a highly abstract way. The formulation adopted below (in Part 7A) makes available a much more concrete conception. This is the most significant change from the earlier work.

priority to the rationality of foundational judgments and sees the rationality of view as derivative. The second way reverses the priority relation, and it is followed by philosophers who favor the coherence theory. Rationality is now seen as accruing first to view, and more specifically, to the system of beliefs, through such characteristics as *coherence*, and then to flow to individual beliefs in virtue of their place in the system. Both of these conceptions are motivated, at least in part, by the desire to avoid the logical interdependence of views and judgments. Foundationalist theories locate the source of rationality in a special class of judgments; coherence theories, in a special feature of views. One type of theory takes the rationality of judgments to be primary; the other takes the rationality of views to be primary. The central thought behind the conception I am developing is that we ought to embrace the logical interdependence of views and judgments and deny that either kind of rationality is fundamental. I believe that we cannot understand empirical cognition if we are unwilling to embrace this interdependence.

87. Let me make some observations about logical interdependence in general before I turn to the special case of the interdependence of views and perceptual judgments. It is certainly true that *some* kinds of logical interdependence are unacceptable. For example, there cannot be circularity in proof or justification. If one is providing a proof (or a justification) for a proposition, one cannot appeal to that proposition in one's proof (or in the justification one offers). It does not follow, however, that *all* logical interdependence is unacceptable. Here is one example of a logical interdependence that is perfectly legitimate: interdependence among definitions. A definition of a concept G may, for example, appeal to a concept H_1 ; the definition of H_1 may appeal to another concept H_2 ; and the definition of H_2 may end up appealing to G . G , H_1 , and H_2 may thus form a system of interdependent concepts. Traditional logic regards such systems as logically improper. However, in our *Revision Theory* book, Nuel Belnap and I have shown that there is nothing improper about them. Logical rules can be set down for working with such systems. Furthermore, these systems assign definite (though possibly nonclassical) meanings to the defined terms. It was the realization many years ago that logical interdependence is not always illegitimate that led me to experiment with the idea of the hypothetical given. The idea seemed to me to open up a fresh way of thinking about empirical cognition.

88. Let us consider briefly an example of an interdependent system of definitions. Consider the following extreme example of a single definition, D , in which the predicate G is defined in terms of itself:

(D) x is G \equiv_{Df} either x is Plato or x is both non- G and identical to Socrates.

Here G is *the defined term*; the formula occurring on the left of ' \equiv_{Df} ' (i.e., ' x is G ') is *the definiendum* (plural: *definienda*) of definition D ; and the formula occurring to the right of ' \equiv_{Df} ' is *the definiens* (plural: *definiencia*) of D . The definiens contains the defined term, making the definition circular.

Observe that, though the definition is circular, it divides the universe of objects fairly sharply into those that fall under G and those that fail to do so. Any object distinct from Plato and Socrates fails to satisfy the definiens, and hence does not fall under G . On the other hand, Plato, who plainly satisfies the definiens, does fall under the concept G . The status of Socrates is left problematic by the definition. If we suppose that Socrates is G then he fails to satisfy the definiens and we are led to conclude that Socrates is not G . Furthermore, if we suppose that Socrates is *not* G , then Socrates does satisfy the definiens, and we are led to conclude that he is G . The status of Socrates with respect to G is *pathological*. (This status is reminiscent of the paradoxical behavior of the Liar sentence, "This very sentence is not true." If we suppose the Liar sentence to be true, we are led to conclude that it is not true; if we suppose that the Liar is not true, then we are led to conclude that it is true.)

In general, interdependent definitions behave in a way similar to that exhibited by definition D . These definitions impart a meaning to a defined term—say, a predicate H —in virtue of which H can be unproblematically affirmed of a range of objects and, furthermore, it can be unproblematically denied of certain other objects. Let the *categorical range* of H consist of these two types of objects, and let us say that H is *pathological* with respect to any object that does not fall in its categorical range. It is typical of interdependent definitions that the categorical range of a defined predicate does not exhaust the universe of objects. Typically, the defined predicate is pathological with respect to some objects—as is the application of G , in the example above, to Socrates. Note, though, that interdependent definitions give rise to several different kinds of pathologies. The behavior of G with respect to Socrates exhibits one specific kind of pathology; there are other kinds of pathologies as well.

Interdependence (and even vicious circularity in definition, as in *D* above) does not imply that the definitions are incoherent or inconsistent. Fully consistent logical rules can be given for working with interdependent definitions (including viciously circular ones such as *D*). I do not need to set out a precise logic and semantics for interdependent definitions here.¹⁵ For my purposes, I need appeal only to some intuitive features of interdependent definitions, and that too only for the purposes of comparison with the interdependence that undergirds empirical cognition.

89. One further observation about interdependent and circular concepts: not only are such concepts (and their associated definitions) legitimate, they are also useful. Some kinds of conceptual work can be done only with the aid of interdependent concepts; some work even requires a circular concept. The concept of truth provides an illustration. It has been observed by Quine and others that one function of the concept of truth is to express certain generalizations (such as “everything Bill says is true”) and that this function requires us to regard biconditionals such as the following as partial definitions of truth:

(6) ‘Snow is white’ is true if and only if snow is white.¹⁶

That is, we must regard this biconditional as setting down the condition under which the sentence ‘snow is white’ falls under the concept of truth. Hence, as Alfred Tarski proposed, the definition of truth must contain as a constitutive part all instances of the following form:

(7) ‘-----’ is true \equiv_{Df} -----.¹⁷

15. For an easy introduction to the theory of interdependent definitions, see chapter 3 of *Empiricism and Experience*. For a fuller presentation of the theory, see Belnap’s and my *Revision Theory of Truth*.

16. See Quine, *Philosophy of Logic*, pp. 10–13. According to Quine, the truth predicate enables us to generalize over sentential positions using nominal quantification.

Some philosophers—in particular those who accept deflationism—subscribe to the stronger thesis that the sole function of the concept of truth is to enable us to express certain generalizations. I am unable to accept the stronger thesis and, fortunately, the present illustration does not require it.

17. See Tarski, “Semantic Conception of Truth,” §4.

Now observe that if Quine and Tarski are correct then it follows that truth must be a circular concept. For some of the instances of (7) will contain the defined predicate 'is true' in the definiens. Indeed, if we instantiate (7) with a Liar sentence, we obtain a partial definition that is ineliminably and viciously circular. So, if Quine and Tarski are correct, the generalization function of the concept of truth requires that instances of (7) be read as partial definitions of truth, and this entails that truth must be a circular concept.¹⁸ No noncircular concept can perform this function.¹⁹

4C. ON CONVERGENCE

90. The interdependence of views and perceptual judgments is different in kind from that of concepts defined by interdependent systems of definitions. Nonetheless, there are some structural similarities between the two that deserve to be noticed.²⁰ First, the core meaning that an interdependent system of definitions imparts to a defined term has a hypothetical character; this parallels the hypothetical character of the given in experience. Consider again definition *D*:

(*D*) x is $G_{=_{\text{Df}}}$ either x is Plato or x is both non- G and identical to Socrates.

This definition, unlike noncircular definitions, does not enable us to determine the extension of the predicate G (= the set of objects of which G is true). To determine the extension of G , we need to determine the objects of which G is true, and this requires that we assess which objects satisfy the definiens of *D*. To do so, however, we need to have available the extension of G . We thus end up in a circle: to determine the extension of G we need to have

18. I accept the consequent of this conditional, although, I should add, I do not think that Quine and Tarski are completely correct. The interpretation of 'if and only if' and ' $=_{\text{Df}}$ ' in (6) and (7), respectively, and the relationship of (7) to the definition of truth raise delicate issues. For discussion, see my "Critique of Deflationism," "Argument against Tarski's Convention T," and "On Circular Concepts." In "Conditionals in Theories of Truth," Shawn Standefer and I propose a new way of understanding 'if and only if' in (6).

19. Another example of a concept that needs to be circular to perform its function is "rational choice." See André Chapuis's "Rationality and Circularity," Riccardo Bruni and Giacomo Sillari's "A Rational Way of Playing," and my "On Circular Concepts."

20. For a more extended treatment of topics discussed in this part, see my *Empiricism and Experience* (pp. 59–73, 88–105, and 154–60).

available the extension of G . Notice, however, that if we begin with a hypothesis about the extension of G then there is a way of implementing the procedure just sketched. Let us make the hypothesis that the extension of G is the entire domain of objects, say U . Now, relative to this hypothesis, we can ascertain which objects satisfy the definiens of D . It is easily seen that only one object does so, namely, Plato. So, if we begin with the hypothesis that the extension of G is U —that is, if we let U be *the antecedent extension*—then D dictates that $\{\text{Plato}\}$ is *the consequent extension*. Definition D does not fix an extension for the defined term G , but it does fix this transition from the antecedent extension to the consequent extension. Indeed, given any arbitrary antecedent extension, the definition yields a specific consequent extension. Suppose, for example, that we set the antecedent extension to be null. Then, the consequent extension of G is $\{\text{Plato}, \text{Socrates}\}$. Interdependent definitions do not, in general, fix extensions of defined predicates. Nevertheless, they do fix transitions from antecedent extensions to consequent extensions.

There is a parallel here with the hypothetical given. A particular experience does not settle, we have seen, one particular view as correct. It does, however, settle a particular transition from antecedent views to consequent views. For example, let v be the commonsense view and let e be the visual experience of seeing the red bird fly by. The rational role of experience, as it is conceived in the hypothetical given, is to render rational various transitions and, in particular, it is to render rational transitions to certain recognitions of commitments. Let v^* be the view that results when v is modified to take into account these recognitions of commitments.²¹ Let us call v^* *the revision of v in light of e* . (Useful terminology: $v^* = R(v, e)$.) Then, experience e , though it does not fix one view as correct, it does fix the *transition* from v to $R(v, e)$. Notice that experience does this for all views. For example, had we begun with the sense-datum view v' , then the transition to $R(v', e)$ would be rational.

We can summarize all this by saying that an interdependent definition provides a rule for revising extensions of predicates and, in parallel, an experience provides a rule for revising views.

21. I am assuming that the revision results in a unique view. This assumption is dispensable, and a fuller presentation of the theory would dispense with it.

91. There is one further structural similarity that I want to notice. The rule of revision provided by an interdependent definition fixes the semantical behavior of the defined term. Consider again definition D , and let \mathcal{X} be an arbitrary set of subsets of U , the domain of objects. So, members of \mathcal{X} are possible antecedent extensions for the defined predicate G . Now let $\Delta_D(\mathcal{X})$ be the result of applying the rule of revision provided by D to members of \mathcal{X} . More formally:

$\Delta_D(\mathcal{X})$ = the set of those subsets Y of U such that Y is the result of applying the revision rule provided by definition D to a member of \mathcal{X} .

So, Δ_D is a function that revises, using the rule provided by D , sets of antecedent extensions for G . Here is an interesting fact about Δ_D : Suppose we begin with the set \mathcal{U} of all subsets of the domain, and we repeatedly apply Δ_D , so as to obtain the sequence

$$(8) \quad \Delta_D(\mathcal{U}), \Delta_D(\Delta_D(\mathcal{U})), \Delta_D(\Delta_D(\Delta_D(\mathcal{U}))), \dots$$

Then it is easily verified that this sequence is bound to be **convergent**: the later members of the sequence are invariably subsets of the earlier members. And this is so irrespective of the character of D : the sequence is bound to be convergent for all possible circular definitions of G . Furthermore, for a significant class of definitions (though not for all definitions), this sequence eventually becomes constant. We reach a fixed point of Δ_D : we arrive at a set \mathcal{Z} such that $\Delta_D(\mathcal{Z}) = \mathcal{Z}$. (With the specific D considered above, the fixed point is reached quickly, after just one application of Δ_D .) Definitions for which the above sequence becomes constant may be called **finite definitions**, for the revision rule settles the semantical behavior of the defined terms in finitely many steps.²² The fixed point \mathcal{Z} of Δ_D carries key semantical information about the defined term. Objects that belong to all members of \mathcal{Z} are precisely those that unproblematically fall under the defined predicate; objects that belong in no member of \mathcal{Z} are precisely those which unproblematically fail to fall under the predicate; and the remaining objects are precisely

22. For information on, and a precise account of, these definitions, see my "Finite Circular Definitions." The logic of finite definitions is particularly simple; the same cannot be said of nonfinite definitions. With the latter definitions, we need to consider transfinite revisions of hypothetical extensions, which bring complexity in their wake.

those on which the predicate is pathological. With our sample definition D , we find that the fixed point \mathcal{G} is the set $\{\{\text{Plato}\}, \{\text{Plato}, \text{Socrates}\}\}$, and this entails the desired result: Plato unproblematically falls under G , and Socrates (and only Socrates) is pathological with respect to G . One final point: with some special finite definitions, the above sequence converges to a fixed point that is a unit set. These definitions define a predicate that is nowhere pathological. Here the revision rule yields a unique extension for the defined predicate.

In summary, the rules of revision provided by interdependent definitions, though hypothetical in character, settle the categorical behavior of the defined predicates: they settle the categorical range of the predicates, and they settle which objects fall unproblematically under the predicate. The transition from the hypothetical to the categorical is made possible by a convergence that occurs when a rule of revision is applied repeatedly. For a significant class of definitions—the finite definitions—the convergence occurs in a particularly simple way, sketched above. With some special definitions, the convergence yields a unique extension for the defined predicate.

92. Something structurally similar obtains with the hypothetical given. (There are dissimilarities too, I hasten to add, and I take note of an important one in §102.) Though the hypothetical given imparts rationality primarily to transitions, nevertheless it can, through a certain convergence, render a specific view of the world rational. To see this, observe first that with the hypothetical given, too, we can construct sequences analogous to (8). Let \mathcal{V} be a set of views, and let $\mathcal{E} (= \langle e', e'', e''' \dots \rangle)$ be a sequence of experiences. Set, for an arbitrary experience e , $\mathcal{R}_e(\mathcal{V})$ to be the set of views that result when members of \mathcal{V} are revised in light of e . More formally:

$$\mathcal{R}_e(\mathcal{V}) = \text{the set of those views } v^* \text{ such that, for some views } v \text{ in } \mathcal{V}, \\ v^* = R(v, e).^{23}$$

Now we can construct a sequence analogous to (8) by considering the effect of revising members of \mathcal{V} in light of the successive experiences in \mathcal{E} . This yields the sequence (9), which I shall call *the revision sequence generated by \mathcal{E} and \mathcal{V}* :

23. Recall that $R(v, e)$ is the view that results when v is revised in light of e .

$$(9) \quad \mathcal{R}_e(\mathcal{V}), \mathcal{R}_e(\mathcal{R}_e(\mathcal{V})), \mathcal{R}_e(\mathcal{R}_e(\mathcal{R}_e(\mathcal{V}))), \dots$$

Let us now observe that even if we begin with widely different views in \mathcal{V} , it is possible for sequence (9) to converge to essentially the same view. Experience has the power to force a convergence between radically different views, for experience has the power to radically transform a view. Suppose \mathcal{V} consists of only two views, the commonsense view and a view like the commonsense view but according to which dreams are perceptual experiences of specific distant places. We can imagine a sequence of experiences that rationally transforms the latter view to the commonsense view. (We can imagine also a sequence of experiences that brings about the converse transformation.) Suppose, for another example, that \mathcal{V} consists of our current scientific view of the world and of a view according to which we are vital spirits, consisting of very fine particles, and that we occupy a flat earth. Again, we can imagine a sequence of experiences that rationally transforms the latter view into the former. Let me stress that I am not saying that any old sequence of experiences will bring about convergence, nor that any old pair of views can be brought to convergence by experience. I am making, so far, only an existential claim: some radically different views can be brought to convergence by some sequences of experiences.

93. It is plain that experience is incapable of rationally transforming some views into anything substantially different. Thus, imagine a consistent view v_R that links every possible experience with a unique perceptual judgment “there is a red object here.” No matter what the course of experience, this view issues repeatedly the same perceptual judgment and is, therefore, left essentially unchanged. Consider a more interesting example. Consider a *(Cartesian) solipsist view*, v_S , according to which the world consists only of a unique mind (“the self”) and the sense-data it perceives. The view links each experience to sense-datum judgments. So, for example, it links the visual experience of a green banana to judgments such as “this is a green sense-datum” and “I am sensing a green sense-datum.” The solipsist view yields a much richer set of perceptual judgments in response to an experience than does the view v_R . Nonetheless, view v_S , too, is fundamentally impervious to experience. The view is *rigid* in this sense: the rational force supplied by any *possible* sequence of experiences fails to shift the conception of the self and the world embodied in the view. It follows, therefore, that

if in sequence (9) we let \mathcal{V} be the set of *all* views, then the presence of v_R and v_S in \mathcal{V} will ensure that (9) will not exhibit convergence. That is, no member of (9) will consist solely of views that are fundamentally equivalent, views that embody the same conception of the self and the world (§77(iv)).

Let us make a little more precise the notion of convergence in play here. Let $\mathcal{S} (= \langle \mathcal{V}_1, \mathcal{V}_2, \dots, \mathcal{V}_n, \dots \rangle)$ be the revision sequence generated by \mathcal{E} and \mathcal{V} . Then \mathcal{S} is **convergent at stage n** iff the n -th member of \mathcal{S} —namely, \mathcal{V}_n —consists of views that are all fundamentally equivalent.²⁴ If \mathcal{S} is convergent at a stage n , then let us say that n is a **convergence point of \mathcal{S}** . Finally, let us call \mathcal{S} **convergent** iff \mathcal{S} possesses a convergence point—that is, iff \mathcal{S} is convergent at some stage.²⁵

94. Universal convergence of the sort that occurs with interdependent definitions is, we have seen, impossible with the hypothetical given. Nonetheless, a highly significant kind of convergence remains possible even here. To see this, observe that the very rigidity of views v_R and v_S renders them defective from the viewpoint of empirical cognition. This viewpoint demands that an account of the self and the world should be sensitive to experience. Experience should have a bearing on what one takes the nature and situation of the self to be and on the kinds of objects one takes to populate the world. One's account of the self and the world cannot be a priori; it cannot be blind to experience. Hence, any view that renders its conception of the self and the world impervious to experience is, for that very reason, defective.

The following possibility is, therefore, not ruled out: that sequence (9) converges when we let \mathcal{V} consists of all views *except* those that are defective from the viewpoint of empirical cognition. Let us call a view that is not defective in this sense **admissible**, and let \mathcal{AV} be the totality of all such views. Then, the possibility remains that sequence (10), the revision sequence generated by \mathcal{E} and \mathcal{AV} , exhibits convergence:

$$(10) \quad \mathcal{R}_e(\mathcal{AV}), \mathcal{R}_{e''}(\mathcal{R}_e(\mathcal{AV})), \mathcal{R}_{e'''}(\mathcal{R}_{e''}(\mathcal{R}_e(\mathcal{AV}))), \dots$$

24. Note that convergence at a stage does not imply convergence at later stages.

25. For definitions of some stronger notions of convergence, see *Empiricism and Experience*, chapter 4, pp. 88–102.

95. In *Empiricism and Experience*, I proposed three necessary requirements on admissible views. The first requirement I have already indicated: that the view should be *nonrigid*. The second requirement is that the view should be *coherent*, where coherence is a stronger condition than mere logical consistency. A view that attributes desires to numbers may well satisfy the condition of logical consistency, but it is incoherent. The third requirement is that the view should be *receptive*: the view should be responsive to the character of the experience. View v_R above (§93) is an example of a view that fails to be receptive. Indeed, v_R is utterly insensitive to the character of experience: no matter what the experience, it always yields the same perceptual judgment. Receptive views when brought to bear on subjectively distinct experiences do not yield exactly the same perceptual judgments. Observe that, from the viewpoint of empirical cognition, views that fail to meet any of these three conditions are defective. And this defectiveness is not a contingent feature that varies from world to world; the views are necessarily defective.²⁶

96. The possibility that sequence (10) converges is significant for at least three reasons. *First*, it makes available a new ideal of empirical rationality, one significantly different from that suggested by foundationalism and coherentism. According to this new ideal, a conception of the self and the world is rational at a particular stage, say n , of our cognitive development iff experiences up to stage n force all admissible views to converge to this conception—that is, iff this conception is contained in all views in the n -th stage of the revision sequence generated by the experiences and *AV*.²⁷ This new ideal

26. I am not committed to the thesis that the three conditions stated here exhaust the requirements of admissibility; there may well be other requirements.

Ram Neta, Selim Berker, Karl Schafer, and others have argued that, unless there are further admissibility requirements, sequence (10) will fail to be convergent. (The possibility was first suggested to me by Christopher Hill in an informal conversation.) See Neta, “Empiricism about Experience”; Berker, “Gupta’s Gambit”; and Schafer, “The Rationalism in Anil Gupta’s *Empiricism and Experience*.” I resist this conclusion in “Equivalence, Reliability, and Convergence” and in “Replies to Selim Berker and Karl Schafer.”

Christopher Frey proposes a new admissibility requirement in his essay “On the Rational Contribution of Experiential Transparency.” I respond to his proposal in “Frey on Experiential Transparency and Its Rational Role.” Nicholas Ray has offered a strong new admissibility requirement. For this requirement and its motivation, see the penultimate chapter of his *Ordinary Empirical Judgments and Our Scientific Knowledge*.

27. A stronger notion of convergence allows us to define, in a parallel way, a new ideal of rationality for *views* (as opposed to conceptions of the self and the world). I want to stress that

does not require that empirical beliefs be cast into a foundationalist structure, with beliefs at the base level logically supporting beliefs in the upper tiers of the structure. Nor does the new ideal rest content with coherence. Mere coherence is too weak; it neglects the contribution of experience to rational empirical belief. The new ideal assigns a vital rational role to experience but without positing a special realm of foundational experiential beliefs—beliefs that gain authority *solely* from experience. As we shall see later, this new ideal serves empirical reason better than foundationalism or coherentism.

97. *Second*, the possible convergence of (10) sustains a central claim of empiricism, namely, that experience can rationally force a particular conception of the self and the world. This is so even though the given in any particular experience is entirely hypothetical. No individual experience pronounces, by itself, on the rationality or correctness of a view of the world; still, a sequence of experiences can do so. Furthermore, different sequences of experiences can force convergence to, and thus render rational, different conceptions of the self and the world.

The account of experience I am sketching thus makes available a more thoroughgoing empiricism. It allows us to see our conception of the self and the world as being contingent and as owing its rational legitimacy to experience. Alternative theories such as Russell's Acquaintance Model and Naïve Realism build in specific conceptions of the self and the world and, thereby, render their respective conceptions immune from empirical revision. And despite helping themselves to an unempirical conception, these theories are unable to provide a satisfactory account of empirical cognition. The theory I am sketching presupposes, in contrast, no specific substantive conception of the self and the world. Yet it has the resources to sustain the rationality of our commonsense conception of the self and the world and to see this rationality as rooted in experience. A more thoroughgoing empiricism is, I believe, a more tenable empiricism.

It may be objected that a strong unempirical element persists in the theory I am offering. I am ruling out the solipsist view as inadmissible, and it may be objected that I am thereby committing myself to the existence of substantive a priori knowledge (namely, that solipsism is incorrect)—something that tra-

I am defining certain *ideal* possibilities. I am not claiming that these possibilities are actual or that in empirical inquiry we aim to actualize these possibilities.

ditional rationalists have upheld and the traditional empiricists have firmly denied. There is thus a strong rationalist element, the objector may insist, in the picture I am putting forward.²⁸ In response, I wish to point out that in ruling solipsism as inadmissible, I am excluding it only from the *inputs* of the revision process. I am not excluding it from the *outputs* of the process. I am allowing that empirical revision may transform an admissible view into a rigid view such as solipsism. So, nothing about the rationality or the correctness of solipsism follows from the fact that this view is inadmissible. The inadmissibility of solipsism does not imply, in particular, that solipsism is false (much less that its falsity is knowable a priori). It is true that I assign a more substantive role to reason than does traditional empiricism, which confines reason to the realm of meaning and concepts. But I do not assign to reason the power of discerning matters of fact. The role of reason, as I see it, is to remove obstacles (e.g., solipsism) that would hinder experience from shaping our view of the world. The role of reason is to serve experience.

98. *Third*, the possible convergence of (10) reinstates, at least partially, the analogy between empirical and definitional revisions with respect to the move from the merely hypothetical to the categorical. Interdependent definitions fix revision rules, which are hypothetical in character and which settle transitions from antecedent extensions to consequent extensions. We have seen that there is a parallel here with empirical revisions: the given in experience, too, fixes a revision rule that is hypothetical in character and that renders rational transitions from antecedent views to consequent views. With definitional revisions, the hypothetical rule fixes the categorical behavior of the defined terms. Now, the possible convergence of (10) establishes that something analogous is possible with empirical revisions. The given in experience, though hypothetical, can fix the categorical rationality of a belief and, more broadly, of a conception of the self and the world. Suppose n is a convergence point of the revision sequence \mathcal{S} generated by experiences \mathcal{E} and views \mathcal{AV} . Then, even though the given is hypothetical, experiences \mathcal{E} render rational the conception of the self and the world shared by views at the n -th stage of \mathcal{S} . Furthermore, if the acceptance of a proposition Q is a part of all views at stage n , then at this stage the belief in Q is also rendered

28. Objections along these lines have been offered by Valeriano Iranzo in "On the Epistemic Authority of Experience" and by Schafer in the essay cited above.

rational by \mathcal{E} . So, even though the given in experience is hypothetical, it can undergird categorical rationality.

99. Adam Marushak, refining an argument of Berker's, has raised a puzzle for me.²⁹ I suggested in my response to an objection of Berker's that the transition from the hypothetical to the categorical can be viewed as being analogous to a massive argument from cases. Suppose there is convergence to the acceptance of Q . Then, each admissible view leads to the judgment Q . Since the viewpoint of empirical cognition allows us to restrict ourselves to admissible views, the categorical judgment that Q follows. The Berker-Marushak puzzle is this: the analogy requires that it should be rational for the subject to accept, at the start of empirical revision, the disjunction of all admissible views. But how is this possible? The disjunction implies the rejection of the solipsist view, and it cannot be rational for the subject to reject this view a priori. The problem is especially acute for me because of my advocacy of empiricism. I reject the idea that reason can, by itself, establish a priori that solipsism is an incorrect view. So, the question arises how can it be rational for the subject to reject the solipsist view at the start of empirical revision when no aid of experience is available. And if this rejection is not rational, how can the argument by cases yield the conclusion that the judgment Q is rational? There is thus a puzzle about how the merely hypothetical yields the categorical. The hypothetical given yields only rational *transitions*. As Berker puts it, one needs a rational input to get a rational output. But how does one get a rational input for these transitions—or a rational disjunction of the inputs?

100. Marushak and Berker have raised a genuine puzzle for me, and here is my first rough response.³⁰ The puzzle brings out the limits of the analogy I drew between convergence and the argument by cases. The logical process underlying convergence is not, strictly speaking, the same as that in the argument by cases; for, strictly speaking, it makes no sense to talk of the acceptance of a disjunction of views. Convergence is a sui generis logical pro-

29. Marushak, "On the Hypothetical Given."

30. In this response, I am neglecting an important distinction that will come to the fore in Part 11A. Also, in the latest version of his paper, Marushak formulates the difficulty as a particular dilemma. The response below does not capture everything I would want to say about this dilemma.

cess, and it is best appreciated, I think, in a dialectical setting. Let us think of the rationality of a subject's acceptance of Q , in a dialectical context, as the meeting of challenges: a subject's acceptance of Q is (ideally) rational iff the subject meets all the challenges to Q —more specifically, iff the subject meets the challenges posed by alternative views. Now, in empirical dialectic there is an important asymmetry in the way challenges are met. Some challenges are met by providing empirical reasons that can be recognized as such *from the respective viewpoints of those challenges*. But other challenges are not met in this way; they are met by giving broadly logical reasons for rejecting their respective viewpoints. It would be absurd to attempt to convince a solipsist of the existence of other people by attempting to provide him with empirical reasons (e.g., by introducing him to one's friends) that *he would recognize as empirical reasons* for changing his view. Empirical rationality does not require us to do the impossible; it does not require us to provide empirical reasons to the empirically blind. To meet the challenge posed by solipsism, it suffices to point out its key logical characteristic—namely, that the view is rigid, that it is an epistemic trap.

It is this asymmetry in the treatment of challenges that is captured by the distinction between admissible and inadmissible views. If there is convergence, the subject meets all the challenges, including those posed by inadmissible views; the subject's acceptance qualifies, therefore, as rational. The asymmetrical treatment of inadmissible views in empirical dialectic makes perfect sense from the empiricist viewpoint and is not a problem for it. The asymmetrical treatment does not require, for example, an a priori declaration that solipsism is false. In the debate with the solipsist, one can remain open to the possibility that his view is indeed correct. One can even allow that a course of experience could lead one to suspend one's rejection of solipsism. Nevertheless, in empirical dialectic, one can meet the challenge posed by solipsism by pointing out that it is rigid; one is not required to show that the solipsist view is incorrect. Because of the logical characteristics of the solipsist's view, the burden falls on the solipsist to provide empirical reasons for his view. The anti-solipsist's burden can be discharged simply by pointing to the poor behavior of the solipsist view under empirical revision.³¹

31. Thanks to Tom Breed and Chuck Goldhaber for sharing with me their thoughts on the Berker-Marushak puzzle.

101. The interdependence of views and perceptual judgments can help illuminate the problem with the solipsist view. Perceptual judgments are the principal means by which experience bears rationally on views. It is through perceptual judgments that experience leads to the correction and improvement of views. However, perceptual judgments themselves depend on views. It is thus possible for a view to so shape perceptual judgments that they are incapable of overturning the view and, more specifically, the conception of the self and the world contained in it. This is precisely what happens with the solipsist: his view so weakens perceptual judgments that they are incapable of overturning his conception of the self and the world. The solipsist thus puts himself in an epistemic trap: no matter how the world is, no matter what the course of his experiences, the solipsist is doomed to persist with his view. The solipsist is in an epistemically pathological state. (Analogy: There are political systems that ensure their own persistence irrespective of how well they meet the needs of their citizens. These systems, too, are pathological.) The interdependence of views and perceptual judgments thus helps explain both the possibility of views such as solipsism and why these views are pathological.

102. Let me highlight one important difference between definitional and empirical revisions. In definitional revisions, the revision rule can, by itself, force convergence. In empirical revisions, this is not so. Convergence here requires two elements to be in play: (i) the general demands of empirical cognition and (ii) the revision rule. The first element allows us to restrict the starting points of revision to admissible views, and the second element can then bring these views to convergence. The first is the a priori element in cognition; the second is the empirical element.

This general scheme remains neutral, it should be observed, in the debate between empiricism and rationalism. There is nothing in the scheme that should be objectionable to the rationalist. The rationalist can accept the scheme but would insist that the first element, the general demands of empirical cognition, require a priori acceptance of some substantive theses—theses such as that the earlier-later relation is asymmetric and that perceptual judgments are likely to be true. The acceptance of these substantive theses, the rationalist would hold, cannot be overturned by any course of experience. An empiricist would urge, in contrast, a weaker reading of the demands of empirical cognition. No substantive theses, the empiricist

would insist, *a priori*. All substantive theses—and certainly those put forward by the rationalists—can be overturned by experience. The general demands of empirical cognition, the empiricist would say, concern only the admissibility of views, not their correctness. The general demands amount to this: that in working out our account of the self and the world we let ourselves be guided by experience. This requires an asymmetrical treatment of views such as solipsism that weaken the force of experience. The asymmetrical treatment puts a special burden on the solipsist in empirical dialectic, but it does not require an *a priori* and perennial rejection of the solipsist view.

4D. LOGICAL INTERDEPENDENCE AND HOLISM

103. There is some recognition in philosophy, however tentative and imperfect, that logical interdependence is sometimes legitimate. Thus, it has been proposed that mutual justificatory dependence in the overall system of beliefs should increase the credence of the whole. And it is sometimes said that if the logical circle is large enough, then that is not so bad; it is the small-scale circularity, the tight logical circle, that is illegitimate. Logical interdependence thus gets linked to holism. Logical interdependence is legitimate, the thought goes, only when the scale is large (e.g., when the justification of the system as a whole is in question), not when the scale is small. It may thus appear that by giving a central place to the interdependence of views and perceptual judgments, I am committing myself to a holism in empirical cognition. More specifically, it may appear that I am committing myself to a picture of the sort Quine sketches at the end of “Two Dogmas of Empiricism”:³² “Our statements about the external world,” Quine there declares, “face the tribunal of sense experience not individually but only as a corporate body.” If the tribunal rules against this body, then a revision is forced in our statements about the world. The revision, according to Quine, is holistic and invariably involves choices: the revision can be carried out through “any of various alternative reevaluations in various alternative quarters of the total system.” In empirical revision, Quine thinks, the choices we make are guided entirely by pragmatic considerations.³³

32. Indeed, one friend has taken me to be offering an essentially Quinean account of empirical rationality.

33. See, Quine, “Two Dogmas of Empiricism,” pp. 41, 44, and 46.

104. I wish to distance myself both from the general association of logical interdependence with holism and from holistic conceptions of empirical cognition. Observe, first, that interdependence and circularity in justification and proof are *always* illegitimate, no matter what the scale. A thousand-line proof of P that at one point presupposes P is no more legitimate than the trivial *petitio principii* “ P , because P .” The mere length of the former contributes nothing to its legitimacy. Similarly, though there is an interdependence amongst views and perceptual judgments, no proper empirical justification can contain a circle, small or large. (Analogy: We live on a nearly spherical earth; still the shortest distance between two points never involves a loop.)

Observe, next, that the size of the circle is irrelevant to the content that a system of interdependent definitions imparts to the defined terms. The size of the circle can be made as large as one likes in the following system of definitions:

$$(D^*) \quad x \text{ is } J =_{\text{Df}} x \text{ is } H_1; \quad x \text{ is } H_1 =_{\text{Df}} x \text{ is } H_2; \quad x \text{ is } H_2 =_{\text{Df}} x \text{ is } H_3; \dots; \\ x \text{ is } H_n =_{\text{Df}} x \text{ is } H_{n+1}; \quad x \text{ is } H_{n+1} =_{\text{Df}} x \text{ is not } J.$$

As n increases, so does the size of the circle. But no matter how large we take n to be, the categorical range of J remains empty; J is pathological on *all* objects. (The same is true of the other predicates defined in D^* , namely, H_1, H_2, \dots, H_{n+1} .) In contrast, in definition D above (§88), the size of the circle is as small as possible. Yet it imparts to its defined term, G , a rich content—in the sense that almost all objects in the universe belong to the categorical range of G . Of almost all objects x in the universe, it is true that either x unproblematically falls under G or x unproblematically fails to fall under G . There is, thus, no correlation between the size of the circle instantiated in a set of interdependent definitions and the content these definitions impart to the defined terms. Furthermore, there is no connection between the breadth of nonlogical vocabulary used in the definitions and the content imparted to the defined terms. It is easy to construct interdependent definitions that, unlike D^* , bring into play nonlogical constants (and make essential use of them) and yet define terms whose categorical range is null.

In short, the size of the circle is irrelevant to the legitimacy and to the usefulness of logical interdependence. Logical interdependence and holism are distinct ideas and should be kept separate.

105. In the realm of empirical cognition also, the two ideas, logical interdependence and holism, are distinct and should be kept separate. The hypothetical given and the logical interdependence of views and perceptual judgments entail no commitment to holism. A perceptual judgment, we have seen, depends on the antecedent view. However, typically, a perceptual judgment does not depend on the *entire* view; it depends only on some elements of the view. Let us spell this out a little. Let us observe that there is a relation of *rational dependence* between perceptual judgments and beliefs that make up the antecedent view: if one of the latter beliefs is irrational, then so also is the perceptual judgment. Given an experience e and an antecedent view v and a perceptual judgment J that e entails relative to v , let us say that *the rational base of J (relative to v)* consists of the beliefs in v to which J bears the relation “rational dependence.” Then the rationality of J depends on the rationality of beliefs in this base, not on the beliefs outside it. If one of the beliefs in the base fails to be rational, then so does the perceptual judgment; not so for the beliefs outside the base. Consider, for example, the perceptual judgment “the ball is red” (J), which, let us suppose, is entailed by a visual experience relative to a view v . The perceptual judgment may bear the relation of rational dependence to the belief that lighting conditions are normal, but may fail to bear this relation to most other beliefs in v , including astronomical and historical ones. The rationality of the latter beliefs has no bearing on the rationality of J .

106. It will be useful to note some features of the relation “rational dependence”:

(i) The relation is view-relative; it can vary from view to view. Consider a variant of the previous example in which the subject knows antecedently, perhaps on the basis of authoritative testimony, that the ball in question is red. Relative to *this* antecedent view, the perceptual judgment J does not depend on the belief that lighting conditions are normal (B). This belief could be irrational, but that has no effect on the rationality of J . Indeed, the subject may go on to conclude, on the basis of J , that B is true, and thus transform an irrational belief into a rational one. (Compare with the example considered in §67.) Observe that the rational base of a perceptual judgment may be broad relative to some views, and narrow relative to others.

(ii) Perceptual judgments do not necessarily bear the rational dependence relation to general beliefs such as that perceptual judgments are likely to be

true, that human cognitive systems are reliable, and that one's sense organs usually function properly. A subject may have become convinced by a fallacious argument, transcendental or otherwise, that such generalities must be true. But this would have no effect on the rationality of the subject's particular perceptual judgments.³⁴

(iii) A perceptual judgment that P does not necessarily bear the rational dependence relation to an antecedent belief that P , or to a belief that Q , where Q is a consequence of P . Thus, in the red-ball example, the subject may antecedently believe that the ball is red, and this belief may well fail to belong to the rational base of the perceptual judgment J . The subject's antecedent belief may be irrational, but may become rational in virtue of the subject's rational perceptual judgment. Similarly, the subject may have irrationally acquired the belief that there is at least one ball in the universe, which belief may be rendered rational by the subject's rational perceptual judgment J . *Question:* What about a yet weaker belief, that there is at least one external object? This is less straightforward, but my inclination is to treat it in the same way.

107. Let us observe, finally, that the hypothetical given entails no commitment to the aptness of Quine's tribunal metaphor: "Our statements about the external world face the tribunal of sense experience not individually but only as a corporate body." On the contrary, the hypothetical given enables us to see that Quine's metaphor is doubly misleading. First, the metaphor suggests that experience has the capacity to sit in judgment on bodies of statements about the world. But experience possesses no such capacity. It is *we* who possess this capacity. *We* judge, in light of experience, that a body of statements is untenable, that it needs revision. As the hypothetical given reveals, the role of experience is only to render rational certain transitions. This role does not implicate a capacity to issue judgments on bodies of statements.

Second, Quine's metaphor turns experience into a faceless tribunal. Thus, it obscures the rational role specific characteristics of experience play in empirical cognition. The verdict of a tribunal should depend entirely on the case presented to it, not on the idiosyncrasies of the judges constituting the

34. In her book *Extended Rationality*, Annalisa Coliva claims that perceptual justification requires that the subject accept as true some generalities such as "my sense organs usually function properly." As I see things, even this more minimal condition may fail and yet the subject's perceptual judgments may be rational.

tribunal. The tribunal's verdict should remain the same even if the judges are replaced by different ones with different characteristics. The tribunal is, in this sense, faceless. The hypothetical given makes it plain, however, that we should not conceive of experience in this way. The transitions rendered rational by an experience involve specific judgments (and not, e.g., the totality of beliefs about the world) and these judgments are tied to specific characteristics of the experience (by the antecedent view). Suppose, for example, that a visual experience renders rational the transition from a commonsense view to the judgment "there is a blue ball before me." The visual experience does so in virtue of some special characteristics that it possesses. It is because of these characteristics that the experience has a special tie (given the commonsense view) to the judgment "there is a blue ball before me," rather than, for example, to the judgment "there is a green cube before me." So, the specific rational role of an experience turns on specific characteristics of the experience. We cannot regard experience as faceless.

But what are the characteristics in virtue of which an experience renders certain transitions rational? And how are these characteristics related to the features of the world? I develop answers to these questions over the next three chapters.³⁵

35. I return to Quine's holistic picture in Part 10C, where I address his voluntarism.

Presentation and the Transparency of Experience

THE HYPOTHETICAL GIVEN captures the general form of the role of experience in rational cognition. How to conceive of experience, though, so that it can serve this role? I propose an answer to this question in this and the next chapter. The answer is built around a traditional notion, “presentation”: in an experience, some worldly items are presented to consciousness. Tradition conceives presentation as restricted in various ways, however. One set of restrictions issues from the idea that presentation implies acquaintance. A second set issues from the so-called transparency of experience. I argue in this chapter against restrictive conceptions of presentation, and I propose that we understand this notion in a highly liberal manner. I argue for separating presentation from acquaintance in Part 5A. In Parts 5B–5D, I address restrictions issuing from the supposed transparency of experience. Contemporary discussions of transparency trace their lineage to Moore’s famous essay “Refutation of Idealism,” where Moore uses the metaphor of transparency to characterize consciousness. But, even in Moore, the metaphor can be understood in several different ways, and the current literature multiplies the available readings. I reflect on some prominent readings of “trans-

parency of experience” in Part 5B, and I argue that Moore’s essay provides no support to the readings that impose restrictions on presentation. I go on to argue that the restrictive readings are untenable (Parts 5C and 5D). I thus clear a path to a liberal conception of presentation.

5A. PRESENTATION WITHOUT ACQUAINTANCE

108. The account of experience I wish to offer follows relational theories, such as Russell’s, in taking as fundamental the notion of *presentation*. Russell identified presentation with acquaintance: to be presented with an item is to know that item.¹ This led him to deny that ordinary things are ever presented in experience. Russell concluded that only a special, narrow range of items is ever presented in experience—namely, appearances, which he called ‘sense-data’ and which he conceived of as particulars.² When you are seeing a yellow bird, what is presented to your consciousness, according to Russell, is not a particular specimen of the kind “bird,” but a particular sense-datum, a fleeting patch of yellow that occupies a portion of your private visual space. Naive Realists follow Russell in thinking of presentation as acquaintance, but they reject Russellian sense-data. They think experience acquaints one with ordinary things.³

109. I believe that both Russell and the Naive Realists are, each, partly right (and also partly wrong). The Naive Realists are right in their contention that ordinary things can be presented in experience. When you see a yellow bird, it is natural to say, with the Naive Realists, that the bird and its yellowness are presented to your consciousness. But Russell is also right, it seems to me, that we cannot regard experience as providing us with knowledge of ordinary things. When you see the yellow bird, you do know, of course, that the bird before you is yellow. But this knowledge does not issue

1. Russell, “Knowledge by Acquaintance and Knowledge by Description,” pp. 202–203: “To say that S has acquaintance with O is essentially the same thing as to say that O is presented to S.” According to John Yolton, the linking of presence with knowledge is a recurring theme in modern philosophy: “To have objects present to the mind is simply to be aware of them, to apprehend them, to know them” (*Perceptual Acquaintance*, p. 6).

2. This was Russell’s view until 1919, when he moved to Neutral Monism.

3. See, for example, Campbell’s contribution in his and Cassam’s *Berkeley’s Puzzle*. For further references, see §53 above.

solely from your experience. It is a product of various factors, including your view and your experience. It is because you possess the concepts “bird” and “yellow” and because you are able to bring these concepts into play in the right way that you come to possess the knowledge that the bird is yellow. Your view plays an essential role in your acquisition of perceptual knowledge of the bird.⁴

110. Consider the situation from the viewpoint of rational debate. You are looking at a yellow bird; you know that the bird is yellow; you issue the judgment that the bird is yellow. Now suppose that an authority on birds and color were to tell you that there is no yellow bird before you. You respect this authority, though, let us imagine, you do not regard it as infallible. What should your rational response be in this situation? Should you ignore what the authority tells you and retain your belief that there is a yellow bird? Plainly, not. You should, at the very least, suspend judgment. If, however, the right view for you to take were that your visual experience, by itself, is providing you with the knowledge of the yellowness of the bird then, since the visual experience has not changed, it would indeed be rational for you to ignore the authority. For it would be rational for you to take the knowledge-giving visual experience as trumping the fallible authority.⁵ Notice that this argument from authority, as we might call it, does not work with “appear-

4. We can allow that certain animals (including us) possess nonconceptual knowledge. This sort of knowledge is not relevant, however, for the assessment of empirical reasoning and for the logic of empirical dialectic.

5. Suppose you begin with the view that the visual experience, by itself, is providing you with knowledge that there is a yellow bird. The authority's report leads you to enrich your view with the belief “this fallible authority is telling me that there is no yellow bird.” The enrichment neither requires nor motivates the abandonment of the initial belief that your visual experience is providing you with knowledge that there is a yellow bird. Hence, it would be perfectly rational for you to conclude that there is indeed a yellow bird and that the authority is mistaken.

Suppose, on the other hand, that you begin with the view that the given in experience is hypothetical and that your visual experience does not, by itself, provide you with knowledge that there is a yellow bird. As before, the authority's report leads you to enrich your view with the belief “this fallible authority is telling me that there is no yellow bird.” Again as before, the enrichment neither requires nor motivates a change of belief about the role of experience. However, the enrichment blocks the perceptual entailment to the judgment “there is a yellow bird,” making it rational for you to abandon the claim to know that there is a yellow bird. The path is now open to an acceptance of the authority's report.

Rational dynamics are best understood in terms of shifting views, not in terms of shifting assessments of the cognitive powers of experience.

ance” judgments (e.g., “it looks to me as if there is a patch of yellow before me”). If, in an ordinary situation, a supposed authority were to contradict one of your appearance judgments, you could rightfully dismiss that authority. So, it is much more plausible to regard experience as providing one with knowledge of appearances than as providing one with knowledge of ordinary things.⁶

111. The hypothetical given enables us to hold fast to the thought that experience plays a vitally important role in cognition while rejecting the idea that experience acquaints one with anything. It thus enables a synthesis of the insights of the Naive Realists with those of Russell. It allows us to follow the Naive Realists in recognizing the possibility that ordinary things are sometimes presented in experience, while recognizing with Russell that experience does not acquaint us with ordinary things. We achieve the synthesis by denying a shared assumption: that presentation is acquaintance. In experience, a subject is presented with some worldly items, but experience provides knowledge of nothing; it acquaints one with nothing.

112. The hypothetical given enables a liberal conception of presence. We can allow, for example, that universals can be presented to consciousness in experience. Presence of a universal does not imply that the subject is acquainted with the universal or that she can readily acquire a concept for it. Acquaintance with a universal, as philosophers from Plato down have pointed out, is a high cognitive achievement; mere individual experience is incapable of delivering it. This is the reason why, in *Problems of Philosophy*, Russell excluded universals from the domain of experience: since presentation was for Russell acquaintance, and since there cannot be acquaintance with universals in a mere experience, Russell was led to the view that in experience only particulars are presented. The main difficulty with this line of thought is that acquaintance with particulars is no less a cognitive achievement than acquaintance with universals. Hence, the proper conclusion to draw is that experience acquaints us with nothing, that presence is not acquaintance. And now a liberal view of presence is open to us.

6. In *Problems of Philosophy*, Russell argues in a different way to the conclusion that experience does not acquaint one with ordinary things. Russell’s argument rests on the relativity of perception and seems to me flawed.

113. We can allow that items belonging to any category—object, property, relation, as well as fact, process, and action—may be presented to a subject’s consciousness in an experience. When you see a yellow bird sitting on a branch and grooming itself, the bird, its color, its relationship to the branch on which it is sitting, its grooming of its wings—items that belong to diverse categories—may all be presented to you in your visual experience. As you experience these items, you of course know of their presence. However, knowledge, and even conception, is not a requirement on presence. Items of which the subject is completely ignorant may be presented to a subject’s consciousness; she may even lack concepts for these items. As she looks at a flower growing on a bush, a stick insect may be presented in our subject’s visual experience, but our subject may be oblivious of it. She may even lack the concept “stick insect.”⁷

114. It will be useful to introduce some terminology. If an item *i* is presented to the subject’s consciousness in an experience *e*, then *i* will be said to be an **element of *e*** and *e* will be said to be **directed to *i***. The following expressions are thus equivalent: “*e* presents *i*,” “in *e*, *i* is presented to consciousness,” “*i* is an element of *e*,” and “*e* is directed to *i*.” The totality of elements presented to consciousness in an experience *e* is **the presentational complex of *e*** (notation: Π_e).

5B. MOORE ON THE TRANSPARENCY OF EXPERIENCE

115. I turn now to the restrictions on “presentation” that issue from the so-called transparency of experience. The idea of transparency has been interpreted in quite different ways.⁸ One interpretation—an interpretation especially favored by Naive Realists, though not only by them—imposes particular constraints on objects and events that can be presented in an experience:

7. Terminological note: I use ‘item’ and ‘thing’ as the broadest cross-categorical terms. Objects, universals, facts, actions, and so on—all count as **items** and as **things**. Thus, the Washington Monument is an object; it is not a universal or a fact or an action; and it counts as an item and as a thing. Square, to take another example, is a universal; it is not an object or a fact or an action; and it, too, counts as an item and as a thing.

8. As we shall see below, the assimilation of presentation with acquaintance can also be regarded as a reading of the transparency idea.

Mind-Independence: The objects and events presented in a visual experience are invariably mind-independent.

Externality: The objects and events presented in a visual experience are invariably external.

I have formulated Mind-Independence and Externality (as well as the other theses below) for visual experiences, for it is here that the transparency idea is particularly compelling. However, the proponents of transparency often extend the idea to other experiences, sometimes even to all experiences.⁹

Another reading of transparency imposes constraints on properties and relations that can be presented in an experience:

Constitution: The phenomenology of a visual experience is constituted by the properties and relations presented in the experience.^{10,11}

9. Campbell: “The transparency of experience: that in sensory experience we encounter only the external, mind-independent objects themselves” (Campbell and Cassam, *Berkeley’s Puzzle*, p. 20).

Matthew Kennedy: “I have identified two aspects of experiential transparency: the manifest presence of external objects, and the apparent absence of experience” (“Heirs of Nothing,” p. 579).

Martin: “Experientially we are presented with a mind-independent realm” (“Limits of Self-Awareness,” p. 39).

Some authors subscribe to a broader notion of transparency, one that holds of the mental in general. In this chapter, I shall be concerned solely with the transparency of experience.

10. I shall sharpen the notion of phenomenology in Chapter 6 and will there provide an account of it. In the interim, the phenomenology of an experience may be identified with the subjective dimension of the experience.

11. Campbell: “The qualitative character of perceptual experience has nothing particularly to do with perception or experience: it is simply the qualitative character of the world observed.” “The phenomenal character of your experience, as you look around the room, is constituted by the actual layout of the room itself.” The first quote is from Campbell and Cassam, *Berkeley’s Puzzle*, p. 18. The second is from Campbell’s *Reference and Consciousness*, p. 116; see §53 for a fuller extract.

Fish: “The very elements of one’s environment can be said to shape the contours of one’s conscious visual experiences” (*Perception, Hallucination, and Illusion*, p. 15). The metaphor of “shaping the contours of consciousness” is due to Martin.

Frank Jackson: “That experience is diaphanous (or transparent) is a thesis about the phenomenology of perceptual experience. It is the thesis that the properties that make an experience the kind of experience it is are the properties of the object of experience” (“The Knowledge Argument, Diaphanousness, Representationalism,” p. 55).

It is not entirely clear what our authors mean by ‘phenomenal character’, ‘contour of conscious experience’, and ‘kind of experience’. The Constitution thesis captures the best reading I can come up with of their claims (when these are restricted to visual experiences).

116. Why think Mind-Independence, Externality, and Constitution are true? It is in response to this question that the metaphor of transparency is typically invoked. It is said that when we introspect or attend to a visual experience we see “right through the experience” and encounter only external objects and events and their properties and relations. In “Refutation of Idealism,” Moore introduces the idea of transparency thus:

And, in general, that which makes the sensation of blue a mental fact seems to escape us: it seems, if I may use a metaphor, to be transparent—we look through it and see nothing but the blue; we may be convinced that there *is something* but *what* it is no philosopher, I think, has yet clearly recognised. (p. 20)

A little later in the essay, Moore expresses the idea in a somewhat different way:

The moment we try to fix our attention upon consciousness and to see *what*, distinctly, it is, it seems to vanish: it seems as if we had before us a mere emptiness. When we try to introspect the sensation of blue, all we can see is the blue: the other element is as if it were diaphanous. (p. 25)

These passages have suggested two radically different ideas to advocates of transparency. According to one idea, introspection reveals that experience provides transparent, unmediated access to the external world. More precisely:

Strong Transparency: Introspection reveals that visual experiences are transparent in the sense that (i) a visual experience is invariably directed only to mind-independent, external objects and events and to their properties and relations; and (ii) the phenomenology of a visual experience is constituted by the properties and relations to which it is directed.¹²

12. Kathrin Glüer: “Experience is ‘transparent’ in the sense that in introspection, it is as if experience saw right through itself and got in direct touch with material objects and their qualities” (“Colors without Circles,” p. 114). I should note that in this passage Glüer is explaining how transparency is understood, not setting out her own view.

Martin: “Introspection of one’s perceptual experience reveals only the mind-independent objects, qualities and relations that one learns about through perception. The claim is that one’s experience is, so to speak, diaphanous or transparent to the objects of perception, at least as revealed to introspection” (“Transparency of Experience,” p. 378).

Tye: “[Transparency] tells us that in the case of perceptual experiences, the only qualities of which we are introspectively aware are qualities of external things if they are qualities of

According to the second idea, introspection reveals nothing so substantial about experience/consciousness. On the contrary, if it reveals anything, it is that experience/consciousness is elusive, hard to get hold of in introspection.¹³ Just as a transparent pane is hard to focus on visually, similarly experience/consciousness is hard to attend to introspectively; just as the visual experience reveals little about the transparent pane, similarly introspection reveals little about experience/consciousness.

Modest Transparency: A visual experience is transparent in the sense that introspection of a visual experience reveals little about that experience. Introspectively, experience/sensation/consciousness is elusive.¹⁴

117. Plainly, only the first thesis, Strong Transparency, can lend support to Mind-Independence, Externality, and Constitution. It should be noted, therefore, that nothing Moore says about transparency motivates, or even commits him, to this thesis. Moore makes his transparency observations in the course of offering an explanation of why the Idealists commit the error that he attributes to them. According to Moore, the Idealists are led to their characteristic views (in particular, to the claim that *esse* is *percipi*) because they identify *what is experienced* with *the experience of it*; they identify *blue*, for example, with *the sensation of blue*.¹⁵ The Idealists commit this error because, Moore explains, in introspection, though the *blue* is easily isolated, the other element (*experience/sensation/consciousness*) remains elusive. When

anything at all. . . . When we are told to attend to the phenomenal character of our experience there is nowhere to look other than the external qualities, since the phenomenal character just is the complex of external qualities" (*Consciousness Revisited*, p. 119).

13. In his discussion of transparency, Moore talks interchangeably of "sensation of blue," "consciousness of blue," and "experience of blue." In my discussion of Moore, I too do not distinguish them. (I myself eschew the word 'sensation' when setting out my positive proposal, for the word carries too many unwanted associations.)

14. Alex Byrne and Heather Logue: "The transparency of experience fits nicely with the view that in having an experience of, say, a tomato, although one may be in a position to learn something about the essence of the *tomato*, one is not in a position to learn much of anything about the essence of the *experience*. . . . Transparency goes naturally with *modesty about experience*" ("Either/Or," pp. 82–83).

Gilbert Ryle: "My seeing of the hawk seems to be a queerly transparent sort of process, transparent in that while a hawk is detected, nothing else is detected answering to the verb in 'see a hawk'" (*Concept of Mind*, p. 152).

15. "Refutation of Idealism," pp. 19–20. I will not pause to assess whether Moore is being fair to the Idealists.

one introspects, one encounters only the *blue*; the other element escapes one. The Idealists are thus led to mistakenly identify *blue* with the *experience/sensation/consciousness of blue*. Moore's explanation of the Idealist error requires nothing as heavy as Strong Transparency. Modest Transparency suffices.

118. Moore himself had a more robust conception of introspection than that contained in Modest Transparency. Let us return to the second extract in §116, where Moore remarks on how consciousness “seems to vanish” and how sensation is “as if it were diaphanous.” Notice that Moore does not say here that consciousness actually *does* vanish or that sensation *is* diaphanous, only that consciousness *seems* to vanish and that sensation is *as if it were* diaphanous. Moore adds right after this passage:

Yet it [sensation/consciousness] *can* be distinguished if we look attentively enough, and if we know that there is something to look for. My main object in this paragraph has been to try to make the reader *see* it. (“Refutation of Idealism,” p. 25)

Moore thinks that we can attend to sensation/consciousness and *see* it. Earlier in the paragraph, he writes the following to help the reader direct attention to it:

The true analysis of a sensation . . . is as follows. . . . A sensation is, in reality, a case of ‘knowing’ or ‘being aware of’ or ‘experiencing’ something. When we know that the sensation of blue exists, the fact that we know is that there exists an awareness of blue. And this awareness . . . has a perfectly distinct and unique relation to blue. . . . This relation is just that which we mean in every case by ‘knowing’. (“Refutation of Idealism,” pp. 24–25)

Moore holds that *sensation/consciousness/experiencing* is a knowing—indeed, a direct knowing. He thinks that an experiencing of a blue bead is a direct knowing of a blue bead. This yields a fresh sense of transparency:

Epistemic Transparency. Visual experience is transparent in the sense that *visual presence* implies *acquaintance*; a visual experiencing of *x* is a direct knowing of *x*.

Moore thinks that the Idealists are led to their characteristic views and, in particular, to the denial of a mind-independent world because they accept an erroneous account of experience. They identify the *experience of blue* with the *blue*. Moore thinks this is a mistake. The proper account, according to Moore, is that an *experience of blue* is a *direct knowing of blue*. Once this is recognized, the existence of an external and mind-independent world, called into question by the Idealists, is no longer problematic—or so Moore claims:

I am as directly aware of the existence of material things in space as of my own sensations. . . . The question requiring to be asked about material things is thus not: What reason have we for supposing that anything exists *corresponding* to our sensations? but: What reason have we for supposing that material things do *not* exist, since *their* existence has precisely the same evidence as that of our sensations? (“Refutation of Idealism,” p. 30)

119. Observe that neither Epistemic Transparency nor the use Moore makes of it requires Strong Transparency.¹⁶ It is sufficient for Moore’s insistence that we know the existence of material things, that *some* experiences acquaint us with those things. The strong claim that *all* visual experiences acquaint us *only* with material things is not needed. Furthermore, Epistemic Transparency is, in itself, completely neutral about the objects of visual experience. All that this thesis says is that visual presence implies acquaintance. It leaves open the question what sorts of items are presented in a visual experience. It also leaves open the question whether the phenomenology of a visual experience is constituted by the properties and relations presented in the experience.

This confirms the point made earlier, that Moore’s invocation of transparency in “Refutation of Idealism” does not commit him to Strong Transparency.¹⁷ Moore’s essay does not provide, and does not aim to provide, a good reason for accepting this thesis. On the contrary, if Moore’s premiss (namely, Epistemic Transparency) is accepted, then there is a strong

16. The same holds for Mind-Independence, Externality, and Constitution.

17. Some philosophers of perception have recognized that Moore’s “Refutation of Idealism” does not provide support to strong transparency theses. See, for instance, Soteriou’s *Mind’s Construction*.

reason to overturn Strong Transparency. For, as we have seen, a visual experience does not acquaint the subject with physical objects. Hence, by Epistemic Transparency, no physical object is presented in any visual experience. Moore's position in "Refutation of Idealism" is, at the very least, unstable.

120. Let me make a couple of historical observations to buttress this conclusion.

(i) Russell and Moore were comrades in their revolt against the Idealists who dominated British philosophy at the turn of the twentieth century. Russell, like Moore (perhaps even influenced by Moore), accepted the idea that *experience/sensation* is acquaintance. This led him to deny that visual experiences, for example, present the subject with physical objects, and he went on to conclude that experience is directed to sense-data. Russell's position is natural, and it is certainly better and stronger than Moore's in "Refutation of Idealism," *if* the Moorean premiss is accepted.

(ii) Moore himself came to a similar conclusion. "Refutation of Idealism" (1903) was one of Moore's early publications. When Moore reprinted the paper in 1922 in his *Philosophical Studies*, he expressed doubt whether he ought to have included it in the collection. Moore wrote in the preface, "This paper now appears to me to be very confused, as well as to embody a good many down-right mistakes" (*Philosophical Studies*, p. viii). Moore had a life-long interest in perception, but after 1903 he never returns to the naive stance of "Refutation of Idealism." His position on perception undergoes several major shifts in later years. In "Status of Sense-Data" (1913–1914), Moore inclines to a Lockean theory. In "Some Judgments of Perception" (1918), he finds a contrary position, Phenomenalism, attractive. By 1925, when he publishes "A Defence of Common Sense," Phenomenalism falls out of favor. One persistent theme through all these changes is that the objects "directly apprehended" in perception are *not* physical objects. In "Some Judgments of Perception" and later papers, Moore calls the directly apprehended objects 'sense-data'.¹⁸ Moore was convinced of the existence of sense-data, but he was unsure of their nature. In "Some Judgments of Perception," he seriously entertains the idea that the sense-datum apprehended when one looks at an

18. This is not his terminology in "Status of Sense-Data," which gets its title from the symposium to which it was a contribution.

opaque object (e.g., an inkstand) is a part of the surface of the object. But in “Visual Sense-Data” (1957), Moore firmly rejects the idea and holds that visual sense-data are nonphysical. Moore now takes the relationship of sense-data to physical objects to be a hard open problem. Even the thoughtful philosopher of common sense is led to accept sense-data despite all their well-known problems!

5C. MIND-INDEPENDENCE AND EXTERNALITY

121. Let us take stock of where the argument stands. One reading of “transparency of experience” is captured by the following thesis:

Strong Transparency: Introspection reveals that visual experiences are transparent in the sense that (i) a visual experience is invariably directed only to mind-independent, external objects and events and to their properties and relations; and (ii) the phenomenology of a visual experience is constituted by the properties and relations to which it is directed.

I have argued so far that Moore’s “Refutation of Idealism” does not provide, and does not aim to provide, reasons for accepting Strong Transparency. I shall now argue against several conjuncts that make up this thesis. I begin by arguing against the idea that introspection reveals the objects of visual experiences to be invariably mind-independent and external.¹⁹ It will be useful to set down the two theses that introspection is supposed to deliver:

Mind-Independence: The objects and events presented in a visual experience are invariably mind-independent.

Externality: The objects and events presented in a visual experience are invariably external.²⁰

19. Martin: “Introspection indicates that our sensory experiences are directed on, or are about, the mind-independent entities in the world around us, that our sense experience is transparent to the world” (“Transparency of Experience,” p. 376).

20. In these theses and in Strong Transparency, the notions of presentation and directedness in play are the relational ones articulated in Part 5A above. Arguments offered below, or simple variants of them, carry over, I believe, if the notions of presentation and directedness are given a representational gloss. This point is inessential to my overall argument, however.

122. Let us observe, first, that introspection can reveal objects of visual experiences only, if at all, in a piecemeal manner, one visual experience at a time. Introspection is not an intuition of essence; it cannot set a general bound on the objects of *all* visual experiences. The setting of such a bound requires extrapolation, which in turn requires reason. Hence, the general claim that the objects of visual experience are mind-independent and external cannot be supported by a mere appeal to introspection.²¹

Second, introspection of a visual experience cannot reveal more about the objects of the experience than is revealed by one's perceptions—that is, by one's knowledgeable perceptual judgments. Suppose you are looking at something and do not recognize it; you do not know what it is. Introspection will not help you recognize the object. You will not come to know what the object is by introspecting the experience. Hence, as far as objects of particular experiences are concerned, the appeal to introspection is otiose. Instead of saying that introspection reveals that the objects of such and such a visual experience are mind-independent and external, one could say simply that *perception* reveals the mind-independence and externality of these objects.

Third, perceptual revelation requires a view and, indeed, an *adequate* view, a view that delivers true perceptual judgments. Hence, to accept Mind-Independence and Externality is to accept it as a condition of adequacy on a view that it recognize only mind-independent, external objects as presented in visual experiences. However, such a condition of adequacy can only be empirical and revisable; it cannot be a priori, as I now argue.

123. Consider Externality, with 'external' understood to mean "external to the head." This is the interpretation in play in the way Byrne and Logue understand transparency: They write:

What matters for this argument are the theses under the relational reading. (This note is prompted by some comments of a referee.)

21. Moore says in a passage cited above that when introspecting an experience we can, if we look attentively enough, *see* that the relation of consciousness is none other than the relation of "knowing." Moore seems to think of introspection as, in part, an intuition of essence. I myself am highly skeptical of "intuition of essence" and do not need the idea in the account of empirical reason I am developing.

The usual transparency claim is that in undergoing a sense experience, one is never aware *of* the experience itself—if one is aware of any events at all, they are events in one's environment, like flashes and bangs, not events in the head.²²

This claim can be challenged on empirical grounds. What is presented in the visual experience of “floaters,” it can be argued, are gel particles in the vitreous. An event in the head, a gel particle beginning to move downward, can be presented in experience, and a subject can become aware of the event. For another example, perhaps a tearing of the retina (or another event deeper in the brain) may be presented to consciousness as a flash of light. Here, again, it can be argued that a visual experience is directed to an event in the head. We can grant that, in both cases, it looks to the subject as though the events were outside the head. This is no reason, however, to deny that the experiences are directed to events inside the head. An object to which an experience is directed may look to be non-*F* though the object *is F*. So, an event that is actually inside the head may look to the subject as if it were outside her head.

I recognize that the examples given are debatable. What I need for my argument, however, is only this: that empirical considerations bear on the debate. The debate cannot be settled merely by an appeal to introspection.

124. Both Russell and Sellars suggested, in their later philosophy, that brain events and processes are presented in experience.²³ These philosophers were wrong to think that in *all* experiences such items are presented and that *only* such items can be presented. Still, their core suggestion is not incoherent. Nothing in the nature of the human skull dictates that the items presented in an experience must be confined to the one side of it. Things on either side, inside as well as outside, can be elements of an experience—even of a visual experience. At least, we should allow this as a possibility until we acquire empirical reasons to the contrary.

22. “Either/Or,” p. 82. Note that if we read Byrne and Logue’s “is aware of” as “is in a position to issue, on the basis of the sense experience, knowledgeable judgments about,” then this reading of transparency is simply false. For one sometimes *is* in a position to issue knowledgeable judgments about an experience on the basis of the experience. I am taking their version of transparency to be about the items to which an experience is directed.

23. See Russell’s *Inquiry into Meaning and Truth*, and Sellars’s “Foundations of a Metaphysics of Pure Process.”

125. Consider next Mind-Independence. This, too, is best regarded as an empirical claim, not as an a priori constraint on views. The plausible a priori constraints show up as constraints on admissibility, and such constraints do not rule out views that deny Mind-Independence.²⁴ The constraints can be met even by an extreme Idealist view—one, for example, that takes the external world to be through-and-through mental and to be governed by a divine teleology.²⁵ Even such views should not be ruled out of play a priori. We should allow them to be admissible positions in empirical dialectic, and we should leave it to the stringent demands of empirical reason to settle whether they are acceptable. The desire to reject Idealist views is reasonable (at the present stage of empirical inquiry), but not the desire to reject them on a priori grounds.

126. Idealists have, it is true, offered a priori arguments for the rejection of Mind-Independence. In the most compelling of these arguments, they begin by equating presence with acquaintance. They go on to argue that the objects of experience must be subjective and mind-dependent. They thus conclude that each experience is a direct knowing of subjective, mind-dependent objects. They go on to affirm, therefore, that introspection reveals the character of the objects of experience, for the Idealists (like many other philosophers) take introspection to be the source of subjective knowledge.

The proper way to resist this argument is *not* to counter it with a contrary claim, that introspection reveals the objects of visual experiences to be mind-independent. Nor is it to try to establish Mind-Independence on a priori grounds. Neither move is viable. The proper way to resist the Idealist argument is to deny its initial premiss, that presence is acquaintance. If the premiss is accepted, the Idealist wins the contest hands down. For, as we have seen, the idea that experience is a direct knowing leads quickly to a Cartesian conception of experience.²⁶ On the other hand, if we reject the idea that presence is acquaintance, then the debate between the Idealist and

24. Recall that in §95 three requirements were placed on an admissible view: coherence, non-rigidity, and receptivity.

25. Views of this sort tend to become rigid when they are supplemented with the idea that the divine teleology is inscrutable. There is nothing in the broader conception, however, that entails rigidity.

26. It was not many years after Moore's "Refutation of Idealism" and his equation of *experiencing* with *direct knowing* that Russell, who accepted the Moorean equation, was engaged in constructing the world out of sense-data.

the Materialist takes on a different and better form. We now recognize that Mind-Independence is a substantial thesis and that a highly complex set of empirical reasons bear on the question whether it is true. The question cannot be settled by a priori arguments, nor by introspection, nor by simple appeals to experience.²⁷

127. Not only is the general question concerning the truth of Mind-Independence both complex and empirical, so also are specific questions about the mind-independence of particular objects of experience. Just as one cannot settle the age of the moon by a visual perception of the moon, similarly one cannot in general settle the mind-independence of an object simply by a visual perception of it; a complex of empirical considerations may have a bearing on the question. The point can perhaps be made vivid through a fictional example. Imagine that primitive men encounter mirrors for the first time. They see mirror images and are naturally puzzled by them. (Actually, mirror images should be puzzling even to sophisticated modern men.) Our primitive men wonder whether the images are physical things or whether they are mind-dependent. They wonder whether the images are composed of fine particles or whether they are akin to images they encounter in their dreams. Their puzzlement is perfectly reasonable, and they can engage in a rational empirical debate about the nature of the images. We can even imagine that our primitive men experiment with light and mirrors in their search for answers. None of this would be reasonable if particular experiences of the images, or particular acts of introspection of these experiences, settled whether the images are mind-independent. A whole complex of reasons and a whole variety of experiences bear on the question of the mind-independence of an image (just as a whole complex of reasons and a whole

27. The identification of presence with acquaintance motivates the Naive Realist, I think, to maintain that introspection reveals the objects of visual experience to be mind-independent. The motivation works as follows. One notices that Cartesian conceptions provide a poor account of empirical reason, that a better account is obtained if we see experience as providing knowledge of public, mind-independent objects. Furthermore, it is entirely plausible that mind-independent objects are presented to consciousness in visual experiences. One thus arrives at the view that visual experience acquaints the subject with mind-independent objects. This is possible only if the mind-independent objects constitute the phenomenology of experience. Thus one is led to hold that the mind-independent objects constitute the subjective dimension of experience and are thus knowable by introspection. We arrive at the position that introspection reveals the object of visual experience to be mind-independent. The resulting conception is not as cogent as the Cartesian ones, but it has an understandable motivation.

variety of experiences bear on the question of the age of the moon). The question is not answered simply by the experience of the image, nor by an introspection of the experience, nor by an a priori argument.²⁸

128. The general point here is that our knowledge of our experiences and of ourselves is intertwined with our knowledge of the world. We do not begin empirical inquiry with some knowledge of ourselves and our experiences and then build up the knowledge of the rest of the world. What we know of the world has a bearing on our knowledge of ourselves and of our experiences. It is for this reason that a complex of empirical considerations can bear on the question of the mind-independence of an object of experience. The nature of the worldly objects presented to us in experience is discovered through a rational empirical inquiry; it is not given prior to the inquiry by special acts of acquaintance or introspection.²⁹

129. An item presented to consciousness in an experience, I have argued, may be mental or physical; and it may be internal or external. I want to note two further possibilities. The item may be structured to a greater or lesser degree, and it may be determinate to a greater or lesser degree. Suppose you look at a page of a newspaper in good light. Your visual consciousness would be presented with a highly structured and fairly determinate whole—a whole consisting of some of the page together with the letters and pictures on it. But suppose you look at the same page through translucent glass. Some of the structure and the determinacy would now be lost. Several of the letters that were clearly present in the earlier experience may now be blurred together. Also, there would be a greater indeterminacy about the parts of the newspaper that were presented to your consciousness. A whole, in short, may

28. I have engaged in fiction to make my point, but there is also a fact nearby. Thinkers have long invoked images to account for visual experiences, and they have long disagreed on the question whether the images are mind-independent. William Alston invoked mental images to account for total hallucinations (see his “Back to the Theory of Appearing”). Democritus, to take an example from the other historical extreme, seems to have thought of images as physical. Cicero attributes to Democritus the view that “*if we now (or when we’re asleep) seem to ‘see’ something in our mind, images are bursting into our minds through our bodies from outside*” (*On Academic Scepticism*, 2.125).

29. A parallel claim holds for qualities. Questions such as whether colors are intrinsic properties of physical objects are not answered through appeals to special acts of introspection or intuition. They, too, require an extended empirical inquiry; see Part 9C.

be presented to consciousness when several of its parts are not presented. Furthermore, it can happen that the identity of the presented whole is not entirely determinate. In experience, a portion of the world is presented to consciousness, but the determinacy of this portion and its degree of articulation can vary from experience to experience.

5D. PHENOMENOLOGY AND INTROSPECTION

130. I turn now to another component of Strong Transparency. I argue that introspection does not reveal that the phenomenology of a visual experience is constituted by the qualities and relations to which the experience is directed. I want to begin the argument by noting some readings of transparency that seem to me both correct and important. These readings may be summed up thus:

Weak Externality: Some external objects and some of their properties and relations may be presented transparently to consciousness in a visual experience. The presentation is transparent in the sense that it is not mediated by any presented item, including images and representations.

Weak Constitution: The phenomenology of a visual experience pertains to the elements of the experience. It is not, in general, constituted by the intrinsic features of the experiential representation (assuming that there is such a thing).

Note that these theses have no global implications about what may or may not be presented in a visual experience. Note also that Weak Constitution implies no specific relationship between phenomenology and the properties and relations presented in an experience. Weak Constitution can be accepted while Constitution is denied.

Constitution: The phenomenology of a visual experience is constituted by the properties and relations presented in the experience.

131. Does introspection reveal that Constitution is true? Suppose you undergo a particular visual experience. Can you learn through introspection that the phenomenology of your experience is constituted by the qualities

and relations to which the experience is directed? The negative assessment above of the power of introspection to reveal facts about the objects of experience does not automatically extend to the power of introspection to reveal facts about phenomenology. For it is a natural thought that introspection is the source of one's knowledge about the subjective, and since phenomenology captures the subjective dimension of an experience, it is a natural thought that introspection is a good way to learn about phenomenology.

132. The following line of thinking, it may be suggested, leads one to Constitution: "Suppose you look at a couple of blue beads and, conditions being normal, the beads are presented to your visual consciousness. In this situation, you can attend to the blue beads to learn some facts about them. Suppose now that you turn your attention to your experience to learn about its phenomenology. You introspect; you attend to the phenomenology of your visual experience. When you do this, you will find that all there is to attend to are the presented properties and relations of the beads. These properties and relations determine the character of your visual experience; they constitute its phenomenology. This is what Moorean transparency comes to: experience is consciousness of some elements, and consciousness, being transparent, contributes nothing to the character of the experience. The character is determined entirely by the properties and relations presented in it."³⁰

133. Let me enter a complaint about one aspect, perhaps incidental, of this argument: the talk of attending to the phenomenology of an experience. This kind of talk is present in Moore—recall that Moore talks about fixing attention on consciousness—and also in later proponents of transparency, but it is highly puzzling. When you had the blue beads in your field of vision, you could direct your attention to each of the beads or, if you wished, to the color of the beads and to the presented relations. But direct your

30. Recall Tye: "When we are told to attend to the phenomenal character of our experience there is nowhere to look other than the external qualities." See footnote 12 above.

Harman: "Look at a tree and try to turn your attention to intrinsic features of your visual experience. I predict you will find that the only features there to turn your attention to will be features of the presented tree" ("Intrinsic Quality of Experience," p. 251).

Jeff Speaks: "When we try to examine the features of an experience, we end up 'looking through' the experience and examining features of what the experience is an experience of" ("Transparency, Intentionalism, and the Nature of Perceptual Content," p. 539).

attention to consciousness or to the phenomenology of the experience? What does this come to? How does one do it—and do it in a way that one can learn something about consciousness and the phenomenology? Moore says that when one tries to fix attention on consciousness, it seems to vanish. This can be a report of a fact only if we knew what it is to try to fix attention on consciousness. The problem here is not that consciousness is elusive—the way a mosquito can be elusive when one tries to focus visual attention on it. The problem is that, in the sort of situation considered by Moore, one does not know what it means to attend to, or even to try to attend to, consciousness. It is certainly possible to *think* about consciousness (and about phenomenology) as one undergoes the visual experience. But if this is what attending to consciousness comes to, then there is nothing elusive about it. One can fix attention on it as firmly as on the blue beads before one.

134. Perhaps the talk of attention is incidental, and the argument can be reformulated without it. Let us return to the beads example. The two beads and their color are, let us suppose, transparently presented to your consciousness—transparently presented in the sense laid down in Weak Externality: the presentation is not mediated by any other presented items, such as images or representations. Now you might be encouraged to entertain the following thought to try to reach Constitution:

The only qualities of which I am introspectively aware are qualities of external things if they are qualities of anything at all. But intuitively, I am aware of [phenomenology] when I introspect. The conclusion to draw is that the [phenomenology] of a perceptual experience consists in, and is no more than, the complex of qualities the experience [presents]. Thus, the [phenomenology] of the experience of [blue] just is [blue].³¹

135. In order to assess this argument, we need to gain clarity about how to understand “introspective awareness.” What is the force of the adjective ‘introspective’ in the phrase ‘introspective awareness’? One suggestion here is that ‘introspective’ is on par with ‘visual’: it indicates a particular kind of

31. Tye, *Consciousness Revisited*, p. 119. I have substituted ‘phenomenology’ for Tye’s ‘phenomenal character’, and ‘presents’ for ‘represents’ and ‘blue’ for ‘red’. I have also substituted ‘I’ for the plural ‘we’ and have made the further grammatical changes the substitution requires.

experience. According to this suggestion, when you introspect your visual experience e of the beads, you undergo a distinct introspective experience e^* that is directed to e and that enables you to learn about e .³² The suggestion has the apparent advantage that it institutes a parallel between perception and introspection. Just as perception enables one to learn about such things as beads, introspection enables one to learn about such things as experiences. Call this *the experience model of introspection*.

136. Another suggestion concerning the force of ‘introspective’ in ‘introspective awareness’ is that it indicates not a new kind of experience but only the kind of item to which the awareness is directed: the item pertains to the “inner” realm, not the “outer” one. According to this suggestion, when one introspects and issues judgments about one’s experience, the judgments are not based on any experience other than that experience itself. One’s attentive gaze need not shift, one’s experience may remain just as it is, directed to the same objects. Yet one is in a position to issue introspective judgments *about* the experience. This is so even though the experience is directed neither toward the experiencing subject nor toward itself. For example, your visual experience, e , of the blue beads puts you in a position to issue rational, even knowledgeable, perceptual judgments about the beads—judgments such as

- (1) that is blue, that is a bead, and there are two beads here.

Now, the same experience e puts you in a position to issue rational, even knowledgeable, introspective judgments about e —judgments such as

- (2) this is an experience of blue, this is an experience of a bead, and I am seeing two blue beads.

These introspective judgments are based, like the initial perceptual judgments, simply on e ; no new experience need be in play. With introspective

32. Locke says that there are two “fountains of knowledge,” sensation and reflection. Sensation supplies us with ideas of outer things, and reflection with those of the operations of our own minds. Locke writes: “The Other Fountain, from which Experience furnisheth the Understanding with *Ideas*, is the *Perception of the Operations of our own Minds* within us, as it is employ’d about the *Ideas* it has got” (*Essay* II.1.4). Introspective experiences, according to the suggestion under consideration, are Locke’s “Perceptions of the Operations of our own Minds.”

judgments, the experience can be the *object* of a judgment as well as the *basis* of the judgment. The same visual experience that was the basis of the ordinary perceptual judgments in (1) is the basis of the introspective judgments in (2). Furthermore, even though the introspective judgments contain such constituents as “experience,” “I,” and “see,” there need be no elements corresponding to these constituents in the visual experience or in its phenomenology. Still, the experience can serve as a basis for the introspective judgments. Call this *the judgment model of introspection*.

137. Let us return to the argument for Constitution given in §134, where, you will recall, you were encouraged to reason as follows:

[(i)] The only qualities of which I am introspectively aware are qualities of external things. . . . [(ii)] But intuitively, I am aware of phenomenology when I introspect. The conclusion to draw is that [(iii)] the phenomenology of a perceptual experience consists in, and is no more than, the complex of qualities the experience presents.

Suppose we understand “introspective awareness” on the experience model: to be introspectively aware of an item *i* is to undergo an introspective experience directed to *i*. Let *e* be your experience of the blue beads, and let *e** be your introspective experience of *e*. Now, what is the relationship of *e** to the phenomenology of *e*? If we are to save the argument, we must say that the phenomenology of *e* is an element of *e**, for otherwise (ii) is false under the specified reading of “introspective awareness.” So, we must say that *e** is directed both to *e* and to its phenomenology. But this renders premiss (i) doubtful. Since *e* is not an external thing, and since the phenomenology of *e* is perhaps a quality of *e*, it may be that there is introspective awareness of a quality that is not a quality of external things.³³ It will not do to try to overcome the doubt by invoking the idea that experience is “qualityless” as far as introspection is concerned.³⁴ That is, it will not do to say that *e** “sees right through” *e* to the qualities presented in *e*; whatever qualities are pre-

33. I raise the possibility that phenomenology is a quality of the experience only to bring out a problem with the argument; I will not be endorsing this possibility. The argument remains fallacious on the positive account of phenomenology offered in Chapter 6.

34. David Armstrong: “*Perception*, as we experience it introspectively, is entirely qualityless” (in his and Norman Malcolm’s *Consciousness and Causality*, p. 170).

sented in e^* are, therefore, already presented in e . This move, though it secures (i), renders (ii) doubtful. For, one plainly must distinguish between the qualities *of* an experience and the qualities *presented in* an experience. Experience e , for example, is directed to some qualities, and it may also possess some qualities other than those to which it is directed. Now if e^* “sees right through” e , then there may well be qualities of e that are not elements of e^* , and perhaps the phenomenology of e is one of these qualities. If so, then e^* is not directed to the phenomenology of e , and under the specified reading of “introspective awareness,” there is no introspective awareness of the phenomenology. This conclusion, let us note, is perfectly consistent with the idea that e^* bears an important relationship to the phenomenology of e . One could hold, for example, that the phenomenology of e is the phenomenology of e^* . This makes the distinction between e and e^* subtle, but such subtlety is to be expected if we combine the experience model of introspection with the transparency of experience.

138. The above difficulties issue, at least in part, from the experience model of introspection. The distinction between an experience e and an introspective experience e^* directed to e is a little too fine, and we shall do well to dispense with it. Let us move to the judgment model of introspection and reexamine the argument with its aid.³⁵ This model is in perfect accord with the hypothetical given, and it is the one that I favor. Under this model, we can understand “introspective awareness” thus:

A subject undergoing e is *introspectively aware* of i iff the subject can, on the basis of e , issue knowledgeable judgments about herself, her experience, and i .³⁶

With this reading, we can grant the first premiss of the argument: “The only qualities of which I am introspectively aware are qualities of external things if they are qualities of anything at all.” Some doubts may well be raised here,

35. Victor Caston: “The perception of a perception is supposed to be ‘transparent’ because there *isn’t anything else* to perceive: the perception of the perception just *is* the perception of the object” (“Aristotle on Consciousness,” p. 783). Caston does not endorse this reading of transparency, nor does he attribute it to Aristotle.

36. This notion can be refined, but as the refinements do not affect the assessment of the argument, I work with the stated rough notion.

but we can hold them at bay to allow the debate to progress. The second premiss is this: “Intuitively, I am aware of phenomenology when I introspect.” This, too, can be granted, for you *can* issue, on the basis of your visual experience, knowledgeable judgments about its phenomenology—judgments such as “this visual experience possesses a phenomenology” and “the phenomenology of this experience is different from the phenomenology of my previous visual experience.” There is a difficulty, however, with the next step, namely, “The conclusion to draw is that the phenomenology of a perceptual experience consists in, and is no more than, the complex of qualities the experience presents.” The recommended conclusion does not follow, as can perhaps be appreciated by reflecting on a parallel argument.

In the parallel argument, we begin with the same first premiss, but we change the second premiss to “I am aware of the number of beads when I introspect.” This premiss is true, for you are introspectively aware of the number of the beads. You can issue knowledgeable judgments such as “the number of beads I see is two” on the basis of your experience. The conclusion we draw is: “The number of beads (i.e., two) consists in, and is no more than, the complex of qualities the experience presents.” This parallel argument is plainly fallacious. It is fallacious because the number of a totality captures a particular sort of similarity (namely, equinumerosity) that obtains between the totality and certain other totalities. That one is introspectively aware of features XYZ as one issues introspective judgments about a particular number does not imply that XYZ *constitute* that number. It does not follow that features XYZ are shared with other equinumerous totalities. Something similar holds for phenomenology. Phenomenology captures a particular sort of similarity (namely, subjective identity; see §§144–149 below) that obtains between experiences. That one is introspectively aware of features XYZ as one issues introspective judgments about the phenomenology of an experience does not imply that XYZ constitute that phenomenology; it does not follow that features XYZ are shared with other relevantly similar experiences. One cannot move easily and validly from observations about qualities introspected to claims about constitution.

Here is another way of seeing the difficulty with the argument. Observe that the argument assumes that the phenomenology of an experience consists solely of qualities of things. Without this assumption, premisses (i) and (ii) do not allow us to move to the conclusion. Suppose, for example, that the phenomenology consists, in part, of particulars. The two premisses

remain true, but conclusion (iii) is false. I shall argue in Chapter 6 that the assumption that the phenomenology consists solely of qualities is false, as is the weaker assumption that it consists in part of qualities.³⁷

139. The above reflections provide a noteworthy reading of the transparency idea. According to this reading, the self, consciousness, and experience are not properly characterized as elusive. It is not as if they are present in experience and yet because of their transparency they elude us when we introspect. Instead, their presence is otiose; it is not needed for introspective knowledge.

Weak Transparency (WT). Visual experience / consciousness is transparent in the sense that a visual experience *e* can be the basis of knowledgeable introspective judgments about itself even though *e* is not directed toward itself nor toward the subject nor toward the relation “conscious of.”³⁸

Observe that (WT) does not imply that a visual experience is never directed to the relation “conscious of” or to the subject (or to itself). In a game of bridge, you can see that your opponents see the dummy’s Jack of Spades. So perhaps a visual experience can be directed to a fact of the form “*X* sees *Y*” and even of the form “*X* is conscious of *Y*.” Similarly, you can see yourself in a mirror. So perhaps the subject can sometimes be an element of a visual experience.³⁹

Observe also that (WT) does not imply that introspective judgments are always knowledgeable. Visual experience, according to (WT), *can* be the basis of knowledgeable introspective judgments, not that introspective judg-

37. The problems with the argument remain even if we reformulate it so that the phenomenology of an experience is allowed to contain presented relations as constituents.

38. Several different ways of weakening the transparency idea are found in the literature, and the label ‘Weak Transparency’ is not more apt for one rather than the others of these weakenings. For weaker transparency theses different from the one given here, see Amy Kind’s “What’s So Transparent about Transparency?” and Soteriou’s *Mind’s Construction*. (This note is prompted by some remarks of a referee.)

39. I am being cautious here because one cannot always go from a claim of the form “*X* sees *Y*” to “*Y* is an element of *X*’s visual experience.” It may be true that you see yourself, but what may be present to your visual consciousness may only be an image. For another example, you may say truly “I see Obama laying a wreath” when what is actually present to your consciousness is an image on the television screen. Still, the point remains that (WT) does not exclude the subject from the elements of a visual experience.

ments are always true. Introspective judgments such as (2) possess no better epistemic status, nor any better propensity to truth, than ordinary perceptual judgments such as (1). Ordinary perceptual judgments can be false (even though rational); similarly, introspective judgments can be false (even though rational). Hence, even if introspective judgments always relate visual experiences to external objects and their properties and relations, it does not follow that these experiences are always directed to such items.⁴⁰

140. It is important to separate Constitution from the other ideas that are often put under the head of “transparency.” There is the idea that when one introspects one never encounters experience itself, only the items to which the experience is directed. As Glüer puts it in an extract given earlier, “In introspection, it is as if experience saw right through itself and got in direct touch with material objects and their qualities.”⁴¹ This idea has some plausibility, but it does not mention phenomenology and it does not entail Constitution.

There is a related idea that *does* mention phenomenology and that some philosophers think can serve as a stepping-stone to Constitution. According to this idea, introspection shows that features of an experience *e* are no part of the phenomenology of *e*, for experience is transparent to introspection, and introspection passes right through the experience to the object. But this idea only excludes some items from the makeup of phenomenology; it gives no positive account of the items that *do* constitute phenomenology. So, it does not put us in a position to reach Constitution.

One may respond to the last objection by strengthening the transparency idea: phenomenology pertains, one may say, to the objects to which an experience is directed (as opposed to the experience itself). The only aspects of objects, the argument continues, that can be relevant to phenomenology are

40. We can grant that there is a class of introspective judgments that are assured of truth—judgments such as “it looks to me as if there is a blue bead before me.” But such judgments can be true even though one’s visual experience is directed to (e.g.) no blue bead. Hence, such introspective judgments provide no support to the idea that visual experiences are invariably directed to external objects and their properties and relations.

41. Here is how Kennedy explains the idea in his “Heirs of Nothing” (p. 586): “Experience has no presence to us distinct from the presence of its objects. . . . The end result of introspective success—the state of being aware of one’s experience—is not a state in which one is presented with a phenomenologically distinctive item, one’s experience, to which one can selectively attend.”

their presented qualities and relations. Hence, Constitution, or something close to it, must be true. The difficulty lies here in the middle step. One can accept that phenomenology pertains to the objects presented; yet one can, without any fear of inconsistency, deny that presented qualities and relations are the only aspects of objects that are relevant to phenomenology. In fact, I shall take advantage of this very possibility in the positive account of phenomenology I develop in Chapter 6.

Finally, there is the idea that in experience some external objects and their features are *immediately* presented to consciousness. The presence is immediate in the sense that it is not mediated by any representatives (such as images and sense-data). This idea, too, can be accepted, but it says nothing about phenomenology and is consistent with the rejection of Constitution. Immediate presence should be distinguished from *unconditioned* presence. An item (e.g., the color quality yellow) may be immediately present to consciousness; that is, the presence may not be mediated by any image, representation, and such. It does not follow, however, that the presentation is not *conditioned* by a variety of factors (e.g., the character of light). Unmediated presence of a color does not amount to transparent transmission of the color to the soul. Different factors may condition the transmission, and thus the presentation, and may result in experiences that differ in phenomenology. Immediate presence of a color quality does not imply that the color quality constitutes phenomenology.

141. Strong conceptions of transparency issue from a highly natural tendency. This is the tendency to think of experience as a primitive knowing of things perceived and of introspection as a primitive knowing of the self, experience, and so on. In experience and introspection, one is supposed to simply *see*, for example, that the beads have such and such properties and that the phenomenology of the experience is thus-and-so. I am suggesting, in opposition to all this, that there is no primitive knowing and, in particular, presence is not acquaintance. Knowing requires a suitable view, and the acquisition of such a view is a highly complex achievement.

A subject looks at some blue beads, undergoes a visual experience *e*, and knows that there are blue beads before her. This knowing is not a simple consequence of the presence of the beads to the subject's visual consciousness. Our subject knows of the presence of the beads because she possesses a suitable antecedent view. It is because of this view that our subject is pre-

pared to affirm “there is a blue bead,” and it is because of the character of this view that her affirmation counts as knowledgeable. Something similar occurs with introspection. Our subject knows that her experience is of a blue bead and that the bead looks blue to her. Again, the subject has this knowledge because she possesses a suitable antecedent view. We do not need to posit a special acquaintance with experience or a special experience of experience to explain our subject’s introspective knowledge. Much less do we need to posit a special insight into visual experiences in general that reveals the nature of their objects and of their phenomenology.⁴²

142. Let me summarize what I see as right, and what wrong, in the cluster of ideas called “the transparency of experience.” Advocates of transparency are right to claim, against views such as the sense-datum theory, that experience can be directed to external, mind-independent objects. Nothing in the nature of experience demands that it be directed only to internal or mind-dependent items. The advocates are right also to observe that even though an experience necessarily belongs to a subject, the subject need not be an element of the experience. Similarly, even if certain representations are essential to an experience, it is not necessary that the experience be directed to any of these representations. It is possible that nothing pertaining to the subject is an element of an experience. In all this the advocates of transparency seem to me right. The advocates go wrong, I think, when they strengthen the above possibility claims to necessity claims. They go wrong when they claim that the elements of an experience are bound to be mind-independent and external, and when they claim that neither the subject nor anything pertaining to the subject can be an element of an experience. In general, transparency ideas seem to me right when they *expand* possibilities with respect to the elements of experience; they seem wrong when they *narrow* the possibilities.

42. I disagree with the view expressed in the extract from Byrne and Logue in footnote 14 above. The power of, for example, an experience of a tomato to reveal the essence of the tomato is not fundamentally different from its power to reveal the essence of the experience itself. What one is in a position to learn from an experience depends on the antecedent view; it is not an intrinsic feature of the experience itself. The experience of the tomato can be a basis for the judgment “that is a tomato,” and it can also be a basis for the judgment “this is an experience of a tomato.” Both judgments may be true. Neither judgment is more revelatory of the essence of its object than the other.

Turning now to points about phenomenology, the advocates of transparency are right in their claim that phenomenology pertains not to experience as such, but to the elements presented in the experience. But they are wrong to claim that the phenomenology of an experience is constituted by the properties and relations to which the experience is directed. (I argue for this in Chapter 6.) It is important here to distinguish two different readings of the metaphor of transparency: transparency as unmediated presence of an object and transparency as unconditioned presence (§140). Only the first reading is correct, but only the second can sustain the claim about the constitution of phenomenology.

Finally, I see nothing right in the epistemic readings of transparency, in the idea that presence entails acquaintance. The metaphor of transparency is misleading if it suggests that, in experience, objects are taken into consciousness, unconditioned by intervening factors, and are thereby made known to the subject. It is yet more misleading if it suggests that all this is rendered evident by some special acts of introspection.

143. This concludes my brief for a liberal conception of presentation. I have argued that items belonging to diverse categories—object, property, relation, as well as fact, process, and action—may be presented to a subject’s consciousness in an experience. Moreover, there can be diversity even within specific categories. The items presented may be physical or mental; they may be external to the subject’s body or internal to it. Even brain events and processes may be presented in an experience. Finally, I offered reasons for thinking that phenomenology does not constrain presentation. Phenomenology does not dictate that visual experiences, for example, must be directed to specific properties and relations (such as “red” and “left of”), nor, indeed, that they should be directed to properties or relations at all. There are no *a priori* restrictions on presentation. What is presented to our consciousness depends on our constitution and our situation in the world. We can let empirical inquiry guide us to the items that, given our constitution and situation, are presented to us in experience.

Appearances

IT IS AN ancient thought that the rational force of an experience depends crucially on the appearances manifested in the experience. But what are appearances? How should we think of them? And how do appearances bear on the rational force of an experience? I develop answers to these questions in the course of this and the next chapter. I propose in this chapter that the notion of appearance be elucidated in terms of notions I label ‘subjective identity’. In Part 6A, I explain these notions and go on to spell out the resulting account of appearance. In Part 6B, I use the notion of appearance to offer a treatment of illusions and hallucinations, a treatment that eschews all intentionalist notions. In Part 6C, I go on to address some intentionalist objections. I defer to Chapter 7 an account of the role of appearances in cognition.

6A. SUBJECTIVE IDENTITY AND APPEARANCES

144. How should we think about appearances? I suggest we begin by recognizing that a particular kind of identity relation obtains in the

world: *subjective identity* (notation: “SubjIdentity”). This is a six-place relation,

$$(1) \quad \text{SubjIdentity}(i, p, s; i^*, p^*, s^*),$$

and it may be thought of as relating two triples, each triple consisting of an item, a perceiver, and a situation. Display (1) may be spelled out thus:

the presentation of item i to person p 's consciousness in perceptual situation s is subjectively identical to the presentation of item i^* to person p^* 's consciousness in perceptual situation s^* .

Consider an application of this notion. Imagine you volunteer to be a subject for a psychological experiment. You find yourself before a stage on which there are various objects that can be moved and illuminated in various ways. The experimenters insert probes in your brain with which they can monitor and affect your neural processes. (You knew what you were getting in to, and you still volunteered. Your dedication to science is admirable!) The following can happen. Situation-1: You are presented with a yellow cube, and you can see some of its edges and surfaces. Then the experimenters move the cube away from you, creating situation-2. The cube fills less of your “visual field”; it “looks smaller” to you. Here we have an example in which the relation “SubjIdentity” fails to obtain: the presentation of the cube to your consciousness in situation-1 is not subjectively identical to its presentation to your consciousness in situation-2. The cube has not changed in size, but its presentation to your consciousness is subjectively different. Consider now situation-3: The clever experimenters leave the cube where it was in situation-2 and stimulate your brain to amplify the activities of certain neurons. You find that the cube begins to look exactly the way it looked in situation-1. Now, the presentation of the cube to your consciousness in situation-1 is subjectively identical to its presentation to your consciousness in situation-3.

145. I suggest we think of *appearances* as capturing the commonalities between subjectively identical presentations. Just as qualities capture identities among things along various dimensions (such as shape and color), and numbers captures identities among totalities along various quantitative dimensions, similarly appearances capture identities along a certain subjective

dimension. Let ‘Appearance_{*s*}(*i*, *p*)’ abbreviate ‘*the (total) appearance manifested by *i* to *p*’s consciousness in situation *s**’. Then, a *principle governing appearances* is this:

- (2) Appearance_{*s*}(*i*, *p*) = Appearance_{*s*}(*i**, *p**) iff SubjIdentity(*i*, *p*, *s*; *i**, *p**, *s**).

In the shift from situation-1 to situation-2 above, the cube did not change in shape, size, or color, but the appearance it manifested to your consciousness in situation-1 was different from the one it manifested in situation-2. The same goes for situation-2 and situation-3. Here not only did the cube remain unchanged, the external perceptual environment also remained unchanged; yet the appearances were different because of differences in brain function.

In general, appearances manifested by objects depend on a multitude of factors beyond the objects’ properties and relations, including the state of the subject’s sense organs, the subject’s beliefs and desires, and the subject’s attention and actions. Suppose you are looking at a bush, and a friend informs you that there is a bird in it. The appearance that the bush-cum-bird manifests to you can shift; the bird can suddenly stand out from the surrounding branches and leaves.¹ This last example brings out a noteworthy point: the item positions in the subjective-identity relation can be filled not only by familiar things such as birds and bushes, but also by complexes of objects. Indeed, this position, as I conceive of it, can be filled by universals and facts, and even by the entire presentational complex of an experience.²

1. Psychologists have uncovered some surprising ways in which appearances depend on internal and external factors. For an example, see Marisa Carrasco “Visual Attention.” Wayne Wu provides in his book *Attention* a helpful account of Carrasco’s work, as well as that of other researchers, on the effects of attention on appearances.

2. One caution concerning the interpretation of principle (2): This principle has the same form as, and can be interpreted as, a definition by abstraction. And this interpretation can lead one to regard appearances as logical constructions out of subjective identities. I wish to stress that I do not favor this interpretation. I am not proposing that appearances are logical constructions, and I am not putting forward (2) as a definition by abstraction of “Appearance_{*s*}(*i*, *p*).” I am taking the notion “Appearance_{*s*}(*i*, *p*)” to be primitive, and I am proposing that (2) is a fundamental law governing it. At the same time, I do not mean to suggest that appearances are “ultimate constituents of the world,” as Russell (e.g.) conceived them to be. I want to allow the possibility that appearances are metaphysically derivative items. So, while the *notion* of appearance is not *logically* derivative, appearances as *items* may well be *metaphysically* derivative. (Analogy: The constellation Leo may be metaphysically derivative in the sense that a perspicuous account of the cosmos may well make no mention of it. Nevertheless, the notion “the

146. Let us return to the psychological experiment. The following can happen. Situation-4: You are simultaneously presented with two perfect spheres of exactly the same size, one blue and the other yellow, and also with a cube that exactly matches the second sphere in color. The two spheres, let us imagine, are equidistant from your eyes and located symmetrically with respect to them. Let us imagine also that the experimenters engage in no funny business. The presentations of the three objects to your consciousness are not subjectively identical; the appearances the objects manifest to you are all different. Nevertheless, the presentations of the two spheres are subjectively identical along certain dimensions—the shape and size dimensions, as we might put it. Also, the presentation of the second sphere and the cube are also subjectively identical along a certain different dimension—the color dimension, as we might also put it. The example shows that there are fine-grained notions of subjective identity—subjective-identity-relative-to-dimension- D (notation: “SubjIdentity $_D$ ”)—and correlated fine-grained notions of appearance. We should recognize, therefore, the following principle, as well as parallel others governing shape-, smell-, texture-, and other appearances:

- (3) $\text{Color-appearance}_s(o, p) = \text{Color-appearance}_s(o^*, p^*)$ iff
 $\text{SubjIdentity}_{\text{Color}}(o, p, s; o^*, p^*, s^*)$.

In situation-4, the yellow sphere and the cube manifest to you the same color appearance, but different shape appearances. In this situation, the color quality yellow as well as the fact of the cube’s being yellow are among the items that are presented to your consciousness. (I am assuming a simple view of color.) And the color appearance the cube manifests is also the appearance manifested by the color quality yellow. However, as with objects, the same color quality can manifest different appearances in different perceptual situations (and even in the same situation). The experimenters may change the lighting a bit, and the quality yellow may remain present to your

constellation Leo” is a useful one for earthbound creatures like us, and the notion may well be logically primitive in the sense that it cannot be defined away through nonostensive definitions.)

We shall be in a better position to tackle the issues that arise here after the discussion in Chapter 9 below of the relationship of truth to “correspondence with reality.”

consciousness but may now manifest a slightly different appearance to you. The experimenters may change the lighting more drastically and the color of the cube may cease to be present to you. The cube may, nonetheless, manifest a color appearance. Manifestation of color appearance does not require the presence of color quality. If the color quality of an object is present, though, then the color appearance of the object is identical to the appearance of the color quality.

147. Presentations of items can not only be subjectively identical along various dimensions, but they can also bear various relations of comparative similarity to one another in these dimensions. Thus, for example, the presentation of one cube may be more similar to the presentation of a second cube in the hue dimension than to the presentation of a third cube. At the same time, the first presentation may be more similar to the third presentation in the lightness dimension than to the second presentation. Appearances thus fall into various similarity classes and subclasses along various dimensions. Furthermore, the similarity classes and subclasses can bear relations of closeness and distance from one another in various dimensions. For example, the class of red appearances may be closer, relative to hue, to the class of pink appearances than to the class of blue ones.

148. Some further observations about appearances:

(i) Appearances can contain other appearances as *constituents*. Imagine, for example, that you are holding a ball and also looking at it. Then the overall appearance manifested by the ball contains as constituents a visual appearance and a tactile appearance. And these latter appearances contain as constituents more fine-grained appearances such as color-, shape-, and texture-appearances. The relation of constitution between appearances is governed by the following principle: if appearance *a* constitutes appearance *a** then, necessarily, whenever *a** is manifested then so also is *a*.

(ii) Atomism may well be false of appearances: there may well be no specifiable class of appearances out of which all others can be built. For example, the appearance manifested by the face of a friend may well not be analyzable in terms of color, shape, and size appearances.

(iii) The following principles define “manifestation” and “appearance”:

x is **manifested in p 's consciousness in situation s** iff, for some item i , x is a constituent of $\text{Appearance}_s(i, p)$; and

x is an **appearance** iff, for some subject p and some situation s , x is manifested in p 's consciousness in situation s .

The essence of an appearance lies in manifestation: for an appearance to be is for it to be manifested in some consciousness. The appearance thus has being only in the context of a bipolar presentational relation, in which a portion of the world is presented to a subject. The appearance is manifested *by* an item *to* a subject.

(iv) Appearances are not private. They are not confined to one consciousness or even to one species or to one region of spacetime. The same appearance may be manifested to two creatures belonging to different species and separated by a vast stretch of spacetime.

149. I am now in a position to give an account of the phenomenology of experience. First, let me observe that I favor, and I am working with, a highly minimal conception of experience. Some philosophers take experiences to be *acts* of the mind, which are often conceived of as acts by which the subject cognitively discriminates or grasps the presented objects.³ Others take experiences to be *events*—perhaps mental, perhaps physical. Yet others take them to be *processes*. I wish to stay neutral on all this ontological stuff. What matters for my purposes is that experiences are so individuated that they fix a subject and a perceptual situation. Furthermore, I understand the notion “perceptual situation” broadly. Even a hallucinating subject is in a perceptual situation, as I understand this notion. So, given an experience e , the notions “the subject of e ” and “the perceptual situation of e ” are well defined. It thus makes sense to speak of **the appearance manifested by an item i in an experience e** (notation: $\text{Appearance}_e(i)$). Let i be an item presented in e , p the subject of e , and s the perceptual situation of e . Then:

$$\text{Appearance}_e(i) =_{\text{Df}} \text{Appearance}_s(i, p).$$

3. G. Dawes Hicks takes the experiential act to be an act of recognition; see his “Sense-Presentation and Thought.”

Note that ‘Appearance_{*e*}(*i*)’ denotes the total appearance manifested by *i* in *e*. This appearance may have several different constituents (e.g., color and shape appearances) that are also manifested by *i*. So, it will be useful to recognize a relation, “*manifestation in e*” (notation: M_{*e*}), that relates each item *i* presented in *e* with Appearance_{*e*}(*i*) as well as its constituents. Furthermore, let us say that an appearance *a* **is manifested in *e*** iff *a* is manifested in *e* by an element of *e*.

The phenomenology of *e* (notation: Φ_{*e*}) may now be characterized thus: it is the appearance manifested in *e* by the presentational complex Π_{*e*}:

$$\Phi_e =_{\text{Df}} \text{Appearance}_e(\Pi_e).$$

The phenomenology of an experience is constituted not by the qualities and relations presented in the experience, but by the appearances manifested in it. Experiences will be said to be **subjectively identical** iff they possess the same phenomenology.

150. It is important to separate the notion of subjective identity from that of **subjective indistinguishability**, the incapacity of the subject to distinguish the experiences. I wish to make several observations about this.

(i) Two experiences may fail to be subjectively identical—there may be a subtle but substantial difference in the appearances manifested in them—but the subject may be unable to distinguish the experiences (because, for instance, of limitations of attention and memory). On the other hand, two experiences may be subjectively identical and yet the subject may be able to distinguish between them, for the subject may know some characteristic that distinguishes one experience from the other—for example, the subject may know that the experiences are directed to different things.⁴

(ii) The need to separate the two notions remains even if we understand “subjective indistinguishability” as “introspective indistinguishability”—that is, as “indistinguishability by the subject on the basis of introspection alone.” First, interpersonal comparisons of the subjective identity of experiences are

4. Let us note one consequence of separating subjective identity from subjective indistinguishability. There are good reasons to think that transitivity fails for subjective indistinguishability: experience *e* may be subjectively indistinguishable from *e'*, and *e'* from *e''*, but *e* may well be subjectively distinguishable from *e''*. These reasons do not carry over to subjective identity, however.

possible: experiences of distinct subjects can be subjectively identical. Interpersonal comparisons of introspective indistinguishability, however, make little sense. Second, the notion of subjective identity is entirely independent of a dubious idea brought into play by “introspective indistinguishability”—namely, that there is an aspect of experience to which the subject has special epistemic access, an aspect that can be apprehended by introspection *alone*. (I myself do not think that there is any such aspect.) Third, and this is a more general point, “subjective identity” is not to be understood in terms of the subject’s *access to* experiences or the subject’s *judgments about* experiences. The notion of subjectivity in play in “subjective identity” (and in “phenomenology”) is not that of subject’s viewpoint *on* experience, but that of the subject’s viewpoint on the world as it is manifested *within* experience.

(iii) The motivations behind the two notions, “subjective identity” and “subjective indistinguishability,” are different. My motivation for introducing “subjective identity” is, frankly, realist. I think there is a subjective dimension to experiences over and above their objective, worldly dimension; and “subjective identity,” “appearances,” and “phenomenology” help us to think about this dimension. In contrast, the motivation for introducing “subjective indistinguishability” is, as far as I can tell, anti-realist. Some philosophers, finding that the subjective dimension poses a problem for their favored epistemological or metaphysical views, attempt to reduce or eliminate this dimension. “Subjective indistinguishability” or a closely related notion is wheeled in to help get by without recognizing the subjective dimension.⁵

5. An example of this move is provided by Martin. He thinks that a defense against skepticism requires that a Naïve Realist conception of experience be sustained. This requires, in turn, that one affirm a strong version of the transparency of experience and declare that the subjective dimension of experience is nothing over and above the objective dimension. Illusions and hallucinations pose an immediate problem. Martin responds by reducing the general notion of perceptual experience to that of veridical perception. He writes: “Our broadest conception of perceptual experience is simply that . . . of being indiscriminable through reflection from veridical perceptions” (“Limits of Self-Awareness,” p. 82). In “On Being Alienated,” Martin tell us that “while there is a positive specific nature of the veridical perception, there is nothing more to the character of the (causally matching) hallucination than that it can’t, through reflection, be told apart from the veridical perception” (p. 370).

In Chapter 3, I argued that Naïve Realism is unsatisfactory even if we restrict attention to veridical experiences. I add here two further points. (i) I think that Naïve Realism, far from being required, is not even a proper basis for a response to any skepticism worth taking seriously. (ii) Martin’s conception of hallucinations is highly puzzling. How is it that a hallucination is “indiscriminable through reflection from veridical perception” if the hallucination possesses no “positive specific nature”? What is “reflection”? What is “positive specific nature”?

151. The notion of phenomenology is often explained in terms of “what it’s like” for the subject, and the reader will have noticed that I make no reference to it in the above explanation. “What it’s like” is a legitimate notion, I think, but it is different from the notion of phenomenology I wish to isolate. First, “what it’s like” is a broader notion. There can be a “what it’s like” for a subject as he entertains a thought or enjoys a daydream. There can be a “what it’s like” for me as I think of Everest or about my forthcoming vacation. However, when I think of Everest, for example, I am not *presented* with anything. My thoughts are directed to Everest, but that great peak does not present itself to my consciousness, sitting as I am thousands of miles away from it. The directedness of thought is entirely different from the directedness of experience. Directedness of thoughts does not require the existence of objects, let alone their presence. And if there is no presence, there is no appearance and, thus, no phenomenology, as I understand this notion. There’s no denying, though, that there is a “what it’s like” for me as I think of Everest.

Second, the “what it’s like” of an experience can include elements beyond appearances manifested in the experience. What the experience of seeing Everest was like for a subject can include reactions such as that it was exhilarating or disappointing. These reactions depend on a complex of psychological factors and are not appearances of anything to the subject. They are no part of what I am calling “the phenomenology of the experience.” Some philosophers speak of the “phenomenal force” of an experience, a force that renders perceptual beliefs irresistible.⁶ This force is plausibly a part of the “what it’s like” of an experience. But it is not an appearance or a constituent of an appearance of a thing, and it is no part of phenomenology, as I understand this notion.

Third, the “what it’s like” of an experience pertains primarily to the subject; the presentational complex of the experience is incidental to it. Phenomenology, on the other hand, pertains primarily to presentational complex and its elements. The subject, though not incidental, is, to use the Moorean metaphor, as if it were transparent.

152. Appearances, we should observe, are not qualities of objects to which experiences are directed. Shape appearances are not shapes, and color

6. Pryor, “The Skeptic and the Dogmatist,” p. 574, footnote 37.

appearances are not colors. Appearances are like qualities in that they, too, are general items—not particulars, as Russell supposed them to be. Just as one and the same quality (e.g., “blue”) can be instantiated in several different objects, one and the same appearance can be manifested by several different objects. The generality of appearances, however, is of an entirely different kind than that of qualities. The generality of qualities pertains to the similarities in things, in how things are. The generality of appearances, in contrast, pertains to the similarities in presentations of things to a subject’s consciousness. These are plainly different: one makes an essential reference to the subject; the other makes no mention of it at all. Furthermore, if two things instantiate the same qualities, then these things are qualitatively identical; nothing follows, however, about the subjective identity of the experiences of the two things. On the other hand, if the things manifest the same appearances, then the experiences are subjectively identical. Nothing follows, however, about the qualitative identity of the things or even about their qualitative similarity. Qualities are ways of *being*; appearances are ways of *being presented to consciousness*.

153. Appearances are not only distinct from qualities; they can exhibit structures quite different from those exhibited by qualities. Shapes, for instance, capture one dimension of qualitative identity among bodies, and they fall into various similarity classes that bear relations of closeness and distance from one another in various dimensions. A body of one shape, say a table, can manifest many different shape appearances as it is viewed from different places at different distances, and yet further appearances when it is viewed through different kinds of lenses. These different shape appearances, as well as others, belong to various similarity classes, distinct from those to which shapes belong. Furthermore, these classes instantiate structures of closeness and distance different from those instantiated by the similarity classes for shapes. There is no isomorphism, in short, between qualities and their features, on the one hand, and appearances and their features, on the other.

154. Appearances are not relational properties of things. The manifestation of a size appearance, for example, cannot be identified with the obtaining of a relational property such as “being of such and such size and located at such and such distance from the subject.” For such a relational property may

continue to obtain while the appearance manifested changes, as in situation-2 and situation-3 described above (§144). Furthermore, different relational properties may obtain and yet the appearance manifested may be the very same, as in situation-1 and situation-3. Relational properties do not capture the identities and differences that pertain to appearances.⁷

Note that a relational property may well be an important part of an explanation of why a certain appearance is, on a particular occasion, manifested in the subject's experience. This does not provide sufficient grounds, however, for identifying appearances with relational properties. Numerous factors affect appearances; these factors are not, thereby, identical to, or constitutive of, appearances.

155. More generally, appearances and universals belong to entirely different categories. One or more objects may instantiate a universal, but it makes no sense to speak of these objects as instantiating appearances. Furthermore, the objects may manifest an appearance (to a subject on a particular occasion), but it makes no sense to speak of them as manifesting a *universal* (to the subject on that occasion). Manifestation of appearances and instantiation of universals are conceptually distinct and should not be assimilated with one another.

I take the assimilation of appearances with universals to be a fundamental logical error, one that can greatly distort our view of empirical reason and the world. A universal that is also an appearance is a universal whose presence to consciousness is transparent in a strong sense: its presence is unconditioned (§140). Since ordinary universals are not at all like this, the assimilation leads one to posit either highly peculiar instances of ordinary universals or highly peculiar universals.

Russell is an example of a philosopher who is led by the assimilation to introduce peculiar instances of ordinary universals. Recall that Russell

7. Relational properties have been invoked for a variety of purposes by philosophers of perception (including James Genone, Hill, Susanna Schellenberg, and Sydney Shoemaker). Hill, for instance, argues that some relational "viewpoint-dependent" properties are represented in experience (see his *Consciousness* and "Content of Visual Experience"). I am uncertain whether Hill subscribes to the identification of appearances with relational properties. He calls the relational properties he invokes "appearance properties," but he does not explicitly endorse the identification. Genone is one philosopher who does endorse this identification; see his "Appearance and Illusion." See also Schellenberg's "Situation-Dependency of Perception" and Shoemaker's "On the Ways Things Appear."

identified appearances with sensible qualities (see §§13 and 16). This identification requires, in the Russellian scheme, that subjectively identical experiences be directed to particulars that instantiate the same sensible qualities. Ordinary particulars cannot meet this requirement, so Russell is led to posit special particulars—sense-data—to sustain the identification. The presence of sense-data to consciousness is supposed to be thoroughly unconditioned: subjectively identical experiences cannot be directed to differently colored sense-data. Sense-data and the idea of unconditioned presence appear natural, and even essential, because of the assimilation of appearances with sensible qualities. But both conceptions—sense-data and unconditioned presence—are highly peculiar, and once we recognize that appearances are not to be assimilated with universals, we see that these conceptions are not needed to make sense of perceptual consciousness.

Chalmers is an example of a philosopher who is led by the assimilation to introduce peculiar universals. In his essay “Perception and the Fall from Eden,” Chalmers introduces “perfect” or “Edenic” versions of sensible qualities. There is, according to Chalmers, not only the ordinary quality “red” but also a perfect version of this quality, “Edenic red.” Edenic red has no instances in the actual world; its instances reside in a perceptual Eden, in which presentations of sensible qualities are completely unconditioned. Edenic universals can serve as appearances: subjectively identical experiences are directed to the same Edenic universals. (In Chalmers’s terminology, they constitute the “phenomenal content” of an experience.) Edenic red is thus both an appearance and a quality. Ordinary qualities cannot play this double role, and Chalmers is led to posit extraordinary universals to fill the role. Again, once the distinction between appearances and universals is recognized, the need for peculiar universals disappears.

6B. ILLUSIONS AND HALLUCINATIONS

156. It is a familiar idea, often invoked by skeptics against their dogmatist opponents, that there is a widespread relativity in perception. A subject’s experience depends not only on things perceived but also on environmental conditions and on the subject’s constitution and situation. One aspect of this relativity can be expressed thus:

Relativity of Perception 1: Every possible object (as well as quality and relation) of experience can manifest, in different perceptual situations, radically different appearances.

An object can manifest, for example, one color appearance when seen by a man with normal vision in one light, and the same object can manifest a different color appearance when seen in a different light or when seen by a color-blind man or by a tetrachromat bird. The variability of appearances does not show, it should be stressed, that the experiences are illusory—not at least in the ordinary sense of ‘illusory’. A tree seen at dusk manifests a quite different color appearance than when it is seen at noon, yet neither experience is properly characterized as illusory. Illusions ordinarily so-called are, nevertheless, nothing but special cases of the relativity of perception.⁸ The Müller-Lyer lines manifest different size appearances, and the full moon looks larger when it is seen near the horizon than when it is at its zenith. In both these illusions, the surprising appearances arise because of special external conditions of perception. The spinning Benham disk, on the other hand, generates a visual illusion of Fechner colors because of, one gathers, certain features of the cones in our eyes.⁹ All these cases are illustrative of the relativity of perception. Because of the distinctive features of the environment and of the subject’s constitution, objects can manifest highly distinctive, even surprising, appearances—appearances that prompt the label ‘illusion’.

157. Some philosophers take perceptual illusions to provide an argument for thinking that experience possesses content.¹⁰ However, perceptual illusions, as well as the more general phenomenon of the relativity of perception, can be fully accommodated without attributing any content to experience. Indeed, it is the idea that experience has content that, in conjunction with the relativity of perception, provides skeptics with powerful ammunition. The idea leads to the thought that the relativity of perception entails that experiences generally possess false contents and thereby mislead the subject. For instance, the manifestation of different color appearances under

8. What principles govern our classification of perceptual phenomena as “illusions” is obscure. It may even be that the classification is haphazard and governed by no principles.

9. The causes of illusions mentioned here are not fully understood.

10. Byrne, “Experience and Content.”

different perceptual conditions by the same unchanging object is taken to show that different colors are attributed to the object in the resulting experiences. Since the object possesses, by hypothesis, only one color, it follows that most of these experiences mislead the subject about the color of the object. And if experiences generally mislead, then it appears that no resources are available to the subject for correcting the resulting errors, and skepticism looms. Such skeptical argumentation is best blocked, I think, at the very first step. We should disallow the idea that illusions and relativity are to be accounted for through the idea of content. We should insist that we can account for illusion and relativity perfectly without any such appeal. And we can go on to insist, against the sketched skeptical argument, that, from the viewpoint of rationality, experience is never misleading: the given in experience is invariably reliable (§84).

158. Let us take note of a second relativity thesis:

Relativity of Perception 2: A presentational complex can manifest different appearances in different perceptual situations. That is, it is possible that two experiences that differ in phenomenology are, nonetheless, directed to the same presentational complex.

The first relativity thesis does not imply the second. In fact, in earlier work, I myself subscribed to the first thesis but rejected the second. My rejection was based on a weak version of the transparency of experience. I thought that differences in phenomenology must be traceable to differences in presentational complexes. This led me to populate the presentational complex with elements that would capture differences in phenomenology. It was a question posed by Miloš Vuletić and by Bosuk Yoon that led me to rethink transparency and to reject it in favor of the second thesis above. I think this thesis leads to a smoother and more economical account of experience.¹¹

11. In "Account of Conscious Experience," I subscribed to a version of transparency that conflicts with the second thesis. That version of transparency led me to introduce sense-images as objects present in hallucinations. I went on to invoke sense-images in the account of illusions. Miloš Vuletić and Bosuk Yoon objected, independently of one another, to this invocation. (The objection may be found in Vuletić's dissertation *Ways of Appearing*.) The Vuletić-Yoon objection is highly local and can be met in one of several ways within the old scheme. Vuletić himself develops in his dissertation a way of meeting the objection. Nonetheless, the

159. The relativity of perception is related to, but should be distinguished from, ideas I shall label *multiple-factorizability of experience*. Parallel to the two theses of the relativity of perception, we can set down the following two theses of multiple-factorizability:

Multiple-Factorizability of Experience 1: Every possible appearance can be manifested by many different kinds of items.

Multiple-Factorizability of Experience 2: Experiences with different presentational complexes may possess the same phenomenology.

The relativity of perception implies that one cannot recover the appearance from the item presented (since the same item can manifest different appearances); in contrast, the multiple-factorizability of experience implies that one cannot recover the presented item from an appearance (since the same appearance can be manifested by different items). A color quality may manifest a particular color appearance in a creature with one kind of eye, while a particular degree of heat may manifest the very same appearance in a creature with a different kind of eye. Observe that the second thesis of multiple-factorizability, unlike the second thesis of relativity, is nonnegotiable: two experiences of distinct, qualitatively similar eggs would be directed to different presentational complexes, but they could possess the same phenomenology.

160. An experience, I have stressed, is a product of how the world is and how the experiencing self is constituted and situated. The root idea behind multiple-factorizability is that radically different combinations of these world- and self-factors can yield experiences with any given phenomenology. So, the phenomenology of an experience does not, by itself, place the rational subject in a position to factor out a unique world-self combination. It does not, by itself, enable the subject to know (or to have rational beliefs about) how the world is and how the subject is situated and constituted. It is, as I see it, a fundamental task of cognition to factor out experience into the world- and

objection prompted me to fundamentally rethink the idea of transparency. I now accept no version of transparency that dictates that images of any kind must be present in hallucinations. I allow that images *may* be present, but I reject the idea that they *must* be present in hallucinations. (The same holds of parametric universals introduced in “Account of Conscious Experience.”) I thank Vuletić and Yoon for their important and stimulating objection.

self-factors. Experience not only provides cognition with its most vital resource; it sets the fundamental problem that cognition needs to solve.¹²

161. Multiple-factorizability makes available an easy treatment of hallucinations. A subject with a deranged brain may undergo an experience subjectively identical to that of an encounter with a growling bear, but the object manifesting the bear appearance may be nothing other than a harmless bush. This kind of world-self factorization of phenomenology is possible; hence, so is the hallucination. In the present example, the subject sees the bush as a bear. A more extreme kind of hallucination is also easily accommodated. We can countenance the possibility that the subject undergoes a matching hallucination even though there is nothing the subject sees as a bear. A white wall, to shift to a new example, may manifest to our deranged subject an appearance identical to the one normally manifested by a white wall with two blood drops on it. The subject is hallucinating two blood drops, but there is nothing that our subject sees as a blood drop.¹³ We can accommodate even total hallucinations.¹⁴ In the last example, our subject sees the wall and hallucinates the blood drops on it. An experience with the same phenomenology is possible that is directed to nothing external but only to a brain process or—to mention another possibility—that is directed to an unarticulated portion of the world. In either case, the subject would be hallucinating the blood drops without seeing anything. The account of experience I am putting forward provides, in short, ample logical space for all sorts of hallucinations.¹⁵

12. See my *Empiricism and Experience*, pp. 5–9, for a more extended discussion of multiple-factorizability.

13. There is no object *o* in the presentational complex and no constituent blood-drop appearance *a* such that *a* is the total appearance manifested by *o*.

14. Some philosophers are led to deny the existence of total hallucinations or their phenomenology (e.g., Fish). I do not take this route because, first, a logical inquiry should not take a stand on factual matters. Second, there is neuropsychological evidence that total hallucinations do occur; see, for instance, Dominic ffytche's discussion of Charles Bonnet Syndrome in "Visual Hallucinatory Syndromes" and "Hallucinating Brain."

15. The logical space provided may be useful even for some ordinary experiences. I have heard it suggested that when one has eyes open in a completely dark room, in which there is not even a trace of light, one undergoes a genuine visual experience. If this is correct then we are faced with a problem parallel to the one generated by total hallucinations. For one must now acknowledge that an appearance is manifested in the visual experience and that something manifests this appearance. The problem thus arises of specifying what this something is—a problem that parallels the problem of total hallucinations.

162. The general point here is that the structure of appearances manifested in an experience is not necessarily isomorphic to that of the presentational complex. A mismatch in structure can occur because appearances depend not only on the items presented but also on a complex of other factors. These factors sometimes have the effect of enriching structure, and sometimes of erasing structure. Sometimes the enrichment of structure results in experiences that we classify as hallucinations. A plain white wall can manifest a richly structured appearance of a wall with blood drops on it.¹⁶ Note, though, that not all such enrichment is classified as hallucinatory. When one looks at the Hermann Grid, there is nothing in the presentational complex that corresponds to the shifting and ghostly grey spots one experiences. A subject enjoying the Hermann Grid illusion is not correctly characterized as hallucinating.¹⁷

163. There is a tendency among philosophers to assume that all, or nearly all, hallucinations are directed to the same kind of object. In his discussion of what he calls “run of the mill visual hallucinations”—those in which the hallucinated object is “embedded in a veridically perceived setting”—Alston suggests that such hallucinations are directed to the air in the region where the hallucinated object appears.¹⁸ In the hallucination of blood drops, Alston’s suggestion has it that it is the air where the blood drops appear to be that is an element of the experience. I myself do not want to rule out this suggestion a priori. But I do want to resist the implied uniformity. In “run of the mill visual hallucinations,” I want to say, the air is not the only possible element of the experience; there are many other possibilities. The presented item manifesting the hallucinatory phenomenology may be mental (e.g., a mental image); it may be physical but internal (e.g., a brain state); it may be physical and external (e.g., a bush); and it may be the entire presentational

16. I do not mean to suggest that enrichment of structure is a necessary condition for hallucinations.

17. The principles governing our use of ‘hallucination’, like those governing our use of ‘illusion’, are obscure. I think we would not say that a subject is hallucinating unless something abnormal in the subject is responsible for the phenomenology of her experience. If a subject sees ghostly spots on the Hermann grid, the subject is not thereby deemed to be in an abnormal state. On the contrary, if the subject did not see the spots, then there would be reason to think that something was amiss. Normal subjects can experience illusions, but normal subjects do not hallucinate.

18. “Back to the Theory of Appearing,” p. 191.

complex of the experience. What elements are presented in a particular hallucination can be determined only empirically. A logico-philosophical inquiry must stay silent on the issue.

164. Even philosophers who find presentational accounts of experience otherwise attractive find themselves turning to intentional or representational accounts because of their desire to accommodate hallucinations. Thus, A. D. Smith has suggested that hallucinations are directed to Meinongian nonexistent objects. In the hallucination of the blood drops, Smith would say, the experience is directed to nonexistent blood drops. Ori Beck, like Smith, takes hallucinations to be directed to certain particulars, but these particulars are, according to Beck, abstract, on par with numbers and fictional characters. (Beck is inspired by Saul Kripke's account of fictional objects.) Kennedy, following Johnston, rejects the idea that hallucinations are directed to particulars. According to Johnston and Kennedy, the elements of hallucinations are uninstantiated complexes of universals—Johnston calls these complexes “sensible profiles.”¹⁹

In my view, nonexistent objects, abstract particulars, uninstantiated sensible profiles, and such come into play, if at all, at the level of *thought*, not at the level of *experience*. A subject, unaware that he is hallucinating, may issue judgments such as “there are two blood drops on the wall” and “the wall is white, but the blood drops red.” Our subject's thoughts are thus directed to certain kinds such as “blood,” to certain qualities such as “red,” and to certain relations such as “on”—and perhaps they are also directed to what Johnston calls sensible profiles. Our subject may go on to introduce names for what he takes to be the perceived blood drops. And it may be that the subject's use of names for the hallucinated blood drops is best understood by treating them as referring to some particulars—perhaps Smith's Meinongian nonexistents, perhaps Beck's abstract particulars. All this I am willing to allow. (Though I confess to an ambition of wanting to make sense of thought without invoking peculiar objects.) I am willing to allow, then, that *intentional directedness*, the sort of directedness one finds in thought, is broad: it can extend beyond the existent to the nonexistent and beyond the possible

19. See Smith, *Problem of Perception*; Beck, *On Learning from Experience*; Johnston, “Obscure Object of Hallucination”; and Kennedy, “Heirs of Nothing.” David Sosa independently proposed the idea that uninstantiated universals are elements of hallucinations.

to the impossible. However, *presentational directedness*, the sort of directedness one finds in experience, is quite different. It is narrow: it is confined to portions of the actual world. One may be able to think about non-existent blood drops and about fictional particulars and about uninstantiated sensible profiles, but these items cannot be presented to one's consciousness in experience.

165. I count it as a virtue of the account of hallucinations I am offering that it enables us to maintain a clear separation between presentation and intentionality and, thereby, between experience and thought. There is, in my view, no intentional directedness in experience; all the directedness here is presentational. In experience, a portion of the world is presented to the subject's consciousness. This presentation does not require, nor does it entail, intentional directedness to the items presented. We shall see that the separation of experience from thought enables us to understand how experience grounds thought and, in particular, how intentionality depends on presentation (Chapter 8).

166. The account of hallucinations I am offering rests on two fundamental ideas. The first is the hypothetical given. This idea enables us to confer a vital rational role on experience while denying that presence entails acquaintance. It thus makes available a liberal conception of presence. An experience can be directed to particulars as well as universals, material things as well as mental things, things external to the body as well as things internal. No a priori restrictions are placed on the worldly items that may be presented to consciousness in an experience. This liberal conception would have been impossible if presence implied acquaintance, for experience cannot acquaint one with items such as universals and gel particles in the vitreous.

The second fundamental idea is the separation of appearances from universals. This idea enables us to maintain a sharp distinction between presentation and intentionality. It enables us to account for hallucinations without attributing any content to experience. Without the separation of appearances from universals, the attribution of content would be forced. For a hallucination that is subjectively identical to a perception must manifest the same appearances as the perception. If appearances were universals, it would follow that the hallucination is directed to the same universals as the

perception. Since the hallucination is not directed to any worldly instantiation of these universals, one would be forced to treat the universals as belonging to the hallucination as content.

6C. INTENTIONALIST OBJECTIONS

167. OBJECTION I: “A satisfactory account of hallucinations, indeed of any experience at all, requires that they be treated as states with content. In the hallucination of blood drops, some properties, including the property red, are presented as instantiated. And the same is true of experiences in general: all experiences present clusters of properties as instantiated. It follows that experiences possess accuracy-conditions: an experience is inaccurate if the cluster of properties it presents is not, as a matter of fact, instantiated. Hence, all experiences must possess content. A hallucination, in particular, conveys a false content, and because of this it can mislead the subject to issue false perceptual judgments.”²⁰

REPLY: In the first place, even if we grant that all experiences present clusters of properties as instantiated, we do not gain the conclusion that the experiences possess content—at least, not in any significant sense of ‘possess’. We can *associate* a content with an experience, a content such as “such and such cluster of properties is instantiated,” but this is of little consequence. Association of content is cheap. We can associate this content with the fact that the cluster of properties is instantiated (or, for that matter, with any other fact). That we can associate a content with the experience implies neither that concepts are in play in experience nor that experience is a representation.²¹

In the second place, I deny that the hallucination of blood drops presents the property red as instantiated, or even that it presents that property at all.

20. This objection uses ideas in play in Susanna Siegel’s Argument from Appearing (see her *Contents of Visual Experience*, §2.4). Siegel’s argument aims to establish that all visual experiences convey contents to the subject. See Vuletić’s *Ways of Appearing* for a discussion of the argument.

21. Consider an illusory gustatory experience of a peach. Assume that the peach is actually sweet but tastes sour. Then, we can associate with the experience the content “sweetness is instantiated in a peach.” We can also associate a contrary content, “sourness is instantiated in a peach.” Neither association implies that experience is a representation of the corresponding content.

A particular appearance is certainly manifested, but this does not require redness to be an element of the presentational complex (or even of the world). The appearance manifested can explain why the hallucination is misleading, why the subject attributes redness, and even why he does so rationally.²² There is thus no need to see any attribution to be going on in the experience itself—no need to see experience as an informant, conveying false contents to the subject.²³

168. OBJECTION II: “Even if you are right about content, you separate presentation too much from intentionality. In the total hallucination of blood drops on the wall, the experience must be directed to the sensible quality red. For, as Johnston and Adam Pautz have observed, it is possible for a subject to acquire concepts of novel sensible qualities on the basis of total hallucinations. A subject who has never seen red things and who does not possess the concept “red” can acquire that concept on the basis of a hallucination of blood drops. This acquisition would be impossible if the hallucinatory experience were not directed to the sensible quality. Since no actual instance of red is presented to the subject’s consciousness in the blood-drops hallucination, the directedness of the experience to the quality red must be intentional.”

REPLY: Johnston and Pautz are correct in their observation that a subject can acquire concepts of novel sensible qualities on the basis of hallucinatory experiences. (I would add that the subject can acquire concepts of novel nonsensible qualities also in the same way.) However, we can understand how this is possible without attributing any intentionality to experience.

22. “Being misleading” is not an absolute feature of experiences; it is a relative feature. Relative to one view (e.g., of a subject who does not know she is hallucinating), a hallucination may mislead the subject; relative to another it may not be misleading at all. And the same holds for the so-called veridical experiences. (The division of experiences into veridical, illusory, and hallucinatory is, unfortunately, thoroughly entrenched in the philosophical literature. This division has little in common with ordinary distinctions marked by ‘illusion’ and ‘hallucination’, and it is, as I see it, a product of false conceptions of experience. My own occasional uses of ‘veridical experience’ should be understood to be implicitly relative.)

23. I would deny a key premiss on which Schellenberg builds her argument for the claim that “it is part of the fundamental nature of perceptual experience to employ concepts.” The premiss is that “the phenomenology of experience is best explained in terms of employing concepts in a sensory mode” (“Perceptual Content Defended,” p. 31). I myself would want to reverse the order of explanation. I would explain “employment of concept in a sensory mode” in terms of phenomenology. See Vuletić’s *Ways of Appearing* for a discussion of Schellenberg’s argument.

The hallucinatory experience puts our subject in a position to rationally issue an ostensive definition such as “let red be the color that appears to be instantiated over there.” This definition pins the right denotation on the defined term ‘red’, and it does so because a particular color appearance is manifested in the hallucinatory experience. A novel appearance can enable a subject to acquire a concept for a novel quality. No intentional directedness need be attributed to experience.

Notice that it is the subject’s antecedent view that enables her to transition from the novel appearance to the novel concept. In the present example, it is the subject’s antecedent possession of concepts such as “color” and “appear” that, in conjunction with the hallucination, enables her to acquire the new concept. These antecedent concepts do crucial work in securing denotation to the quality red in the ostensive definition. Ostensive definitions depend on experience *and* on antecedent conceptual resources. Both play an essential role; neither is dispensable.

I suspect it is the erroneous idea that bare, concept-free, ostensive definitions are fundamental and the concept-dependent ones derivative that leads philosophers to think that an intentional account of experience is mandatory. Our hallucinating subject, the thought goes, must acquire the concept “red” through a bare ostensive definition such as “red is that.” Here the demonstrative ‘that’ is supposed to acquire a denotation directly from experience, without the aid of any concepts. This is possible, the thought continues, only if the hallucinatory experience itself makes available the sensible quality red. Hence, the thought concludes, the experience must be directed to the quality red. Since the experience is a hallucination, this directedness must be intentional, not presentational.

I discuss ostensive definitions as well as bare ostensive definitions in Chapter 8. Here I note only the conclusions I reach there: Bare ostensive definitions are illegitimate and are not needed to make sense of empirical cognition. The acquisition of a concept on the basis of an experience never needs to go via a bare ostensive definition.

169. OBJECTION II REFORMULATED: “Your response may be alright to the objection as formulated above, but the Johnston-Pautz point is stronger. Their point is that *necessarily* any subject possessing the capacity to have beliefs *at all* can on the basis of the blood-drops hallucination acquire the concept

“red.” To understand this feature, one must take the hallucination to be intentionally directed to the quality red.”²⁴

REPLY: I am willing to grant the validity of the transition from the strengthened premiss to the indicated conclusion. But I see no reason to accept the strengthened premiss. The hallucination may occur in a world entirely devoid of color qualities. And the hallucinating subject may possess a rich conception of this world but may lack all color concepts, including the general concept “color.” The strengthened premiss has it that the subject can acquire the concept “red” in this world. There is no reason to think this is true—no reason to think that the subject can acquire the capacity to denote a quality that is alien to her world.²⁵

170. OBJECTION III: “Compare the appearance manifested by Jastrow’s duck-rabbit figure when you see it as a duck with the appearance manifested when you see it as a rabbit. The differences in the two appearances cannot be fully captured by pointing to the differences in the constituent line and shape appearances. There is a further important difference that lies in their forms, their gestalts—that is, in the ways in which the constituent line and shape appearances are pulled together and organized. This difference is due to the different concepts brought into play in the two experiences. It is the concepts that give the two appearances their distinctive gestalts. *Seeing as*, as Sellars and Norwood Russell Hanson have emphasized, involves appearances that are, in part, conceptual. But you fail to recognize the important constitutive role that the conceptual plays in the phenomenology of experience.”²⁶

24. This objection is based on what Pautz calls the “grounding” intuition in his essay “Why Explain Visual Experience in Terms of Content?” See Vuletić’s *Ways of Appearing* for a critical discussion of the grounding intuition.

25. Pautz gives another argument for intentionalism about experience. This relies on such phenomena as the Waterfall Illusion, which Pautz thinks demand inconsistent contents. I myself would want to put such contents at the level of thought, not at the level of experience. A subject undergoing the Waterfall Illusion may, on the basis of the experience, be tempted to issue inconsistent judgments. This is not at all mysterious; it is perfectly understandable. A subject looking at an Escher drawing may be tempted to issue inconsistent descriptions, though the distribution of lead on paper is perfectly coherent. Similarly, perfectly coherent appearances may tempt the subject to issue inconsistent perceptual judgments. The inconsistent contents belong to thoughts, not to experiences.

26. Sellars writes in “Phenomenalism” that “*being appeared to* is a *conceptual*—though not a merely conceptual—state of affairs” (p. 73). In later writings, he ties what he takes to be the

REPLY: Thoughts, intentions, and the like can affect, I have already noted, appearances manifested to a subject. Furthermore, appearances can be closely associated with concepts: the manifestation of a particular appearance may well bring to mind the concept “duck,” for example (see Part 7B). Finally, it may even be that we are so constituted that certain appearances can be manifested to us only if we possess certain concepts. Many conditions, both physical and psychological, need to be met if we are to enjoy experiences with a particular phenomenology, and possession of certain concepts may well fall among these conditions. None of this provides any grounds, however, for thinking that concepts or other conceptual items (e.g., Fregean senses) constitute appearances. When I choose to see the duck-rabbit figure as a duck and the figure then manifests a particular appearance to me, the manifestation of this appearance certainly depends on my choice to see the figure as a duck. Moreover, my circumstances and constitution may be such that this appearance would not be manifested to me if I did not possess the concept “duck.” However, the concept (or the corresponding Fregean sense) does not *constitute* the appearance. For the very same appearance may be manifested to the consciousness of a sentient being who does not possess the concept “duck”—perhaps the being inhabits a world in which there are no ducks, but only duck-like wooden carvings.

Appearances capture, I have emphasized, a particular dimension of identity among experiences. This dimension is unique to experiences; it is not shared by thoughts. Concepts capture a particular dimension of identity among thoughts (as also do Fregean senses, though perhaps they capture a different dimension of identity). These items, pertaining as they do to thought,

conceptual component of visual appearances to *seeing as* and the nonconceptual component to what he calls *seeing of* (“Some Reflections on Perceptual Consciousness” and “Role of Imagination in Kant’s Theory of Experience”). When one *sees* a pink ice cube *as* a pink ice cube, the visual experience contains, according to Sellars, a perceptual taking with a content “that pink cube of ice . . .” Also, Sellars thinks, one does not *see of* the pink ice cube its iciness; one sees only such things as its pinkishness and its cubicness. This fact Sellars explains through the sense impressions that, according to him, constitute the experience.

In Hanson’s account, the conceptual element and the sensory elements are somehow fused. “Seeing is, as I should almost like to say, an amalgam of the two—pictures and language” (*Patterns of Discovery*, p. 25). Concepts, Hanson thinks, “organize” the visual field (p. 23). For an illuminating critical exposition of Hanson’s account of experience, see Tom Raja Rosenhagen’s *Experience and Belief*.

I should also mention Brad Thompson’s “Senses for Senses,” which invokes Fregean senses to account for phenomenology, and Derek Brown’s “Losing Grip on the World.”

are heterogeneous with appearances and do not constitute them. The gestalt of seeing the duck-rabbit as a rabbit is not a concept or something that is constituted by a concept. The gestalt belongs to the same category as appearances.²⁷ Manifestation of a specific appearance, *pace* Sellars, does not constitutively involve the entertaining of a thought with a specific content, whether that content be a concept or a Fregean sense. A concept or a Fregean sense may well capture the manner in which an item is *thought*, but it does not capture or constitute the manner in which an item is *presented in experience* (see §250).²⁸

171. OBJECTION IV: “Presentation to consciousness is not a simple effect of the action of the world on the mind; it is a product of complex bodily and mental operations. The manifold of sensations provided by our sense organs is synthesized to generate that which we call “experience of the world.” It is through this synthesis that enduring and objective items come to be present to consciousness. The synthesis involves concepts and, more specifically, what Kant called ‘categories’ or ‘pure concepts’. As Kant says in a famous passage,

The same function which gives unity to the various representations *in a judgment* also gives unity to the mere synthesis of various representations *in an intuition*; and this unity, in its most general expression, we entitle the pure concept of the understanding. The same understanding, through the same operations by which in concepts, by means of analytical unity, it produced the logical form of a judgment, also introduces a transcendental content into its representations, by means of the synthetic unity of the manifold in intuition in general. (*Critique of Pure Reason*, A79 / B104–105)²⁹

27. I do not find Hanson’s suggestion that concepts “organize” the visual field helpful. How are we to think of concepts here? How do concepts relate to constituent appearances so that they can impose an organization on them?

28. An argument parallel to the one given above shows that dispositions to think or to act do not constitute phenomenology. Through a skeptical meditation, the subject may achieve epoché, but the phenomenology of her visual experience may persist unaltered. If so, then a disposition to assert various things or to do various things is not a constituent of the phenomenology. A parallel point holds for sensorimotor knowledge; it, too, is not essential to phenomenology. (See Noë’s “Experience and the Active Mind” and “Experience of the World in Time.”) A similar point holds for the Gibsonian account defended by Mohan Matthen in “How Things Look.” All this is consistent, I should note, with the idea that sensorimotor knowledge and ecological factors causally condition phenomenology.

29. All parenthetical citations in this section are to Kant’s *Critique of Pure Reason*.

So, while sensations and appearances may well be independent of thought, the directedness of experience to objective things (such as trees and houses) is not. This directedness is rooted in the mind's faculty of judgment, and hence in thought and intentionality."³⁰

REPLY: I wish to make several observations in response. (i) It is true that experience is not a simple effect of the actions of the world on the mind. It is a product of complex operations, operations that may well be influenced by beliefs and other mental states. This general fact has no tendency to show, however, that presentation depends on concepts or judgments. To establish the dependence, some specific ideas must be brought into play about the role of concepts and judgments in experience.

(ii) The specific idea on which the objection builds—namely, that concepts and judgments play a role in the synthesis of the manifold of sensations—is open to different interpretations, for the term 'sensation' is highly ambiguous. Two readings of 'sensation' are especially relevant here. On one reading, 'sensation' means particular outputs of sense organs, and these outputs may be (e.g.) patterns of neural firings. Now, it is likely that no experience is possible without some bringing together, some synthesis, of these outputs. So, we can plausibly say that some kind of synthesis of sensations underlies experience. The character of this synthesis is obscure, however, and that it occurs provides no grounds for thinking that concepts or judgments play any role in it. Hence, on the current reading of 'sensation', we have no reason to think that the presentation of an object in experience depends on concepts or judgments.³¹

On the other reading, 'sensation' means appearances. Under this reading, sensations are not plausibly regarded as outputs of sense organs that are then synthesized in an experience. For the manifestation of constituent appear-

30. In *Essentials of Logic*, Bernard Bosanquet presents a version of this picture that emphasizes acts of judgment. According to Bosanquet, "The system of things and persons . . . exists for each of us as something built up in his own mind . . . and out of the material of his own mind" (p. 6). "Our world is constructed by judgment" (p. 30) and "in a waking human consciousness nothing is unaffirmed" (p. 63). "The whole world . . . of our waking consciousness may be treated as a single connected predicate affirmed as an enlargement of present perception" (p. 37).

This kind of picture, which was highly popular in the nineteenth century, is different, as Bosanquet stresses, from Berkeley's "Subjective Idealism." It is, nevertheless, a form of idealism—an idealism rooted in thought, as opposed to sensory ideas—and it is no less radical.

31. Even if experience and thought involve some shared syntheses at the neural level, it does not follow that experience depends on thought, nor that the presentation of an item *i* to the subject's consciousness endows the subject with the ability to think of *i*.

ances is not prior to the manifestation of the overall phenomenology. Nevertheless, one may hold that there is a synthesis in the sense that appearances manifested in an experience instantiate a unity. And one may go on to claim that the source of the unity lies in concepts and/or judgments. Now, two sorts of unity pertaining to appearances may be distinguished, one objective and the other subjective. Appearances manifested in an experience form an objective unity iff they are appearances of the same presented object. For example, as one walks around a house, the house manifests different appearances to one, and these appearances instantiate an objective unity because they are appearances of the same house. To take another example, as one looks at a yellow lemon the color and shape appearances manifested to one instantiate an objective unity. Now, suppose, one presses one's eyes so that the lemon looks double. The resulting appearances instantiate one objective unity, but two distinct subjective unities. For another example where subjective unity and objective unity come apart, consider the visual experience at night of a series of light bulbs that go on and then off in quick succession. The appearances manifested exhibit a subjective unity—it is as if one object is moving through the dark—but no objective unity. Now, there is certainly a synthesis of appearances in experience if this is understood to mean that appearances manifested in an experience fall into these types of unity. However, without some additional premiss, the mere existence of such a synthesis fails to show that it depends on concepts and judgments. The objective unity of appearances, for instance, is plausibly viewed as an effect of the real, mind-independent unity and identity of the object, not as an effect of the play of any concepts or judgments in experience. Just as shadows fall into various natural unities; so, plausibly, do appearances.³²

(iii) Kant provided a revolutionary reason for holding that the source of the objective unity of appearances lies in concepts. This reason appealed to the idea that the theoretical sciences—including, arithmetic, geometry, and physics—rest on synthetic a priori principles. Kant pointed out that the possibility of synthetic a priori principles requires that empirical objects conform to our knowledge; more specifically, that our experience of objects “conform to the concepts” (Bxvii)—not the other way around. This

32. There is another kind of unity that is instantiated among appearances, namely, that the appearances are manifested to the same subject. Plainly, unless supplemented with further premisses, the existence of this kind of unity also fails to yield the conclusion that concepts or judgments are in play in experience.

requirement can be met, Kant pointed out, if one foregoes the idea that the objects of empirical knowledge are real things, things-in-themselves. The objective unity of the appearances of a house, for example, is not to be seen as issuing from the unity and identity of any real thing. The unity, and indeed the object itself, is a product of a synthesis rooted in the understanding, the faculty of judgment. So, on this proposal, we are not to take the source of the objective unity of appearances to lie in things-in-themselves but to lie, in part, in our concepts. The senses yield, Kant held, only objects as they appear to us (A249). The experience of objects, which Kant equates with knowledge of objects, is now to be conceived of as a product of a synthesis of appearances with the aid of concepts. Kant thus inverts the notion of experience: instead of thinking of the objects of experience as real things that manifest appearances to us, Kant proposes that we think of the objects of experience as unities of appearances instituted by the understanding in accordance with its rules. The move is revolutionary, and Kant himself compared it to the Copernican revolution.

The Kantian premiss about synthetic a priori principles would, if accepted, provide a strong reason to see the directedness of experience to empirical objects as rooted in the faculty of judgment. However, developments in logic, mathematics, and physics cast serious doubt on the Kantian premiss. Principles that were seen as fundamental in these disciplines, and that Kant took to be synthetic a priori, were found either to be analytic (grounded in definitions and pure logic) or to be a posteriori. Indeed, several of the so-called principles were found to be empirical falsehoods and were abandoned. So, however compelling the Kantian premiss may have been in Kant's day, *we* have little reason to accept it; and without this premiss, we have little reason to accept Kant's Copernican revolution. We have no reason, therefore, to abandon the natural view that the objects to which our experiences are directed are real things that are not in principle unknowable. Indeed, unless special reasons are provided to the contrary, we can retain the idea that the objects to which our experiences are directed are none other than such familiar things as trees and houses. And it is these objects, not concepts or judgments, that ground the objective unity of appearances.³³

33. The principal contemporary motivation for holding that concepts must be in play in experience is the idea that it would otherwise be unintelligible how experience can serve as a rational ground for empirical judgment. For expressions of this motivation, see, among others, Bengtson's "The Intellectual Given," Brewer's *Perception and Reason*, Hannah Ginsborg's "Rea-

172. Given that our task is to understand high cognitive functions—in particular, empirical reason—it would not be too damaging if we were led to a conception of conscious experience on which nonlinguistic animals cannot undergo (full-fledged) conscious experiences. It is worth noting, nevertheless, that this is not the case. The conception of experience we need to make sense of empirical reason, I am arguing, does not make experience dependent on thought. Presence does not generically or constitutively depend on intentionality. Things may be presented to a consciousness which that consciousness is incapable of knowing or of thinking about. An animal may experience colors and pain, for example, even though the animal is incapable of entertaining thoughts about colors and pains—or, indeed, about anything else. A pain experience of a dumb animal may even be subjectively identical to some of our own pain experiences. That it is no part of the animal's nature to issue complaints gives us no right to regard the animal as without feeling.

173. Presentation and intentionality, as I conceive them, are radically different aspects of the mind. Presentation is characterized by a certain blending; intentionality, by a certain separation. Each conscious experience presents the subject with a complex of elements, but in a “blended” manner, a manner that results from the “blending” of a variety of influences.³⁴ The products of this blending are manifestations of appearances. Because of the blending, the subject undergoing an experience may well lack the capacity to parse the presented complex into its elements. With thought, however, the situation is quite different. One's thought cannot be directed to a complex of elements (e.g., the peach's being sweet) if one lacks the capacity to articulate its constituent parts (e.g., the peach and sweetness).

Experience and thought are, thus, two radically different, indeed opposite, movements of the conscious mind. One passively blends the elements together, while the other actively separates them—or at least strives to do so.

sons for Belief,” McDowell's *Mind and World*, and Noë's “Thought and Experience.” The hypothetical given blunts the force of this motivation.

34. I take the metaphor of “blending” from Sextus's sixth mode of skepticism: “Sixth is the mode depending on admixtures. According to it we conclude that, since no existing object makes an impression on us by itself but rather together with something, it is perhaps possible to say what the mixture is like which results from the external object and the factor with which it is observed, but we cannot say purely what the external existing object is like” (*Outlines of Scepticism*, I.124).

174. In conclusion: Appearances are not mental items, nor are they physical. Appearances are not denizens of the Fregean third realm, nor do they belong to the realm of Platonic universals. Appearances occupy an intermediate logical realm through which (as we shall see) the mental trades with the physical, reason with sense, and through which thought acquires its object.

The Role of Appearances in Cognition

I DEVELOP IN this chapter an account of the role of appearances in cognition. In Part 7A, I set down an important principle that governs the given in experience, the Equivalence Principle. This principle reveals how the rational force of an experience depends on appearances. The principle leads to a distinction between connotation and denotation, which I spell out in Part 7B. In Part 7C, I use the distinction to resist some tempting but erroneous conceptions of the role of appearances in cognition. Finally, in Part 7D, I provide a summary statement of the account of experience I am putting forward, and I draw attention to a few of its general features.

7A. THE EQUIVALENCE PRINCIPLE

175. The Equivalence Principle states that subjectively identical experiences play the same *subjective* rational role in cognition. Let ' $e \approx e^*$ ' abbreviate ' e is subjectively identical to e^* '. And let ' $\Gamma_e \equiv \Gamma_{e^*}$ ' abbreviate ' e and e^* play the same subjective rational role'—the formula may also be read as '*the given in*

e is equivalent to the given in e^* . Then the Equivalence Principle can be formulated as follows:

The Equivalence Principle. If $e \approx e^*$ then $\Gamma_e \equiv \Gamma_{e^*}$.

Subjectively identical experiences, e and e^* , may yield givens that are distinct (i.e., $\Gamma_e \neq \Gamma_{e^*}$). The *total* rational roles of e and e^* in cognition may, therefore, be different— e and e^* may, for instance, enable the subject to introduce names for different things. Nonetheless, a certain equivalence obtains between the givens in subjectively identical experiences. I begin by spelling out what this equivalence amounts to under the idea of the hypothetical given. Then I shall remark on what it amounts to under Naive Realism and under Cartesian conceptions of experience.¹

176. Imagine two possibilities, one in which a subject, X , looks at a boy, Mel, and undergoes a visual experience e ; and the other in which the subject looks at Mel's identical twin, Mel*, and undergoes a visual experience e^* . The two experiences, let us take it, are subjectively identical. Suppose now that, in each case, X accepts the same ordinary view v of the world and does so rationally; and, furthermore, that X issues, in each case, the judgment J , "I see a boy." Suppose, finally, that the subject's judgment is rational in the first case, in which X undergoes e . Now, the Equivalence Principle is motivated by the thought that the subject's judgment is rational in the second case as well, in which X undergoes experience e^* . It will be useful to spell out how this thought can be sustained under the idea that the given is hypothetical.

According to the hypothetical given, the role of experience e in rendering the judgment J rational is to render rational the transition from the subject's acceptance of view v to the subject's acceptance of judgment J , a transition that we represented earlier thus:

1. In *Empiricism and Experience*, I conceived of the given as capturing the rational role of an experience *purely from the subject's point of view* and, therefore, formulated the Equivalence Principle as requiring that subjectively identical experiences yield *identical* givens. This conception of the given requires a highly abstract notion of transition. I have come to think it is clearer and better to work with a more concrete notion, one that allows the inclusion of external elements in transitions. It is for this reason that the present formulation of the Principle requires only that the givens be equivalent, not that they be identical. The root idea of the Principle remains unchanged, though, in this shift in formulation.

- (1) (Accept: v) \rightarrow (Accept: J).

The role of experience e in rendering J rational can then be represented as follows (§73):

- (2) Γ_e : (Accept: v) \rightarrow (Accept: J).

Since e and e^* are subjectively identical, the Equivalence Principle implies that $\Gamma_e \equiv \Gamma_{e^*}$. Under the hypothetical given, the force of “ $\Gamma_e \equiv \Gamma_{e^*}$,” in the present example, amounts simply to this: the status of transition (1) with respect to e and e^* is the same. That is,

- (3) $[\Gamma_e$: (Accept: v) \rightarrow (Accept: J)] iff $[\Gamma_{e^*}$: (Accept: v) \rightarrow (Accept: J)].

It follows from (2) and (3) that the transition to the judgment J is rational in the second case as well, in which the subject undergoes experience e^* . Since, by hypothesis, the acceptance of v is rational in this case, it follows that judgment J is rational as well.

To repeat the main point: under the hypothetical given, “sameness of subjective rational role” implies that (3) holds. Implications such as this one do not exhaust, however, the content of this sameness.

177. Consider the following variant of the above example—for ease of reference, let us call this new version the *Main Twin Example*. Let us imagine that our subject, X , knows Mel but is oblivious of the existence of Mel’s twin, Mel*; let us take it that the subject’s view v is, nonetheless, rational. Let us imagine further that, as X undergoes experience e , he issues a judgment Q by saying out loud “that boy is Mel” as he points to Mel. He goes through the same motions, let us imagine, in the second case, in which he undergoes the subjectively identical experience e^* : he affirms out loud “that boy is Mel,” as he points in the same way, but now to the twin Mel*. In the second case, X ’s judgment, Q^* , is not identical to Q , for the two judgments possess different contents. The judgment Q is about Mel whereas Q^* is about Mel*. Nonetheless, the two judgments are *counterparts* of one another, as also are the two transitions,

[(Accept: v) \rightarrow (Accept: Q)] and

$$[(\text{Accept}: v) \rightarrow (\text{Accept}: Q^*)].$$

(In the previous version of the example, transition (1) was a counterpart of itself.) We can now capture the force of saying that experiences e and e^* are playing the same subjective rational role thus: e renders the one transition rational iff e^* renders the counterpart transition rational. In particular,

$$[\Gamma_e: (\text{Accept}: v) \rightarrow (\text{Accept}: Q)] \text{ iff } [\Gamma_{e^*}: (\text{Accept}: v) \rightarrow (\text{Accept}: Q^*)].$$

This yields immediately that X 's judgment Q^* , though distinct from Q , is rational in the second case, in which X undergoes e^* .

178. I can now set down what “sameness of subjective rational role” comes to if the given is hypothetical. (In the following formulation, I make explicit some relativizations that were left implicit in the discussion above.)

Experiences e and e^* play the same subjective rational role (that is, $\Gamma_e \equiv \Gamma_{e^*}$) iff, for all possible situations s and s^* and all possible transitions T and T^* such that

- (i) e and e^* occur in, respectively, s and s^* ; and
- (ii) T^* is a counterpart, relative to s^* and e^* , of T in s and e , the following equivalence holds:

e renders T rational in s iff e^* renders T^* rational in s^* .

Observe that under this reading of ' $\Gamma_e \equiv \Gamma_{e^*}$ ', the converse of the Equivalence Principle holds also: subjectively distinct experiences play distinct rational roles.

179. An extended disquisition is possible on the notions “*counterpart judgment*” and “*counterpart transition*” brought into play above. For the purposes to which I shall put these notions, a rough and intuitive understanding will suffice. The following observations are aimed at promoting such an understanding.

- (i) The counterpart relation depends on appearances and on the relation of these appearances to judgments. In the Main Twin Example (§177), judgments Q and Q^* are counterparts because the very same appearances are manifested to our subject and, furthermore, the judgments are related to

these appearances in the same way. For instance, in both cases, the concept “that boy” is linked to the same appearance. The denotations of “that boy” are different in the two cases; still, the relevant appearances are the same. Had the appearances been at all different, the two judgments would not have been counterparts of one another.

(ii) Two judgments can be counterparts of one another even though one is true while the other fails to possess a determinate worldly content. Consider the following modification of the Main Twin Example. We keep the first case of the example the same: X undergoes e and issues the judgment “that boy is Mel” (Q). And we make only one modification in the second case: we have X undergo an experience e' that is a total hallucination and that is subjectively identical to e . Let Q' be the judgment that X issues in the second case. In this modified example, Q and Q' are counterpart judgments, even though Q is a true judgment and Q' is a defective one. Q' is not about any boy (or about any other thing), for in the second case, our subject X is hallucinating. The Equivalence Principle yields nonetheless that judgment Q' is just as rational as the judgment Q .

(iii) Counterpart transitions, we have seen, can contain distinct consequent judgments. They can contain also, we should note, distinct antecedent views. This can be seen by considering an extension of the Main Twin Example. Let us keep everything the same as before, but let us imagine that our subject, X , undergoes a further visual experience. In the first case, he undergoes an experience e_1 of Mel sitting; and in the second case, he undergoes a subjectively identical experience e_1^* of Mel* sitting. In each case, X issues a further judgment by affirming “that boy is sitting.” The judgments issued in the two cases—say, R and R^* , respectively—are different, but let us take it that they are counterparts of one another. Now, when X issues the judgments R and R^* , his antecedent views are not the same. In the first case, he accepts a view, v_1 , that results from his modification of v in light of his experience e . Let us assume, for simplicity, that v_1 results from v by conjoining to it the acceptance of judgment Q . (The assumption is inessential; it can be dispensed with if we are willing to work with a more complex example.) In the second case, X accepts a view, v_1^* , that results from his modification of v in light of experience e^* . Here, again, let us assume that v_1^* results from v simply by conjoining to it the acceptance of judgment Q^* . Views v_1 and v_1^* are plainly distinct. Nonetheless, the transitions

$[(\text{Accept: } v_1) \rightarrow (\text{Accept: } R)]$ and

$[(\text{Accept: } v_1^*) \rightarrow (\text{Accept: } R^*)]$

are counterpart transitions. So, the antecedent views in counterpart transitions need not be identical; they need only be counterparts of one another. In the present example, views v_1 and v_1^* are *counterpart views*.

(iv) The counterpart relation does not require identity of subject. Two different subjects can begin with views that are counterparts of one another; they can undergo experiences that are subjectively identical; and they can issue perceptual judgments that are themselves counterparts of one another. The two transitions to judgments in such a case will also be counterparts of one another. By the Equivalence Principle, if one of these transitions is rational then so also is the other.

180. Naive Realism fails to sustain the Equivalence Principle. Naive Realism takes experience to acquaint the subject with certain items in the world (e.g., with particular boys and with their features) and, thus, to make available to the subject certain judgments under certain modes.² More specifically, according to Naive Realism, experience can render rational *judgments*, and not merely *transitions*, as under the hypothetical given. Hence, under Naive Realism, the Equivalence Principle implies the following:³

(4) Let e and e^* be subjectively identical experiences in situations s and s^* , respectively. Furthermore, let judgment P^* (relative to e^* and s^*) be the counterpart of P (relative to e and s), and let m be an arbitrary mode. Then:

e makes available P under mode m in situation s iff e^* makes available P^* under mode m in situation s^* .

More specifically,

2. For an explanation of “modes,” see §51; examples of modes are “knowledge,” “tout court justification” and “prima facie justification.”

3. Statement (4) does not capture the full force of the Equivalence Principle for it restricts itself to judgments. It does not address the contribution of experience to (e.g.) concept possession.

e renders P rational in situation s iff e^* renders P^* rational in situation s^* .

Under Naive Realism, statement (4) is plainly false; total hallucinations provide an obvious counterexample. For such hallucinations acquaint the subject with no ordinary things, such as boys, and thus can render no judgments about them rational. So, in the example given in §179(ii), the hallucinatory experience e' cannot render the judgment Q' ("that boy is Mel") rational. According to Naive Realism, however, the subjectively identical experience e does render the counterpart judgment Q rational.⁴ Hence, Naive Realism fails to sustain (4).

The Equivalence Principle poses a problem for Naive Realism even in cases of veridical perception. Consider again the Main Twin Example (§177). Here, according to Naive Realism, experience e acquaints X with Mel and renders rational the judgment Q ("that boy is Mel"). However, the subjectively identical experience e^* provides no acquaintance with Mel; it provides acquaintance only with Mel*. This creates a difficulty for any Naive Realist attempt to sustain the rationality of the counterpart judgment Q^* . Q^* affirms the identity of Mel* with Mel, but experience e^* cannot acquaint X with any such identity, for no such identity obtains. An appeal to the constituents of Q^* does not help either, for e^* does not acquaint X with the property "identical to Mel," nor does e^* provide any other basis for attributing "identical to Mel" to Mel*. Naive Realism, it appears, has no resources to explain the rationality of Q^* and must end up denying the Equivalence Principle even in cases involving veridical experiences.

181. Cartesian conceptions of experience, in contrast, sustain (4) and, more generally, the Equivalence Principle. Let us work with Russell's Acquaintance Model for definiteness. According to this model, experience does not acquaint a subject with ordinary things (such as boys) but with sense-data. Consequently, experience does not make available ordinary perceptual judgments (under any modes); it makes available only special sense-datum

4. Or so we can suppose. If the Naive Realists deny it, we can shift to an external-world judgment that they would take to be rendered rational by experience e . If the Naive Realists say that judgment Q is made available only under a mode such as "default rational," we can suppose that the subject has no reasons against accepting Q and, thus, in the case at hand, that default rationality amounts to rationality.

judgments. Thus, according to the Model, in the Main Twin Example, experience e does not render judgment Q (“that boy is Mel”) rational; nor does the subjectively identical e^* render the counterpart judgment Q^* rational. Instead, e renders rational a judgment such as “that irregular shaped sense-datum is pale,” and e^* renders rational the counterpart of this judgment. The difficulty the twins example creates for Naive Realism does not arise at all for the Acquaintance Model. Even hallucinations create no difficulty. Subjectively identical hallucinations, the Model holds, acquaint the subject with sense-data. Consequently, the counterpart sense-datum judgment is rendered rational by the hallucinatory experience.

Russell’s Acquaintance Model preserves the Equivalence Principle not only with respect to the contribution of experience to judgments but also with respect to the contribution of experience to the acquisition of general concepts. The Model preserves (5):

- (5) Let e and e^* be subjectively identical experiences. Then, e makes available general concept C iff e^* makes available C .

For example, if experience e makes available the concept “pale” by acquainting the subject with paleness then a subjectively identical experience, even when hallucinatory, also acquaints the subject with paleness and thus makes available the concept “pale.”

182. Let the *propositional given* be the idea that the contribution of experience to cognition is propositional in form and substantive in content; more specifically, experience provides the subject with substantive rational judgments.⁵ I have inserted the qualification ‘substantive’ to exclude the possibility that experience provides only empty judgments such as “nothing fails to be self-identical” or judgments built solely out of demonstrative concepts (judgments such as “this is that”). Then, Cartesian conceptions of experience, as I see them, are inevitable consequences of two ideas: (i) the Equivalence Principle and (ii) the propositional given. Once these two ideas

5. In this characterization, we can weaken “rational” to “default rational”; the argument to follow will still go through. The argument assumes that the modes under which judgments are given are compulsive, not merely permissive (§51). This assumption is harmless, for permissive modes do not yield remotely plausible accounts of the given (§66).

are accepted, a Cartesian conception of experience is forced; there are no other viable options. This can be seen as follows.

Assume the Equivalence Principle and the propositional given, and consider an ordinary visual experience e —say, for a change in example, an experience one undergoes as one is looking at a hillside. Now, according to the propositional given, e provides the subject, X , with some substantive rational judgments. Suppose, without loss of generality, that one such judgment, P , is “there is a G .” I argue that G cannot be an ordinary concept such as “bird” and “tree.” Suppose, for *reductio*, that G is such a concept, say “bird.” Then, by the Equivalence Principle, the counterpart of P , say P' , must be rendered rational by a subjectively identical total hallucination e' . Now, plainly, experience e' may occur when the subject does not possess the concept “bird.” We can even imagine that e' is one of the first experiences of our subject and, consequently, when he undergoes e' , his conceptual resources are meager. Now, by the propositional given, P' must contain as a constituent the concept “bird,” and the subject must be in a position to rationally acquire this concept on the basis of e' . For if the subject were not in such a position, then he could not be criticized at all for failing to recognize a commitment to P' when he undergoes e' ; and, hence, P' would not be rendered rational by e' . So, to repeat, the subject must be in a position to rationally acquire the concept “bird” on the basis of e' .⁶ This is impossible, however. For e' is a total hallucination and our subject’s conceptual resources are meager. Hence, e' does not provide a basis on which X could acquire the concept “bird.” For instance, X could not acquire the concept through the stipulation “let birds be things of the kind to which *this* belongs,” as he experientially demonstrates some item while undergoing e' . Whatever item X is picking out with his demonstration (if he is picking out any item at all), that item is not a bird. X cannot, therefore, gain the concept “bird” through the stipulation. (A contrast: a counterpart stipulation in a situation in which X is seeing a bird might well have succeeded in equipping X with the concept “bird”; not so in the present situation, however, in which X is hallucinating.) Conclusion: ordinary concepts such as “bird” and “tree” cannot

6. Note that this subargument goes through if the mode invoked in the propositional given is “default rationality.” When the subject undergoes e' , the subject would possess no reasons that count against the acceptance of P' (because of the subject’s weak conceptual resources) and, thus, the default-rationality of P' would translate into rationality-tout-court of P' .

figure in judgments given in an experience.⁷ The argument generalizes and yields the following useful corollary:

- (6) Any substantive concept brought into play in a judgment given in an experience must be such that it can rationally be acquired on the basis of any subjectively identical experience.⁸

Ordinary concepts pertaining to the external world fail to meet this requirement; hence, ordinary perceptual judgments cannot belong to the given in experience.

183. The two ideas, the Equivalence Principle and the propositional given, now yield (i) that there are certain extraordinary concepts that satisfy the condition laid down in (6); and (ii) that the contribution of experience to knowledge consists in certain extraordinary judgments built from these concepts. The plausible idea that experience lies at the basis of our empirical knowledge now translates into the thought that these extraordinary judgments lie at the foundations of knowledge, and a fundamental problem of epistemology is to spell out how the ordinary superstructure of our empirical knowledge can logically be derived on the basis of the extraordinary substructure. We thus arrive at the core ideas of Cartesian conceptions of experience and of empirical knowledge.

The specific form the core ideas take varies from one Cartesian conception to another. Thus, some accounts take the extraordinary concepts and judgments to pertain to sense-data and to be acquired through acquaintance with sense-data, as in Russell's Acquaintance Model. Other accounts take the extraordinary concepts and judgments to pertain to mental states and to be acquired through introspection of these states. And there are other possibilities as well. These specific accounts gain a good bit of their plausibility from the thought that the core ideas of Cartesianism are inevi-

7. The appeal to a hallucination makes the argument given more vivid but the appeal is inessential. The argument can be run with a veridical perception, e' , that is subjectively identical to e and which is a perception of a bird replica, say, and not a perception of a bird.

8. No restriction is being placed on the logical concepts that can enter into such judgments; that is why I am restricting the claim to substantive concepts—where substantive concepts are concepts that purport to denote particular objects, kinds, qualities, and relations in the world.

table and, therefore, some mechanism *has* to be posited that accounts for the subject's access to extraordinary concepts and judgments. And there is at least this much truth in this thought: a Cartesian conception is indeed inevitable *if* the Equivalence Principle and the propositional given are accepted; there are, as I said, no viable alternatives. The Equivalence Principle is, I think, true. The problematic source of Cartesianism, as I see it, is the propositional given—a thesis that has been accepted by many critics of Cartesianism. Cartesian conceptions do not arise from silly mistakes.⁹ Nor do they arise from a pathological preoccupation with certainty. Their true source is a highly plausible logical idea.¹⁰

184. The Equivalence Principle is internalist and subjectivist in its stance on rationality. In assessments of rationality, we must give due weight, the Principle dictates, to the subject's viewpoint and to the subjective dimension of experience. The Principle sustains the following internalist and subjectivist idea: Imagine two subjects that accept counterpart views and whose acceptance of these views is equally rational. The subjects, let us imagine, undergo subjectively identical experiences, engage in counterpart reasoning, make counterpart choices, and issue counterpart judgments. Perhaps one subject is an ordinary human being and the other is a human brain that was envatted at some point in its life. Now, according to the internalist-subjectivist idea, the judgments of the one are just as rational as the judgments of the other. From an external point of view, the situations of the two subjects are quite different: one subject possesses (we can suppose) mostly true beliefs about the world while the other is thoroughly deluded. Still, the internalist-subjectivist thought, sustained by

9. See footnote 29 in Chapter 1 for some examples of “silly mistakes” that have been attributed to sense-datum theories.

The argument to the conclusion that the propositional given forces a Cartesian conception of experience can be simplified if we assume the reliability of the given; see *Empiricism and Experience*, chapter 2.

10. In his paper “The Given in Perceptual Experience,” Erhan Demircioğlu puts forward the view that it is the Equivalence Principle, not the propositional given, that is the source of Cartesianism. Demircioğlu argues that the Equivalence Principle by itself suffices to reach the Cartesian conclusion. Demircioğlu's argument proceeds via the step that “hallucinatory experiences cannot yield anything objective” (see section 1 of his paper). I myself do not see how this step can be reached without the aid of some supplementary assumption, such as the propositional given, over and above the Equivalence Principle.

the Equivalence Principle, has it that both subjects are equally rational in their judgments.^{11,12}

185. The hypothetical given allows one to accept the Equivalence Principle—and thus give due weight to the subjective dimension of experience—without committing oneself to any problematic, Cartesian conception of subjectivity. In particular, the hypothetical given, when joined with the Equivalence Principle, does not imply any of the following:

- (i) that there are private entities, mental or otherwise;
- (ii) that there is nothing to an experience beyond its phenomenology;
- (iii) that the subject has privileged access to, or grasp of, any items—phenomenological or otherwise;

11. A variant of the example may help underline the internalist point: The deluded subject may undergo subjectively identical experiences not because of an envatting but because of a terrible malfunction in the brain. Still, the subject's judgments would remain equally rational. Here sameness of rationality does not trace back to sameness of excellence in brain function.

12. Compare the present proposal with that of Brian Loar in "Phenomenal Intentionality as the Basis of Mental Content." Loar introduces the idea of "phenomenal intentionality," a directedness that is nonrelational and that is an internally constituted feature of experiences and concepts. Loar holds that in experience there are qualia that "point"; that is, each experience possesses qualitative intentional features that are independent of the subject's situation in the world (p. 251). Loar motivates his view, in part, by examples such as that of phenomenological duplicates considered above. Such duplicates, Loar thinks, conceive things in the same intentional manner: their mental states possess the same internal, phenomenal intentionalities. (Terence Horgan has put forward a similar conception of phenomenal intentionality. See his "Original Intentionality Is Phenomenal Intentionality"; "Intentionality of Phenomenology and the Phenomenology of Intentionality," coauthored with John Tienson; and "Internal-World Skepticism and the Self-Presentational Nature of Phenomenal Consciousness," coauthored with Tienson and George Graham.)

Under the present proposal, Loar's internalist motivations are respected but without his theoretical apparatus. Presentation—that is, experiential directedness—is *not* internally constituted; it is externalist. What is present to a subject's consciousness depends, in general, on the subject's environment. The proposal associates no internalist mental-content with experience; indeed, it associates no mental content over and above the elements to which an experience is directed. (And 'content' is not a proper label here, for these elements are not the sort of thing that can be assessed for truth and falsity or for accuracy and inaccuracy.) Furthermore, the present proposal makes no use of experiential representations and qualia. Nevertheless, the proposal respects the internalist idea that phenomenological duplicates do not differ with respect to rationality. Furthermore, it is consistent with Loar's rejection of strong externalist theses—for example, the thesis that purported reference to external objects presupposes genuine relations to such objects.

- (iv) that there are any propositions that are indubitable, incorrigible, or self-evident—or even that there are any propositions that are rendered *prima facie* justified by experience; and
- (v) that when a belief is rational/justified, the subject has access to—let alone that she is in a position to set out—a justification for the belief.¹³

The faulty source of problematic conceptions of subjectivity is not the Equivalence Principle but erroneous ideas about the rational role of experience. The Equivalence Principle, I want to suggest, is the proper formulation of the demand that, in empirical cognition, the subject's viewpoint be respected. The Principle is subjectivist and internalist to just the right degree, and its preservation is a desideratum on any account of empirical rationality.

7B. CONNOTATION AND DENOTATION

186. The Equivalence Principle states that subjectively identical experiences yield equivalent givens. It follows that the contribution of an experience to the rationality of a perceptual judgment depends not on the *objects* presented but on the *appearances* these objects manifest to the subject's consciousness. Had the subject undergone a different experience, the rationality of the perceptual judgment would be assured to remain the same so long as the same appearances were manifested in it. Hence, as far as the rationality of perceptual judgments is concerned, our view joins with the world at the level of appearances, not at the level of reality. This is a fundamental consequence of the Equivalence Principle.

187. Russell offered a specific account of the joining of view to appearances. Russell equated, we noted above, appearances with sense-data. According to him, we come to know appearances first, and this knowledge of

13. Even an anti-Cartesian thinker such as Hill can succumb to some of the charms of Cartesianism. In "Content of Visual Experience," Hill accepts the idea that "the phenomenological dimension of an experience is a dimension that is *given to* the subject in virtue of having the experience, so it is a dimension that the subject grasps or appreciates" (p. 220). A little later he writes, "Experience is exhausted by phenomenology, where phenomenology has to do with the qualitative character of experience, and each qualitative characteristic corresponds to a way of appearing" (p. 229).

appearances is the basis for our knowledge of reality. Recall Russell's statement that "what we directly see and feel is merely 'appearance', which we believe to be a sign of some 'reality' behind" (quoted above in §13).¹⁴ Russell held, moreover, that the "'reality' behind" becomes an object of thought only indirectly. Particulars denoted by genuine proper names, he believed, are invariably appearances—more precisely, appearance tokens (= sense-data). Proper names (e.g., 'the Taj Mahal') that purport to denote ordinary objects are, according to him, disguised definite descriptions which, unlike genuine proper names, acquire their denotations indirectly.¹⁵

Russell was right to give appearances a vital role in empirical cognition, but he misconceived their role.

188. The hypothetical given suggests a conception different from Russell's: appearances are not the first objects of knowledge and denotation; instead, they underwrite rationality of transitions, and they help determine counterpart relations.

We can spell out this conception by reflecting again on the Main Twin Example (§177). In the first case stipulated in the Example, our subject *X* undergoes a visual experience *e* of a boy, Mel, and issues the judgment *Q* (by saying out loud "that boy is Mel"). Now the role of appearances in the rationality of *X*'s judgment is as follows. Mel manifests a certain appearance *a* in *X*'s experience *e*. This appearance is distinct from Mel, and it is not the denotation of *X*'s token—say, *t*—of 'that boy'. Still, the appearance bears an important relation to token *t*. Let us call this relation *connotation* (more precisely: *application connotation*).¹⁶ Let us say that token *t* *connotes*

14. In 1914, when he entered the Phenomenalist phase, Russell no longer drew a substantive distinction between appearances and reality. In this phase, his aim was to construct physical objects from sense-data.

15. I should note that Russell has no use for the notion "denotation of a definite description," for he does not think that definite descriptions are genuine constituents of propositions. I should note also that the position on proper names I am outlining is the position Russell held in his Platonist period; his positions in the Phenomenalist and the Neutral-Monist periods were somewhat different.

16. I am using John Stuart Mill's term 'connotation', but I am putting it to a use different from Mill's. My use is closer to, but not identical with, Locke's use of 'signification'. According to Locke, "*Words in their primary or immediate Signification, stand for nothing, but the Ideas in the Mind of him that uses them*" (*Essay*, III.2.2). Earlier in the *Essay*, one of the several explanations Locke gives of 'idea' is in terms of appearance. In the "Epistle to the Reader," for instance, he refers to a simple idea as "*that simple appearance, which the Mind has in its view, or*

appearance a , and let us call a *the (application) connotation of t* .¹⁷ The *denotation* of token t is a flesh-and-blood person; the *connotation* of t , on the other hand, is an ephemeral appearance. As X 's viewpoint on Mel shifts, the appearances Mel manifests are liable to shift, and hence the connotation of different tokens X produces of 'that boy' are also liable to shift; but the denotation of the different tokens would remain the same enduring boy, Mel. The situation is similar with X 's token of 'Mel': the token denotes the boy, Mel, and connotes the same appearance, a . It is the identity of connotation that underwrites the rationality of the transitions from X 's view to X 's judgment Q ("that boy is Mel"). Note that the connotation of a token is view-dependent: there is no intrinsic / semantic connection between a token of (e.g.) 'the boy' and any appearance. The connotation, if any, of a token depends on the view (and, of course, on experience). Hence, appearances cannot by themselves render a judgment such as Q rational; what they render rational is a transition.

Now let us turn to the second case stipulated in the Main Twin Example. Here our subject looks at the twin Mel* and undergoes a visual experience e^* , subjectively identical to e . Furthermore, the subject X issues the counterpart judgment Q^* by uttering the same words ("that boy is Mel"). Now the denotation of X 's token of 'that boy' is different from what it was in the first case, but the connotation of the token is the same, as also is the connotation of 'Mel'. It is the sameness of connotations across the two cases that explains (in part) why judgments Q and Q^* are counterparts of one another and why the two transitions involving them are equally rational.

Even if our subject were hallucinating, as in the variant example introduced in §179(ii), the appearances would be same. The corresponding judgments would again be counterparts, and the transitions would again be equally rational.

189. The notion of connotation, like that of denotation, is applicable not only to tokens but also to types; and it is applicable not only to singular terms but also to general terms, so long as these terms are amenable to certain sorts

perceives in it self, when that Idea is said to be in it" (p. 13). I have chosen 'connotation' over Locke's 'signification' because in earlier work I have used 'signification' to designate a different relation between language / thought and the world.

17. The notion of connotation extends to expressions also, but must here be relativized to an occasion of perceptual use: "on occasion o , expression z connotes appearance a ."

of perceptual uses. For example, an expression such as ‘blue cube’ possesses, for typical English speakers, a denotation as well as a connotation. The denotation is a *property*, which is instantiated in various things; the connotation is a complex, which we may call a ***phenomenological profile*** and which captures aspects of the subject’s use of the expression in possible perceptual situations. Two components of a phenomenological profile are particularly noteworthy:

- (i) ***Application profile***. This captures the use of the expression—in our example, ‘blue cube’—in identification judgments such as “this is a blue cube” and “that is a blue cube.” Blue cubes tend to manifest different appearances as one views them from various vantage points and in various circumstances. For a given subject with a particular view, some of these appearances render rational transitions to identification judgments and others do not. The application profile of ‘blue cube’ (for the particular subject and her view) consists of appearances that correspond to this aspect of the subject’s use of ‘blue cube’.
- (ii) ***Standard profile***. This captures the use of the expression in perceptual situations that the subject takes to be ordinary. So, the standard profile of ‘blue cube’ consists of those appearances whose manifestation would prompt a rational transition to an identification judgment if the subject took it that the perceptual conditions were ordinary.

The application profile of an expression is highly variable. As the subject’s beliefs about the lighting conditions shift, the subject’s application profile for ‘blue cube’ also shifts; the standard profile, on the other hand, remains the same. Note that if the subject takes the perceptual conditions to be ordinary (whether they are ordinary or not), then the application profile is identical to the standard profile.

Phenomenological profiles possess other components besides application and standard profiles; for present purposes, it will suffice to take notice of just these two.¹⁸

18. There is, for instance, a phenomenological profile for the principles of identity associated with common nouns. This profile enables the subject to make rational transitions to judgments such as “this is the same snake as that one.”

190. Some observations about connotations of expressions and their component profiles:

(i) The notions “application profile,” “standard profile,” and “connotation” can be extended to sentences. The application profile (for a subject and her view) of a sentence such as “there are two blue cubes here” consists of appearances that prompt transitions to affirmations of the sentence. The standard profile, on the other hand, consists of the appearances that prompt these transitions when the subject takes it that the perceptual conditions are ordinary. Connotation of a sentence includes the application profile and the standard profile among its constituents.

(ii) A complex expression (e.g., ‘dog with fleas’) may possess, for a subject, an application profile even though a constituent expression (e.g., ‘flea’) lacks such a profile. The subject may issue the judgment “that is a dog with fleas” in certain perceptual situations in which a dog’s behavior manifests a certain appearance, even though the subject cannot issue the identification judgment ‘that is a flea’ in any perceptual situation.¹⁹

(iii) Expressions that possess application and standard profiles for a subject may be called **observational for** that subject; expressions that are observational for members generally of a linguistic community may be called **observational for** that community. ‘Photon’ and ‘human DNA’ are examples of expressions that are not observational for English speakers; ‘light’ and ‘man’, on the other hand, are expressions that are observational for such speakers.

(iv) Connotation is distinct from Fregean *Sinn*. Connotation is tied essentially to perception; not so for Fregean *Sinn*. Connotation fails to determine denotation; not so for Fregean *Sinn*. Finally, the connotation of any term is liable to vary from user to user and from view to view; again, not so for Fregean *Sinn*.

7C. THE SKEPTICAL MEDITATION

191. Philosophers, both ancient and modern, have noted the distinctive logical behavior of a special class of judgments. Contrast the behavior, in ordinary empirical dialectic, of a perceptual judgment such as

19. The example is Quine’s, though he used it for a different purpose, I think.

(7) that over there is a white bird

with that of the judgment

(8) it appears to me as if there is something white.

Judgment (7) is open to a range of legitimate challenges; indeed, one can be forced to withdraw it in light of certain authoritative claims. Not so for (8): this judgment is open to very few, if any, legitimate challenges. Moreover, no one can claim to be a higher authority, or even an equal authority, with respect to (8) than the subject issuing the judgment. A legitimate doubt can certainly be raised about the sincerity of the subject asserting (8), but this doubt is entirely consistent with a recognition of the subject's higher authority.²⁰

Even in extraordinary dialectic, (8) occupies a special position. Suppose one engages in an imaginary internal debate modeled on Descartes's "Meditation I": one challenges the reliability of one's senses; one doubts whether one is awake; and one goes on to posit an evil demon bent on deceiving one. In the imaginary skeptical epoché thus reached, one sets aside almost all of one's worldview and with it judgments such as (7), but judgment (8) remains untouched. The skeptical meditation reveals that (8) possesses a high grade of security and certainty.

192. Let us notice that (8) can be interpreted in two distinct ways, and the observations just made hold on either way of interpreting it. In the first interpretation, (8) is a report about the subject's thinking or inclination to think that there is something white. Under this interpretation, the subject's judgment (8) provides its own confirmation. In the second interpretation—and it is the one that concerns us here—(8) is a report about the subject's experience. The content of (8) under this reading can also be expressed thus:

(9) I am undergoing a white experience, and

(10) a white appearance is manifested to me.

20. Since our topic is *judgment*, the issue of properly understanding *words* is not in play.

When (8) is read in the first way, ‘appears’ can be iterated. One can say

it appears to me as if it appears to me as if there is something white,

and this has roughly the force of saying

I think that I think that there is something white.

When (8) is read in the second way, however, iterations of ‘appears’ make no sense. I shall call sentences like (8) when they are understood in the second way *phenomenological descriptions*, and the judgments they are used to make, I shall call *phenomenological judgments*. The Cartesian meditation shows that, of all empirical judgments, phenomenological judgments possess the highest grade of security and certainty.²¹

193. Philosophers have noted also the distinctive logical characteristics of a special class of concepts. Both “white” and “bird,” for example, are empirical concepts, but “white” is on a much more secure logical footing than a concept such as “bird.” In the epoché reached through the skeptical meditation, one brackets the legitimacy of the concept “bird,” for the point of this concept lies in what it denotes in the external world, about which the meditation leads us to suspend judgment. The concept “white,” on the other hand, remains legitimate and useful through its relationship to experience and, in particular, its role in phenomenological judgments. Philosophers have thus been led to distinguish a special class of empirical concepts—*phenomenological concepts*, as I shall call them. This class includes concepts for what have traditionally be called proper sensibles (such as “white,” “hot,” and “sour”) and common sensibles (such as “triangular”). It includes also concepts pertaining to feelings and moods (such as “pain” and “sad”). The class excludes concepts for kinds such as “bird” and “sloop,” even though

21. Roderick Chisholm calls uses of ‘appears’ that yield the first interpretation “epistemic” on the grounds that, as he sees it, such uses imply that the subject has adequate evidence for the relevant claim—in the present example, that something is white (*Perceiving*, p. 44). It seems to me that such an implication does not always hold. My nonphenomenological judgment “it appears to me as if *p*” can be true even if I wrongly think that I possess adequate evidence for the claim that *p*.

these concepts are rightly regarded as observational concepts. The class excludes, of course, all theoretical concepts.²²

194. Phenomenological concepts and judgments possess a security and certainty that, according to many foundationalist philosophers, render them fit to serve a foundational role. Some philosophers take these concepts and judgments to constitute the base to which all other legitimate concepts and judgments are reducible. Others conceive the relationship between foundations and superstructure in a less rigid way (e.g., as evidence to theory). Either way, the epoché reached through the Cartesian meditation is seen to be epistemologically revealing: it is taken to uncover the source of all meaning and justification. Edmund Husserl, to cite one important philosopher, offers the following assessment of the significance of the skeptical meditation:

Philosophical knowledge is, according to Descartes, *absolutely grounded* knowledge; it must stand upon a foundation of immediate and apodictic knowledge whose self-evidence excludes all conceivable doubt. . . . Anyone who seriously seeks to be a philosopher [must] begin with a sort of *radical, skeptical epochē* which places in question all his hitherto existing convictions. . . . [In the epochē,] what was before my eyes . . . as “the” world, having being and validity for me, has become a mere “phenomenon”. . . . In the epochē, . . . *the world itself* [has] been transformed into my *ideae*. . . . Through the epochē I have penetrated into the sphere of being which is prior in principle to everything which conceivably has being for me, and to all its spheres of being—as their absolutely apodictic presupposition. (*Crisis of European Sciences*, §17)

Russell also took a similar view of the skeptical meditation:

22. The intensity of skeptical doubt needs to be carefully controlled if one wishes to isolate, through the epoché, the special class of phenomenological concepts. If the doubt is too intense, no conceptual residue will remain; all concepts and judgments will be washed away in the course of the skeptical meditation. If the intensity is low, the residue will contain extraneous elements, and we shall not have isolated the desired class of concepts. Whether the right intensity of skeptical doubt is possible does not concern me here. I am concerned only with the epistemological significance of the residue, assuming that such a residue can be isolated. It is, in any case, a distinctive characteristic of the paradigmatic phenomenological concepts mentioned above that they bear a much more intimate relationship to experience than do other concepts.

By inventing the method of doubt, and by showing that subjective things are the most certain, Descartes performed a great service to philosophy, and one which makes him still useful to all students of the subject. (*Problems of Philosophy*, p. 18)

Later in the same book, Russell says that Descartes's "methodical doubt" is "the kind of criticism [that is] . . . the essence of philosophy" (p. 151). In *Inquiry into Meaning and Truth*, Russell declares that "the whole subject [of epistemology] is a product of Cartesian doubt" (p. 16).

195. The Cartesian meditation definitely reveals that phenomenological judgments possess a special logical character. It is important to be clear, however, on this character. The character concerns the behavior of phenomenological judgments under what may be called **logical entrenchment**: one's beliefs face an authoritative challenge (actual or imaginary) and one retreats to a position (actually or in imagination) that is safe from the challenge. In the Cartesian meditation, one imaginatively goes through a radical version of this process and discovers that phenomenological judgments are *fixed points* of the entrenchment: the status of these judgments is not altered even in the face of a radical challenge. The judgments are preserved even though one loses virtually all of one's worldview. Notice that nothing follows from this characteristic about the role of phenomenological judgments in *justification* or in *rationality*. Justification is not the inverse of entrenchment. If an authoritative challenge to a judgment *p* leads one to retreat to a judgment *q*, it does not follow that the justification of *p* goes via *q*. If a judgment lies at the limit of entrenchment, it does not follow that it lies at the limit of justification. If a judgment is a fixed point of entrenchment, it does not follow that it is an end point of justification. One cannot read off the role of a judgment in justification from its behavior under entrenchment.

A further observation should be made here. The Cartesian meditation shows that a radical logical entrenchment is possible (at least imaginatively) in which one's worldview is suspended. It does not follow, however, that a radical *justification* of one's worldview is possible (even imaginatively). Nor does it follow, therefore, that the worldview can be (or must be) justified on the basis of phenomenological judgments. A similar point holds for rationality: that the phenomenological judgments are fixed points of entrenchment tells us little about the demands of rationality on judgments and

views. It is in an illicit leap to go from the special character of phenomenological judgments to the conclusion that the rationality of judgment and view derives ultimately from their logical relationship to these special judgments. Similarly, it is an illicit leap to go from the special behavior of phenomenological concepts in logical entrenchment to the conclusion that all legitimate concepts must be definable in terms of these special concepts.²³

196. The behavior of phenomenological judgments in the skeptical meditation is explicable in terms of one of their conceptual features. Suppose a subject issues a phenomenological judgment

(11) it appears to me as if p .

Suppose also that appearance a belongs to the subject's standard profile for p . Then, judgment (11) is true if a is manifested in the subject's experience. It follows that the phenomenological judgment (11) is bound to be true in any situation in which the subject's transition to the perceptual judgment p would be rational, were the subject to take the perceptual conditions to be ordinary. This has important consequences for the behavior of (11) in the process of logical entrenchment. Suppose I take myself to be in ordinary circumstances and issue the judgment

(7) that over there is a white bird.

An authority on birds and color can provide me with reasons for doubting my judgment (7) and my belief that I am in ordinary circumstances. These reasons may well lead me to withdraw my judgment and suspend my belief. However, they will not lead me to abandon the phenomenological judgment

(8) it appears to me as if there is something white.

For the truth of (8) does not require the truth of (7) or of the belief that the circumstances are ordinary—or even that the judgment and the belief were

23. It is also illicit to conclude that phenomenological concepts are psychologically prior to, say, physical-object concepts; that is, one cannot conclude that the phenomenological concepts are acquired first and provide a psychological basis for the acquisition of the physical-object concepts.

rational. The truth of (8) follows simply from the rationality of my original transition to (7), which the authority has not undermined (and, furthermore, is not in a position to undermine).

Suppose I enter a skeptical meditation and begin to doubt more and more of my view of the world, including my belief in space, time, and the external world. Observe that I have no reason to include judgment (8) within the scope of the doubt. For the skeptical meditation does not call into doubt my capacity to make rational transitions to “there is something white” when I take circumstances to be ordinary. This capacity, which is constitutive of my understanding of “white,” is still in place and the skeptical meditation does not call it into question.²⁴ So, my acceptance of the phenomenological judgment remains intact through the course of the meditation, even when I reach epoché.

It is a conceptual feature of phenomenological judgments such as (11) that (i) the standard profile of (11) is the same as the standard profile of the embedded judgment *p* and (ii) its application profile is invariably identical to its standard profile. This is why judgments such as (11) display their characteristic behavior in the skeptical meditation.

197. When I go through the skeptical meditation, I shift the judgments I am prepared to make. This exercise does not precipitate, however, any change in my experience. The experience continues the same as before, presenting the same presentational complex and manifesting the same phenomenology. *Pace* Husserl, the skeptical meditation does not convert the world into “phenomena”; nor does the meditation reveal a new sphere of being with which I am acquainted. The world, the presentational complex, the phenomenology were all there at the start of the skeptical meditation, and they were all there at the end of the meditation. I discover nothing new in the course of the meditation. And if I stand back and reflect on the meditation itself, I discover nothing new about the world or myself. The meditation gives me no reason to posit a special introspective faculty, one that provides me privileged access to appearances or

24. A deeper and broader skeptical doubt is possible that calls into question my understanding and use of concepts. That doubt washes everything away, leaving no residue. The end result of the doubt is the cessation of all conceptual activity. The Cartesian skeptical meditation is not so deep and broad. It leaves in place some residual conceptual activity. And it is through this conceptual activity that Descartes tried to recover clear and distinct ideas and God.

to mental states.²⁵ The skeptical meditation reveals at best that phenomenological judgments possess a high grade of certainty. But this fact is fully explicable in conceptual terms. The same phenomenology that sustains ordinary perceptual judgments sustains also the phenomenological judgments. The certainty of phenomenological judgments is rooted in the special characteristics of the phenomenological judgments. No acquaintance with appearances and no peculiar access to the mental is needed to make sense of it.

198. Let us observe also that the skeptical meditation does not reveal that “white” is a quality of appearances (or experiences). When I reached epoché, I was prepared to affirm truly sentence (10),

(10) A white appearance is manifested to me.

This affirmation does not imply that the appearance manifested to me falls under the denotation of ‘white’, that it possesses the quality *white*. Sentence (10) concerns the connotation of ‘white’, not its denotation. It says of the appearance only this: that the appearance falls under the standard profile of ‘white’ *for me*. I can use (10) to communicate something about my state of mind and, more particularly, about how I am appeared to. I make a genuine claim by affirming (10); I am not merely *expressing* something, as I would be if I uttered “ouch” in response to pain. Still, in affirming this phenomenological description, I am not attributing the color white to an appearance. The relation of color white to appearances is different from its relation to things that are white.

199. Let us note one final point. Phenomenological concepts have no claim to completeness in descriptions of how one is appeared to. A description of how one is appeared to when one is seeing a flamingo preening itself is best given using the concept “flamingo,” not in terms of concepts such as “pink” and “white.” The concept “flamingo,” associated as it is with a rich standard profile, is more apt for communicating how one is appeared to than any description that uses only the thin phenomenological concepts. A description

25. More strongly, the meditation gives no reason to endow the subject with *any* access to experiences or appearances *as they are in themselves*. So long as the subject is endowed with capacities that enable her to undergo experiences and to issue perceptual judgments on their basis, she has all the equipment she needs to issue phenomenological judgments.

formulated using “flamingo” may well have no equivalent counterpart that uses only phenomenological concepts.²⁶

200. OBJECTION: “In your account of experience, you put reality behind a veil of appearances, and despite all your efforts to the contrary, you end up in the old epistemological predicament. Phenomenology, on your account, is constituted by appearances, not by real items. Hence, you are committed to saying that in experience there is no awareness—at least, no direct awareness—of reality; there is awareness only of appearances. Reality thus ends up hidden from the subject behind a screen of appearances. There is, in your picture, an epistemological gulf between our knowledge of appearances and our knowledge of reality. It follows that our knowledge of reality poses a genuine problem for you. You invite in all the old epistemological problems that contemporary philosophers are trying to shut out.”²⁷

REPLY: It is true that, on the account I am offering, experience does not provide the subject with awareness of reality—understanding ‘awareness’ to mean ‘direct knowledge’. The acquisition of knowledge of reality is, on my view, a complex enterprise. Experience plays a vital role in it, but experience does not by itself provide the subject with any direct knowledge of reality. The veil metaphor is not apt, though, for the picture I am painting. For, in this picture, experience does not provide any direct knowledge of appearances, either. So, under the current reading of ‘awareness’, there is in an experience no awareness of appearances. Hence, appearances do not form an epistemic veil that separates us from reality.

Suppose we reinterpret the objection and read ‘awareness’ to mean ‘knowledge’ (as opposed to ‘direct knowledge’). Still, the objection fails to go through. For our entitlement to judgments about appearances is not epistemically prior to our entitlement to judgments about reality; the former judgments are not rational grounds for the latter. So, while it is true that I do not provide the subject with easy knowledge of reality, I do not end up in the old epistemological predicament of showing how knowledge of reality can be gained on the basis of knowledge of appearances.

26. This confirms a point made by the continental phenomenologists such as Maurice Merleau-Ponty as well as by P. F. Strawson. See Merleau-Ponty’s “Primacy of Perception” and Strawson’s “Perception and Its Objects.”

27. An objection like this one was put to me by Kranti Saran.

Suppose we reinterpret the objection and read ‘awareness’ to mean ‘manifestation’. Under this reading, a key claim the objection makes does hold: on my account, a subject undergoing an experience is aware only of appearances and not of reality. Still, the veil metaphor is not apt. For under this reading, lack of awareness of reality does not imply any hiddenness of reality behind appearances. The fact that a man is seen, as he must be, from a particular place, does *not* imply that the man is invisible, that he is somehow hidden. The man is seen from a particular place and, therefore, manifests a particular appearance. Nonetheless, the man himself is present to consciousness, not just some image or representation of him. The fact that only an appearance is manifested does not imply that the man is hidden.

Finally, if ‘awareness’ is understood to mean presence, then we can say that in experience there is awareness of reality but no awareness of appearances (something that might please the Naive Realists). Now, the metaphor of the veil of appearances is not apt at all.

So, in conclusion, we should distinguish at least three different concepts of “awareness of an item *i* in an experience *e*”—namely: (i) awareness as knowledge of *i* on the basis of *e*, (ii) awareness as manifestation of *i* to consciousness in *e*, and (iii) awareness as presence of *i* to consciousness in *e*. Accounts of experience that do not distinguish between the given in experience, the phenomenology of experience, and presence in experience collapse the three concepts of awareness into one. But these concepts are quite distinct, and once the distinction between them is marked, it is plain that, in the picture I am painting, there is no veil of appearances—at least none that invites in the old epistemological problems.

201. Appearances mediate the connection, I am suggesting, between experience and judgment. Appearances do not mediate by being the first objects of knowledge and denotation, however. Appearances are not directly seen or felt. Our knowledge of reality is not mediated by knowledge of appearances; nor is our talk about reality mediated by talk about appearances. It is not as if we come to think of and understand appearances first and then, on that basis, come to think of and understand things in our environment. It is rather the other way around. Our first efforts are directed to understanding our environment; we think of things around us first. Only later are our efforts directed to the logical inquiry, to understanding “understanding.” It is in this connection that we begin to think of appearances

and to gain some understanding of them. Experience does not supply us with an understanding of appearances any more than it supplies us with an understanding of negation. Perhaps the point can usefully be put thus: appearances are rational intermediaries, but this is not to say that *judgments* about appearances or *names* for appearances are rational intermediaries.

202. We can accept the ancient thought that appearances play a vital role in empirical cognition. Appearances are not, however, self-evident, self-revealing elements of perceptual consciousness. The role of appearances in empirical cognition is not that of the unmoved mover. Nothing plays this role; nothing need play this role. The vital role of appearances consists in this: to underwrite the rationality of transitions and to help fix counterpart relations.

7D. SUMMARY OF THE ACCOUNT OF EXPERIENCE

203. I associate with each experience e four items:

$\Gamma_e =_{\text{Df}}$ the given in experience e ,

$\Pi_e =_{\text{Df}}$ the more or less determinate and more or less structured portion of the world presented in e (= the presentational complex of e),

$\Phi_e =_{\text{Df}}$ the phenomenology of e , and

$M_e =_{\text{Df}}$ the manifestation relation restricted to e .

204. About the given, Γ_e , the principal point to note is that it is hypothetical and is governed by the Equivalence Principle. About the presentational complex Π_e , the following points are worth noting:

(i) Π_e is a complex made up of all the elements to which experience e is directed. We may think of Π_e as a more or less structured maximal portion of the world to which e is directed. If e is directed to an element i , then i is an *element of* Π_e .²⁸

28. It follows that Π_e is an element of itself, but nothing heavy hinges on this. The point is a consequence of a terminological convention, one that I am adopting because it enables a more compact exposition.

(ii) Presentation does not imply acquaintance. Elements of Π_e are not necessarily known to the subject and they are not necessarily objects of thought for the subject.

(iii) Only actual items can be elements of Π_e , not impossible ones or merely possible ones.

(iv) Mind-independent items as well as mind-dependent ones, external items as well as internal ones may be elements of Π_e .

(v) Events and objects existing at very different times may be elements of Π_e . The events (e.g.) may fail to coexist at any time but may appear to be simultaneous.

(vi) Bare universals are not elements of Π_e ; if a property F is an element of Π_e then a fact of the form “ a is F ” must also be an element of Π_e ; similarly for relations.²⁹

(vii) Only atomic facts can be elements of Π_e ; a fact such as “some things are not red” cannot be an element of Π_e .

(viii) If a fact (e.g.) that a bears relation R to b is an element of Π_e then a , b , and R are also elements of Π_e .

(ix) A part or a feature of an element of Π_e is, however, not necessarily an element of Π_e . A yellow bird may be presented to one’s consciousness in an experience but not, say, the bird’s tail, nor the feature that it sports a black spot on its back.

205. The phenomenology Φ_e is nothing other than the appearance manifested in e by Π_e . The following points are worth noting about appearances and about Φ_e :

(i) Appearances are general items, but they are not universals. Neither qualia nor qualities are appearances.

(ii) The essence of appearances lies in manifestation. For an appearance to be is for it to be manifested by an item to a consciousness. Outside of the presence of items to consciousness, appearances have no being.

(iii) Universals are not manifested by anything, and appearances are not instantiated in anything.

29. This condition could be liberalized. We could allow for the possibility that the world contains no particulars, only universals. Under this possibility, the facts making up the world are not of the form “ R is exemplified in such and such objects”; they are of the form “ R is coexemplified with such and such universals.”

(iv) Appearances are not private. The same appearance may be manifested in distinct sentient beings and even in sentient beings of different kinds.

(v) Appearances can be grouped in families (e.g., visual appearances and touch appearances) and in various classes (e.g., color and shape appearances).

(vi) Appearances stand in various relations of comparative similarity to one another. A color appearance may be more similar to another color appearance than to a third one with respect to, say, lightness but not with respect to hue.

(vii) Appearances can be complex, structured items. When one looks at a yellow bird, the bird manifests a complex appearance that is constituted of, among others, some color appearances and some shape appearances. If appearance a is a constituent of appearance a^* , then necessarily whenever a^* is manifested so also is a .³⁰

(viii) RELATIVITY OF PERCEPTION: One and the same unchanging element—universal or particular—can manifest different appearances in different perceptual circumstances.

(ix) MULTIPLE-FACTORIZABILITY OF EXPERIENCE: Different kinds of elements can manifest the very same appearance. For example, an event (say, an explosion) can manifest the same total appearance as a body (say, a star).

(x) Phenomenology Φ_e of an experience e is a whole, structured by the relation “constitution,” that consists of appearances.

206. Finally, the following claims hold of the manifestation relation M_e and its relata Π_e and Φ_e :

(i) Manifestation is distinct from presentation. An experience is not directed to the appearances that are manifested in it. Appearances are not *presented* to the subject in an experience.

(ii) Manifestation does not imply acquaintance. An appearance may be manifested to a subject’s consciousness even though the appearance is not known to the subject and even though the subject cannot direct her thoughts to it.

(iii) Every element of Π_e manifests an appearance in e . Hence, the domain of the manifestation relation M_e consists precisely of the elements of Π_e .

30. There is no commitment to atomism about appearances, however. There may well be no specifiable class of “atomic” appearances out of which all other appearances can be built.

- (iv) For every constituent appearance of Φ_e , there is an element of Π_e that manifests that appearance in e . Hence, the range of M_e consists of Φ_e and all its constituent appearances.
- (v) The domain and range of the manifestation relation M_e do not overlap. Appearances are completely distinct from the kinds of items that make up Π_e .
- (vi) Not only are Π_e and Φ_e made up of different items, they may differ also in their structures. It can happen that Π_e possesses a simple structure while Φ_e a complex one. And the other way around: Φ_e may possess a simple structure while Π_e a complex one.
- (vii) RELATIVITY OF PERCEPTION: Two experiences directed to the same presentational complex can differ in their phenomenology.
- (viii) MULTIPLE-FACTORIZABILITY OF EXPERIENCE: Two experiences directed to different presentational complexes can manifest the same phenomenology.

207. An experience e can be represented as follows. Here the arrows indicate the manifestation relation M_e .

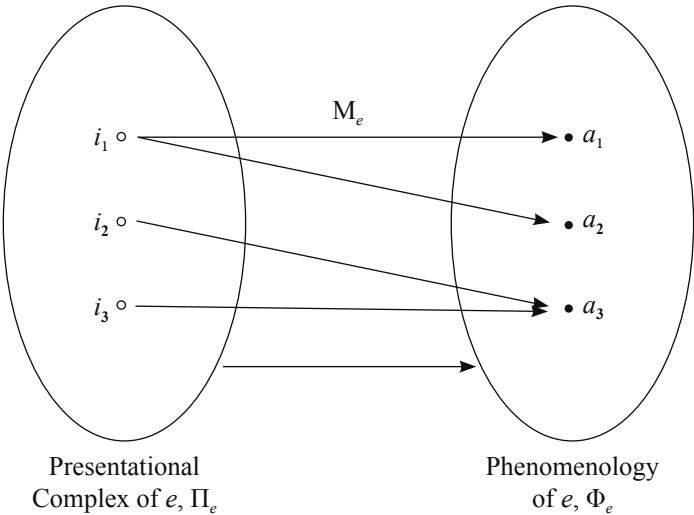


Figure 1. A picture of experience e .

Anil Gupta, "Outline of an Account of Experience," *Analytic Philosophy* 59, no. 1 (March 2018), 60. © Wiley Periodicals Inc. Reprinted by permission.

Note that an element of Π_e and an associated appearance—for example, i_1 and a_1 —can themselves be complex and can exhibit a structure similar to the one displayed above.

208. Let me draw attention to a few general features of the account of experience I am offering.

(i) The account allows different subjects to undergo experiences that are *subjectively and objectively identical*—that is, identical in the sense that the phenomenology, the presentational complexes, and the manifestation relations of these experiences are identical. (Actually, the last condition implies the other two.) Indeed, the account allows the possibility of two subjects that throughout their lives undergo experiences that are subjectively and objectively identical.

(ii) The account allows a substantial objective overlap in experiences that differ significantly in phenomenology. Significantly different visual appearances, for example, may be manifested in the experiences of two subjects because of differences in their color-perception systems and their different relative locations. Still, the experiences may be directed to many of the same elements. These experiences can, despite their substantial differences in phenomenology, enable the subjects to denote the same objects and even the same color qualities. Hence, despite differences in our perspectives on the world, we can pick out, with the aid of experience, common objects to think about and to disagree about. The differences in our perspectives may be large, but these differences do not entail that we are trapped in our own private worlds.³¹

31. An intrapersonal example of the same sort: Experiences in different sense modalities (e.g., vision and touch) can manifest, and do manifest, radically different appearances. Nonetheless, they can be directed to many of the same elements. This observation entails a denial of the traditional view (found, e.g., in Locke and Berkeley) that the objects of sight and touch are necessarily different. It entails no denial, however, of the idea (found also in Locke and Berkeley) in the Molyneux example, that of a man born blind who gains sight, that the man will not immediately be able to tell by sight the sphere from a cube, even if he had earlier become thoroughly familiar with these shapes through his sense of touch. Capacity to make perceptual judgments about shape implicates phenomenology. Before sight is restored to him, the blind man is able to tell shapes of spheres and cubes using his sense of touch. This capacity involves tactile phenomenology, and it is different from the capacity to tell shapes on the basis of visual phenomenology. Mere restoration of sight does not necessarily endow Molyneux's blind man with the latter capacity.

(iii) The account provides a nondisjunctive treatment of experience. It treats all experiences, “inner” and “outer,” illusory as well as nonillusory, in the same uniform way: each experience is directed to a presentational complex, and in each experience, the complex manifests an appearance.³² The account is, in this structural respect, similar to sense-datum theories and to representational theories. In these latter theories, too, all experiences are treated in the same uniform way—as acquaintance with sense-data or as a particular kind of representational state with a certain kind of content. However, the account I am offering respects one important point in the disjunctivist position: the idea that subjectively identical experiences need not be directed to *any* common elements. Sense-datum theories and representational theories stand opposed to disjunctivism on this point, but not the present account. The account allows that complexes to which subjectively identical experiences are directed may be thoroughly disjoint. Thus, it provides a middle way between disjunctivist and nondisjunctivist theories. Nondisjunctivist theories are right to insist that subjectively identical experiences share a common *factor*—namely, appearances. But disjunctivist theories are right to insist that such experiences need share no common *elements*.

(iv) Finally, a point of contrast with relational theories of experience. Relational theories tend to emphasize one dimension of experience—presentation of the world or manifestation of appearances—at the expense of the other. Russell’s Acquaintance Model, for example, countenances appearances and identifies them with universals. The Model goes on to posit special instances of these universals (namely, sense-data), and it takes these instances to be the worldly items presented in experience. In his phenomenalist phase, Russell even regarded sense-data as the “ultimate constituents” of reality and attempted to construct ordinary objects out of them. This is to slight the world in favor of appearances. The slight begins at an early stage, when presentation is understood in terms of appearances. Naïve Realism, on the other hand, countenances an independent world of ordinary objects and takes these to be presented in experience. It slights appearances, however. Naïve Realism either refuses to countenance appearances at all, or it attempts to reconstruct them out of external materials. Its success here is as tenuous as the phenomenalist attempt to recon-

32. For an application of the account to pain experiences, see Chapter 12.

struct the external world out of appearances. I suggest that if our goal is to understand empirical reason, then neither reconstruction is necessary. We should countenance both dimensions of experience: presentation of the world as well as manifestation of appearances. Neither dimension is dispensable; each makes its own distinctive contribution to rational empirical inquiry.

209. The account of experience I am putting forward may be labeled *Dual-Component Presentationalism*—in brief, *Presentationalism*—for it sees each experience as consisting of two separable components, the presentational complex and the phenomenology. The overall position in the aid of which I am putting forward this account is an empiricism that avoids the excesses of its earlier incarnations, an empiricism that enables us to make sense of empirical reasoning. My preferred name for the overall position is *Reformed Empiricism*.

CHAPTER EIGHT

Experience and Concept

A RADICAL CRITIQUE of concepts is a recurring theme in modern empiricism—a theme that has delighted those eager to see the demise of traditional views and riled those who have seen valued possessions summarily dismissed as meaningless. Now, it is certainly true that experience makes an essential contribution to the contents of concepts, and without a proper relationship to experience, concepts are empty. Hence, an empirical critique of concepts is certainly possible. However, as I shall argue, the radical critiques offered by modern empiricism are founded on erroneous conceptions of experience and of its relationship to concepts. I begin with a quick review, in Part 8A, of some traditional ideas about this relationship. This will bring to light the importance of ostensive definitions, which I study in Parts 8B and 8C. In Part 8D, I reflect on empirical critiques of concepts, and I separate legitimate from illegitimate ones. The radical critiques issuing from modern empiricism fall, we shall see, in the latter category.¹

1. A few sections in this chapter reprint material from my essay “Relationship of Experience to Thought,” which appeared in *The Monist* in 2013. That essay was, in turn, drawn from

8A. HISTORICAL INTRODUCTION

210. Men often, Locke tells us, “*set their Thoughts more on Words than Things*” and “speak several Words, no otherwise than Parrots do” (*Essay*, III. ii.7). This parroting of meaningless words is, if not excusable, at least understandable. Words being superficially all similar, it is easy to suppose that they must be meaningful simply because we use them in familiar constructions in familiar ways. Superficial impressions can be misleading, however. Just as we critically assess assertions and beliefs for truth and rationality, similarly we can (and should) critically examine words and concepts for meaningfulness and rational legitimacy. This critical inquiry may well lead to injunctions. Locke’s own injunction was this: “A Man should take care *to use no word without a signification*, no Name without an *Idea* for which he makes it stand” (*Essay*, III.xi.8).²

211. Hume follows Locke in his own pursuit of the critical inquiry, and he offers us a crisp methodological maxim:

When we entertain, therefore, any suspicion, that a philosophical term is employed without any meaning or idea (as is but too frequent), we need but enquire, *from what impression is that supposed idea derived?* And if it be impossible to assign any, this will serve to confirm our suspicion. (*Enquiry*, §2)

Hume’s maxim rests on a particular conception of thought and experience. “All the materials of thinking,” Hume tells us, “are derived either from our

an earlier draft of this book. The aim of the essay, and of the chapter from which it was drawn, was to work up an improvement of Russell’s Principle (§212). I continue to think that Russell’s Principle can be improved and that the version offered in the *Monist* essay is an improvement of it. However, I have come to think that no version of the Principle is needed to understand the relationship of thought to experience, or to demarcate legitimate empirical critiques from illegitimate ones. I have, therefore, rewritten the earlier chapter, retaining only a few of its sections. Also, in the *Monist* essay, I adopted Fregean terminology and called what I call ‘concept’ below ‘sense’. Since I am abandoning much of the Fregean scheme, my old terminology could be misleading. I have, therefore, chosen to shift terminology.

2. Terminological note: Philosophers associate a variety of items with words and concepts: denotation, connotation, signification, sense, character, idea, and so on. Some of these associations I shall acknowledge and expand on below. I reserve ‘meaning’ and ‘content’ to talk generally, and sometimes indeterminately, about various possible associations relevant for understanding the logic of words and concepts.

outward or inward sentiment,” from what Hume calls ‘impressions’. Thoughts and ideas are “copies of our impressions”; they are “less forcible and lively” (*Enquiry*, §2). Hence, if we cannot find an original impression from which the supposed meaning of a term is derived, then we have reason to suspect that the term lacks any meaning.

Hume applies his maxim in his celebrated critiques of the notions of cause, substance, body, and self. Let us focus on “cause” to illustrate the application. From what impression, Hume asks, is the supposed idea of cause derived? Hume cannot trace the idea to any of our outward impressions: instances of the causal relation yield no impression of any necessary connection. All Hume can trace the idea to is an inward impression, “a customary connexion in the thought or imagination between one object and its usual attendant.” Hume thus paves the way to his subjectivist conclusion: “When we say, therefore, that one object is connected with another, we mean only, that they have acquired a connexion in our thought, and give rise to this inference, by which they become proofs of each other’s existence” (*Enquiry*, §7).³

212. Russell’s views on experience and thought underwent large shifts through his long philosophical career. Nonetheless, he remained firm on a principle that links the two. We have already encountered Russell’s 1912 formulation of the principle: “*Every proposition which we can understand must be composed wholly of constituents with which we are acquainted*” (§18). Almost a half century later, Russell reaffirmed his principle, but with some interesting changes in formulation:

I have maintained a principle, which still seems to me completely valid, to the effect that, if we can understand what a sentence means, it must be composed entirely of words denoting things with which we are acquainted or definable in terms of such words. It is perhaps necessary to

3. Hume critiques not just the notions of cause, substance, etc., but also large human enterprises. He concludes the *Enquiry* with the following famous words (§12): “When we run over libraries, persuaded of these principles, what havoc must we make? If we take in our hand any volume; of divinity or school metaphysics, for instance; let us ask, *Does it contain any abstract reasoning concerning quantity or number?* No. *Does it contain any experimental reasoning concerning matters of fact and existence?* No. Commit it then to the flames: For it can contain nothing but sophistry and illusion.”

place some limitation upon this principle as regards logical words—e.g. *or*, *not*, *some*, *all*.⁴

The new formulation speaks of sentences whereas the earlier one spoke of propositions. This change is inessential in light of the background assumption (which I shall accept) that we understand a sentence iff we understand the proposition the sentence expresses. The new formulation is a little incautious, however. It neglects the possibility that the sentence may contain context-sensitive words such as ‘I’ and ‘you’. But the problem is easily fixed: we should understand the principle not to be about sentences but to be about particular *uses* of sentences. The other change in formulation is in the qualification, tentatively put forward in the extract above, concerning logical words. In 1912, Russell was happy to countenance acquaintance with the meanings of logical words and to regard this acquaintance as a source of substantive knowledge. Later, under the influence of Wittgenstein, he abandoned this idea. He came to believe that “logic consists wholly of tautologies.”⁵ If we bracket the issue of our knowledge of logic, then we can formulate Russell’s principle as follows. Russell would have accepted this formulation in 1912, I think, and also a half century later.

Russell’s Principle. We understand what a sentence means (on an occasion of use) only if all the words composing it either are logical words or are words denoting things with which we are acquainted or are definable in terms of such words.⁶

213. Russell had a *foundationalist* theory of meaning. According to this theory, certain words are basic—namely, some logical words and words that denote things with which we are acquainted. The meanings of the rest of the words, and of expressions, can be reduced to the meanings of basic words. Russell had, furthermore, a *monistic* theory of meaning. Russell recognized only one semantical relation: denotation. The meaning of a basic nonlogical

4. *My Philosophical Development*, p. 169; this book was published in 1959.

5. *My Philosophical Development*, p. 119.

6. Like Russell, I shall sometimes neglect the parenthetical qualification. Also, like Russell, I shall take it that mathematics is subsumed by logic. This move is a reflection not of my considered view but of a methodological stance: I am bracketing our knowledge of logic and mathematics.

word is, for Russell, simply its denotation. If such a word denotes nothing, then it is meaningless—it is “mere noise.”⁷ Furthermore, understanding the meaning of a basic nonlogical word, Russell held, consists simply in knowing the denotation of the word—a knowledge that is grounded in acquaintance with the denotation. As we have seen, acquaintance, for Russell, is a cognitive relation that provides unmediated, nonconceptual knowledge of an item. Acquaintance is prior to, and can therefore serve as a foundation for, meaning and thought.

Russell held that experience acquaints us with sense-data, not with ordinary, mind-independent objects.⁸ He was thus led to hold that names of ordinary things (e.g., ‘Bismarck’) are not basic; they are instead disguised definite descriptions. The only genuine occurrences of proper names, according to Russell, are ‘this’ and ‘that’ when they are used to denote sense-data presented in experience.⁹ Our language and thought are linked, according to Russell, to constituents of reality—indeed, to ultimate constituents—through bare acts of ostension.¹⁰ These acts invoke no concepts, but they endow uses of ‘this’ and ‘that’ with denotations.

It is worth remarking that Russell’s general views about naming, ostension, and acquaintance continue to be highly influential, even though very few contemporary philosophers accept the sense-datum theory or Russell’s specific ideas about ordinary proper names.¹¹

7. Russell’s phrase; *Problems of Philosophy*, p. 58.

8. This was Russell’s view in his Platonist and Phenomenalist periods, not in his Neutral-Monist period. In the latter period, Russell abandoned sense-data and the terminology of ‘acquaintance’, but he retained a foundationalist and monistic theory of meaning. The objects of experience are now “percepts” that one “notices,” where “noticing” is a nonconceptual kind of knowing. The following extract from *Inquiry into Meaning and Truth* (p. 114) will give the reader a flavor of Russell’s view in this period: “If the word ‘this’ is to apply as it should, to something that we directly experience, it cannot apply to the cat as an object in the outer world, but only to our own percept of a cat. . . . What we directly know when we say ‘this is a cat’ is a state of ourselves, like being hot.”

9. Russell, “Philosophy of Logical Atomism” (pp. 201–202): “The only words one does use as names in the logical sense are words like ‘this’ or ‘that’. . . . It is only when you use ‘this’ quite strictly, to stand for an actual object of sense, that it is really a proper name. . . . When you are acquainted with that particular [i.e., the particular denoted by a proper name], you have a full, adequate, and complete understanding of the name, and no further information is required.”

10. In “Relation of Sense-Data to Physics,” Russell calls sense-data “part of the actual substance of the physical world” (p. 173).

11. For example, Jaegwon Kim defends the idea that “the possibility of reference . . . presupposes the possibility of direct ostensive reference, and ostensive reference is possible only if

214. Russell's Principle is of the right form to serve as a foundation for empirical conceptual criticism. We can use it to show that an expression is meaningless if we can show that one of the nonlogical words composing it neither denotes anything with which we are acquainted nor is definable in terms of such words. The crucial question for applying the principle is this: What precisely are the items with which we are acquainted? Now, Russell held, early and late, that experience acquaints us with some items. The Russell of 1912 also held that we have a Platonic, nonexperiential acquaintance with universals. The scope of this nonexperiential acquaintance is plainly crucial for applications of the principle. So, what is its scope? How do we tell whether we have acquaintance with a purported universal or not? Russell's answer here blunts completely the critical force of his principle: "Among universals, there seems to be no principle by which we can decide which can be known by acquaintance."¹² It follows that no principled criticism is possible that an expression is meaningless. In a debate over the meaningfulness of a term, it would always be open for the defenders of the term to invoke Platonic acquaintance with a universal, and thus bring the debate to an impasse.

215. The scope of Russellian acquaintance was sharply narrowed in the theories of the early Logical Positivists. Through definitions, Carnap tells us, "every word of the language is reduced to other words and finally to the words which occur in the so-called 'observation sentences' or 'protocol sentences'. It is through this reduction that the word acquires its meaning."¹³

some sort of direct cognitive contact is established with the object of ostension" ("Perception and Reference without Causality," p. 617). Kim goes on to add, "I believe Russell was fundamentally right: . . . it is unmediated cognition that makes ostension, and naming, possible" (p. 618).

For another example, John Campbell takes experience of an object to be "a cognitive relation more primitive than thought about the object, that none the less makes it possible for us to think about that thing" ("Berkeley's Puzzle," p. 130). Campbell's basic move, as he himself notes, is to liberalize Russell's view "to allow that acquaintance can be a relation that holds between the perceiver and an ordinary distal object seen" ("Demonstrative Reference, the Relational View of Experience, and the Proximity Principle," p. 205).

A final example: In "We Are Acquainted with Ordinary Things," Imogen Dickie defends the thesis stated in the title of her essay, and she understands "acquaintance with an object *o*" thus: it is to be "in a position to think about *o* in virtue of a perceptual link with *o* and without the use of any conceptual or descriptive intermediary" (p. 213).

12. *Problems of Philosophy*, p. 109.

13. Carnap, "Elimination of Metaphysics," p. 63. All parenthetical references to Carnap in the present section are to the pages of this paper.

We have here a transformation of Russell's Principle into a powerful critical tool. Basic nonlogical words to which all other words are reducible extend no further than those that occur in observation sentences. The meanings of these words we learn through experience; in effect, experience acquaints us with their denotations.¹⁴

Now, Carnap acknowledges that the scope of observation sentences is debatable. Nevertheless, logical analysis of meaning, he argues, "pronounces the verdict of meaninglessness on any alleged knowledge that pretends to reach above or behind experience" (76). What falls in this realm of meaninglessness? Carnap's response is bold:

In the domain of *metaphysics*, including all philosophy of value and normative theory, logical analysis yields the negative result *that the alleged statements in this domain are entirely meaningless*. Therewith a radical elimination of metaphysics is attained. (60–61)

Russell's Principle is, thus, deployed to excise a large body of our discourse as meaningless.¹⁵ I should note that the discourse excised is held to lack only descriptive or cognitive meaning. Carnap allows that it may possess some other kind of meaning, say, expressive meaning. It may, in Carnap's words, "serve for the *expression of the general attitude of a person towards life*" (78). But, even here, Carnap is scathing about metaphysics: "Metaphysicians are musicians without musical ability" (80).

216. Conceptual criticism reached its zenith in the early Positivists. Its subsequent decline was steep and swift. The critique that delivered the verdict of meaninglessness for metaphysics was applicable also to science, an enterprise the Positivists revered. Scientific terms, like metaphysical ones,

14. In later works in the Neutral-Monist period, Russell himself moved to a restrictive reading of his Principle. "All nominal definitions, if pushed back far enough," Russell writes in *Human Knowledge*, "must lead ultimately to terms having only ostensive definitions, and in the case of an empirical science the empirical terms must depend upon terms of which the ostensive definition is given in perception" (p. 242). In the later works, Russell is critical, like Hume, of ordinary ways of understanding "causation," "substance," "body," and "self."

15. Another idea that the early Positivists used to obtain the same effect was Wittgenstein's dictum that the meaning of a statement consists in its method of verification.

could not be reduced to observation terms; if metaphysics was meaningless, then so also was science.

The Positivists acknowledged the problem and set out to liberalize their criterion of meaningfulness. As a first step in this liberalization, they abandoned their atomistic conception of meaning. They retained *meaning-foundationalism*, the idea that there is a special foundational level, consisting of observational terms, whose meaning places them in a privileged semantical relationship to experience and the world. However, they no longer saw a term-by-term reduction as a requirement for meaningfulness. So long as the theory as a whole has observational consequences, that is, so long as the theory could be tested against observation sentences, its theoretical terms count as meaningful—or at least as legitimate and useful auxiliaries.¹⁶

A second step in the liberalization was the Positivist renunciation of an absolute distinction between observational and theoretical terms. Carnap, for instance, proposed that the distinction between the two kinds of terms be seen as a matter of linguistic choice, to be settled by practical considerations. The privileged connection to experience enjoyed by observation terms was now seen as grounded merely in linguistic convention.¹⁷

These moves, though they greatly liberalized the original Positivist conception of meaning, failed to provide any plausible criterion for separating metaphysics from science, or even obvious sense from nonsense.¹⁸ Any criterion that admitted theoretical terms as legitimate let in undesirable metaphysical ones as well. Furthermore, the two moves obscured the relationship

16. An intermediate stage in this transition was Carnap's idea of *reduction* sentences, which connect the theoretical to the observational; see Carnap, "Testability and Meaning." Later, Carnap came to favor the idea that theoretical terms are to be eliminated through "ramification." See §§322–323 below for an explanation and brief discussion of ramification. William Demopoulos provides an illuminating critical examination of ramification, and of Carnap's use of it, in his essays "On the Rational Reconstruction of Our Theoretical Knowledge" and "Three Views of Theoretical Knowledge."

17. See Carnap's "On Protocol Sentences" and "Empiricism, Semantics, and Ontology."

18. In a supplement to his paper, "The Empiricist Criterion of Meaning," Carl G. Hempel, a member of the Positivist circle, concedes this point: "The idea of cognitive significance, with its suggestion of a sharp distinction between significant and nonsignificant sentences or systems of such, has lost its promise and fertility as an explicandum" (p. 129). Incidentally, Hempel's paper provides a helpful (though partial) history of the Postivists' attempts to repair their criterion of meaningfulness.

of thought to experience and, as a consequence, they obscured how concepts can be open to an empirical critique—that is, how an improper relation to experience can be grounds for conceptual criticism.

217. With the downfall of Positivism, and under the influence of the later work of Wittgenstein, theories gained prominence that denied experience any rational role whatsoever. We saw above, in Chapter 2, one such theory, that of Sellars. Let us recall the following anti-Russellian elements in this theory:

(i) The meaning of a term, according to Sellars, is not its denotation. The meaning is, instead, the use of the term and, more particularly, the inferential role of the term in the linguistic / conceptual system. Sellars accepted a coherence theory of meaning and concepts.¹⁹

(ii) Sellars not only rejects the identification of meaning with denotation, he allows denotation no role in the explanation of meaning. Sellars explains away the notion of denotation.²⁰

(iii) Sellars rejects Russellian acquaintance as a foundation of meaning and content. Sellars argues that acquaintance—indeed, all knowledge—presupposes concepts and, therefore, presupposes meaning and content.²¹

(iv) Sellars goes further and reverses the Russellian order of explanation: instead of explaining meaning (= use) in terms of acquaintance, Sellars explains acquaintance in terms of use.²²

(v) Experience, on the Sellarsian account, requires concepts and thus cannot serve as a foundation of meaning and concept acquisition.²³

19. Sellars, "Particulars," p. 293: "The meaning of a term lies in the rules of inference, formal *and* material, by which it is governed."

20. Remarking on statements such as "'Mensch' signifies Socrates" and "'Mensch' signifies *man*," which seem to link the linguistic / conceptual to the real, Sellars writes, "The heart of my contention . . . is that the basic role of signification statements is to say that two expressions, at least one of which is in our own vocabulary, have the same use" ("Being and Being Known," §50).

21. Sellars, "Empiricism and the Philosophy of Mind," §45: "*For we now recognize that instead of coming to have a concept of something because we have noticed that sort of thing, to have the ability to notice a sort of thing is already to have the concept of that sort of thing, and cannot account for it.*"

22. This is Sellars's *psychological nominalism*, "according to which *all* awareness of *sorts*, *resemblances*, *facts*, etc., in short, all awareness of abstract entities—indeed, all awareness even of particulars—is a linguistic affair. According to it, not even the awareness of such sorts, resemblances, and facts as pertain to so-called immediate experience is presupposed by the process of acquiring the use of a language" ("Empiricism and Philosophy of Mind," §29).

23. Robert Brandom, Christopher Hill, and Paul Horwich have put forward theories that combine a use-theoretic account of meaning with a deflationism about truth. See Brandom's

218. Wittgenstein's and Sellars's rejection of Russell's notion of acquaintance is reasonable, as also is their rejection of the Russellian (and *Tractarian*) identification of meaning with denotation. Still, why deny denotation all role in meaning? Why deny that some linguistic items sometimes bear a denotation relation to some elements of the world and, furthermore, that this relation can be important for understanding some uses of language? Russell and others maintained, we have seen, that ostensive definitions establish denotational connections between linguistic and worldly items. Russell's conception of ostensive definition is, I grant, gravely flawed. But why, when rejecting this conception, reject also the intuitive idea that an ostensive definition can establish a denotational connection? Sellars does not, as far as I know, provide any account of ostensive definitions. His model of experience is, I believe, a poor basis for the construction of such an account. Wittgenstein does discuss ostensive definitions at some length. Indeed, in both the *Blue Book* and the *Philosophical Investigations*, a reflection on these definitions precedes, and prompts, the move to the idea that meaning is use. In both books, Wittgenstein is plainly rejecting the Russellian conception of ostensive definitions. But should we read him as rejecting also the intuitive idea that an ostensive definition sometimes establishes a linkage between a linguistic item and the world? Several Wittgenstein commentators have insisted on a positive answer to this question. P. M. S. Hacker, for example, reads Wittgenstein as holding that

ostensive definition is part of grammar, it provides no connection between language and reality—it does not 'pin' a name to a subsistent object which is part of the substance of the world. . . . So language remains autonomous and there is no justification of language by reference to reality.²⁴

In "Language, Language Games and Ostensive Definition," James F. Harris interprets Wittgenstein in a similar way. According to Harris, there is a major

Making It Explicit; Hill's *Thought and World* and *Meaning, Mind, and Knowledge*; and Horwich's *Truth and Meaning*. Brandom's views are close to those of Sellars; Hill's and Horwich's are not. I have offered some criticisms of deflationism and use theories in essays reprinted in my *Truth, Meaning, Experience*. See also my "Deflationism, the Problem of Representation, and Horwich's Use Theory of Meaning."

24. "Wittgenstein on Ostensive Definition," pp. 281–282. See also Hacker's "Frege and Wittgenstein on Elucidations."

change in view about ostensive definition when Wittgenstein moves from the picture theory of the *Tractatus* to the use theory of his later period. Harris tells us that in the later period “ostensive definition is no longer viewed by Wittgenstein as providing a connection between language and reality” (p. 47); “ostensive definition cannot do the job of tethering language to the world” (p. 48). In support of his interpretation, Harris draws attention to a remark of Wittgenstein’s that was recorded by Friedrich Waismann (p. 45):

In the *Tractatus* I was confused about logical analysis and ostensive definition. I thought at the time that there is a “connection between language and reality.”

I will not take a stand here on the question whether Hacker’s and Harris’s interpretations of Wittgenstein are correct. I observe only that Wittgenstein’s discussion of ostensive definitions, in the *Blue Book* as well as in the *Philosophical Investigations*, has the strange feature that it makes no mention of their relationship to experience. Russell’s conception of ostensive definition is, I have granted, gravely flawed. Nevertheless, he and others are right that an ostensive definition depends crucially on experience. Indeed, ostensive definitions are one vital link through which language and thought can connect, with the aid of experience, to the world. If we wish to understand how experience endows language and thought with content, we should take a fresh look at these definitions. It is misconceptions about these definitions that have led to flawed models of the relationship of experience to thought.

8B. OSTENSIVE DEFINITION: DENOTATION

219. An *ostensive definition*, as I understand this concept, is a definition that relies on concurrent experiences to endow a symbol with meaning. Suppose you are in your yard, looking at some insects, and you issue the ostensive definition

- (1) Suzie \equiv_{Df} the red ant carrying a leaf.

This stipulation may well succeed in enriching your conceptual system with a name of a hitherto unnamed and unknown ant. And your visual experi-

ence may well play a vital role in enabling the enrichment. What might this role be?

One aspect of the role centers on the presentational complex of your experience. The presentational complex can enable the *definiens* of (1)—that is, the right-hand side of (1)—to pick up a denotation. The definiens, ‘the red ant carrying a leaf’, if considered apart from your visual experience, may well fail to pick out any particular ant. Since leaf carrying is a rather common activity among red ants, the common-noun phrase ‘red ant carrying a leaf’ is probably true of many ants in our world. However, given your visual experience, the definiens could well pick out a unique ant. The phrase ‘red ant carrying a leaf’ may well be true of only one ant making up the presentational complex of your experience. Your visual experience, through its presentational complex, can thus enable the definiens to possess a denotation when otherwise it would have lacked one. Your experience can in this way contribute to the interpretation of the ostensive definition and, thereby, of its *definiendum* (i.e., the left-hand side of (1)).²⁵

More generally, the definiens of an ostensive definition can be semantically evaluated at many different points of evaluation. The definiens can be evaluated at the world as a whole, and it can also be evaluated at various portions of the world. The semantic value of the definiens—and, indeed, whether it has a semantic value—can vary from point of evaluation to point of evaluation. One way an experience contributes to the interpretation of an ostensive definition is by providing a point of evaluation—namely, the presentational complex—for the definiens. This contribution can help pin a denotation on the definiendum.

220. An ostensive definition is *contextual*: its interpretation depends on the context of use. Definition (1) issued in one context can pin one denotation on ‘Suzie’; issued in another context, it can pin a different denotation on ‘Suzie’. A definition such as

25. In examples, here and elsewhere, I often assume a commonsense metaphysics and take such items as ants, leaves, and their colors to be real. This should not be read as an endorsement of commonsense metaphysics. An important plank in the position I am working toward is that questions about what is real and what unreal are in a good measure empirical questions. Commonsense metaphysics may be right. Nevertheless, we have the theoretical freedom to reject substantial parts of it, and empirical anomalies may leave us no alternative but to do so.

- (2) Prime =_{Df} the least prime number larger than 120.

is, on the other hand, *absolute*; its interpretation is the same irrespective of the context in which it is issued. Let us observe that not all contextual definitions are ostensive—as the following example shows:

- (3) Temp =_{Df} the temperature right now at the tip of the Washington Monument.

The interpretation that a use of (3) imparts to ‘Temp’ depends on the moment when the definition is issued. The interpretation does not depend on the experiences undergone by the issuing subject—nor, for that matter, on those undergone by the other individuals with whom our subject happens to be conversing. Hence, (3) is not an ostensive definition; nevertheless, it is a contextual one. Finally, let us note that a definition, ostensive or otherwise, may be *stipulative*: it may serve to introduce a new symbol into a discourse. Or it may be *descriptive*: it may serve to explain the meaning of a symbol already in use.²⁶

221. The semantical contribution of experience to an ostensive definition can extend to the subexpressions making up the definiens. Let *e* be the visual experience you underwent when you issued definition (1)—I shall call *e* *the grounding experience of* your issuance of (1). Now one way that the presentational complex, Π_e , of *e* can contribute to the interpretation of ‘Suzie’ is this. We consider the objects that *satisfy* the condition,

- (4) *x* is a red ant & *x* is carrying a leaf,

at the world as a whole (call it ‘@’); these are the objects *o*, such that both ‘red ant’ and ‘carrying a leaf’ are *true of o*. We go on to determine which of

26. Definitions (1)–(3) are all *regular* in the sense that their definienda are identical to their defined terms. They are also *noncircular* in the sense that their definientia do not contain any occurrences of the defined terms. (See my “Definitions” for a discussion of different types of definitions.) For the logical and philosophical points I wish to make below, I do not need to consider circular or nonregular ostensive definitions. I want to emphasize, though, that such definitions are possible and can be fully legitimate.

The topic of ostensive definitions is complex and vast, and I confine myself below to observations that are essential to the logical and philosophical points I am concerned to make. I am not aiming to offer here a full or systematic treatment of the topic.

these objects belong to Π_e . If a unique one belongs to Π_e , then that is the denotation of ‘Suzie’; if none or more than one belongs to Π_e , then ‘Suzie’ fails to denote. There is another way, however, in which Π_e can contribute to the interpretation of ‘Suzie’. We can consider the objects that satisfy condition (4) *at* Π_e . This may provide us with a unique ant that satisfies (4) even when the previous procedure fails to do so. Suppose you see two ants—say, Ant I and Ant II—carrying leaves and both ants are red but only the redness of Ant I is visible to you. That is, Ant I’s being red is a part of the presentational complex Π_e , but Ant II’s being red is not. Now, both ants satisfy the condition “*x* is a red ant” at @, but only Ant I satisfies it at Π_e . Hence, only Ant I satisfies (4) at Π_e . The second way of interpreting the definiens yields, therefore, a denotation whereas the first way fails to do so. The general point is that the presentational complex of an experience can contribute to the interpretation of an ostensive definition in several different semantical ways, including some subtle ones.²⁷

222. Consider another variant of the yard example. This time you are in the yard with a friend and you are both looking at some insects, several of which are red ants carrying leaves—a fact that is visible to both of you. Ostensive definition (1) will not work in this situation: too many red ants carrying leaves. Still, you could introduce the name ‘Suzie’ with the aid of a demonstrative adjective, ‘this’ or ‘that’. You could, for example, use ostensive definition (5) together with a suitable pointing gesture:

(5) Suzie =_{df} that red ant carrying a leaf.

The descriptions ‘red’ and ‘carrying a leaf’ may well be playing a significant role in your stipulation, for there may be many ants visible in the area indicated by your pointing gesture and, without these descriptions, no one ant

27. The second way of evaluating the definiens seems more natural in the present example. Sometimes, however, the first way is more natural. This is so if (e.g.) the definiens is ‘the man who studied at Yale’. The condition “*x* is a man who studied at Yale” should be evaluated at the world as a whole, not at the presentational complex. For no object would satisfy this condition at the presentational complex, as “being a man who studied at Yale” is not a visual property of things.

I should note that the two ways sketched here do not exhaust the available possibilities and, furthermore, a complex pragmatics dictates which particular way is in play when an ostensive definition is issued on a particular occasion.

may stand out as the denotation of 'Suzie'. How should we understand the role of the descriptions and of 'that'? Here is a suggestion. We view 'that' as playing a twofold role: as serving as a definite article 'the' and as contextually narrowing the presentational complex.²⁸ We thus reduce (5) to (1), and we can view the role of 'red' and 'carrying a leaf' in (5) to be similar to the role they play in (1). The semantical points made for (1) carry over to (5). Irrespective of the details, the point I wish to insist on is that 'red' and 'carrying a leaf' may be essential for figuring the interpretation of (5).²⁹

One further observation: Your visual experience may be directed to a presentational complex quite different from that to which your friend's experience is directed—the two of you may be viewing the insects from different places and from different angles. Your friend may thus evaluate the definiens of the ostensive definition (5) at a different point of evaluation than you do. Still, the two of you may be in perfect agreement on the denotation of 'Suzie'. Differences in experiences do not necessarily entail differences in meaning.³⁰

223. A contrast with representational theories: Under the proposal I am making, experience provides a presentational complex, which can serve as a *point of evaluation* for perceptual descriptions. In contrast, under the representational theories, experience provides a *content*, something that is not suitable to be a point of evaluation. A content is an *object of evaluation*, something that can be assessed at a point of evaluation. It is not itself a point of evaluation and cannot serve as one. Under the proposal I am making, the

28. In the evolution of Indo-European languages, it appears, the definite article and the demonstratives go back to a common source, to some proto-device that served the functions of both.

29. According to the theory David Kaplan favors in "Afterthoughts," which he appends to his paper "Demonstratives," the denotation—or, to use Kaplan's terminology, referent—of a perceptual use of a demonstrative phrase is determined by the utterer's "directing" or "perceptual" intention. The accompanying description (e.g., 'red ant carrying a leaf' in the demonstrative phrase above) plays no semantic role in the determination of referent. Kaplan says of the description that it "is there only to help *convey* an intention and plays no *semantical* role at all . . . the referent is properly determined by the perceptual intention" (p. 796). I think Kaplan is led to this view, in part, because he does not bring into play any account of experience in setting out his semantics of perceptual demonstrative phrases. (An astonishing omission!) As I see things, experience is an essential ingredient in the semantics.

30. Sometimes special attention needs to be paid, it is true, to the points of view of the participants in a conversation, for otherwise there would be a danger of confusion. Different participants could take different objects to be the topic of discussion through evaluating a perceptual description at different presentational complexes.

contribution of experience to the determination of denotation is relatively straightforward. Under the representational theories, however, the contribution is something of a mystery. To undergo an experience, according to representational theories, is to be in a state with a certain content, a content that can be false or erroneous. How does—indeed, how can—such a content contribute to the interpretation of a perceptual description? Suppose Smith thinks erroneously that Jefferson was the second president of the United States. This mental state is entirely irrelevant to the denotation of Smith's uses of the description 'the second president of the United States'. The denotation of the description is whichever individual uniquely satisfies the condition 'x is second in the ordered list of presidents of the United States'; Smith's beliefs and thoughts are irrelevant as also are Smith's brain states with their possibly false nonconceptual contents. The denotation of a description depends on the actual world and, in contextual cases, on portions of the world. The denotation depends on which objects *satisfy* the relevant condition, not on which objects are *represented* as satisfying the condition. It is a mystery, then, *how* and *why* possibly erroneous experiential representations are relevant to the denotations of perceptual descriptions.³¹

224. Not only names for particulars but also names for universals can be introduced with the aid of ostensive definitions. You could introduce the name of a color, say 'Red₁₂', through an ostensive definition such as,

(6) Red₁₂ =_{Df} that color.

On the liberal conception of presence I have put forward, properties and relations can be elements of presentational complexes and can be named using definitions such as (6).

31. I am not rejecting the notion that experience has content. Indeed, the hypothetical given, which I have argued for, enables one to assign a content to experience: the subject's view together with her experience yields a content that can be associated with the experience. The point I am making is that experience makes a contribution to the meaning of perceptual descriptions via the presentational complex, not via the content. Similarly, experience makes a contribution to the rationality of perceptual judgments via the hypothetical given, again not via the content. I believe that the content of experience—though a legitimate notion—is, from the logical point of view, otiose.

225. Suppose that you point to a photograph of a Civil War veteran and issue the ostensive definition,

(7) John =_{Df} that man.

You will have succeeded in pinning a denotation on 'John', but the denotation would not be a man that belongs to your presentational complex. Let us call definitions such as (7) that require one to go beyond the presentational complex *indirect*, and let us call the other definitions *direct*. Here is one way of thinking about indirect ostensive definitions: With these definitions, the presentational complex of the experience determines, in conjunction with contextual factors, a portion of the world, which is then used for the semantic evaluation of the definiens. This portion of the world we may call *the evaluational complex* of the definition. The evaluational complex of (7) may, for example, include the information that the photograph is a picture of a particular man and, thereby, provide resources for pinning a denotation on the definiendum. The distinction between direct and indirect ostensive definitions, on this way of thinking, is marked by the fact that, with the latter definitions, the determination of denotation is less direct; the determination requires a move beyond the presentational complex to the evaluational complex.³²

It deserves emphasis that directness and indirectness are not different modes of presentation. It is not as if some objects are directly present to consciousness in experience while others are indirectly present. Presentation, on the account I am offering, does not come in different flavors. Directness and indirectness characterize not an experience's relation to the world but the way the experience mediates the connection between language and the world. In one way, the language-world connection is established directly via the presentational complex; in the other way, the connection is established indirectly via the evaluational complex.

226. Two thinkers may disagree, as philosophers often do, over accounts of experience; yet the disagreement may well not affect the interpretations

32. The interpretation of ostensive definitions such as "Hanuman =_{Df} that god" (issued as one is pointing to a statue, say) may require a yet further extension beyond the evaluational complex. One may need the notion of an *evaluational model*, a model that carries relevant information about both real and mythical beings.

the thinkers assign to ostensively defined terms. For example, one thinker may hold that only parts of surfaces are present to consciousness in a visual experience, not the objects themselves—Moore, we saw above, was for a time attracted to such a position. A second thinker may dismiss parts of surfaces as logical fictions and may insist that it is the objects themselves that are present to consciousness. Despite this difference, the two may well agree on the interpretation of a term with an ostensive definition such as (5) [$\text{“Suzie} =_{\text{Df}} \text{that red ant carrying a leaf”}$]. The first thinker would take (5) to be an indirect ostensive definition, one that requires us to go beyond the presentational complex. The second thinker would take (5) to be a direct ostensive definition, one that requires no such move. The difference, important though it is, need not prevent the two thinkers from assigning the same denotation to the definiendum.

227. Ostensive definitions can bring about a substantial enrichment of a conceptual system. An experience can present a subject with items of a new kind, items she has never encountered before, and can thereby serve as a ground for the introduction of a substantially new concept. For example, a visual experience may present a subject with ants that belong to an altogether new subfamily, of whose existence our subject was totally unaware. Prior to the experience, the subject may have believed that there are twenty subfamilies of ants. Thanks to the new experience, she learns that there is an additional subfamily, and she enriches her conceptual system with a name for the new subfamily—perhaps through the ostensive definition:

(8) $\text{Ant-subfamily}_{21} =_{\text{Df}}$ the subfamily to which these ants belong.

For another example, our subject may, when gazing at the night sky one evening, be presented, as Tycho Brahe was, with a new astronomical object. Our subject may introduce a new name for the object and may begin an empirical investigation of it. She may go on to discover that the object is of an entirely new kind, one that upends her conception of the heavens.

228. OBJECTION: “Definition (8) does not effect any substantial enrichment of the subject’s system of concepts. Even prior to the experience of the ants, definite descriptions would be available to the subject that pick out the new subfamily of ants—for example, the descriptions ‘the subfamily

of ants that will be present in so-and-so visual experience at such-and-such time' and 'the subfamily of ants I shall point to on such-and-such occasion'."

REPLY: If the subject already possesses a refined system of concepts that allows her to denote particular visual experiences, particular moments of time, and particular occasions, then, certainly, prior to the experience, definite descriptions could well be available to the subject that denote the new subfamily of ants. However, let us observe, first, that the subject would not be entitled to think that there is such a subfamily of ants and could not rationally introduce a name for it. Second, the beauty of ostensive definition (8) is that it enables a subject to add the name 'Ant-subfamily₂₁' even when the subject possesses meager conceptual resources—even when the subject lacks any means of denoting particular visual experiences, particular moments, and particular occasions. Third, even when (8) is deployed in the context of a rich initial system, the ostensive definition brings with it the advantage that the name 'Ant-subfamily₂₁' is independent of the subject's conception of experience, time, and occasion. These latter may be confused and may embody many misconceptions, thereby jeopardizing the denotational connection between the descriptions and the world. But the denotational connection established by (8) is not affected at all by any such confusions and misconceptions. Ostensive definitions enable the subject to introduce concepts with lighter presuppositions and with more resilient denotational connections.

229. The following is a possibility: The members of a primitive community, living a life filled with danger and hardship, begin with limited and crude concepts that help them in their daily struggle for survival—concepts such as "bitter-fruit," "predator-animal," and "prey-animal." The community keeps no records; it possesses no calendar. Over time, the hunting and gathering skills of the community improve, and the hardship eases a little. The community members begin to explore their environment. They encounter new things, which they examine with increasing care and precision. The community members introduce new concepts through ostensive definitions, and they refine old ones as they learn more about the similarities and differences of things. (For example, "predator-animal" and "prey-animal" may give way to a complex hierarchy of zoological concepts of which no pair matches the two initial concepts.) We can imagine further that the community is

able, in part because of the new experientially acquired concepts, to domesticate animals and to grow plants and, thereby, to gain more comfort and leisure for its members. The community, we can imagine, develops a script and begins to keep records. The community members now initiate a systematic study of the night sky. They enrich their vocabulary with ostensively defined names for stars and constellations. They go on to refine their measures of time, to set up a calendar, and to engage in debates about their place in the larger scheme of things. Later still, they begin to reflect on the logic governing these debates.

It is possible, in short, for a meager conceptual system to evolve, under the influence of the rational force exerted by experience, into a rich and sophisticated one. One aim of the logical inquiry is to understand this experientially guided rational evolution.

230. Traditional logic imposes two requirements on definitions: Noncreativity and Eliminability.³³ Noncreativity requires that the addition of a definition should not enable one to establish essentially new claims. That is, for any claim *A* formulated using only old vocabulary, if *A* can be established with the aid of the definition, then it should be possible to establish *A* using only old resources and, in particular, without the aid of the definition. Eliminability requires that the defined term should be eliminable from all claims. That is, if *A* is a claim containing a defined term, then there should be a claim *B* that contains no occurrences of the defined term and that is provably equivalent to *A*.³⁴ Now, these requirements are reasonable for certain absolute and noncircular definitions, such as those found in mathematics. The requirements are *not* reasonable for definitions in general. Stipulative ostensive definitions satisfy neither requirement. These definitions can introduce terms that allow us to *express* essentially new claims, claims that could not be expressed in the initial system. Furthermore, these definitions can enable one to *establish* new claims, claims formulated in the old vocabulary that could not be established in the initial system (e.g., the claim that there is at least one ant in my yard). Circular definitions, incidentally, fall in the middle: they satisfy the requirement of Noncreativity, but they can fail to satisfy Eliminability.

33. Sometimes the former requirement is called 'Conservativeness'.

34. A fuller discussion of the two requirements may be found in my "Definitions."

Traditional logic confines itself to a narrow class of definitions, definitions that are neither the most fruitful nor the most interesting. A famous book in logic declares that definitions are, “strictly speaking, mere typographical conveniences.”³⁵ This is true, at best, only of a narrow class of definitions: definitions that are stipulative and regular and absolute and non-circular. It is not true of definitions in general.

231. I have argued against Russell’s conception of empirical knowledge and thought. Still, some specific Russellian ideas seem to me both coherent and useful. These ideas include the following:

(i) Some of our terms—though, perhaps, not all—may bear the *denotation* relation to some worldly items. Some terms may denote particulars; others may denote universals.

(ii) Some general terms may fail to denote universals, but they may nevertheless bear a *true of* relation to various items in the world. These terms, even though they are nondenoting, can help us pick out and think about worldly items. Perhaps ‘mud’ is an example. This word may be true of various items and false of others,³⁶ and it may enable us to talk about specific things. (Example: “Clean up that mud you tracked in!”) Yet, ‘mud’ may fail to denote a universal because, perhaps, the diverse things that count as mud share no common nature.

(iii) Some of the denotational connections may be instituted with the aid of experience through ostensive definitions.

(iv) Indeed, some of the connections established by ostensive definitions may be to the “*ultimate constituents of the world*,” as Russell calls them. Maybe ants are ultimate constituents of the world, and ostensive definitions enable us to institute a denotational connection between some of these ultimate constituents and names for them.

232. In my endorsement of these ideas, I sometimes go beyond Russell and sometimes not as far:

(i*) Even though I allow that some terms may denote worldly items, I do not impose it as requirement on meaningfulness that at least some terms

35. Whitehead and Russell, *Principia Mathematica*, vol. I, p. 11.

36. Truth and falsity may need to be relativized and may come in degrees: ‘mud’ may be true of an item to a certain degree relative to one set of parameters, and true to a different degree relative to another set, and outright false relative to a yet different set of parameters.

do so. The presence of primitive denoting terms is not a prerequisite for meaningfulness.

(ii*) I recognize that there is a variety of language-world relations, beyond “denotation” and “true of,” that is useful in understanding the functioning of language and thought. For example, terms with circular definitions enter into language-world relations that cannot be captured with “denotation” and “true of.” I provide further examples below (§§254–255).

(iii*) I follow Russell in giving ostensive definitions an important role in instituting denotational connections. But I go beyond Russell in that I allow ostensive definitions to institute denotational connections with items that belong to different categories: objects as well as events, particulars as well as universals. This is possible because I break the Russellian link between presence and acquaintance. Presence of a universal, for example, does not imply that the subject is acquainted with the universal or that the subject can readily acquire a concept for it.

(iv*) I allow that the Russellian idea of “ultimate constituents of the world” is coherent (albeit in need of elaboration), as is the idea that some ostensive definitions establish denotational connections with such constituents. However, I do not think that *only* ultimate constituents can be present to consciousness in an experience. I have allowed that ants can be present to consciousness, and perhaps ants are ultimate constituents. But, equally, perhaps ants are mere wholes whose parts are ultimate constituents, or perhaps they are mere “rivers” through which ultimate constituents “flow.” The account of experience I am offering allows both ultimate and nonultimate constituents to be presented to consciousness in experience. It allows, therefore, that direct ostensive definitions can introduce names for ultimate constituents as well as for nonultimate ones.

233. OBJECTION: “In your defense of Russellian denotational connections, you are being unfair to Wittgenstein, and you are neglecting important Wittgensteinian insights. The ostensive definitions you have considered all bring into play one or more concepts in their definientia. These definitions can be used only by someone who already possesses a language, one who is already endowed with conceptual abilities. You have shown, at best, how ostensive definitions can enable such a subject to acquire new concepts. But you have not shown how a subject acquires language and conceptual abilities in the first place. Your conclusions about ostensive definitions and language-world

relations such as “denotation” and “true of” are premature until you provide this account. You need to establish that some of the very first concepts that a subject acquires bear such relations to the world. These very first concepts, it is plain, cannot be acquired through ostensive definitions of the sort you have considered. You need to show, therefore, how language-world relations become established in the first place, as the conceptual arises from the nonconceptual bedrock. Wittgenstein is plainly concerned with the initial acquisition of language and concepts. Recall that the *Philosophical Investigations* begins with an extract in which Augustine sketches an account of how he acquired his language. Wittgenstein’s critique of the Augustinian picture shows that the initial acquisition of language and concepts does not presuppose or support language-world relations of the sort you are defending. If this is right, then we must regard *all* ostensive definitions as purely conceptual moves. These definitions do not presuppose or establish any language-world relations.”

REPLY: I wish to make three points in response to the objection.

(i) A defense of language-world relations does not require one to show how these relations become established “as the conceptual arises from the nonconceptual bedrock.” It is sufficient to show that these relations help us understand empirical reasoning and empirically guided conceptual development. Just as we can begin to understand the evolution of life even when the origins of life remain shrouded in mystery, so we can begin to understand the rational evolution of our conceptual system even when its origins remain mysterious. Tools brought in to understand the evolution of life need no prior certification from an account of the origins of life; similarly, tools brought in to understand rational evolution of the conceptual need no prior certification from an account of the origins of the conceptual.³⁷

(ii) I do not see in Wittgenstein’s critique of the Augustinian picture any argument against language-world relations. One element in the Augustinian picture that Wittgenstein argues against is the idea that

37. We can, of course, make up just-so stories about how the conceptual arose from the nonconceptual. The point I am making is that these stories are not needed for the defense of language-world relations such as denotation. The questions, how the conceptual originated and how a child comes to acquire concepts, are entirely empirical; we can answer them only with the aid of empirical reason. The practice of empirical reason does not presuppose answers to these questions, and the same goes for the logical inquiry, which seeks to understand the workings of empirical reason.

- (9) Every word has a meaning. This meaning is correlated with the word. It is the object for which the word stands. (*PI*, §1)³⁸

Wittgenstein argues—correctly, in my view—that this conception of meaning fails for ordinary human languages. Notice, though, that Wittgenstein allows that the conception may well hold of “a language more primitive than ours” (*PI*, §2). So, Wittgenstein allows that in a primitive language, at least, words *can* stand for objects. He allows even that every word of a primitive language might stand for an object and, furthermore, that this object might be the word’s meaning—theses that go beyond anything I am proposing or need. Now, if a primitive language can contain words that denote and that are true of things, why would this necessarily fail when the primitive language evolves into a sophisticated one through enrichment with new concepts grounded in experience? I grant that as the language is enriched there could well be new terms added to it that are not denoting and that are not true of anything; so, (9) may well fail. But why must “denotation” and “true of” now fail of all application? Why would enrichment have this effect?

(iii) Wittgenstein argues—again, correctly, in my view—that we should not think of language-world connections as founded in queer mental acts.³⁹ He criticizes the idea, implicit in the Augustinian picture, that thought is prior to, or is the foundation of, language. In the Augustinian picture of language learning, Wittgenstein says, it is “as if the child could already *think*, only not yet speak” (*PI*, §32). Russell also (at least the Russell of the Platonist and the Phenomenalist periods) falls within the scope of Wittgenstein’s critique. Russell took language-world connections to be founded on peculiar mental acts of acquaintance. Experience was, for him, a primitive mental act that enabled the subject to know the object. Now, I have already rejected the Russellian account of experience. I do not think that experience is a mental act of knowing the object; I do not think that presence amounts to acquaintance. More generally, I do not subscribe to the idea that mind is prior to language—either in the order of development or in the order of explanation or for the purposes of the logical inquiry. None of these pri-

38. Abbreviation: *PI* =_{Df} *Philosophical Investigations*.

39. Wittgenstein, *Blue Book*, p. 3: “We are tempted to think that the action of language consists of two parts; an inorganic part, the handling of signs, and an organic part, which we may call understanding these signs, meaning them, interpreting them, thinking. These latter activities seem to take place in a queer kind of medium, the mind.”

ority claims is required, we should notice, to sustain language-world relations such as “denote” and “true of.” So, Wittgenstein’s critique of the priority of the mental does not call into question the legitimacy of these notions. Let me add, *en passant*, that some authors—Sellars is an example—find motivation in Wittgenstein to reverse the order of priority. They take language to be prior to thought, and they see the mental as founded on the linguistic. I myself am unable to accept this priority claim, either. Neither the mental nor the linguistic seems to me prior to the other. The two seem to me interconnected and interdependent.

8C. OSTENSIVE DEFINITION: CONNOTATION, SYMBOL, CONCEPT

234. An ostensive definition can pin a connotation on the defined term. A friend may introduce a name ‘Mary’ through the ostensive definition

(10) Mary =_{Df} that woman,

and if the perceptual conditions are suitable, you may come to associate with ‘Mary’ not only a denotation but also a connotation. The name ‘Mary’ may come to possess for you an application profile as well as a standard profile (§189); you may acquire the ability to issue, in a range of perceptual situations, identification judgments (“there’s Mary again”) as well as “looks” judgments (“that woman looks like Mary”). Let us notice that the connotation you associate with ‘Mary’ may be quite different from the one your friend associates with it—perhaps the friend suffers from a mild form of prosopagnosia. Still, you and your friend can fruitfully use ‘Mary’ in your rational discourse. You can express agreements and disagreements about Mary, and the two of you can make a rational attempt to resolve your disagreements.⁴⁰

40. Differences in connotation can result in names that “differ in meaning,” however. Suppose you ostensively acquire the name ‘Susan’ in a perceptual situation very different from the one in which you acquired ‘Mary’. As a result, you may come to associate a radically different application profile with ‘Susan’ than with ‘Mary’—you may (e.g.) rely on auditory phenomenology to apply the name ‘Susan’ and on visual phenomenology to apply ‘Mary’. ‘Mary’ and ‘Susan’ will, in your use of them, be two names that “differ in meaning” even if they denote the same woman.

235. Sometimes it is essential to pin the right connotation on the defined term if one is to count as having learned the meaning of the term. A child who is taught ‘purple’ through the ostensive definition

(11) Purple =_{Df} the color of that chip

would not have grasped the meaning of the term if he were unable to predicate ‘purple’ of obviously purple things in ordinary perceptual situations. To qualify as knowing the meaning of a word one must be able to do certain things with the word. And the ability to assess whether a thing is purple in ordinary perceptual situations is a requirement that normal individuals must meet if they are to qualify as knowing the meaning of ‘purple’. For this reason, it would not do to teach the child the meaning of ‘purple’ by issuing (11) in conditions in which the chip does not look purple (e.g., when lighting is very low). It is not enough that the definition fixes the right denotation on ‘purple’; the definition should enable the subject to associate the right connotation with the name. On the other hand, with some terms connotation is inessential to use, and an ostensive definition of such a term may be perfectly adequate even though it does not enable the subject to associate any definite connotation with the defined term. For example, one may be introduced to a new measure of weight through the ostensive definition, “One quound =_{Df} one-thousandth the weight of that boulder,” as one is shown a photograph of a boulder. One would not associate any application or standard profile with ‘one quound’; still, one would count as knowing the meaning of the expression.

236. Imagine that an ostensive definition, say (10), is issued to introduce a new name ‘Mary’ into the discourse of a group of friends. The definition pins, let us imagine, a denotation on ‘Mary’, and it enables each friend to associate a connotation with the name—perhaps different friends end up associating somewhat different connotations with ‘Mary’. The issuance of the ostensive definition has a further important effect on which we should reflect: the friends are able to use ‘Mary’ in different contexts—even in contexts in which Mary is not present—to talk about Mary. This effect is essential to the point of the definition. If the definition did not impart the ability to use ‘Mary’ to talk about Mary, the definition would have no point. The ability to use and reuse terms in different contexts “with the same meaning” is

central to language; without it language as we know it would be impossible. Furthermore, this ability is connected to the ability to think of a thing, to call it to mind, even when the thing is not present. These two abilities, the ability to reuse terms and the ability to call to mind things, separate language and thought from experience. In experience, various and changing worldly items are presented to the subject's consciousness and manifest a flux of appearances. An item experienced may cease to exist and never be experienced again. However, if the subject possesses the ability to talk and to think, then the subject may be able to dip into the stream of experience, pin a name on an item (say with the aid of an ostensive definition) and thus grasp it in thought, and then go on to talk about it and to call it to mind even when the item has ceased to exist.

237. Let us introduce some terminology that will help us reflect on the friends' subsequent uses of 'Mary'. Let \mathcal{D} be the definition-token of (10) through which 'Mary' is introduced into the friends' discourse, and let us say that the friends' later tokens of 'Mary' are *governed by* \mathcal{D} . (I am assuming that the friends do not abandon or replace their definition of 'Mary'.) Let us also say that these tokens as well as the token of 'Mary' that occurs in \mathcal{D} are *congruent*. Congruence is a relation that holds between only some of the tokens of a type. If a different group of friends were to use a different token of (11) to introduce the name 'Mary' into their discourse—perhaps as a name of Mary or perhaps as a name of a different woman—then the tokens they produce of 'Mary' would not be congruent to the tokens produced by the first group of friends. The notion of congruence extends beyond tokens produced in the wake of a definition. Suppose some friends start using 'David' as a name of a particular boy, without any explicit definition or naming ceremony. These friends produce a stream of tokens of 'David' that are congruent.

238. The notion of congruence is essential to the idea of logical form. Consider the following argument-token of a familiar argument-type:

- (12) All men are mortal, all Greeks are men, and therefore all Greeks are mortal.

Whether this argument-token is of the form Barbara depends on whether the pairs of tokens of 'men', 'mortal', and 'Greek' in it are pairs of congruent

tokens. If they are, then the argument-token is indeed of the form Barbara; otherwise, it is not. (As indicated above, I am taking the logical constants as given and unproblematic. I am concerned only with how we should think of the meaning of empirical terms.)

239. In a discourse (e.g., a debate), numerous tokens are produced. Some of these tokens are distributions of ink on paper; some are particular vibrations in the air; some are particular illuminations of pixels on a screen; and so on. “Congruence” sometimes partitions the tokens produced in a discourse into equivalence classes—a partition that can be finer than the one induced by “same type.”⁴¹ It will be useful to name this partition. Let us call it “*same symbol*,” and let us understand the notion “*the symbol of*” as governed by the following principle:

The symbol of token t = the symbol of token t^* iff t and t^* are congruent.

If s is the symbol of a token t , then I shall say that t is a *token of* s . I shall let quote names double as names for symbols, leaving it to context to resolve the resulting ambiguity.

240. Definitions introduce new symbols into our discourse. Two different definition-tokens of (10) introduce different symbols, symbols that are of the same type. If two tokens are tokens of the same symbol, then they are of the same type; the converse, as we have just seen, can fail. The idea of logical form presupposes the idea of symbol. If argument-token (12) is of the form Barbara, then the two tokens of ‘men’ in it must be tokens of the same symbol.

241. An ostensive definition does not fix the *use* of the symbol it defines. This is a vitally important difference that separates ostensive definitions from absolute ones. Compare ostensive definition (10) [“Mary =_{Df} that woman”] with the absolute definition we considered above:

41. Over some discourses, “congruence” is not a fully determinate notion and, thus, does not effect a sharp partitioning of tokens. For my purposes here, it suffices to focus on discourses over which “congruence” is fully determinate. I defer to another occasion consideration of discourses where this condition fails.

(2) Prime =_{df} the least prime number larger than 120.

The latter definition fixes completely the use of 'Prime'—a use that is captured by the rule that the symbol 'Prime' is intersubstitutable with 'the least prime number larger than 120' in all occurrences except certain familiar ones (e.g., those within the scope of terms for propositional attitudes). Ostensive definition (10), in contrast, does not warrant the parallel substitution of the symbol 'Mary' for 'that woman'. One could be in a context in which it is rational to affirm 'Mary is Mary' but nonsensical to affirm 'Mary is that woman', for no salient woman may be provided by the context to serve as the denotation of 'that woman'. The intersubstitutivities permissible for the symbol 'Mary' are not settled by the initial ostensive stipulation; they depend on context and view. One may be entitled to substitute for 'Mary' the description 'the woman in the doorway' if the woman in the doorway manifests a certain appearance to one and if one's view has certain features (such as including the belief that Mary does not have an identical twin); otherwise, one may not be entitled to the substitution.⁴²

242. Here is another way of appreciating the essential difference between absolute and ostensive definitions. Suppose that a friend were to ask one to explain the meaning of 'Prime'. It would be easy to comply with the request: one could simply repeat (2), irrespective of the context in which the request is issued. Suppose, however, that the friend asks one to explain the meaning of 'Mary'. Now a repetition of (10) may well be inadequate; indeed, (10) may well make no sense in the context of the request. To explain the meaning of 'Mary', one may need to go beyond (10) and to consider aspects of the context in which the request is issued. In one context, one may be able to explain the meaning by saying "Mary is the woman in the doorway"; in another, by saying "Mary is Bill's wife." Let a *meaning profile* of a symbol in a discourse be an explanation of its meaning at each stage of the discourse at which such an explanation is available.⁴³ A symbol governed by an abso-

42. The standard logical rules for definitions, Definiendum Introduction and Definiendum Elimination, do not hold for ostensive definitions.

43. This characterization allows that no explanation of meaning may be available at some stages in a discourse. The characterization allows also that several different explanations of meaning may be available at some stages; in such a case, the symbol will possess multiple meaning profiles.

lute definition has a constant meaning profile: the definition itself serves as an explanation of meaning at each stage of the discourse. A symbol governed by an ostensive definition (as well as a symbol like ‘David’ that comes into use without the aid of an explicit definition) typically possesses a variable and incomplete meaning profile.⁴⁴

243. I suggest we recognize a relation, *cointentionality*, that obtains between tokens that make up a discourse. Two tokens are cointentional iff, intuitively, they mean the same. Consider, for example, an arithmetical discourse that is ordinary except for the addition of two new names, ‘Prime’ and ‘Frime’, with ‘Prime’ governed by (2) and ‘Frime’ governed by (13).

(13) Frime =_{Dr} the least prime number larger than 120.

In this discourse, tokens of ‘Prime’ and ‘Frime’ are cointentional, as also are tokens of ‘Prime is even’ and ‘Frime is even’.

244. With absolute definitions, we can retain the following picture: the definition imparts a fine-grained meaning to the tokens of the defined symbol, and this meaning fixes the relation of cointentionality. Thus, definitions (2) and (13) impart the same fine-grained meaning to tokens of ‘Prime’ and ‘Frime’—a meaning that is spelled out in the defnientia of these definitions and that fixes the relation of cointentionality with respect to these tokens. This picture is not apt for ostensive definitions, however. The act of laying down an ostensive definition does not generate any meaning that can serve as a principle for separating cointentional tokens from the others. I suggest that we reverse the picture. I suggest we use the relation of cointentionality to recover a notion of meaning. Let us understand the notion *“the concept expressed by a token”* as governed by the following principle:

44. An ostensive explanation of the meaning of a term does not, I wish to stress, aim to provide a synonym. The explanation aims to provide instead key information that enables the other to understand and use the term. In some contexts (e.g., when the other has an impoverished conceptual system or is too skeptical), one may well be unable to say anything that would enable the other to understand and use the term; in other contexts, there may well be more than one such thing.

The concept expressed by token t = the concept expressed by token t^* iff t and t^* are cointentional.

Let us say that a definition-token *defines* the concept expressed by the tokens of the defined term in it, and let us say that the symbol introduced *expresses* this concept. Let us tie the individuation of *propositions* to concepts. For example, sentences ' a is F ' and ' a is G ' express different propositions iff symbols F and G express different concepts.

245. In the course of a debate, we sometimes see ourselves as expressing agreement and sometimes as expressing disagreement. We produce a series of sounds, for example, and we take ourselves as "affirming the same thing" as what another has affirmed; moreover, we are seen by the other participants in the debate as doing so. Similarly, we sometimes produce a series of sounds and we see ourselves, and are seen by the others, as affirming the negation of something that another has affirmed. This capacity to see ourselves as expressing agreements and disagreements is a highly complex one, but it is essential to all debate. The relation of cointentionality is a product of this capacity. Whatever its ultimate analysis may be, the relation must be recognized in any inquiry concerned with the logical characteristics of a discourse. I am suggesting that the relation is a good foundation for understanding "concept."⁴⁵ Our ability to use and reuse a symbol with "the same meaning" is not founded on an antecedent grasp of "meaning." Instead, it can serve as a foundation for explicating an aspect of meaning, an aspect I have labeled 'concept'.⁴⁶

246. In traditional treatments of experience and thought, we find parallel errors. Subjective identity of experiences is understood through presence to mind of special elements (such as sense-data and appearances). In parallel, intentional identity of thoughts is understood through directedness of mind

45. The relation of cointentionality may not be sharply defined over all pairs of tokens. This fact will occasionally create difficulties in a debate, though not always. The indeterminacy in "cointentionality" will generate a correlative indeterminacy in "concept."

46. I am recommending the present account of "concept" only for the logical inquiry. The account entails no commitments about the usefulness of the notion in (e.g.) psychology. Which notion of concept is useful in psychology and even whether any such notion is useful at all are questions on which I need take no stand here.

to special items (such as Fregean senses) in an abstract, third realm. This traditional way of talking, and even the pictures that accompany it, can be harmless. The talk and pictures become pernicious, however, when they encourage the idea that in perception we are necessarily cut off from the external world and when they lead us to suppose that our knowledge of cointentionality rests on a peculiar sort of insight into the third realm. Our knowledge of cointentionality is an ordinary sort of complex knowledge, not simple knowledge of an extraordinary realm.

247. Some useful interconnections between definitions, ostensive as well as others, and cointentionality are captured by the following theses:

- (i) Tokens governed by the same definition-token are cointentional; more generally, tokens of the same symbol are cointentional.
- (ii) Tokens are cointentional if they are governed by absolute definitions with identical definientia (i.e., definientia consisting of the same symbols arranged in the same way in the same logical structure).
- (iii) Tokens governed by definitions that pin different denotations or extensions on the defined symbol are not cointentional; more generally, tokens are not cointentional if they denote different things or possess different extensions.⁴⁷
- (iv) Tokens governed by structurally identical definition-tokens are not cointentional if some of the corresponding tokens in the definientia are not cointentional.⁴⁸

To illustrate (iii), tokens of ‘police officer’ are not cointentional with tokens of ‘woman’ because the former possess an extension different from that of the latter: tokens of ‘police officer’ are not true of the same things as

47. This claim can be strengthened: tokens that possess different intensions (= extensions across possible situations) are not cointentional.

48. Let me record two further theses, less straightforward than the above four, concerning definitions and cointentionality:

- (v) If two tokens in a discourse are governed by absolute definitions whose definientia are not taken to be equivalent by the participants in the discourse, then the tokens are not cointentional.
- (vi) If participants in a discourse regard it as common knowledge that a pair of tokens is cointentional then, *ceteris paribus*, the pair is a pair of cointentional tokens.

the tokens of 'woman'. To illustrate (iv), tokens of 'Mary' governed by a token of (10) are not cointentional with those governed by a token of 'Mary =_{Df} that police officer' because tokens of the symbol 'woman' are not cointentional with those of 'police officer'.⁴⁹

248. The following facts are noteworthy: (i) Two tokens (and two symbols) may denote the same thing but express different concepts. Concepts are, therefore, more finely individuated than denotations and cannot be identified with them.⁵⁰ (ii) Two tokens may be associated with different connotations and yet express the same concept. As the lighting changes, the connotation of 'red' may shift, but the tokens of 'red' may express the same concept. Hence, concepts cannot be identified with connotations. (iii) A token of an identity 'Mary is Mary Jo' may not be informative in a discourse, but the respective tokens of 'Mary' and 'Mary Jo' may fail to be cointentional. Hence, concepts cannot be identified with Fregean senses.⁵¹ (iv) Two symbols of different types can express the same concept. Concepts are, therefore, not as finely individuated as symbols. In a debate, participants may employ different symbols and may speak different languages, yet the corresponding tokens they use may express the same concept. So, concepts cannot be identified with symbols, either.

249. In the course of a discussion, participants may acquire new beliefs, which may result in changes in the functional roles of a symbol in the psychology of the participants. The acquisition of new beliefs may result also in changes in the inferential roles of the symbol for the different participants. For example, the participants may gain the information that Mary is a police officer, and this may change the psychological-functional role of the symbol 'Mary' for each participant—the participants may begin to use 'Mary' in new ways. The new information may change also the inferential role of 'Mary'—new kinds of inferential transitions may become legitimate

49. The notion of cointentionality may well suffer from indeterminacy over language use as a whole. This is perfectly tolerable so long as the notion is determinate enough over those fragments of language use that are up for logical evaluation.

50. They are also more finely individuated than intensions and cannot be identified with them, either.

51. Frege recruited his notion of sense to serve multiple functions: to account for informative identities, to be objects of propositional attitudes, to account for compositionality of language, and other functions besides. I doubt that one notion can serve these diverse ends.

for the participants (e.g., the transition to ‘Mary is employed’). Nevertheless, the subsequent tokens of ‘Mary’ may remain cointentional with the earlier ones. It follows that a concept can be identified neither with psychological-functional role nor with inferential role.

250. Imagine you are in a perceptual situation in which you are looking at Mary and are also thinking of her; your experience as well as your thoughts are directed to Mary. Perhaps as you look at her, you think that Mary is wearing a red dress and you affirm out loud “Mary is wearing a red dress.” Now, Mary manifests a certain appearance to you as you look at her, an appearance that is naturally regarded as the mode in which Mary is presented to you in your experience. This *mode of presentation* captures a certain identity—which I labeled “subjective identity”—that the presentation of Mary to you shares with various other presentations of items to various experiencing beings. The mode of presentation changes as, for example, Mary moves away from you. Nevertheless, you may retain the thought that Mary is wearing a red dress, and you may reaffirm your thought by saying out loud again “Mary is wearing a red dress.” The two tokens of ‘Mary’ you issue express the same concept. We may regard the concept as the mode in which you think of Mary. This *mode of thinking* also captures a certain identity. This identity holds between thoughts (qua acts) of Mary, and it is reflected in the use of cointentional tokens to express the thoughts. Modes of presentation (appearances) are radically different from modes of thinking (concepts); they capture radically different dimensions of identity. We have just seen that an item can be presented under different modes and yet be thought under one and the same mode. Similarly, an item may be presented under one unique mode but be thought of under two different modes, as perhaps a Babylonian did when, while looking at the Morning Star, he wondered whether it was the same as the Evening Star.

251. I have drawn attention to the importance of three types of items for understanding empirical discourse:

- denotation—this contributes to the determination, among other things, of the truth or falsity of claims made using empirical symbols;
- connotation—this contributes to the determination of the rationality of moves to (e.g.) perceptual judgments expressed using empirical symbols

(note: connotation of a symbol can vary from participant to participant and use to use);

- concept—this contributes to the determination of (e.g.) the identity of claims made using empirical symbols.

8D. CONCEPTUAL CRITICISM

252. Imagine that a community of thinkers finds itself in empirical debates that prove difficult to resolve. The community members recall the admonition of the philosophers that sometimes seemingly unresolvable difficulties issue from conceptual errors. The community members set out, therefore, to critically examine the concepts in play in their debates. Recognizing that the enterprise is difficult, they enlist, let us imagine, our aid. Our joint critical examination may bring to light various types of conceptual error, of which let us take notice here of a few.

253. We may discover that, contrary to what the community members supposed, some of their concepts are *empty*. The community's use of a name 'Leena', for example, may be governed by an ostensive definition,

Leena =_{Df} that woman,

that a community member issued when he was hallucinating. The name 'Leena', unbeknownst to the community, denotes nothing, and the community's disputes about Leena (e.g., about her age) are unresolvable because they are disputes about nothing.

Let us notice that when the community members debated about Leena, they were not "parroting" the sound 'Leena'; their utterances of 'Leena' were not "mere noises." Their debates were not mock debates, nor their disagreements pretend disagreements. No. The community members were using 'Leena' to express genuine thoughts.⁵² Their debates and their disagreements were all real. 'Leena', though it lacks a denotation, was (and remains) a meaningful symbol in the community's discourse; it expresses a concept, albeit a

52. I am disagreeing here with Gareth Evans, who argues (in, e.g., "Understanding Demonstratives") that sentences containing non-denoting names express "mock thoughts." Evans attributes this view to Frege.

defective one. If meaningfulness is understood as possession of meaning, then meaning is not denotation; for lack of denotation does not imply lack of meaning. Meaningful use of a term depends only partly, and sometimes not at all, on denotation. It depends also on view and experience, and these can render uses of a term meaningful even when the term denotes nothing. Thus, the name ‘Leena’ may possess, for some community members, a rich connotation, and this connotation may underwrite transitions to perceptual judgments (e.g., “that woman looks like Leena”).⁵³

As far as meaningfulness is concerned, Wittgenstein’s dictum “meaning is use” is a good one: use of a term in a discourse implies that the term is meaningful, even if the term lacks both denotation and connotation.⁵⁴ It is flawed theories of meaning and flawed logical doctrines (e.g., the Vicious Circle Principle) that create the impression that meaningfulness is a high bar—that unless we are very careful, we are liable to be uttering “mere noises.” The truth is that meaningfulness is a low bar—it is easily achieved.

254. We may discover that some of the community’s concepts are, as we may call them, *quasi-empty*. The community members may have introduced the name ‘Castor’ through the ostensive definition

(14) Castor =_{Df} that star over there in that region,

as they pointed to a region in the constellation Gemini. A closer inquiry may reveal that the region pointed to was populated by no unique star but by a

53. The criticism that “Leena” is an empty concept is apt only when the community is under the misconception that ‘Leena’ is a denoting term. After the misconception is uncovered, the community might continue to use ‘Leena’, while dispensing with the assumption that ‘Leena’ is a denoting term. The criticism that “Leena” is an empty concept would no longer be apt.

54. Example: Suppose that at the time of his death, a community member, Fred, is saying things that the persons present have difficulty understanding. Fred repeatedly says “kakku,” but no one present can make out what Fred means by it. After Fred’s death, there is, let us imagine, a debate about what Fred was talking about. Some maintain that kakku is Fred’s secret lover, others that it is the place where Fred wished to be buried, yet others that it is his favorite number. And everyone has, of course, evidence to offer in support of his or her view. We should countenance ‘kakku’ as a meaningful term in the community’s debate, and we should do so even if Fred’s concern in his final discourse was to make a philosophical point and Fred was giving “kakku” as an example of meaningless syllables. The subsequent use of ‘kakku’ by the community renders it meaningful even though it lacks both denotation and connotation.

multiple-star system.⁵⁵ Hence, the definiens of (14) denotes nothing (relative to the presentational complexes of the community members), and their concept “Castor” is, strictly speaking, denotation-less. Still, in the present example, unlike the previous one, the community members are not talking about nothing. When they use the name ‘Castor’, they are talking about the multiple-star system—which fact we may recognize by calling the star system *the pseudo-denotation of* ‘Castor’.⁵⁶ The community’s unresolvable debates may well issue from this fact. The observations the community makes about the star system (e.g., through the spectroscopic analysis of its light) may be irreconcilable with the general facts it knows about stars.

Once the community learns of its error, its view will shift. This shift can be characterized, I think, as including a conceptual change. A reasonable criterion for identifying conceptual change is this: Suppose that after a change in view, explanations of the meaning of a term given before and after the change are significantly different, even though the circumstances in which the explanations are given are the same. Then, we can say, there is a change in the concept expressed by the term. By this criterion, the community’s view plainly undergoes a conceptual change after it learns that Castor is not a star. Before it learned of its error, the community explained the meaning of ‘Castor’, when Gemini was visible, through ostensive definition (14). After it learned of its error, the community started explaining the meaning of ‘Castor’, in the same perceptual circumstances, through the ostensive definition “Castor =_{Def} that star system over there in that region.” The explanations are significantly different; hence, there is a conceptual change in the shift to the new view.⁵⁷ On the other hand, in the Mary example (§234), there is no conceptual change even if one goes on to learn a

55. The real-world Castor consists of three pairs of spectroscopic binaries.

56. I am assuming in this example that ‘star’ is true of individual stars, not of multiple-star systems, and furthermore, that it is the star system that manifests the twinkling appearance in the community’s experiences.

57. In the present example, the change is best characterized, I think, as a change to a new concept, especially if the later uses of ‘Castor’ are governed by a new explicit ostensive definition. The assertions made using ‘Castor’ (e.g., by the use of ‘Castor is the brightest visible object in the night sky’) after the change would have different contents (even different truth-conditions) than assertions made before the change. In closely related examples, however, it would be possible to see the change as a move not to a new concept of ‘Castor’ but as a change *in* one and the same concept. If the name ‘Castor’ came into use without any explicit naming ceremony, then it would be possible to see an assertion made using ‘Castor’ after the change as possessing the same content and truth-conditions as the one made before the change. That is,

great deal about Mary. For one explains the meaning of ‘Mary’, in situations in which she is visible, in the same way: through the ostensive definition “Mary =_{Df} that woman.”

255. We may discover that some of the community’s concepts are *confused*. The community members may have started using the name ‘Charlie’, without any formal naming ceremony, to talk about a big ant in a particular ant colony. A typical meaning profile of ‘Charlie’ in their debates consists, let us imagine, of ostensive definitions of the form “Charlie =_{Df} that ant” in which tokens of ‘that ant’ do not always pick out the same ant. The community members believe that only one big ant lives in the ant colony, but actually there are two, Ant A and Ant B. The community’s misconception is sustained, we can imagine, because the two ants rarely appear together on the surface (perhaps to avoid conflict). When community members see Ant A nibbling a leaf, they issue the judgment “Charlie is an ant that is nibbling a leaf.” Later when they see Ant B rubbing its antennae, they issue the judgment “Charlie is an ant that is rubbing his antennae.” And they go on to draw conclusions such as “Charlie was nibbling a leaf and is now rubbing his antennae” and “an ant that was nibbling a leaf is now rubbing his antennae,” some of which are false. The community’s concept “Charlie” is confused. Let us say that it *confusedly denotes* Ant A and Ant B.⁵⁸

Notice that the presence of a confused or otherwise flawed concept in the conceptual system of the community does not necessarily indicate any defect

it would be possible to see the earlier uses of ‘Castor’ as denoting the star system, and the change to reside in the community’s conception of “Castor.”

The notion “concept” is only as sharp as the notion of “cointentionality,” and the latter notion has the clearest application within the context of a debate. Over disconnected discourses (e.g., discourses of communities isolated from one another), there may well be no fact of the matter whether two tokens are cointentional. Relative to one set of interests, we may find it useful to treat a pair of tokens belonging to disconnected discourses as cointentional; relative to a different set of interests, we may find it useful to treat the pair as not cointentional. Our treatment of “cointentionality” and our application of “concept” can sometimes vary with our interests. This variability is perfectly fine. For the primary use of notions of “cointentionality” and “concept” is to aid logical assessments, and over disconnected discourses, such assessments will naturally vary depending on how different interests lead us to integrate the discourses and to understand cointentionality.

58. This is a lightly modified version of an example Joseph Camp gives in his book *Confusion*. For a wealth of real-life examples of conceptual confusion and an illuminating discussion of them, see Mark Wilson’s *Wandering Significance*.

in rationality. The community members may have been perfectly rational in thinking that only one big ant inhabited the ant colony. Their introduction of the name ‘Charlie’ as well as the ostensive definitions they issued to explain the meaning of ‘Charlie’ may also have been perfectly rational.⁵⁹ With judgments, there is a familiar distinction between rationality and truth: a judgment may be rational but false, and equally, a judgment may be irrational but true. With ostensive definitions, there is a parallel distinction: an ostensive definition may be rational but defective, and equally, an ostensive definition may be irrational but nondefective.⁶⁰

256. We may discover that some of the community’s concepts suffer from a *category mistake*. We may find that the community treats ‘up above’ as a two-place predicate governed by the following definition:

x is up above $y =_{\text{Df}}$ the direction of the ray from y to x is Up.⁶¹

A typical meaning profile of “Up” in the community’s discourse consists, let us imagine, of explanations of the form “Up $=_{\text{Df}}$ the direction in which this obelisk points,” where the obelisks demonstrated are sometimes located at great distances from one another. The community, unaware of the roughly spherical shape of the earth, takes the obelisks to be pointing in the same direction and thus finds itself, we can imagine, in an empirical conundrum. The community’s concepts “Up” and “up above” suffer from a category mistake. The community treats “Up” as a proper name when it should be treated as a function; its proper grammar is “Up(l)” (“the direction Up relative to location l ”). Similarly, the community treats “up above” as a two-place relation when it should be treated as a three-place relation, “up above relative to location l .”⁶²

This example shows that the discovery of conceptual error is not always an easy affair; sometimes it requires revolutionary thinking and a radical

59. The transition from “Charlie is an ant that was nibbling a leaf” and “Charlie is an ant that is now rubbing his antennae” to “an ant that was nibbling a leaf is now rubbing his antennae” could not only be rational, it could count as an instance of a valid logical form.

60. With definitions one encounters in mathematics, there is no significant distinction between rationality and nondefectiveness. Such definitions are nondefective iff they meet certain minimal logical constraints. Since these constraints are easily verified, the definitions are nondefective iff they are rational.

61. For simplicity, I am suppressing the time parameter.

62. I discuss a slight variant of this example in my “Meaning and Misconceptions.”

transformation of view. Let us notice also this: after transforming its conception of “up above,” the community may leave implicit the newly discovered relativity. The community may preserve the surface grammar that treats ‘up above’ as a two-place predicate, and it may preserve also the connotations of “up above.” These moves may be useful, for it may be that in typical perceptual uses of “up above,” the newly discovered relativity can be neglected without any practical cost.

257. We may discover that some of the community’s concepts are *functionally inadequate*. The community may define the concept “One Foot” generically:

One Foot =_{Df} the length of an adult’s foot.

This concept may serve the community well when its concerns are confined to short distances and when small variations in measurement are of little consequence. Once, however, the community’s concerns widen to such things as demarcating large fields, the indeterminacy inherent in the notion may begin to generate consequential and intractable disagreements (and even violent conflict). The community’s concept “One Foot” is no longer suitable for its needs; the concept has become functionally inadequate.

Let us notice that the community’s refinement of “One Foot”—say, via the definition “One Foot =_{Df} the length of the Chief’s right foot”—may well leave intact ordinary ways of using the concept “One Foot.” Children may continue to be introduced to the concept in the same rough and ready ways. And members of the community not concerned with large distances and their measurements—and these may be in the majority—may well remain oblivious of the refinement.⁶³ A conceptual shift, even a major one, can leave intact much of ordinary practice.

258. We have seen so far particular examples in which the lack of a proper relationship to experience deprives a symbol of satisfactory meaning. If we

63. Our own ways of working with the concept “one meter” are similar. We teach our children the use of “one meter,” and we ourselves use this concept, while remaining oblivious of the precise definition of “one meter” adopted by the authorities in our community. (Incidentally, the notion is no longer defined by reference to a standard bar located in Paris.)

consider the situation more generally and imagine language and thought in isolation from all experience, then we lose all basis for ascribing any kind of meaning. We can assign no denotations to terms, for we can make no sense of ostensive definitions, which form the vital bridge from language and thought to the world. We can no longer think of the use of a term as governed by a connotation, for we have now lost appearances and the rational transitions they sustain. We can no longer think of subjects as perceiving tokens of symbols, let alone as understanding them in specific ways. We thus lose all basis for the relation of cointentionality and can no longer think of the use of a term as expressing a concept. Language and thought torn from experience are at best lifeless shells, not organs that brings meaning and reason into the life of a creature.⁶⁴

259. So, we can see experience as the source of meaning and content with which our language and thought are endowed. We can recognize the legitimacy of empirical critiques of concepts, and we can allow that such critiques can radically transform our view. We can do all this while rejecting traditional empiricist critiques of concepts as illegitimate.

Thus, we can (and should) reject the idea that meaning is invariably traceable to an “impression,” or in our terminology, to a manifested appearance. Appearances and their manifestations are not what most terms purport to be about. Lack of a connection to them does not indicate that the term lacks denotation or is in any way illegitimate. Even if there is no visual appearance that corresponds to the concept “cause,” it does not follow that the concept does not denote a genuine relation among visible events, nor that we are denied rational access to this relation. Similarly, the lack of a connection to a distinctive appearance fails to indicate any problem with the notion of substance (understood as that which persists through all change). Perhaps there is nothing constant in the flux of appearances; perhaps “substance” lacks any nonvacuous standard profile. Still, this does not reveal any problem with the concept. It does not preclude us from giving “substance” a central place in our view of the world; nor does it preclude our having compelling empirical reasons to do so.

64. It is not surprising that physicalist philosophers who attempted to make sense of language and thought within their sparse schemes failed to recover even the notion of “denotation,” let alone “connotation” and “concept.” See (e.g.) Quine’s discussion of what he calls “inscrutability of reference” in “Ontological Relativity.”

260. We can (and should) reject the idea that experience yields a special set of privileged concepts that serves as the foundation for all other empirical concepts. There is no psychic mechanism, we should insist, that manufactures concepts from experiences. One may be able to “copy” an experience in imagination, but the copy produced is not a concept. It carries no denotation or connotation, and it induces no relation of cointentionality.

There is no *logical* mechanism, either, that manufactures concepts—at least, *nondefective* concepts—merely from experience. Ostensive definitions provide the paradigmatic logical mechanism for building empirical concepts, and these definitions are incapable of yielding nondefective concepts unless some antecedent concepts are brought into play. Let a *bare ostensive definition* be a definition of the form “ $t =_{\text{Df}}$ this” and “ $t =_{\text{Df}}$ that,” where ‘this’ and ‘that’ are demonstratives supplemented by no contextually supplied concepts. Then, it is plain that a bare ostensive definition is incapable of yielding a concept that is nondefective. In any context in which such a definition is issued, there are bound to be many equally good candidates for what the demonstrative is picking out: objects and events, qualities and relations, real things and appearances. The demonstrative will, therefore, fail to pick out anything determinate, and the concept defined is bound to be defective.⁶⁵

Experience enables us to transition from one set of concepts to another, possibly richer, set. But experience does not, by itself, equip us with a set of concepts. The thought that it does so rests on the conception that experience provides us with knowledge of some special items, which then enables us to gain special experiential concepts by labeling the items known in experience. I have already argued at length against this conception.

261. Certain concepts—for example, phenomenological concepts—do bear a special relationship to experience (Part 7C). This special relationship

65. What if in a bare ostensive definition the demonstrative is supplemented with attention? Can this yield nondefective concepts? The answer depends, plainly, on what sort of attention it is that is supplementing the demonstrative. If the attention is of the sort that occurs when one attends specifically to the shape of a thing (as opposed to its color or size), then the demonstrative may well form a legitimate basis for an ostensive definition. This sort of attention brings into play concepts, and the supplemented demonstrative is not a bare demonstrative. On the other hand, if the attention is of the sort that a nonconceptual animal (or machine) can engage in—say, the attention consists in the narrowing and amplification of a part of the incoming stream of information—then the supplemented demonstrative will not provide a basis for a legitimate definition.

does not bestow on these concepts a privileged, foundational status, however. First, there is no experiential guarantee that puts these concepts beyond criticism; there is no assurance that the phenomenological concepts are precluded from being defective. The use of a term such as 'red' does not presuppose knowledge of, or acquaintance with, the quality red. The use is amply sustained by view and by the connotation of 'red'. Hence, meaningful use of 'red' is perfectly consistent with the discovery that "red" is an empty or a confused or an otherwise defective concept (see Part 9C).⁶⁶ Empirical inquiry is not *founded* on pristine concepts with tidy relations to known worldly items. Instead, empirical inquiry *aims* to gain such concepts through a rational investigation of nature. Second, the special relationship does not bestow on the phenomenological concepts a foundational role: these concepts are not the conduits through which all other concepts gain their contents. There is no legitimate demand that all factual concepts be explainable in terms of phenomenological concepts. One can, to be sure, legitimately issue a demand for an explanation of a concept that one fails to understand. The demand can be met by providing an explanation that uses only concepts one antecedently accepts. Different demands issued by different individuals in different contexts may be met by using different conceptual resources. It is not legitimate to insist, however, that an explanation be provided using only phenomenological concepts. We have seen that one can through a skeptical meditation come to adopt a stance in which one accepts only phenomenological concepts. One cannot demand, however, that an explanation be provided that would count as satisfactory from within this stance. Just as the rationality of a judgment does not require that a solipsist should be able to converge on it from within his narrow perspective, the legitimacy of a concept does not require that a skeptic should be able to grasp it with his restricted resources (see Chapter 11).

Similar claims hold for the broader class of observational concepts, which include concepts such as "water," "horse," and "sky." In particular: (i) There is no experiential guarantee that these concepts are nondefective. An under-

66. One may understand what the sentence 'something is red' means even though one is not acquainted with the quality red and, moreover, 'red' is indefinable. One understands what 'something is red' means if one is able to use it in ordinary ways in perceptual as well as non-perceptual situations and, furthermore, one is able to respond to others' use of it in ordinary ways. This ability does not require that quality red exist, let alone that one be acquainted with this quality. Russell's Principle is, in short, false.

standing of these concepts does not require acquaintance with their denotations or with things they are true of. (ii) These concepts do not play a foundational role: an explanation of a concept may legitimately appeal to resources that extend beyond the observational.

So, it is not a legitimate criticism of religion and metaphysics that they are unable to provide an explanation in phenomenological or observational terms of some the notions they deploy (notions such as “God,” “substance,” and “self”). The failure does not show that the notions lack denotation, let alone that they are meaningless.⁶⁷

262. Let me address, finally, a core feature of religion and metaphysics that has aroused empiricist suspicions. Both these enterprises offer accounts of the world that create a wide gulf between appearances and reality, a gulf far wider than that envisioned in our ordinary, commonsense view. Traditional empiricists saw this wide separation of reality from appearances as problematic. Some responded by condemning all such separation; they held that there is no more to knowable reality than appearances. Others saw in the separation a reason to condemn religion and metaphysics as unempirical, as going beyond all experience. I have argued, against all this, that the separation of appearances from reality is not only a part of our commonsense view, it is forced by our situation in the world. Appearances, being conditioned by a complex of factors, cannot be identified with real qualities and relations. Furthermore, the positing of a wide gulf between appearances and reality does not entail that the posited reality is beyond experience. To transcend appearances is not to transcend experience. It is not to posit a reality beyond all experience: the posited reality may well be presented *in* experience. If the gulf between appearances and reality is wider than the commonsense view

67. Similarly, it is not a legitimate criticism of religion and metaphysics that they are unable to supply verification conditions for some of their sentences. A lack of verification conditions does not indicate a lack of meaning. Some months ago you may have named a grain of sand ‘Gary’ and then thrown the grain back on the beach. There may now be no way of verifying the sentence ‘Gary is under water’, yet the sentence is perfectly meaningful; it may even possess determinate truth conditions. Similar points can be made also about falsifiability and confirmability.

It should be noted that Carnap’s critique in “Elimination of Metaphysics” is vitiated by, among other things, a conflation of truth-conditions with verification-conditions, and of these two with meaning in general. Carnap’s critique is based, essentially, on a monistic theory of meaning.

takes it to be, this means only that the factors conditioning the mode in which reality is presented to us in experience are more complex than commonsense envisions them to be. The commonsense conception of the factors conditioning experience carries with it, however, no special authority, and it can be perfectly legitimate to shift to a quite different conception, even to a conception that widens the gulf between appearance and reality. It is, thus, not a flaw in religious and metaphysical thought that it widens the gulf. On the contrary, it is a characteristic of our best and deepest thought that it does so, albeit in a disciplined and responsible way.

263. The conception of the relationship of experience to thought I am offering provides no grounds, then, for a general condemnation of religion or metaphysics. Criticism on empirical grounds of religious and metaphysical ideas remains possible, of course, but this does not distinguish religion and metaphysics from other areas of human endeavor. The blanket condemnation in modern empiricism of religion and metaphysics rests on flawed ideas. We can avoid such excesses and yet see experience as making vital contributions to our rational engagement with the world.

264. The claims I have been arguing for in this chapter are, in summary, the following:

(i) Two extreme views of ostensive definitions should be rejected: the foundationalist view that takes bare ostensive definitions to be primary and sees experience as equipping us with privileged empirical concepts, and the coherentist view that takes ostensive definitions to be primarily conceptual and sees experience as playing no semantic or rational role in their interpretation and assessment.

(ii) Foundationalist and coherentist views do contain important insights. Foundationalists are right to insist against the coherentists that experience makes a vital contribution to the contents of our concepts. The coherentists are, in turn, right to insist against the foundationalists that there are no basic, privileged empirical concepts. The account of concepts developed above preserves both insights.

(iii) Meaning is multidimensional. One set of its dimensions pertains to the world and includes such relations as *denotation*, *quasi-denotation*, and *true of*. A second set of dimensions pertains to the subject and is captured by *connotation*, which includes such components as *standard profile* and

application profile. A third set pertains to intersubjective agreement and disagreement and is captured by *concept*.

(iv) Conceptual criticism is possible. Even radical conceptual criticism that reveals deep flaws in our concepts is possible. Sometimes we conceive the world using flawed concepts, and conceptual criticism can sometimes reveal this to us.

(v) It is not a legitimate criticism of a concept that it cannot be traced back to any impression or appearance. Nor is it a legitimate criticism that the concept cannot be analyzed in terms of phenomenological concepts or in terms of some designated set of observational concepts.

(vi) Conceptual criticism rarely establishes that a term is meaningless. Meaningfulness sets a low bar, one that is easily achieved. Interesting conceptual criticism goes beyond mere meaningfulness and examines the functioning of concepts. It is this examination that sometimes reveals important flaws in concepts.

(vii) Significant conceptual criticism of empirical concepts is rarely a priori; it typically brings into play empirical findings.

(viii) The blanket condemnation in modern empiricism of religion and metaphysics rests on erroneous conceptions of experience and of its relationship to thought. There is nothing intrinsically wrong with religion and metaphysics. These enterprises are natural expressions of our desire to understand ourselves and the world around us.

CHAPTER NINE

Empirical Transformations

IN THE COURSE of empirical debate, we sometimes change our view. Our experiences as well as the arguments put to us can prompt us to abandon beliefs about, say, the color and shape of a crystal. How deep and broad can such changes of view be, though? Can one abandon, for example, the idea that colors, shapes, and other sensible qualities are genuine qualities of real things? Would such an abandonment undermine our ordinary perceptual judgments and, thereby, empirical debate? I develop answers to these questions in this chapter. I argue that the account of experience and concepts developed above accommodates the possibility of radical transformations of view. I begin this chapter with some ideas about the concept of truth that play a pivotal role in my argument (Part 9A). I go on to argue that radical transformations are possible in our conceptions of particulars (Part 9B) and of universals (Part 9C). I conclude the chapter with a sketch of how we should conceive the dialectical situation when we are engaging in empirical debate (Part 9D).

9A. ONTOLOGY, LOGICAL AND PROPER

265. A persistent theme in Russell's philosophy is the distinction between *real things* and, what he called, *logical fictions*. The idea of logical fiction originated in Russell's mathematical logic—it is at the heart of his response to the paradoxes—and it is of central importance in his accounts of empirical knowledge. Here is Russell applying the distinction in “Philosophy of Logical Atomism,” a piece that belongs to his Phenomenalist period (1914–1918):

The things that we call real, like tables and chairs, are systems, series of classes of particulars, and the particulars are the real things, the particulars being sense-data when they happen to be given to you. A table or chair will be a series of classes of particulars, and therefore a logical fiction. (p. 274)

I have talked so far about the unreality of the things we think real. I want to speak with equal emphasis about the reality of things we think unreal, such as phantoms and hallucinations. . . . [Phantoms and hallucinations] have the most complete and absolute and perfect reality that anything can have. They are part of the ultimate constituents of the world, just as the fleeting sense-data are. (p. 274)

Russell is speaking here in the material mode, but his point is better expressed in the linguistic mode. There are two kinds of terms, Russell thinks. Under one kind fall terms that denote real things, things that are the “ultimate constituents of the world.” Under the second kind fall terms that denote nothing; strictly speaking, these terms are, by Russellian lights, meaningless. Russell maintains, however, that sentences containing these nondenoting terms can be so analyzed that the analysantia contain no occurrences of these terms;¹ the analysantia contain terms only of the first kind, terms that denote real things. The analysantia are typically highly complex; hence, the analyzed terms and the sentences containing them remain useful.

Russell held, in his Phenomenalist period, that the self and certain fleeting particulars, including sense-data, are the ultimate constituents of the world. The proper names for these things are examples of terms of the first kind.

1. A simple but paradigmatic analysis of this sort is provided by Russell's theory of definite descriptions.

A name such as ‘the Washington Monument’, on the other hand, is an example of a term of the second kind. Sentences containing this name can be analyzed, Russell maintained, using terms that denote sense-data and other ultimate constituents. The pattern of analysis can be recovered from Russell’s material mode description in the first extract above: the Washington Monument is a series of classes of particulars. This description contains two further terms of the second kind: ‘series’ and ‘classes’. These, too, can be analyzed away using methods Russell provides in his logic. So, ‘the Washington Monument’, though a meaningless name, as Russell sees it, can figure, like the terms of the first kind, in true descriptions of the world. The descriptions obtained using the first kind of term are perspicuous—there is a direct correspondence between the descriptions and the facts described. The descriptions obtained using the second kind of term are not perspicuous—the structure of the fact described is better revealed by the analysantia than by the descriptions themselves.

266. The distinction between the two kinds of descriptions of the world as well as the corresponding distinction between the two kinds of terms seem to me good and useful.² Russell implements the distinction in a particular way, and I do not wish to endorse the details of his implementation. Still, the general distinction is important, and it will be useful to introduce some terminology to mark it. Let us say that a nonlogical term is *perspicuous* iff it denotes a *real* thing—equivalently, iff it is suitable for setting out a *perspicuous account* of the world. Otherwise, let us say that the term is *non-perspicuous*.³ (We can extend the definition of perspicuity to cover concepts and to particular uses of terms.) It will be useful to talk, as Russell does, in the material mode. So, let us distinguish *real* things from *derivative* things—derivative things treated in the Russellian way are Russell’s logical fictions. Perspicuous terms *denote* real things; nonperspicuous ones denote nothing.

2. The distinction is not new with Russell. A forerunner of the distinction is the Cartesian distinction between ideas that are clear and distinct and ideas that are not.

3. As before, I am taking logical terms as fixed and given. I am not concerned with debates in which their status and features are called into question.

The perspicuous/nonperspicuous distinction marks out some names, predicates, and common nouns as perspicuous and others as nonperspicuous. The perspicuous ones are used to set out a perspicuous account of the world.

267. Two questions are immediate once we take on board the distinction between perspicuous and nonperspicuous terms and the correlative distinction between real and derivative things. First, which terms are perspicuous, and, relatedly, which things are real? The way one answers this question determines one's *ontology*, in the proper sense of that word. Second, how to understand nonperspicuous terms and, relatedly, what is the status of derivative things? The way one answers *this* question determines, what I shall call, one's *logical ontology*. An atheist debating with a devout Hindu about Ganesh is debating a question of ontology. The Hindu maintains that Ganesh is a real being, a god with personal qualities, who influences some of the goings-on in this world; the atheist denies all this. A Russellian atheist debating a Meinongian atheist about Ganesh is debating a question of logical ontology. Both can agree that Ganesh is a Hindu god and they can agree also that of all the Hindu gods Ganesh is the most beloved. The Meinongian sees here a reason to countenance Ganesh in his logical ontology. The Russellian, on the other hand, contra the Meinongian, takes Ganesh to be a logical fiction. For Russell, logical ontology contains no surplus items over and above ontology proper.⁴

268. Russell's response to the question of ontology is shaped by his epistemic account of experience. According to this account, experience provides the subject with knowledge of some real items, some "ultimate constituents

4. I do not see Austin's observations on the ordinary uses of 'real' in chapter 7 of *Sense and Sensibilia* as casting any doubt on the legitimacy of the distinction between real and derivative things. First, this distinction is tied closely to the distinction between perspicuous and nonperspicuous accounts, a distinction with clear intuitive content. Second, we can grant that 'real' serves several useful functions in our ordinary talk (e.g., to distinguish, in some contexts, real ducks from toy ducks). However, the existence of these functions does not cast any doubt on the use to which 'real' is put in logic and metaphysics. A parallel point holds for 'true'. This word, too, serves several useful functions in ordinary talk, again without any damaging consequences for its use in logic and metaphysics. Third, we can grant Austin's point that "there are no criteria to be laid down *in general* for distinguishing the real from the not real" (p. 76) while retaining the distinction between the real and the derivative. The criteria for distinguishing the two are variable and, as we shall see, empirical.

The opening paragraph of chapter 7 of *Sense and Sensibilia* contains the following remark, which strongly suggests that Austin sees his discussion of 'real' to be relevant to metaphysical questions about reality: "I propose, if you like, to discuss the Nature of Reality—a genuinely important topic, though in general I don't much like making this claim" (p. 62). It is unfortunate that Austin does not spell out how his discussion of the ordinary uses of 'real' bears on the metaphysical questions and on answers to these questions given by Russell and others.

of the world,” and it, thereby, puts the subject in a position to acquire names for these items through bare ostensive definitions. Experience thus enables the subject to settle the ontological question, at least in part, and it puts the subject in a position to acquire some perspicuous terms. In his Phenomenalist period, Russell took experience to acquaint the subject with sense-data. The inference from sense-data to such things as tables and chairs and electrons and protons being problematic, Russell was led to treat these objects as derivative and, indeed, as logical fictions.⁵

Russell's treatment of the ontological question is an instance of a general scheme that many philosophers have found attractive, even compelling. On this scheme, there is a dichotomy between *observational terms* and *theoretical terms*, and whereas experience is taken to render observational terms perspicuous, the status of theoretical terms is viewed as problematic.

269. According to the account of experience I have offered, observation is of vital importance to our cognition of the world, but experience does not acquaint the subject with anything and cannot, by itself, enable the subject to acquire any terms, perspicuous or nonperspicuous. Experience plays a vital role in the enrichment of our stock of terms through ostensive definitions. There is no assurance, however, that the ostensibly defined terms will be perspicuous. An ostensive definition may be perfectly legitimate and, yet, define a term that denotes nothing (§253).

270. The distinction between perspicuous and nonperspicuous terms, I want to suggest, is empirical. Whether a term should count as perspicuous depends on experience, and furthermore, the status attributed to a term can shift in the course of empirical investigation. Here is an illustration of the

5. In his Phenomenalist and Neutral-Monist periods, Russell was guided by the following principle,

Wherever possible, logical constructions are to be substituted for inferred entities,

which he called “the supreme maxim in scientific philosophising” (“Relation of Sense-Data to Physics,” p. 150). Note that ‘logical construction’ and ‘logical fiction’ are two names for the same thing.

In his Platonist period, in contrast, Russell appealed to Platonic acquaintance to enrich the stock of perspicuous terms and to account for our knowledge of the external world. It is a characteristic of Russell's philosophical development that his reliance on Platonic acquaintance decreases as his thought matures.

sort of shift I have in mind. Imagine that members of a community see a very bright light, which they call ‘the Little Sun’, on a nearby mountain. The light appears every day for a few hours on the same spot on the mountain and then gradually diminishes and vanishes. The community initially regards the Little Sun as a real thing that emits light. But later empirical investigations of the mountain reveal that no light emitter is to be found there and, furthermore, that there is nothing on the mountain that could qualify as the Little Sun. The community discovers, let us imagine, that the Little Sun is an optical illusion, one visible only from a limited geographical area and one whose apparent location on the mountain can differ from region to region within this area. The discovery shifts the community’s conception of the name ‘the Little Sun’: initially the community regarded the name as perspicuous, as a name of a real thing, and then the community came to regard it as nonperspicuous, as not naming any real thing. Earlier the community’s best maps of the layout of the mountain located the Little Sun on it; later the maps make no mention of the Little Sun.

271. The discovery that the Little Sun is an optical illusion need not undermine the usefulness of the name ‘the Little Sun’ to the community; the name and most of its ordinary uses may persist in the community’s discourse. The main practical function of the name may have been to help community members direct attention, in perceptual situations, to various things on the mountain and to various locations, including their own—for example, by using such expressions as ‘look at the big rock face near the Little Sun’ and ‘I am southwest of the Little Sun’. Such uses are sustained by the appearances that are manifested in the community members experiences, and their effectiveness is not damaged by the discovery that the Little Sun is an optical illusion. Indeed, the phenomenological profiles the community members associate with ‘the Little Sun’ and with many of the expressions containing the name may well survive the discovery. These profiles may continue to guide many uses of the expressions and to sustain their practical functions.

272. The name ‘the Little Sun’, though known to be nondenoting, remains useful in our imagined community because of the name’s linkages to appearances. Let us mark this by calling ‘the Little Sun’ an *appearance-based name* and the Little Sun an *appearance-based object*—in brief, respectively,

appearance-name and *appearance-object*. Appearance-name is a special type of nonperspicuous name, and appearance-object is a special type of derivative object.

273. In the course of using ‘the Little Sun’ for various ends, both before and after the discovery, the community members may have issued various judgments, some of which the community may have assessed as true and others as false. Such assessments, let us observe, need not shift very much with the discovery that the Little Sun is an optical illusion. Thus, before the discovery, the community may have regarded as true the judgment

(1) The courthouse is situated northwest of the Little Sun,

and the community may continue to so regard it after the discovery; anyone issuing a contrary judgment would be assessed as judging falsely. There will be some important changes, of course, in the community’s assessments of truth and falsehood. Initially the community regarded as true the judgment “the Little Sun is an emitter of light”; later its position shifted and it came to regard as true the judgment “the Little Sun is an optical illusion.” Still, the point remains that over a large swath of judgments, the community’s assessments of truth and falsehood may remain unchanged. The same holds, it may be added, of the assessments of an outsider observing the community’s linguistic behavior.

274. Not only may the demarcation of truth from falsehood remain substantially unchanged, the laws the community takes to govern truth and falsehood may also remain substantially unchanged. The community may continue to subscribe to such laws as “a conjunction is true iff both the conjuncts are true,” “the negation of a statement is true iff the statement is false,” and “the disjunction of a statement with its negation is true.” Correlatively, the logical inferential practices of the community with respect to compound statements containing ‘the Little Sun’ may also remain unchanged. The demotion of the Little Sun from a real thing to an optical illusion need not entail any change in the community’s logical practices. Shifts in ontological status need have no purely logical implications. It follows that ontological status cannot be read off logical behavior. The fact that a community’s reasoning with certain terms (such as numerical ones) accords with

classical logic has, for example, no tendency to indicate that those terms are, or should be, regarded as perspicuous by the community.

275. Even though the logical behavior of the statements containing ‘the Little Sun’ may remain unaltered, some fundamental aspects of their use will, in the scenario imagined, undergo important changes. Before the discovery, the community regarded truth (1) as *portable*: as the community members traveled to different regions, they could take (1) along and could affirm it in their different destinations, and they could continue using (1) in old familiar ways. Not so after the discovery: the community members now lose the standing right to affirm (1) in different regions, and the old perceptual ways of using statements containing ‘the Little Sun’ are now legitimate only in the community’s local neighborhood.

276. Some further important changes in the community’s practices should also be noted: Before the discovery, certain questions were regarded as good and fruitful—for example, questions about the constitution of the Little Sun and about its effects on the vegetation on the mountain. Moreover, to understand better the behavior of the Little Sun, the community sent off expeditions to the mountain. Before the discovery, any violation of the accepted laws of physics by the observed behavior of the Little Sun was a cause for great concern. All this changed after the discovery. Those old questions are no longer viewed as good and fruitful, even as legitimate. No expeditions are sent to the mountain to study the Little Sun. Violations of accepted laws by the behavior of the Little Sun are a cause for amusement, if anything, not alarm. When the Little Sun was regarded as real, the discourse about it was directly integrated with the rest of the community’s conception of the world. After the discovery, important connections of the discourse with the rest of the community’s view were broken. The discourse about the Little Sun became more fragmented, more hedged, and more isolated from the rest.

277. The discovery that the Little Sun is an optical illusion may not, we have noted, change much the community’s demarcation of truths from falsehoods. Still, the discovery does change the community’s *conception* of truth as it pertains to judgments about the Little Sun. Before the discovery, the community regarded the Little Sun as a real thing, and it regarded judgment (1) to be true in virtue of its correspondence to reality. After the discovery,

the community's view is different. The community continues to regard (1) as true but no longer sees its truth as consisting in a correspondence to reality: now the community takes 'the Little Sun' to denote nothing real. The community takes (1) to be true because of the useful role it plays, or can play, given the community's practices, in the community's endeavors. The community's endeavors are helped by affirmations of (1), as against the affirmations of the negation of (1).

278. Russell, after an early, short fling with Idealism, steadfastly subscribed to a correspondence conception of truth. This is what motivated him to treat nonperspicuous terms through a specific kind of logical analysis: truths containing these terms must be so analyzed, he maintained, that they can be shown to stand in a correspondence relation to reality. He was thus led to distinguish surface grammar from true logical form or, as we may also put it, from depth grammar. The surface grammar of a truth is not, in general, a good guide to its correspondence to reality—that is the job of depth grammar. If judgment (1) counts as a truth, then by Russellian lights, it should be so analyzable that the nonlogical terms in the analysans are all perspicuous. Each truth has, according to Russell, a depth grammar that displays its correspondence to reality. Philosophy was, for him, logical analysis. The principal task of philosophy, as Russell saw it, was to unearth the depth grammar of truths.⁶

279. Russell treats all nonperspicuous terms in essentially the same way. In his Phenomenalist period, he would have regarded all of the following as nonperspicuous:

- (i) 'the Washington Monument', 'Bismarck', 'table', . . .
- (ii) 'the equator', 'electron', 'spacetime', . . .
- (iii) 'Passenger #44', 'customer', 'Obama's left side', . . .
- (iv) 'Ganesh', 'God', 'Othello', . . .
- (v) '2', 'natural number', 'class', . . .
- (vi) 'the present king of France', 'the golden mountain', . . .

Russell treats these very different kinds of terms in the same way because of his acceptance of a general correspondence conception of truth and, I sus-

6. See Russell, "On Scientific Method in Philosophy."

pect, because of his enthusiasm for his newly discovered method of logical analysis. Russell's method is fairly successful with terms of the type (vi), that is, with definite descriptions. And the method can claim some success with terms of type (v), provided one grants Russell certain logical resources (which are not entirely unproblematic). The method is not at all successful with terms of the remaining types, (i)–(iv).⁷

280. I wish to recommend three changes in the Russellian treatment of the distinction between perspicuous and nonperspicuous terms.

First, as already indicated, I recommend that we see the distinction as empirical, not logical. The application of the distinction rests on empirical grounds, and the application can shift as empirical inquiry progresses. The distinction is *not* a product of a logical reflection on empirical cognition, and no account of experience that aims to serve the logical inquiry should settle the application of the distinction, even in part.

Second, I recommend that we drop the uniform treatment of nonperspicuous terms. Nonperspicuous terms are a diverse lot, and the treatment apt for one type of term may well not be apt for a different type of term. We may adopt Russell's method for the analysis of terms of type (vi)—or, more cautiously, some uses of these terms—without any commitment to the application of the method to other nonperspicuous terms.

Third, I recommend that we abandon the general conception of truth as correspondence to reality and, therewith, the search for depth grammar. Let us associate with a statement only surface grammar (or near-surface grammar), and let us take this grammar to fix the statement's possible correspondence to reality. If the terms occurring in a true statement are perspicuous, then the truth of the statement will consist in a correspondence to reality; otherwise, it will not. The correspondence conception of truth is apt only for statements containing perspicuous terms; it is not apt for all statements. We can understand, and concur with, our imagined community's assessment that, for example, judgment (1) is true without associating any distinct depth grammar with (1) and without bringing it into any correspondence with reality. We can understand the truth of (1) by noting the correct guidance it provides to community members in their practical activities. We can see

7. Russell's own applications of the method to terms of types (i) and (ii) were highly sketchy. He never spelled out the needed analyses in anywhere near the required detail (§21).

‘the Little Sun’ as a genuine name which, though nondenoting, serves its useful function through its connections with appearances.⁸

281. By recommending that we treat ‘the Little Sun’ as a genuine name, I am recommending that we side with the Meinongians in their dispute with the Russellians. We can extend the camaraderie with the Meinongians by accepting a notion of *reference* on which ‘the Little Sun’ refers to the Little Sun, a derivative object. This new notion is broader than the notion of denotation. Its domain encompasses both kinds of terms, perspicuous and non-perspicuous; and its range encompasses both kinds of things, real and derivative. We can accept similarly a broader notion of *true of* one that relates expressions to real as well as to derivative things. The broader notions, we can allow, are legitimate and useful.⁹ Nonetheless, we can agree with Russell that this talk of “reference” and “true of” is not perspicuous, that it has no role to play in a perspicuous description of the world.

282. In “Philosophy of Logical Atomism,” Russell makes the following critical remark on Alexius Meinong:

One of the difficulties of the study of logic is that it is an exceedingly abstract study dealing with the most abstract things imaginable, and yet you cannot pursue it properly unless you have a vivid instinct as to what is real. You must have that instinct rather well developed in logic. I think otherwise you will get into fantastic things. I think Meinong is rather deficient in just that instinct for reality. (p. 223)

Russell repeats the criticism in *Introduction to Mathematical Philosophy*. In Meinong’s theory, he says,

8. As I see it, the critique of Russell and the *Tractatus* in the early part of Wittgenstein’s *Philosophical Investigations* is directed, among others, to the idea that the meaning of a name is its denotation and the idea of truth as correspondence. The lesson to draw from this critique is not, however, a use theory of *meaning*. I think the lesson to draw is a use theory of *truth*—not as a general theory of truth, but as a theory that can be apt for some special fragments of language.

9. The broader notions are useful in semantic analyses, for example. They can be used to extend the account of ostensive definitions given in Chapter 8 to definitions that introduce nonperspicuous terms.

there is a failure of that feeling for reality which ought to be preserved even in the most abstract studies. Logic . . . must no more admit a unicorn than zoology can; for logic is concerned with the real world just as truly as zoology, though with its more abstract and general features. (p. 169)

It is a little rich, it must be said, for Russell to question Meinong's sense of reality, when he himself affirms the reality of hallucinations and phantoms and the unreality of tables and chairs—and that too on broadly logical grounds. More significantly, I do not think Russell is right about the parallel he draws between logic and zoology. Logic, unlike zoology, does not aim to provide a true and perspicuous account of a portion of the real world. It aims, instead, to understand how, with the aid of reason, one might *arrive* at such an account. Logic is concerned to understand reasoning. This requires it to study transitions, including transitions from falsehood to truth and from fantastic misconception to sober reality. Logic must make room for falsehoods and for fantastic things. Zoology can ignore all talk of hallucinated giraffes and of mythical unicorns, but logic cannot afford to do so. Logic must make room for such talk; it must count the talk as meaningful; and it must countenance the rational transitions into which this talk enters.

283. I suggest that we take a liberal attitude toward logical ontology. Russell's narrow attitude issues from specific doctrines about meaning and truth that, I have been arguing, we should abandon. For Russell, the meaning of a name is simply its denotation; a name without denotation is meaningless and cannot, qua name, figure in rational discourse. I have argued that a name can possess a connotation and can express a concept, and connotation and concept are, both, distinct from denotation. Connotation and concept can guide rational use of a name even though the name denotes nothing. Furthermore, for Russell, truth invariably consists in a correspondence with reality. I have suggested that the correspondence conception of truth is apt only for perspicuous discourse; with nonperspicuous discourse there are other ways of understanding truth.

284. A liberal attitude toward logical ontology should arouse no qualms. To admit Ganesh and the Little Sun into our logical ontology is not to say that they are real things, and it is not to say that the features of these things explain or underwrite the truth of sentences containing 'Ganesh' and 'the

Little Sun'. It is merely to recognize that reasonings, deductive as well as empirical, into which 'Ganesh' and 'the Little Sun' enter can be understood while recognizing that these terms are *names*. No Russellian reduction is necessary; no correspondence to reality need be brought into play. Liberality in logical ontology is perfectly consistent with strictness in ontology proper. Admission of a name for some restricted, hedged uses does not commit one to using the name in a perspicuous account of the world.¹⁰

285. I have been arguing for a distinction between perspicuous and non-perspicuous terms and for the correlative distinction between real and derivative objects. I have also been arguing that we link the correspondence conception of truth to this pair of distinctions. I wish to stress that I am not suggesting that the pair of distinctions and the linkage are, or must be, recognized by all views or by all admissible views or by all correct views. I am suggesting only that a view *may* make this pair of distinctions and that it *may* link them with the correspondence conception of truth. I argue in the next part that the distinctions and the linkage help make sense of some of our ordinary ways of talking and thinking.

9B. SPECKS, IMAGES, CLOUDS

286. There is a curious strand in the debate between Ayer and Austin over sense-data, centering on some uses of the words 'speck' and 'dot', that is worthy of reflection. In the course of his brief for sense-data, Ayer had claimed that there are at least two senses of 'see'. In one sense of 'see', "it is necessary that

10. I wish to stress that I am not endorsing Meinong's theory of objects. All I am endorsing here are (a) the propriety of treating 'Ganesh' etc. as proper names and (b) the legitimacy of such material mode talk as "Ganesh is a Hindu god," "Hindu god" is true of Ganesh," and "Ganesh is a derivative object." As I see it, admitting Ganesh into logical ontology is a light-weight affair. It does not bring any esoteric elements into our world-picture, nor does it generate any metaphysical puzzles.

I believe Meinong is led to this theory of objects because, like Russell, he fails to mark the distinction between presentation and manifestation, between presented object/quality and manifested appearance. Consequently, Meinong does not see that there is something vitally important to the meaning of a name over and above the name's relationship to an object—namely, the name's connotation. Meinong, like Russell, subscribes to an essentially monistic account of the meaning of a name. The correct insistence that names such as 'Ganesh' are meaningful thus requires, within Meinong's framework, the support of a theory of extraordinary objects. (This note is prompted, in part, by some remarks of Hill's.)

what is seen should really exist, but not necessary that it should have the qualities that it appears to have.” This sense is in play, Ayer suggested, when a man looking at the night sky says, correctly, that he sees “a distant star which has an extension greater than that of the earth.” In the other sense of ‘see’, “it is not possible that anything should seem to have qualities that it does not really have, but also not necessary that what is seen should really exist.” This sense of ‘see’ is in play, Ayer suggested, when the man looking at the night sky goes on to say, again correctly, that he sees “a silvery speck no bigger than a sixpence.”¹¹ Austin, in his critique of Ayer in *Sense and Sensibilia*, rejected the idea that there are two senses of ‘see’. According to Austin, all that Ayer’s example shows is that

what we ‘perceive’ can be described, identified . . . in many different ways. . . . What I see—in the single, ordinary ‘sense’ this word has—can be described as a silvery speck, or identified as a very large star; for the speck in question *is* a very large star. (p. 98)

Another illustration of Austin’s point is provided by his example ‘that white dot on the horizon is my house’. Here the object of perception is characterized both as a white dot and as a house. Ayer, for his part, insisted in his reply to Austin that there is a reading on which the silvery speck is distinct from the large star. Similarly, there is a reading on which the white dot is distinct from the house.¹²

287. Commentators on the Ayer-Austin debate have disagreed on what Austin’s position is, or should be, on the relationship between the silvery speck and the large star and between the white dot and the house. Austin does commit himself to the following statements:

- (2) the silvery speck is the large star, and
- (3) that white dot on the horizon is my house.

The question is whether we should understand these statements as expressing identities. Some commentators—Kripke, in particular—favor the identity

11. *Foundations of Empirical Knowledge*, pp. 22–23.

12. Ayer, “Has Austin Refuted the Sense-Datum Theory?” p. 137.

reading. On this interpretation, Ayer and Austin disagree about (2) and (3), read as identities. Ayer regards them as false, while Austin regards them as true.

Some strong reasons support this interpretation. As the extract above from *Sense and Sensibilia* indicates, Austin's diagnosis of Ayer's mistake is that in each of the two examples, one thing is being described in more than one way—for instance, in the night-sky example, one thing is being described as a silvery speck and also as a large star. Moreover, the other examples Austin gives to illustrate his point fit the identity reading—for instance, the following:

'I saw an insignificant-looking man in black trousers.' 'I saw Hitler.' Two different senses of 'saw'? Of course not. (*Sense and Sensibilia*, p. 99)

Here, plainly, the insignificant-looking man in black trousers is assumed to be identical to Hitler. On the other hand, there are also some compelling reasons for *not* attributing to Austin the "identity" reading of (2) and (3). For Austin denies that (2) implies

(4) the large star is a speck,

and he denies also that (3) implies

(5) I live in a white dot.¹³

If (2) and (3) are understood as identity statements, then these implications should not be denied.

288. Kripke argues, in *Reference and Existence*, that Austin should not have denied these implications. He suggests that we can sensibly accept (2) and (3) on the identity reading as well as the resulting consequences (4) and (5) if we recognize that two different kinds of predication can be in play in statements made in perceptual situations: "out-and-out predication" and "predication according to visual description" (p. 98). For example, in "the star is large," 'large' is out-and-out predicated of the star, Kripke suggests; whereas

13. *Sense and Sensibilia*, p. 98, footnote 1.

in “the star is a speck,” ‘speck’ is predicated of the star “according to visual description.” I should note that Kripke puts forward this suggestion tentatively. He says he is not “really entirely sure” whether such a suggestion can “accommodate the problems” (p. 95).

It seems to me that Kripke’s suggestion is not a viable one. If there were these two sorts of predication, then in a perceptual situation in which a white ball looks pink, there would be a reading of ‘the ball is pink’ under which it is true, but there is no such reading. The ball *looks* pink, certainly, but the ball is *not* pink. Similarly, in the night-sky example, there would be a true reading of ‘the star is no bigger than a sixpence’; again, there is no such reading. Austin was right, I think, to reject any reading of (2) and (3) on which they imply, respectively, (4) and (5).

289. Kripke favors the identity reading of (2) and (3) because, as he says, anyone denying this reading “had better give a better account than I am able to figure out of what the . . . different objects are” (p. 93). However, once we recognize the distinction between real and derivative objects, an answer to Kripke’s challenge is ready at hand: the silvery speck and the white dot, both, are appearance-objects, and they are distinct from the star and the house, both of which are real things. The expressions ‘the silvery speck’ and ‘the white dot’ are useful in certain perceptual situations, but they do not figure in our perspicuous descriptions of, respectively, the space around the earth and (a certain portion of) the earth’s surface. We can understand the usefulness of these expressions as well as the truth of statements such as (2) and (3) by recognizing the relationship of these expressions to appearances. No relationships to reality need be invoked; no depth grammar need be associated with (2) and (3).

290. Austin’s point that there are not different senses of ‘see’ does not require us to accept (2) and (3) on the identity reading (though, it is true, Austin makes it sound as if it does). Austin’s point rests on the observation that the objects of ‘see’ can be of many different kinds. One can be said to see a particular house and its south side as well as and the color of its door. These are all distinct kinds of things, and they can all be seen, and seen in a single glance. One can see real things, such as stars and houses, and one can see derivative things, such as specks. The different objects do not require different senses of ‘see’. Austin himself makes this point:

Suppose I look through a telescope and you ask me, ‘What do you see?’. I may answer (1) ‘A bright speck’; (2) ‘A star’; (3) ‘Sirius’; (4) ‘The image in the fourteenth mirror in the telescope.’ All these answers may be perfectly correct. Have we then different senses of ‘see’. *Four* different senses? Of course not. (*Sense and Sensibilia*, p. 99)

Specks are not stars, and Austin’s point does not require that the two be identified.

291. ‘See’ is *ontologically neutral*: the statement “*X* sees the *F*” implies nothing about the ontological status of the *F*. It implies neither that the *F* is a real object nor that the *F* is a derivative object. This has two noteworthy consequences. *First*, one’s view about the ontological status of a thing may shift, and yet one may continue speaking of seeing the thing. One may have taken the silvery specks to be real things decorating the night sky, not much different in size than they appear to be.¹⁴ Later, one may have come to regard them as appearance-objects. The ontological shift does not require one to drop talk of “seeing the silvery specks.” The shift does not affect the legitimacy of this talk, nor its usefulness. *Second*, a demarcation of the objects of perception does not help demarcate ontology, in the proper sense of this word. For perception can have among its objects things that are real as well as things that are derivative.¹⁵

292. Let us consider another application of the real-derivative distinction. Suppose a butterfly is sitting between two mirrors in a conservatory and you

14. According to Aristotle, Democritus held the view that “if the interspace were empty one could distinctly see an ant on the vault of the sky” (*De Anima* II.7, 419a). On Democritus’s view, it is a live empirical possibility that the small silvery specks we see in the night sky are in reality small silvery specks on the vault of the sky. And Democritus’s view is not a priori false.

15. Sense-datum theorists were not wrong to take perception to be directed to fleeting, image-like things. Their errors lay in the further claims they made about these things—claims such as that perception is directed only to these things and that these things are ultimate constituents of the world (Russell).

Let me add that even though I am siding with Austin against Ayer on the local issue about the senses of ‘see’, I do not accept Austin’s diagnosis of what led sense-datum theorists astray (see footnote 29 of Chapter 1). It is unfortunate that much of Austin’s fire in *Sense and Sensibilia* is directed against Ayer’s specific way of introducing sense-data in *Foundations of Empirical Knowledge*, a way that is idiosyncratic and that is obviously highly problematic quite apart from Austin’s brilliant critique.

can see the butterfly as well as two images of it. Suppose you are tasked with providing descriptions of the images. You proceed to name one of the images 'the Left Image', say, and the other 'the Right Image', and you issue the following true judgments:

- (6) Both images are entirely blue. The Left Image is closer to the butterfly than the Right Image. The Right Image is somewhat distorted and blurry . . .

How should we understand the images you are talking about, and how should we interpret the new names you have introduced? It is not an attractive option, I suggest, to take the images to be real things and the names you introduced to be perspicuous. Given what we know about the behavior of mirrors and of light, our most perspicuous description of the conservatory would not mention the two images. It would mention such things as the butterfly, the two mirrors, the light reflected from the mirrors, and its effects on perceptual systems, but it will not mention the two images. Nor is it an attractive option to regard the images as logical constructions out of real things. That is, it is not an attractive option to look for the depth grammar of the sentences in (6), so that 'the Left Image' and 'the Right Image' are eliminated in favor of perspicuous names. I suggest that a better option is to treat the images as appearance-objects and, correlatively, the two names as appearance-names. The truth of assertions containing the names is best understood by their connections to appearances and by the useful role the assertions play, or can play. No appeal to a correspondence to reality is needed. Nor is any such appeal helpful.

293. Our ordinary talk of mirror images does not treat as factual certain questions about their individuation, an attitude that is absent toward parallel questions about things we take to be real. Suppose you blink as you are looking at the butterfly and the images. Are the two images you see after the blink numerically the same as the ones you saw before the blink? Suppose you leave the room, and then on your return, you again see two mirror images. Are these the very same images that you saw before? Suppose a friend comes by. Are the images seen by him numerically identical to those you see? What if the friend has impaired vision and everything looks a little blurry to him? Are the images seen by him still the same? Unlike the answers to parallel questions about the butterfly, we do not take the answers to these

questions about images to depend on the contents of the conservatory. The relevant facts of the situation are all clear: the presence of the butterfly between the mirrors, the reflection of light by the mirrors, and the manifestation of the various appearances in the experiences of the scene. There are no further facts about the situation that bear on the identity and distinctness of the images, as we ordinarily conceive them. There may be agreement in our linguistic community that you see the same images after you blink, though not after you return from your visit outside. There may be agreement that your friend with normal vision sees the same images. If so, then it is this agreement that settles the individuation of the images. Our talk about the identity and distinctness of images does not aim to conform to some independently existent images. Instead, it is the images, qua derivative objects, that end up conforming to our talk.¹⁶

294. The same holds for the characteristics of images. Imagine that the light in the conservatory gradually changes, and the blue butterfly gradually comes to look green to you, as also do the two images. The butterfly remains blue and merely comes to look green because of the change in lighting. Do the two images also remain blue and merely come to look green? I think we would answer “no.” Our talk of images is tied closely to appearances. If the image looks green, it *is* green; if it appears to change, it *does* change. Suppose there were to be disagreement on this issue. Suppose someone were to insist that the image remains blue and merely appears to change its color. What sort of disagreement would this be? I think we would not regard it to be a substantive, factual disagreement, one that we could resolve by a more detailed examination of the images. We would regard the disagreement as a disagreement about the way we should *talk* about the images. If we held that the images were real things with their own particular natures—as perhaps some ancients did—we would try to resolve the disagreement through a closer examination of the images. But this is not the way we conceive them. We take our appearance-guided talk to fix the character of the images, not the other way around.

16. Our talk about images leaves their identity and distinctness somewhat indeterminate, but we do not regard the indeterminacy as indicating any incompleteness in our knowledge. Nor do we regard it as indicating any inadequacy in our concepts. This is further evidence that we take images to be derivative objects.

This, too, indicates that we are treating images as derivative objects, not as real things.¹⁷

295. You can ask for an explanation of features of images. You can ask, for example, “Why is the Right Image blurry?” and a perfectly good answer may be available to your question. (Perhaps the answer invokes some features of the right mirror.) Furthermore, images can figure in the explanations one offers. “Why did Fred think there were three butterflies in the room?” Response: “Because he mistook the two images for real butterflies.” So, nonperspicuous terms can figure in the explananda as well as in the explanantia of good explanations. Furthermore, in some contexts, the best explanation of a phenomenon is one that contains nonperspicuous terms and invokes derivative objects. We may conclude: *explanations are ontologically neutral*. One cannot read off the status of a term, whether it is perspicuous or not, from the fact that the term figures in explanations, even in the best explanations.¹⁸

296. Let me mention one final possible application of the notion of appearance-object. Consider our talk of clouds. Imagine that you draw my attention to a particular cloud by saying, “Look at that cloud that is moving in the westerly direction,” and we engage in a discussion about the various

17. Rainbows, mirages, afterimages, and sense-data fall under the broad genus “image,” of which “mirror image” is one of the species. The different species of images are governed by different, language-dependent, principles of identity and feature attribution. Rainbows and mirages are objective images: one and the same rainbow or mirage, we would allow, can be seen by several perceivers. We would even countenance the possibility, I think, that a color-blind man sees the same rainbow, though he misperceives some of its features. In contrast, afterimages and sense-data are subjective images. Two perceivers cannot perceive the same sense-datum, for example. Furthermore, no perceiver can misperceive a sense-datum; if a sense-datum looks red, it is red.

Incidentally, it is an empirical question whether rainbows (e.g.) are real things or merely appearance-objects.

18. The science of optics contains explanations of features of images produced by lenses and mirrors, and furthermore, some of its explanations appeal to features of images. (For example, features of the image produced by the third lens may be explained by appealing to features of the image produced by the second lens.) In a particular context, the explanations provided by this science may be the best available and, moreover, perfectly adequate for one’s purposes. The occurrence of phrases such as ‘image’, ‘real image’, and ‘virtual image’ in the explanations one regards as the best does not commit one to treating these phrases as perspicuous. More generally, the occurrence of a term in a science, even in its fundamental laws, is a poor indicator of the perspicuity of the term.

features of the cloud. We can see, let us imagine, that the cloud is cigar-shaped and light grey in color. Suppose now that empirical investigation reveals the following about the state of the atmosphere where the cloud is located: Besides the air, the atmosphere contains only tiny water droplets in varying grades of density. The totality of water droplets do not form a cigar shape, and no natural carving of the mass of droplets produces this shape. We can get the shape only if we carve out the mass using a highly idiosyncratic density function φ , while more natural functions in the neighborhood of φ produce entirely different shapes. Furthermore, we discover, let us imagine, that the mass of water droplets is not moving. Instead, the density of water droplets is changing because of condensation and evaporation. Consequently, the mass of droplets carved out by the density function φ is shifting—as it happens in the westerly direction. The function φ is entirely insignificant, let us imagine, as far as the behavior of air and the water droplets is concerned. Its significance lies in the human perceptual system, in the way that light information is processed in our brains. It is because of this distinctive processing that the mass of water droplets manifests the specific appearances to us that lead us to apply the predicates ‘cigar-shaped’ and ‘moves’.¹⁹ Under these circumstances, the cloud we are talking about—call it ‘the Cloud’—cannot be identified with a mass of air and water droplets. For it is true to say of the Cloud that it is moving in the westerly direction, but this cannot be truly said of any mass of air and water droplets. What, then, is the Cloud? How should we think of it?

297. I propose we think of the Cloud as a derivative object and, more specifically, as an appearance-object. The proposal has the following consequences:

(i) The surface grammar of ‘the Cloud’ is respected; the expression is treated as a proper name. Indeed, this is why we can say, in the material mode, that the Cloud is an *object*.

(ii) ‘The Cloud’ is not a perspicuous name. There is no constituent of reality that it names. A perspicuous description of the atmosphere would mention water droplets and their distribution in the air and the behavior of

19. Compare: the rotational speed at which the spokes of a wheel become invisible to us is determined by the features of our visual system, not by anything distinctive that happens to the light reflected by the spokes and the wheel.

light; it would make no mention of the Cloud. Moreover, no object definable using the resources used in the perspicuous description is identifiable as the Cloud. This is why we can say, in the material mode, that the Cloud is *not a real object*.²⁰

(iii) Various ordinary statements, including “I see the Cloud,” “the Cloud is cigar-shaped,” and “the Cloud is moving,” are recognized as true. The truth of these statements does not lie, however, in a correspondence between them and reality. It lies, instead, in the role the statements play, or can play, in our discourse. The true statements about the Cloud do not answer to independently existing facts about the Cloud. It is, if anything, the other way around. The true statements determine what the facts are about the Cloud. This is why we can say, in the material mode, that the Cloud is a *derivative object*.

(iv) The individuation of the Cloud is centered on appearances. The spatial extent and temporal duration of the Cloud are determined not by any intrinsic characteristics of the state of the atmosphere, but by appearances. It is appearances that confer on the Cloud the apparent unity it possesses, and it is appearances that ground the identity of the Cloud through time. Under certain perceptual circumstances, we might say correctly, “There are exactly two clouds in the northern part of the atmosphere.” Why two? Why not three that we get under a different and more natural carving of the mass of water droplets? The answer, again, is because of the appearances. Since the individuation of the Cloud is appearances-based, we can say, in the material mode, that the Cloud is an *appearance-object*.²¹

(v) Certain questions that would be legitimate, and even fruitful, if the Cloud were a real object cease to be so because of the status of the Cloud as an appearance object—questions such as why is there a *cigar-shaped cloud*

20. We can associate with the Cloud a function from moments in an interval of time to masses of water droplets: the value of the function at a moment in the domain is the mass of water droplets in the region carved out by the density function φ at that moment. This association may be useful for some purposes (e.g., for semantical ones). But the function should not be regarded as the denotation of ‘the Cloud’. The function is itself a derivative object and cannot serve as a denotation of any name.

21. I recognize that the Cloud is a different sort of object than the Left Image and the silvery speck. It makes sense to ask about the volume of the Cloud, for example, but not of the Left Image and of the silvery speck. Nonetheless, the Cloud, too, is best seen as falling in the broad category of appearance-objects. The category “appearance-object” is divisible into subcategories; these, in turn, are divisible into subsubcategories; and so on.

in that region of the atmosphere, and what forces are moving the cloud in the westerly direction. These questions are replaced by questions about appearances: Why does it appear to us as though there is a cigar-shaped object over there, and why does it appear to us as though this object is moving?

298. We have seen that one can make true general judgments about appearance-objects. We can truly assert such things as “I see two images” and “there is only one cloud over there.” In making these assertions, we are “quantifying over” images and clouds, but let us notice, this has no significance for ontology. The statements do not commit us to including images and clouds in a perspicuous description of the world. The truth of generalization of the form “there are *Fs*” implies neither that *Fs* are real things nor that they are derivative things. *Quantificational talk* is, in short, *ontologically neutral*.²²

299. In summary, one kind of empirical transformation in a view is this: Objects that were once regarded as real are later regarded as illusory or as images or, more generally, as appearance-objects. This kind of transformation may effect a radical change in the way we conceive the world, yet it can leave intact many of our ordinary practices. The transformation can leave untouched the logical grammar as well as the logic of our talk about these objects; it can leave in place our talk of *seeing* or *perceiving* these objects; and it can preserve much of the way we draw the true-false distinction across judgments about these objects. The important changes the transformation brings about include a change in our conception of truth as it pertains to judgments about the objects. The truth of these judgments is no longer seen to lie in a correspondence with reality. It is seen to lie, instead, in the useful role the judgments play in our practices.²³

22. The demarcation of the real from the derivative is not governed by any *general* criteria. Being necessary, being eternal, being imperishable, being perceivable, being explanatorily essential, being the value of a bound variable—none of these, either singly or in combination, demarcate the real from the derivative. The demarcation criteria, if any, may vary from view to view, and they may change as a view evolves in response to experience.

23. The converse empirical transformation is also possible, of course. A thing that was initially regarded as an appearance-object can, in light of new experiences, come to be regarded as real.

9C. CONCEPTIONS OF COLOR

300. So far we have considered some possible empirical transformations in our conceptions of particulars. Let us now reflect on some possible empirical transformations in our conceptions of universals. Let us focus on color. Consider how a conception of color might evolve as a community of thinkers undertakes a rational empirical inquiry into color and their perception of it. Let the community's initial conception of color be the following "Ur-Conception," a conception that is natural to accept prior to any large-scale systematic investigation into the nature of color:

Ur-Conception of Color. Ordinary things (e.g., bananas) instantiate color qualities. These qualities reflect a dimension of similarities among things: a thing that is green, for example, possesses the color quality green and is similar to other green things along one particular dimension. In the presence of light, colored things act on, or interact with, our eyes and the rest of our perceptual system, giving rise to color experiences. Sometimes the color of the perceived thing is seen; it is present to consciousness. Sometimes, however, the color of the perceived thing is not seen, and it is not present to consciousness. Color experiences are good, though not infallible, guides to the colors of things. They enable us to know the colors of things and to obtain useful knowledge about colored things (e.g., that yellowness in bananas indicates ripeness).

The Ur-Conception leaves many important details unspecified—for example, it leaves unspecified the role of light and of the eye in the interactions that give rise to color experiences. Empirical investigation can be expected to fill in the details missing from the Ur-Conception. The Ur-Conception, sketchy though it is, commits itself to some substantive claims about color. Empirical investigation *cannot* be expected to leave these claims undisturbed; it may well force additions to and subtractions from these claims.

301. We can imagine that the Ur-Conception is revised to the following three views in succession:

Primitivism. Colors are qualities and, furthermore, they are *primitive* qualities. For example, green things—including, grass and green lights and the surfaces of certain bananas—all possess the primitive color quality green and are, in virtue of this possession, similar to one another in one particular dimension. Furthermore, color qualities are a part of the causal order, and they influence our visual system. More specifically, the presence of light renders the intervening medium between the eye and the perceived object transparent and thus enables the color of the perceived object to reach the eye and thence the perceiving organ, namely, the heart. Sometimes when the conditions are abnormal (e.g., when the intervening medium is not quite transparent or the eye is diseased), the color reaching the heart is not purely the color of the perceived object but a mixture of colors; thus arise color illusions. When a blue thing looks green, the blueness of the perceived thing is not present in the perceiving organ, nor to the perceiving consciousness. Nonetheless, an instance of green is present in the perceiving organ and to the perceiving consciousness.

It is important not to take a condescending attitude toward this view. If we now understand better light and color and the heart, it is not because we can dismiss Primitivism a priori. It is because rational empirical investigations have provided us with reasons to move away from the conceptions of light, color, and the heart contained in this view. Aristotle, whose contributions to the study of nature remain unsurpassed, gave empirical reasons for thinking (e.g.) that the heart is the principal organ of perception. He considered a contrary idea, favored by Alcmaeon and Plato, that the principal organ of perception is the brain but rejected it on empirical grounds.²⁴

302. Primitivism preserves the picture of color in the Ur-Conception and adds new details. The next view changes the picture substantially.

Reductionism. Colors are qualities of things, but they are not *primitive* qualities; they do not define an independent dimension of similarity and difference among things. Green things, for example, all possess a certain fea-

24. I am not attributing Primitivism to Aristotle, though it incorporates some Aristotelian ideas.

ture—a feature that is specifiable in terms of shape, structure, and hardness of their constituent parts. It is in virtue of this feature that green things are similar to one another and count as green. Furthermore, this feature is a part of the causal order. It influences, in particular, the behavior of the stream of corpuscles that is light. It ensures that only certain kinds of corpuscles are reflected or emitted by a green thing. The corpuscles of light reaching the eye initiate a process that results in the experience of color. The color quality of a thing—the feature of the thing which is its color—is never actually seen; it is never present to consciousness in experience. Still, color experiences are a fairly good guide to the presence of color qualities in things, and many of our ordinary color judgments, such as that yellowness in bananas indicates ripeness, are true.²⁵

303. The third, and final, view is a radical departure from the Ur-Conception.

Irrealism. There are no color qualities; colors are not features of any thing at all. Green things, for example, share no single feature; they are similar in no one dimension. The interaction between light and things is highly complex and can vary from situation to situation. Dissimilar things can reflect or emit light of the same sort, and similar things can reflect or emit light of quite different sorts. Furthermore, the relationship of color experiences to light reaching the eye is highly complex. Color experiences are sometimes quite different even though the light reaching the eye is similar. And the other way around: light can be quite different but the color experiences the same. There are no color qualities or features; hence, none is ever presented in experience.²⁶

25. This view builds in some Lockean ideas about color.

26. Irrealism is perhaps a descendant of the view of Democritus, who says in one of the surviving fragments, “By convention are sweet and bitter, hot and cold, by convention is color; in truth are atoms and the void.” According to C. L. Hardin (“A Spectral Reflectance Doth Not a Color Make”), most vision scientists reject realism about color qualities.

For contemporary versions of the above views, see the essays in Alex Byrne and David R. Hilbert’s anthology *Readings on Color I*. For a short introduction to the current debate and for references, see Barry Maund, “Color.” Mazviita Chirimuuta’s recent book *Outside Color* provides a historical introduction to the debate and offers an original view.

I do not wish to suggest that the three views sketched above are the only possible developments of the Ur-Conception.

304. The question “what is the nature of color?” is an empirical one. The question was debated in ancient times and is still debated today, and the debates have been—or, at least, should have been—primarily empirical. The existence and nature of color qualities cannot be settled a priori by an appeal to broadly logical considerations. It can be settled only by a close empirical study of light, the perceptual systems of animals, and the physics of things. Many conceptions of experience and meaning, find it difficult, however, to sustain this simple truth. If the phenomenology of color experiences is constituted by the presence of color qualities, then any irrealist view of color can be rejected prior to any empirical inquiry, for the view entails a denial of color phenomenology.²⁷ If the meaning of a color term (e.g., ‘yellow’) is fixed ostensively and if the ostensive definition requires acquaintance, then any denial of the presence of color qualities in experience (e.g., as in Reductionism) entails a denial that color terms are legitimate and meaningful—a thoroughly absurd result.

305. Traditionally, the absurdities have been avoided by bifurcating nature. Reductionism and Irrealism have been reformulated, somewhat along these lines:

Dualism. There is a realm of mental items—impressions, sense-data, or sensings—that are present to consciousness in experience and that instantiate color qualities. These color qualities—call them *mental color qualities*—are distinct from the *physical color qualities*, if any, that are instantiated in ordinary objects. Reductionism and Irrealism, as formulated above, are strictly speaking false, for they neglect colored mental items. The cores of their views can be preserved, however, through a reformulation. The claims these views make about color qualities pertain to *physical* color qualities. For example, according to Reductionism, physical color qualities are reducible to features specifiable in terms of shape, structure, and hardness. This is perfectly coherent, as is the Irrealist claim that physical color qualities do not exist. The nature and even the existence of physical color qualities is a question for empirical inquiry to settle. Emphatically not so, however, for mental color quali-

27. Terminological note: ‘Irrealism’ denotes the specific view introduced above, and its lowercase counterpart (‘irrealism’) denotes the general conceptions of color contained in Irrealism. Irrealism (with capital ‘I’) includes details, such as about light, that are excluded from irrealism. Similarly for ‘Primitivism’ and ‘Reductionism’ and their lowercase counterparts.

ties.²⁸ Their existence is an Archimedean fixed-point of empirical inquiry. The existence of these qualities (as well as other mental sensible qualities) is essential if empirical inquiry is to have a proper foundation. It is these qualities that are needed for (e.g.) ostensive definitions of color terms. The basic color terms denote mental color qualities. Ordinary color terms are defined in terms of the basic color terms, roughly along these lines:

Yellow =_{Df} the quality in physical things that causes the presence of yellow mental items under standard conditions.

This approach gains the freedom to reconceive physical color but at the cost of losing freedom to reconceive mental color.

306. It is a virtue of the view offered here, Presentationalism, that it imposes no bifurcation on nature. It creates logical space broad enough to accommodate all three views about color—Primitivist, Reductionist, and Irrealist—without requiring any reformulation. Presentationalism is able to do this because it incorporates two ideas. First, it recognizes a distinction between presentation and acquaintance. An object or a quality may be presented in experience to a subject, yet the subject may possess no knowledge of the object or the quality. Presentationalism, through the hypothetical given, accords experience a central role in cognition, but it does not see this role as that of supplying immediate knowledge of presented items. Consequently, according to Presentationalism, subjects can rationally take the nature of color qualities to be an open empirical question, even when color qualities are presented to them in their experiences. Such subjects can even deny that colors are genuine qualities. The denial would not be in conflict with any knowledge of color supplied to them by their color experiences. Similarly, rational subjects can accept that color qualities are sometimes presented to them in their experience even though, as a matter of fact, there are no color qualities. The misconception would not render their color terms meaningless. Such subjects may introduce a name for a color through an ostensive definition such as

Yellow =_{Df} the color quality instantiated in this chip.

28. On some versions of the view, we are acquainted with mental color qualities, and our experience provides us with a perfect knowledge of them. See Russell, *Problems of Philosophy*, p. 47.

The subjects' definition would be defective, for it would not pin a denotation on 'yellow'. Still, the subjects' introduction of the definition could well be rational, and 'yellow' may, in the subjects' use, be a perfectly meaningful term. In the context provided by the subjects' views, the ostensive definition may well fix the meaning and use of 'yellow'. The subjects' misconception does not render the ostensive definition ineffective.²⁹

Second, Presentationalism recognizes a distinction between appearances and qualities. As indicated above, there are two entirely separate sets of dimensions of similarities and differences. One set of dimensions pertains to things; the other pertains to the presentations of things. Qualities correspond to the first set of dimensions; appearances, to the second. As the factors affecting presentation are so different from factors affecting things, there is no *a priori* reason to expect any isomorphism between qualities and appearances, let alone to expect an identity between them. A denial of color qualities entails no denial of color appearances. Hence, there is logical space for a primitivist, a reductionist, and an irrealist to conduct an empirical debate over the nature of color without fear that the issue is settled by the obvious facts about color phenomenology.

307. The sorts of empirical transformations envisioned above in the conception of "color" may occur in our other empirical conceptions, such as those of "hot" and "sour," and of "shape," "up," and "simultaneity." We can move from a view that takes "hot" to denote a genuine quality of things to one that takes "hot" to be an appearance-based concept that denotes nothing. For another example, we can move from a view that takes "simultaneity" to be a two-place equivalence relation between events to one that denies the existence of any such relation and goes on to take "simultaneity" to be relative. Nothing about the character of experience or of concepts bars such a shift in view. The phenomenology of experience, in particular, is mute on the logical character of "simultaneity."

29. Despite the misconception, 'yellow' may possess an extension in the subjects' use of the name, and furthermore, most of the subjects' attributions of 'yellow' to particular objects (e.g., to some bananas) may well be true. Even their general judgments (e.g., "the instantiation of the quality yellowness in bananas indicates ripeness") may be true if shorn of their misleading implication that yellowness is a quality of things. The correct content of the general judgment about the ripeness of bananas may be formulated thus: yellow bananas tend to be ripe.

308. Let us call changes in view that involve a shift of a term from perspicuous to nonperspicuous or, conversely, from nonperspicuous to perspicuous *ontological shifts in view*; we may also call them *ontological transformations of view*. Changes of view of the first kind can be called *reality-to-appearance shifts*; those of the second kind can be called *appearance-to-reality shifts*.

9D. A SKETCH OF THE DIALECTICAL SITUATION

309. In order to understand ourselves and our surroundings better, we engage in empirical inquiry. We explore the world; we conduct experiments; and we study documents to recover past observations, theories, and conjectures. And, most important for our purposes, we engage in rational debate to resolve actual and possible disagreements. Sometimes the disagreements center on local issues such as the location of one's car keys; sometimes they center on global issues such as the makeup of ontology. I reflect in the Chapters 10 and 11 on how empirical dialectic ought to be conducted. Here, I use the accounts of experience and thought developed above to provide a sketch of how we should conceive of the dialectical situation.

310. CONCERNING CONCEPTS. In the course of a debate, we issue judgments, introduce definitions, make suppositions, and draw consequences. These activities bring into play concepts, logical as well as empirical. I suggest that, for simplicity's sake, we think of the debate as conducted in one language with one set of symbols. (I do not think we lose anything essential by restricting ourselves in this way.) I suggest, further, that we think of empirical symbols, especially those that are central to our disagreements, as governed by definitions, some of which may be ostensive. We may, for example, be debating whether Smith is a man or a statue or a mere image. I am suggesting that we think of this debate as prefixed by a shared definition that governs our use of 'Smith'—say, the ostensive definition "Smith =_{Df} that thing we see over there that looks like a man." The tokens we produce of 'Smith' in the course of our debate are governed by this ostensive definition. These tokens are thereby cointentional and express the same concept. The ostensive definition, thus, serves to found the relation of cointentionality

and to anchor the concept “Smith.” At the same time, it does not diminish logical space. It allows the different participants in the debate to hold radically different views about Smith. One participant can hold that ‘Smith’ is a perspicuous name that denotes a man, another that it is a perspicuous name that denotes a statue, and a third that the name fails to be perspicuous and denotes nothing at all.

More generally, in empirical dialectic, we can deploy the same concepts and still disagree radically about the layout of reality. Radical disagreement does not entail that our concepts are different, that we are talking past one another.

311. CONCERNING EXPERIENCES. In the course of a debate, we are sometimes in perceptual situations (e.g., when observing Castor in the night sky to settle a disputed point). I have suggested that we think of the experience undergone in such a situation as directed to a more or less structured portion of the world, the presentational complex of the experience. In one and the same perceptual situation, the presentational complex to which one participant’s experience is directed may be different from that to which another’s experience is directed. Your experience may be directed to some stars, for example, that are not elements of my experience. It can even happen that the presentational complexes of the participants’ experiences are thoroughly disjoint. Typically, though, the presentational complexes overlap; they contain shared elements. I have suggested, further, that we think of the presentational complex and its elements as manifesting appearances to the perceiver’s consciousness. The appearance manifested by the presentational complex is the phenomenology of the experience. Appearances depend on the situation and constitution of the perceivers. Hence, in the same perceptual situation, an element may manifest (and typically does manifest) different appearances to different perceivers. Neither the variability of the presentational complexes from participant to participant nor the variability of appearances prevents the participants from possessing a pool of shared empirical concepts or from discoursing about the same items, real or derivative.

In empirical debate, we should recognize the subjective dimension of experience and the great variability of experience along this dimension. We should not, however, think of this dimension as entailing an entrapment of the participants in their respective private worlds.

312. CONCERNING PHENOMENOLOGICAL CONCEPTS. Participants in an empirical debate can be expected to share some phenomenological concepts (e.g., “blue,” “square,” and “hot”). A few points about these concepts deserve emphasis.

(i) The phenomenology of experience does not, by itself, fix the phenomenological concepts. The phenomenology of an experience of blue, for example, does not fix a specific concept “blue.” The identity of the concept “blue” in play in a debate can depend on factors beyond the phenomenology. Different ostensive definitions may govern uses of ‘blue’ in different debates. These ostensive definitions may bring into play different concepts in their definientia and may thus define different concepts “blue,” even when the definitions are grounded in subjectively identical experiences.

(ii) The use of phenomenological concepts does not presuppose that the same appearances are manifested in the participants experiences. The participants can share a common concept “blue” even when blue things manifest quite different color appearances in their respective experiences. The connotation of “blue” may vary greatly from participant to participant, and yet the participants may be deploying one and the same concept.

(iii) Phenomenological concepts may fail to be perspicuous. “Blue” may be governed by an ostensive definition that implies that color quality blue exists, but there may be no such quality.

(iv) Phenomenological concepts do not play a foundational role in empirical debate. For instance, it is not necessarily a legitimate demand that all explanations of meaning provided in the course of an empirical debate be reducible to those that use only phenomenological concepts.

(v) The phenomenological concepts are as open to criticism and revision as any other empirical concepts.

313. CONCERNING EXPERIENCE AND KNOWLEDGE. Experience provides the participants with no knowledge. In empirical debate, experience sets no fixed points, either in the form of judgments or in the form of concepts. Indeed, taken in itself, experience is dialectically inert. So, for example, the experiences of the participants may be directed to the fact that b is F . This does imply that the participants *know* that b is F , nor that they should all agree that b is F . The presentation does not even imply that the participants can readily acquire a concept for b or for F . Participants can disagree about what is presented to consciousness in an experience and yet be perfectly

rational. Similarly, they can disagree about the legitimacy of concepts that denote presented items and yet violate no norm of rationality. The same holds for appearances and manifestation. Manifestation of an appearance *a* in the experiences of the participants does not imply that the participants know that *a* is manifested or that they should agree that *a* is manifested or that the participants possess or can readily acquire a concept for *a*. Experience plays a powerful role in empirical cognition, I have argued, but it does so only when it is conjoined with a view. The participants bring to the debate their respective views, and in conjunction with these views, experience can lead the participants to a rational agreement that (e.g.) *b* is *F* and that a particular ostensive definition is defective.

The participants in an empirical debate can undergo the very same experiences—experiences directed to the same presentational complex and manifesting the same appearances—and yet legitimately disagree on the items that the experiences present to them.

314. CONCERNING ORDINARY PRACTICES. In the course of an empirical debate, one typically engages in activities such as showing, saying, and inferring. Many of these activities are ontologically neutral. In particular:

- Issuance of instructions such as “look at this *F*” and “move closer to that *F*” do not commit one to the perspicuity of the concept *F*. Sometimes the most helpful instructions bring nonperspicuous vocabulary into play.
- Acceptance of judgments of the form “I see *F*” and “I know that *F* is thus and so” does not commit one to taking *F* to be perspicuous. “See” and “know” are ontologically neutral.
- Logic and semantics are also ontologically neutral. One may reason with a term in accordance with, say, classical logic, without committing oneself to the perspicuity of the term. Similarly, one may accept classical semantical laws (e.g., ‘*a* is *F*’ is true in a situation *s* iff the referent of ‘*a*’ in *s* belongs to the extension of ‘*F*’ in *s*), again without taking on any commitments concerning perspicuity.
- A concept *F* may figure in the explanations one accepts in an empirical debate, even in the explanations one takes to be best. Yet one may consistently deny that *F* is perspicuous. Explanations are ontologically neutral.

The rejection of *F* as perspicuous does not entail, in short, a renunciation of ordinary ways of working with *F*. A nonperspicuous concept can be highly useful and even indispensable in empirical inquiry.³⁰

315. CONCERNING LOGICAL SPACE. Logical space in empirical dialectic is wide. Radically different views, favoring radically different ontologies, can be advanced in the course of an empirical debate. One may advance, for example, an idealist view that takes mind and its contents to be fundamental and the world to be governed by teleological laws. This view takes ordinary things such as rocks and plants to be real, but it conceives their natures in a substantially different way than we ordinarily conceive them. The idealist view's conception of presentation is also different: the reality presented in experience, according to this view, is through-and-through mental. Nevertheless, none of the departures from our ordinary conceptions disqualifies the view as a legitimate position in empirical dialectic. More specifically, nothing about experience or its phenomenology, or about concepts, rules the view out a priori. For another example, one may advance the physicalist view that the only perspicuous concepts pertaining to the external world are such concepts as "mass," "charge," and "spin." This view proposes an even more radical departure from commonsense ontology than the idealist view. It denies that ordinary things such as rocks and plants are real. It takes them to be derivative objects, akin to images, and like them grounded in appearances and concepts. Even this radical move violates no a priori norm of rationality, and the physicalist view is a perfectly legitimate position in empirical debate. Indeed, the view can preserve many of our ordinary practices as well as the truth of many of our ordinary judgments. This view, too, cannot be ruled out a priori.

Let us notice that the three views—the idealist, the physicalist, and the commonsense views—though they do not agree on the character of reality, they may be in perfect agreement with one another on phenomenology. This is possible because the three views conceive the constitution and situation of the perceiving subject differently. The same phenomenology can be factored into different world-self combinations, including those in which the

30. Scientific practice perhaps requires that commonsense judgments be true; it does not require that commonsense ontology be correct.

external world is through-and-through mental and those in which it is through-and-through physical.

316. It is a virtue of the account of experience and thought put forward here that it grants the theoretician, who sometimes must cope with seemingly intractable empirical anomalies, great freedom to reconceive the world.

Empirical Dialectic and Empirical Proofs

A VITAL ELEMENT of empirical inquiry is the dialectic between proponents of alternative views of the world. In their attempts to understand how things are, thinkers have accepted views that differ not only on details (such as the year of Pythagoras's birth) but also on broad features of the world. Thus, some thinkers have taken colors to be qualities of things; others have argued for a nominalism about colors. Some thinkers have taken simultaneity to be absolute; others have argued it to be relative. Some thinkers have taken the world to be through-and-through spiritual; others have argued it to be through-and-through material. I touted it as a virtue of the account of experience and thought offered above that it makes room for deep and enduring disagreements about the layout of the world. These disagreements cannot be settled by any quick appeal to phenomenology or to meaning or to our ordinary practices. They can be settled only through an extended empirical dialectic—through, that is, a long rational debate that appeals to a rich set of experiences. But how should this debate be conducted? How might one party in the debate rationally persuade the others of its view? What characteristics must an empirical argument possess to be compelling? Which

challenges may the proponents of one view legitimately issue to the proponents of a competing view? In short, what general logic governs empirical dialectic? These questions have motivated our inquiry from the beginning, though sometimes they have receded into the background. In this chapter and the next, I devote focused attention to empirical dialectic and, especially, to its structural features. I begin by contrasting, in Part 10A, empirical dialectic with its mathematical counterpart. An attribution to the former of features that are appropriate only to the latter has, I believe, greatly distorted our conception of empirical proof and, therewith, empirical rationality. In Parts 10B and 10C, I point out some features of empirical proofs. I highlight, in particular, a certain relativity that is present in empirical proof but absent from its mathematical counterpart. The discussion of empirical dialectic continues in Chapter 11, where I draw attention to some important consequences of this relativity for empirical dialectic.

10A. EMPIRICAL AND MATHEMATICAL DIALECTIC COMPARED

317. Let us imagine that two inquirers debate whether a proposition *Q*, ***the focal proposition***, is true. One of the inquirers, ***the proponent***, accepts *Q*; the other inquirer, ***the opponent***, is either agnostic toward *Q* or rejects *Q*. (Sometimes the opponent pretends to assume one of these attitudes for the sake of debate.) Let Mr. *X* be the proponent in the debate, and Ms. *Y* the opponent. *X* attempts to persuade *Y* to accept *Q*.¹ He does so by *doing*, *saying*, and *showing* some things. For instance:

A mathematical example. *Q* is a proposition of Euclidean geometry. *X* draws some diagrams. He shows them to *Y*, affirms various things as he does so, and deduces various consequences. *X* ends by concluding *Q*.

An empirical example. *Q* is the proposition that not all the balloons in a particular packet, Packet #22, are yellow. *X* walks to a chest of drawers and

1. There can be more than two participants in a debate, and one or more of these participants can be a collective entity (such as a government committee, a scientific society, and a team of lawyers). Furthermore, the different participants can sometimes be one and the same individual playing multiple roles (as when one debates with oneself). For my purposes here, it suffices to consider debates between two individuals.

takes out a packet marked 'Packet #22'. He directs Y 's attention to the packet and draws a balloon out of it. He shows the balloon to Y and, as he returns the balloon to the packet, asserts, "this balloon is green; hence, not all the balloons in Packet #22 are yellow."

As a result of X 's performance, Y , in turn, does various things, undergoes various experiences, and entertains various thoughts. Given Y 's view, Y may legitimately issue various challenges, request various clarifications, and so on. For example, Y may find some steps in X 's reasoning to be too quick and to need elaboration or, in the empirical example, she may antecedently believe that the lighting conditions are abnormal. Call this interaction between X and Y , *the initial stage of their exchange*, \mathcal{E} . The exchange may go through several further stages. X , we may imagine, engages in further doings, sayings, and showings in response to these challenges and requests. X 's response may prompt Y to issue yet further challenges and requests. This back-and-forth between X and Y may run through several stages and may result in various outcomes. One possible outcome, of special interest to us, is that Y comes to accept Q , or at least comes to recognize a commitment to Q , and this change in view is rational. In this case, I shall say that the exchange \mathcal{E} is *rationally effective*, and I shall call \mathcal{E} *a proof of Q for Y* . Note that proofs, so defined, are complex affairs that can involve sayings, showings, and doings stretched out over many stages of a debate. (We shall see below that in certain dialectical situations the notion of proof can be greatly simplified.) Note also that if \mathcal{E} is rationally effective, what is rational is Y 's *move* from her initial view to her new view, with her new attitude toward Q . The rationality of the move does not settle the rationality of Y 's new attitude.

318. Let us reflect a little on mathematics. Here, the dialectic can take some interesting forms.

(i) **CONTEXT.** Given a rationally effective mathematical exchange \mathcal{E} , there is typically an equivalent exchange \mathcal{E}^* , that is entirely context-independent. In \mathcal{E} , X may have drawn diagrams on several walls (a bad habit that persists from his childhood) and X and Y may have used expressions such as 'this wall' and 'that wall'. All this is inessential, however. The mathematical exchanges can be so cast that no context-dependent terms are used and no reference is made to contextually available items. (Instead of drawing a diagram on a wall, X could equally well have said, "imagine a

triangle ABC ; consider the bisector of the angle A ; let D be the point at which the bisector meets BC ; . . .”) Let us say that an exchange \mathcal{E} is **context-free** when its content and force are independent of contextual elements. A context-free exchange can be reenacted in all sorts of contexts without any change in content and force. Furthermore, it can be reenacted by different pairs of individuals, X^* and Y^* , with no loss of rational effectiveness, so long as the views of X^* and Y^* match those of X and Y , respectively.

(ii) **MULTIPLICITY OF STAGES.** Given a rationally effective mathematical exchange \mathcal{E} , there is typically an equivalent exchange \mathcal{E}^* that consists of only *one* stage. In \mathcal{E}^* , X 's initial performance anticipates and responds to all the challenges, requests, and so on that Y issues in \mathcal{E} . An exchange \mathcal{E} that can be cast into an equivalent one-stage form \mathcal{E}^* can be said to be **collapsible**, and \mathcal{E}^* can be called **a collapse of \mathcal{E}** .

(iii) **EXPERIENCE AND ACTION.** Suppose \mathcal{E} is a rationally effective, context-free, one-stage exchange in which X persuades Y of Q . If \mathcal{E} is mathematical, then there is typically an equivalent context-free, one-stage exchange, \mathcal{E}^* , that is **purely conceptual**. In \mathcal{E}^* , X does not direct Y to exercise her imagination (e.g., to imagine a triangle) or to exercise any other sensory capacity (e.g., to look at a wall). Furthermore, X does not direct Y to perform any bodily actions (such as turn her head or walk to the window). In \mathcal{E}^* , X directs Y to perform only a certain limited range of mental actions (such as affirming, supposing, and defining). Y , in turn, follows X 's directions and entertains a series of thoughts in which various propositions are entertained under various modes (modes such as definition, supposition, outright affirmation, and affirmation relative to such and such suppositions). Let us call X 's performance in \mathcal{E}^* **the offering of an argument**, and let us call the argument offered **the (purely conceptual) proof of Q provided in \mathcal{E}^*** . Note that we can distinguish two sorts of affirmations that are dictated by a proof \mathcal{P} : those that are logically **derivative** (i.e., those whose rational acceptance depends on prior directives in the proof) and those that are not derivative. We can say that the latter affirmations (and their contents) are the **rational ground of Q in \mathcal{P}** (and in \mathcal{E}^*).

(iv) **RIGOR.** Suppose that \mathcal{E} is a rationally effective, context-free, one-stage exchange in which X persuades Y of Q . Suppose also that \mathcal{E} is purely conceptual and that \mathcal{P} is the proof offered in \mathcal{E} . Observe that even though the provision of \mathcal{P} is rationally effective in persuading Y , it may well not be rationally effective if it were offered to someone (say, Z) other than Y . For

the proof may fail to address challenges and requests that are proper given Z 's different view. For example, there may be affirmations in the rational ground of \mathcal{P} that Z does not accept. In mathematics, however, there is available a proof of Q that is *rigorous*, a proof that anticipates and addresses all legitimate challenges and requests. A rigorous proof is rationally effective with all possible individuals who hold views within a certain broad range, a range that includes all legitimate views. Rigorous proofs possess the following pleasing feature: they put the guided in a good position to guide others to the conclusion.

(v) AXIOMATIZATION. In mathematics, not only do we have available context-free and rigorous proofs, we can bring substantial order and clarity to the proofs we offer. We can isolate certain primitive concepts (e.g., “point” and “line”), and we can isolate certain primitive axioms involving these concepts (e.g., “two distinct straight lines intersect at most in one point”). We can then go on to logically define the remaining concepts in terms of these primitive concepts, and we can so cast our proofs that their rational ground is invariably confined to the initially stated axioms. (Indeed, through formalization, we can achieve such precision that proofs may fruitfully be viewed as sequences of syntactic strings.)

(vi) UNIFICATION. We can take a further step and seek a unification of all mathematical proofs in one fundamental subject, say, set theory. It turns out that a substantial unification is possible: for almost any proof offered in any domain of mathematics, a counterpart proof can be found in set theory. We can thus see all of mathematics as resting on one set of axioms (say, those of Zermelo-Fraenkel set theory). We can even speak of these axioms as *the foundations of mathematics*. (Through formalization, we can define a syntactic notion of *proof in Zermelo-Fraenkel set theory*, and we can then engage in metalogical investigations about provability in mathematics.)

(vii) CARTESIAN METHOD. We can even imagine that mathematics is cast into this foundationalist mold by a single genius who uses the Cartesian skeptical method. The genius begins by suspending belief in all mathematical propositions. She then isolates intuitively simple notions and lays down intuitively compelling principles and rules of inference. Then, relying on strict definitions, she reconstructs all of her other mathematical notions. And finally, relying only on specified principles and definitions and rules, the genius deduces all the other propositions (more accurately, their counterparts) on which she had initially suspended judgment. The genius thus retraces

millennia-long developments in mathematics and logic toward greater rigor and unification.

319. In mathematics, then, dialectic can be put in such a tidy order that it exhibits none of the strife and turbulence that is so characteristic of it in other domains. In mathematics, there are commonly accepted basic concepts and axioms; there are commonly accepted methods for forming new concepts; and there are commonly accepted rules of inference for establishing new claims on the basis of earlier ones.² The axioms are intuitively evident; the methods of forming new concepts invariably preserve legitimacy; and the rules of inference necessarily preserve truth. If, in the course of a mathematical exchange, one participant affirms a mathematical proposition and the other denies it, then each participant may demand a proof from the other. Failure to meet the demand is a sufficient reason for a dialectical retreat. And if both participants were to attempt to meet the demand, we can be sure that at least one attempt would be a failure. A careful examination of one of the offerings would definitely reveal an illegitimate step. In mathematics, the resolution of dialectical differences requires no subtlety; it requires only clerical care.

320. The situation is entirely different in the empirical domain. Let us observe:

(i) **CONTEXT.** With empirical exchanges, context is often essential. The very proposition that is the focus of an exchange may itself be ineliminably contextual. Consider the empirical exchange above (§317) about Packet #22—call this exchange ‘ \mathcal{E} ’. In \mathcal{E} , X and Y may be confused about the current time and, thus, no temporally specific proposition may be equivalent, for them, with the focal proposition Q that concerns them, “not all balloons in Packet #22 are yellow.” Hence, no context-free exchange may play the role that \mathcal{E} plays for X and Y . Even if the focal proposition is non-contextual, context may be essential in an exchange: some intermediate steps may be ineliminably contextual.

(ii) **MULTIPLICITY OF STAGES.** With empirical exchanges, a multiplicity of stages is often essential. As X tries to persuade Y of Q , X may be unfa-

2. This is true of mainstream pure mathematics. It is not true at the edges where mathematics touches philosophy.

miliar with the details of Y 's views and, hence, may be unable to anticipate Y 's objections and calls for explanation. X may thus lack the ability to persuade Y of Q through a one-stage exchange,³ even though X can, as a matter of fact, address all of Y 's concerns and thus persuade Y of Q .⁴

(iii) EXPERIENCE AND ACTION. In empirical exchanges, experience and bodily actions can play an essential rational role. In the balloon example, Y does some things (e.g., move her head to look at the packet) and, thereby, undergoes some experiences and entertains some thoughts. The rational basis of some of Y 's thoughts lies in other thoughts—as, for example, when Y moves from “this is a green balloon” to “this is not a yellow balloon.” However, the rational basis of some of Y 's thoughts (e.g., “this is a green balloon”) lies, in part, in Y 's experience. The reasoning in empirical cases is not, in general, purely conceptual; it often involves both experiences and bodily actions. We can talk about reasons provided to a subject in an empirical exchange, but we should recognize that these reasons are not confined to propositional items such as thoughts. The reasons include experiences as well as actions.⁵

(iv) RIGOR. In sharp contrast with mathematics, the notion of rigor is empty and useless in the empirical realm. In mathematics, we can provide *one* proof that is rationally effective across the board. We can anticipate possible legitimate objections and, through logical precision, set out a proof that meets them all. In mathematics, *absolute* proofs are possible, proofs whose rational effectiveness does not depend on subject's account of the world.

3. X may well be able to put up a performance that, as a matter of fact, rationally persuades Y of Q . So, a one-stage exchange may well exist in which X persuades Y of Q . Still, in the empirical case, it can happen that X cannot *undertake* to persuade Y of Q through a one-stage exchange. For X may not know what series of doings, sayings, and showing would, right off, persuade Y of Q .

4. Artificial examples are easily constructed in which the multiplicity of stages is essential in a stronger sense. Suppose the focal proposition, Q^* , is “some packet has only yellow balloons and X will convince Y of Q^* in a three-stage exchange.” Suppose, further, that X does go on to convince Y of Q^* through a three-stage exchange. Now this exchange will plainly fail to be equivalent to any one-stage exchange. A similar move does not work for mathematics, for here the parallel construction does not yield a mathematical proposition.

5. In the empirical domain, there are conceptual exchanges as well as conceptual proofs. What distinguishes the empirical domain is that conceptual exchanges and proofs cannot do all the necessary work here. There are exchanges for which there are no equivalent conceptual exchanges. If, in the balloon example, Y does not trust X on claims about balloons and their colors, the only way for X to persuade Y may well be to get Y to see for herself the balloon packet and the balloons in it.

In the empirical domain, things are different. The arguments we offer here need to be tailored to the view of our interlocutor. In the balloon example, if *Y* happens to agree with *X* that the lighting conditions are normal, then a simple argument will suffice. On the other hand, if *Y* thinks that the lighting conditions are abnormal, a more elaborate argument would need to be given. The range of relevant variation in views is potentially infinite; hence, the range of relevant variations in empirical arguments is potentially infinite. In the empirical domain, no absolute proofs are available (nor, I think, needed).

(v) AXIOMATIZATION. The absence of rigor implies that empirical arguments cannot be cast in an axiomatic system. In the empirical domain, there are no universally shared principles by reference to which all debates can be settled. The claims appealed to tend to shift from one exchange to another. It may be quite proper to appeal to a claim in one exchange, but entirely improper to invoke it in another. Furthermore, the claims appealed to in empirical arguments are often about particular contingent things and their contingent properties over which there is little consensus among competing views. And, unlike mathematics, this particularity and contingency is essential. We cannot replace empirical arguments with others that are purely general. Hence, unlike mathematics, there is in the empirical realm no set of axioms, no set of universally shared claims, that can provide the rational basis for all empirical argumentation.

(vi) UNIFICATION. Unification, which has been such a fruitful ideal in mathematics, is a snare and a delusion in the empirical realm. Unification is possible in mathematics because the concerns of mathematics do not lie in particular objects. For mathematical purposes, it is immaterial whether the Chinese Remainder Theorem and its proof are formulated in the language of arithmetic or in set theory using, say, the von Neumann translation (or some other of a potential infinity of translations) or in some other language. It is because of this indifference to particular objects that unification is a feasible ideal for mathematical proofs.⁶ In the empirical realm, however, we are not at all indifferent to particular objects. An empirical argument for a

6. Whether denotations can be found for the primitive terms that render the axioms true is also a matter of indifference to pure mathematics. Pure mathematics concerns itself with questions of the form “must such and such claim hold given that such and such axioms are true.” Skepticism about the meaningfulness of primitive terms and about the truth of axioms is out of place from the viewpoint of pure mathematics.

claim about planets may be structurally isomorphic to one for a claim about beer bottles in a refrigerator. This fact may interest us, but it does not exhaust our interest in the first argument. The crux that enables unification in mathematics is simply absent in the empirical realm.⁷

(vii) *CARTESIAN METHOD*. A Cartesian-style skeptical reflection does not uncover the foundations of empirical science or of empirical dialectic. In mathematics, a skeptical reflection helps to make proofs more rigorous and, thereby, leads to foundational concepts and principles. But this reflection does not establish that the foundational concepts are perspicuous—that they denote real things—nor that the suggested principles are true of real things. The skeptical method is useful in uncovering mathematical foundations precisely because mathematics is indifferent to the actual layout of the world and to how its concepts relate to things in the world. What matters to mathematics is that the foundational concepts and principles are rich enough for a reconstruction of the structures of interest (such as the structure of the system of natural numbers and that of three-dimensional Euclidean space).⁸ None of this is true of the empirical. Here the layout of the world is of vital interest to us, as also is the relationship of our concepts to this layout. We are concerned to build an account of the world using perspicuous concepts, and the skeptical reflection is of little help in this enterprise. The reflection does not help us acquire perspicuous concepts or to distinguish perspicuous concepts from nonperspicuous ones.⁹

7. Note that I am rejecting axiomatization and unification only for empirical *arguments*, not for empirical *theories*. How far axiomatization and unification are possible for the latter is itself an empirical question, not one to be settled a priori.

8. Embedding the structures of interest in richer structures can be mathematically fruitful. It can make available proofs of new theorems as well as shorter proofs of existing theorems.

9. Descartes's own estimate of the power of skeptical reflection was different. He thought that skeptical reflection leads to principles that are perfectly evident and that provide explanations of everything else. In the preface to the French edition of the *Principles*, Descartes writes:

We must start with the search for first causes or principles. These principles must satisfy two conditions. First, they must be so clear and so evident that the human mind cannot doubt their truth when it attentively concentrates on them; and, secondly, the knowledge of other things must depend on them, in the sense that the principles must be capable of being known without knowledge of these other matters, but not *vice versa*. (AT IXB 2; pp. 179–180 in the Cottingham, Stoothoff, and Murdoch edition)

So, indubitability is supposed to be a mark of first principles. However, even of the cogito, the purest precipitate of the Cartesian skeptical reflection, it may be said that, though it is indubitable, its constituent concept “think” is not necessarily perspicuous.

The skeptical reflection fails to illuminate empirical dialectic also. At best, the reflection reveals that phenomenological concepts and judgments are immune from revision. The reflection provides no reason to think that these concepts and judgments constitute the foundations of empirical dialectic—that is, it provides no reason to think that all empirical concepts and judgments and arguments can be, or should be, reconstructed in phenomenological terms. Empirical concepts and judgments play many different roles in the doings, sayings, and showings that make up an empirical exchange. (For example, they can help a subject reach a place to see a particular thing for herself.) These roles do not require a reduction of empirical concepts and judgments to their phenomenological counterparts; nor would the reduction, were it feasible, help these concepts and judgments serve their roles better. The fact is that empirical dialectic neither possesses nor needs foundations.¹⁰ Foundationalist preconceptions confuse rather than illuminate the true character of empirical inquiry.

321. Despite the manifest differences between the mathematical and the empirical domains, some philosophers have thought it fit to advocate an assimilation of the two. More precisely, they have advocated that the theoretical concepts in the sciences be treated in the same way as the concepts of mathematics. Thus, Russell, in his Phenomenalist and Neutral-Monist periods, applies to the logical construction of spacetime and other theoretical posits the same scheme that he applies in the logical construction of, for example, cardinal numbers. The principal difference in the two constructions is in the materials used: the construction of spacetime, but not that of cardinal numbers, uses materials Russell takes to be given in experience. The assimilation leads Russell to make some extraordinary pronouncements in his Neutral-Monist period. “The only legitimate attitude about the physical world,” he writes in *Analysis of Matter* (p. 270), “seems to be one of complete agnosticism as regards all but its mathematical properties.” Our knowledge of the physical world, Russell thinks, is confined to its logical-structural features.¹¹

10. There have been valiant, large-scale attempts in philosophy to reconstruct all empirical thought on a phenomenological basis. These attempts have not only failed, they were unnecessary.

11. Russell, *My Philosophical Development*: “In regard to what happens to oneself, we know not only abstract logical structure, but also qualities. . . . This is the sort of thing that we cannot know where the physical world is concerned” (p. 27).

322. An assimilation, different from Russell's, is found in the elimination of theoretical terms through *ramsification*.¹² The elimination works as follows. One formalizes the theory in a suitable logic, say a higher-order extensional logic. Suppose the theory contain observational terms O_1, \dots, O_m and theoretical terms T_1, \dots, T_n . Let

$$(1) \quad \theta(O_1, \dots, O_m; T_1, \dots, T_n)$$

be a formalization of the theory. Then, the *ramsification* of the (formalized) theory is simply the sentence

$$(2) \quad (\exists X_1, \dots, X_n) \theta(O_1, \dots, O_m; X_1, \dots, X_n),$$

where X_1, \dots, X_n are variables of types corresponding, respectively, to the theoretical terms T_1, \dots, T_n . Frank Ramsey observed that (2) is observationally equivalent to the original theory: for any sentence built using observational terms, (2) logically implies that sentence iff (1) does so. Hence, if the point of a theory is to help predict observational statements, then theoretical terms are eliminable; a theory can be replaced by its ramsification. Some philosophers, notably Carnap in his later philosophy, favored this way out of what they saw to be the problem of theoretical terms.¹³

Russell does not say such things in the Phenomenalist period. The reason is that the constructional materials he uses in this period consist primarily of actual and possible sense-data, which he regards as physical and with the intrinsic qualities of which he takes ourselves to be acquainted. In the Neutral-Monist period, on the other hand, the construction is carried out in terms of ontologically neutral events. The intrinsic qualities of these events, at least those that do not constitute minds, are not known to us, Russell thinks. We know only the logical-structural relations in which these events stand (relative to a particular given relation).

12. Demopoulos, in his book *On Theories*, sees ramsification as inspired by David Hilbert's philosophy of mathematics. Hilbert's idea that mathematical axioms (e.g., those of geometry) implicitly define mathematical concepts is here extended to science more generally: the theoretical terms of a scientific theory are taken to be implicitly defined by the theory itself. The observational terms, in contrast, are supposed to acquire meaning directly through their relationship to experience.

13. In their essay "Bertrand Russell's *The Analysis of Matter*," Demopoulos and Michael Friedman incorrectly assimilate Russell's structuralism to the logical structuralism of Ramsey and Carnap. Some salient differences between the two are these: (i) Ramsification requires a complete formalization of the theory, a formalization that captures all of the theory's observational consequences; Russell requires no such thing. (ii) Russell's structuralism respects his logical atomism. In particular, Russell assigns a definite meaning to each theoretical sentence;

323. I wish to make a few observations about these mathematical reinterpretations of the theoretical.

(i) The reinterpretations are useful in mounting a *defense* of the theoretical against certain challenges. One is challenged, say, about the content and rationality of a theoretical claim one issues. One can lighten one's task by shifting to a Russellian reconstruction of the claim. Or, more radically, one can invoke Ramsey and say that one is not making a genuine claim at all: one can say that what look like theoretical constants in one's utterance are actually only free variables. The reinterpretations, though useful in mounting a defense, are not, it should be noted, the only ways of defending the theoretical.¹⁴

(ii) The reinterpretations do not help us understand how we rationally come to be in a position to make theoretical claims in the first place. Ramsification of a theory, for example, helps capture the reasoning *issuing from* the theory. It leaves entirely obscure, however, the reasoning *leading to* the theory. A good account of theoretical terms should help us understand both how we reason on the basis of a theory and also how, with the aid of experience, we are able to reason our way to these theories. Ramsification leaves the job of understanding theoretical terms half undone. Indeed, it renders the bit left undone harder, even impossible.¹⁵

Ramsey's procedure does not do so. (iii) Russell thinks (in his Neutral-Monist period) that the physical world consists of events that stand in a relation that is given in perception—in *Analysis of Matter*, this is the relation Russell calls 'co-punctuality'. Our knowledge of the purely physical world consists of structural knowledge about this relation. None of this is any part of ramsification.

Demopoulos corrects the interpretation of Russell in *On Theories*. He makes the interesting observation that Ramsey sketched his method of eliminating theoretical terms in his notes on *Analysis of Matter*. Russell attempts in *Analysis of Matter* to show through an elaborate construction that the spacetime of general relativity can, under certain conditions, be treated as a logical fiction. The attempt is partial and unsuccessful. Ramsey notes that there is a simpler way of dispensing with theoretical items: ramsify the theory.

For a contemporary articulation of structuralism, see Bas van Fraassen's *Scientific Representation*. For a survey of recent work, see James Ladyman, "Structural Realism."

14. For example, a challenge to explain the meaning of a theoretical term 'water-molecule', which is taken to be true of unobservable entities, may be met through a definition such as "water-molecule =_{DF} part of water no part of which is water." This response may be perfectly adequate in some contexts.

15. Russell's logical constructions, too, provide no account of how we arrive at theories. Russell takes theories for granted and seeks to build a bridge between them and "the world of sense" (§21).

(iii) The reinterpretations rest on specific ideas about experience and thought that I have called into question. So, it has been held that experience reveals to us some real items, which serve as denotations of observational terms. The observational terms are thus taken to be perspicuous, and observational claims made using them are taken to be known. The meaning of theoretical terms and our knowledge of theoretical claims, in contrast, are held to be problematic. A logical reassessment of the theoretical is thus thought to be forced.¹⁶ On the account of experience and thought I have offered, the theoretical is interdependent with the observational and poses no special problem. It calls neither for elimination nor for reduction.

324. I am suggesting, in short, that no mathematical reinterpretation of the theoretical is necessary, or even helpful. Empirical dialectic is conducted with symbols that express specific concepts, with specific denotations and connotations. These concepts, denotations, and connotations must be kept fixed as we attempt to understand empirical argumentation. However much the move to reinterpret may be useful in the mathematical domain, it is not useful in the empirical.

325. A logical reflection on empirical dialectic does not require new, fanciful interpretations to be given to terms; nor does it require the adoption of new, unfamiliar attitudes toward claims.¹⁷ The reflection respects the outcome of a dialectical exchange, just as it is, including any conclusions reached about the real-derivative distinction. The reflection does not reinterpret these conclusions in any way. Keeping interpretation, conclusion, and attitudes just as they are, the reflection aims to help us understand how empirical reason can put us in a position to accept as true a surprising account of the world—one that, for example, invokes a novel ontology and creates a wide gulf between appearance and reality.

16. Russell, *Analysis of Matter*: “We must therefore find an interpretation of physics which gives a due place to perceptions; if not, we have no right to appeal to the empirical evidence. . . . [We must] assimilate the physical world to the world of perceptions” (p. 7).

17. Van Fraassen has urged that the rational attitude to take toward theories is that they are “empirically adequate,” not that they are true.

10B. SOME FEATURES OF EMPIRICAL PROOFS

326. Philosophical reflection on empirical reason has persistently been defensive and inwardly directed. It has concerned itself with defending, for instance, ordinary and scientific beliefs against skeptical challenges. The reflection has thus occupied itself with a search for skeptic-proof foundations, for hidden logical structure, and for subtle rules of inference by which the rationality of ordinary and scientific beliefs might be secured. I propose that we change the orientation of our reflection. Instead of looking inward, let us look outward. Instead of trying to order and reorder our beliefs in different logical arrangements, let us see how we might persuade one another of our respective ideas. Instead of making up stories about the justification of our ordinary beliefs, let us look for proofs by which we might persuade one another of useful and important new truths. Some immediate results of the reorientation are these: When we are inwardly directed, we retreat to a narrow view, and a broad view appears to us a liability. In contrast, when we are outwardly directed, a broad view is an asset, for it puts us in a better position to persuade others. When we are inwardly directed, we value security; when outwardly directed, we value breadth and truth. I am suggesting that we shall understand empirical reason better if we study outwardly directed proofs than if we confine ourselves to inwardly directed justifications.¹⁸

327. Let us reflect on empirical argumentation in a very simple setting. Let us confine ourselves to one-stage exchanges \mathcal{E} between two parties, one of whom, X , tries to persuade the other, Y , of the truth of a focal proposition, Q . Let us suppose also that \mathcal{E} satisfies the following further conditions:

- (a) X attempts to persuade Y to accept Q or, to recognize a commitment to Q , by offering an argument of the sort specified below; and
- (b) the opponent Y undergoes a single experience, e , during the exchange.

18. In mathematics, the two orientations are equivalent. A concern to put one's mathematical beliefs in logical order (to, say, defend them against the most severe skeptics) yields rigorous proofs. It, thereby, puts one in a better position to persuade others of mathematical claims. Similarly, a concern to persuade others (including the severe skeptics) also yields rigorous proofs and, thereby, puts one's mathematical beliefs in a better logical order. In the empirical domain, however, the two orientations are not equivalent.

Exchanges \mathcal{E} that meet the above conditions will be called *simple*, and the experience e that Y undergoes will be called *the grounding experience of \mathcal{E}* .

For an example of a simple exchange, imagine that X and Y are looking at a man, and X directs Y to accept the following propositions (for the reasons stated in the accompanying parentheses):

- | | | |
|-------|--|--|
| (i) | That man is Obama | (Perceptual Judgment) |
| (ii) | That man is wearing a red tie | (Perceptual Judgment) |
| (iii) | Obama is a natural-born citizen of the United States | (Proponent Testimony) |
| (iv) | That man is a natural-born citizen of the United States | ((i), (iii); Leibniz's Law) |
| (v) | That man is a natural-born citizen of the United States and is wearing a red tie | ((ii), (iv); Conjunction Introduction) |
| (vi) | A man who is a natural-born citizen of the United States is wearing a red tie | ((v); Existential Generalization). |

So long as Y 's experience warrants the acceptance of the first two claims and, furthermore, Y trusts X concerning Obama's citizenship, Y can be expected to accept the conclusion. If Y follows X 's directions, the simple exchange can be expected to be rationally effective.

The (empirical) argument \mathcal{A} offered in a simple exchange \mathcal{E} may be viewed as a series of pairs, called *steps of the argument*,

(1) $\langle P_1, R_1 \rangle, \dots, \langle P_n, R_n \rangle,$

where P_n is the focal proposition of \mathcal{E} and each P_i in the series is a proposition and each R_i is a *reason* for P_i ($1 \leq i \leq n$).¹⁹ For simplicity, let us require the reasons to be one of the following three types: "Perceptual Judgment," "Proponent Testimony," and standard logical rules applied to earlier steps. Arguments that meet these conditions will be called *simple empirical argu-*

19. The notion "empirical argument" is easily generalized to exchanges in which an opponent undergoes multiple experiences. I am confining myself to exchanges in which an opponent undergoes a single experience solely to keep notation simple. We can think of exchanges with multiple experiences as strings of simple exchanges.

ments.²⁰ Let us build into the notion of a simple exchange that the logical rules invoked in its argument are accepted by both participants and, furthermore, that they can easily verify whether the invocations of the rules are correct.

328. Simple exchanges enable us to reflect on empirical reasoning in a simple setting, and, as we shall see, they help to bring to light important features of empirical argumentation. It should be stressed, though, that simple exchanges are highly specialized and cannot always serve as a substitute for other types of empirical exchanges. Sometimes it is necessary for the proponent to go beyond offering arguments in order to rationally persuade the opponent. For example, sometimes it is necessary to take the opponent on an extended expedition so that she can see things for herself. On the other hand, despite their limitations, simple exchanges can be powerful, for proponent's testimony can be rich; indeed, simple exchanges can radically transform the opponent's view.²¹

329. Let \mathcal{E} be a simple exchange, Q its focal proposition, e its grounding experience, v the view of the opponent in \mathcal{E} , and \mathcal{A} the simple argument offered in \mathcal{E} . Furthermore, let us assume that \mathcal{A} is of the form (1). Then, let us say that \mathcal{A} is a *simple empirical proof* (in brief, *a proof*) of Q relative to \mathcal{E} iff, for each i , $1 \leq i \leq n$, one of the following holds:

- (i) R_i is "Perceptual Judgment," and P_i is perceptually entailed by e relative to v (§75);
- (ii) R_i is "Proponent Testimony," and v commits the subject of e to P_i ,²² and

20. Ordinary empirical arguments are generally not simple; they appeal to reasons beyond the three in play in simple arguments. Nonsimple arguments have, nonetheless, simple counterparts. Any step P_i in a nonsimple argument that is derived from earlier steps using a nonlogical rule can be seen as derived instead through a *modus ponens* from the conjunction of the earlier steps and a conditional consisting of this conjunction as its antecedent and P_i as its consequent. Indeed, a further simplification is possible: all empirical arguments can be seen as resting on two rules: *modus ponens* and the hypothetical given.

21. Sometimes simple exchanges are the culmination of complex empirical debates in which each element of the proponent's testimony has been subjected to close critical examination and empirical verification.

22. Two different kinds of cases are distinguishable here, one in which the opponent already believes P_i and the other in which the opponent trusts the proponent, at least with respect to P_i .

- (iii) R_i is a standard logical rule and P_i is related to the specified earlier propositions as required by R_i .²³

Let us call Q *the conclusion of \mathcal{A}* , and let us say that *the (propositional) rational basis of Q* (and also *of \mathcal{A} relative to \mathcal{E}*) is the set of propositions P_i in \mathcal{A} ($1 \leq i \leq n$) whose justification is either “Perceptual Judgment” or “Proponent Testimony.” Let us call the grounding experience of \mathcal{E} *the (experiential) rational basis of Q* (and also *of \mathcal{A} relative to \mathcal{E}*).²⁴ Finally, if \mathcal{A} is a proof, let us call \mathcal{A} as well as its propositional and experiential bases *reasons for Q relative to \mathcal{E}* .

The example given in the previous section—call it *the Obama Argument*—can count as a simple empirical proof in the context of a simple exchange. And it can so count *as is*; it does not need to be refined in any way. The perceptual judgments occurring in the Argument do not need to be derived from any supposed immediate deliverances of the grounding experience. Furthermore, the argument and its constituent propositions do not need to be supplemented with a time parameter.

A different example: The presentation of a scientific paper can count as a presentation of an empirical proof.²⁵ A lecture detailing the distribution of various animals and their characteristics, including certain birds on certain islands, together with an account of the fossil record could qualify as a proof of the claim that animal species evolve.²⁶ Empirical proofs, as defined

23. The notion of proof can be extended to nonsimple empirical arguments by adding an additional clause:

- (iv) R_i is a reason different from those considered in (i)–(iii) and the subject of e accepts a material conditional whose antecedent is the conjunction of the steps cited in R_i and whose consequent is P_i .

More complex clauses that pay attention to the specific character of R_i are possible, but it is not necessary to explore them here.

24. As defined, propositions can fall in the rational basis of Q that are irrelevant to the acceptance of Q , for the argument may invoke perceptual judgments and proponent testimony that are irrelevant. (Such invocations do not disqualify the argument as a proof of Q .) Similarly, an experience can fall in the rational basis of Q even though it is irrelevant to the acceptance of Q . More refined notions of proof and rational basis can be constructed. The unrefined notions will suffice for our present purposes.

25. The presentation would need to be highly unusual for the proof presented to qualify as simple.

26. As defined, an empirical proof need not invoke any perceptual judgments. The present example can be expanded, though, to give perceptual judgments a useful role: the lecturer displays two fossils, one from the west coast of Africa and the other from the east coast of South America, and invokes their striking similarity as a part of his argument.

above, are not rarified things; they occur in ordinary argumentation as well as in scientific presentations.²⁷

Let us take note of some features of these proofs.

330. *The notion of empirical proof is relative to experience and, more particularly, to its phenomenology.* In general, whether an argument counts as a proof depends essentially on the opponent's experience and its phenomenology. The Obama Argument could well qualify as a proof if it is offered in a simple exchange in which the grounding experience is directed to Obama and his red tie. If, however, it is offered when the grounding experience is directed to Obama and his black tie, then the argument will not qualify as a proof—for step (ii) in the argument will fail to meet the required condition (assuming that the rest of the setup is ordinary). The argument will fail to be a proof also if the grounding experience is directed to Obama and his tie, but the tie, though red, manifests a black appearance. On the other hand, the argument could count as a proof even when the opponent is hallucinating Obama and his tie. Illusions and hallucinations can serve as rational bases for beliefs no less than ordinary experiences.

331. *The notion of empirical proof is essentially relative to view.* Whether an argument counts as a proof depends essentially on the opponent's view. The Obama Argument will qualify as a proof only if the opponent trusts the proponent's testimony about Obama's citizenship; otherwise, it will not. (The argument will not qualify as a proof for a birther, for example.) Furthermore, the argument will qualify as a proof only if the opponent's view establishes an entailment between her experience and the perceptual judgments in steps (i) and (ii).²⁸

27. A scientific paper cannot be regarded as an empirical proof, for the notion of proof is applicable only in the context of an exchange. The paper can, however, be regarded as a *proof-text* or a *proof-recipe* that can serve as the basis for enacting simple empirical exchanges within which a proof is presented (assuming the paper passes muster).

28. Mathematical proof can be understood from a purely formal standpoint, one that neglects the interpretation of nonlogical symbols (e.g., 'set' and 'membership'). In contrast, empirical proof, because of its relativity to view, cannot be understood from such a standpoint. With empirical proofs, it is sometimes essential that we attend to concepts expressed by the constituent nonlogical symbols as well as to such things as the connotations of the concepts relative to the opponent's view. The formal standpoint can, nevertheless, be fruitful in the empirical domain. Bayesianism, in particular, is a formal framework that provides useful modeling of some aspects of some empirical argumentation. Still, lacking as it does an ac-

In thinking about proofs, it is important to keep in mind the resources that are available for building proofs. In mathematics, the axiom system delineates the available resources; in the empirical realm, it is the view that delineates the available resources. The view determines the probative significance of experience as well as the scope of acceptable proponent testimony. If a stance were adopted that provides meager resources, then only meager proofs would be possible. (The birther and the solipsist, both, are fond of adopting such stances.)

The notion of reason, let us note, is also essentially relative. Whether an experience counts as a reason for a belief depends on the subject's view. The same can be said of "evidence": an experience may count as evidence for a belief relative to one view and fail to so count relative to a different view.

If the given in experience were propositional—that is, if experience by itself entailed perceptual judgments—then a nonrelative notion of empirical proof would be available. But the given is not propositional, and no nonrelative notion of empirical proof is available. I am arguing that none is needed.

332. Empirical proofs, unlike mathematical ones, cannot be regarded as surface manifestations of rigorous proofs. To assess an empirical argument, whether it occurs in ordinary reasoning or in a subtle scientific paper, one must attend to the views to which it is directed, to the views it aims to enrich or transform. For example, to appreciate the argument of an ancient astronomer we should ignore our assessments of what the astronomer knows and does not know, and should focus on the relationship of the argument to the views to which it is directed. The argument may, by our lights, rest on false premisses but may, nonetheless, bring about a valuable and ingenious enrichment of the ancient views about the night sky.

For another example, consider an inductive argument about a newly discovered species of animal, *K*:

This *K*, x_1 , has a heart. This other *K*, x_2 , has a heart. . . . That *K*, x_n , has a heart. Therefore, every *K* has a heart.

count of experience and of its relationship to concepts and judgments, Bayesianism lacks the resources needed for providing a full understanding of even simple empirical reasoning. See John Earman's *Bayes or Bust?* for an exposition and assessment of Bayesianism.

This argument will not count as a proof relative to some views; for example, it will not count as proof relative to skeptical views. Still, the argument will count as a proof relative to other views, including our ordinary view. Inductive arguments are not formally valid, but some of them can, nonetheless, count as proofs relative to some views.²⁹

Empirical argumentation, both ordinary and scientific, aims to bring about rational *transitions* from certain sorts of views. It does not concern itself with the rationality of the initial views, nor with the rationality of the resulting judgments and beliefs.

It is an absolutist conception of empirical reasoning that has encouraged logicians to look for special empirical rules of inference (e.g., induction and inference to the best explanation). And it is the same conception that has made it difficult to formulate these rules in a way that renders them both precise and plausible.³⁰ I am suggesting that to understand empirical reasoning we do not need special rules of inference. We need, instead, to attend to views to which such reasoning is directed.³¹

333. The relativity of proof to view opens up space for this possibility: the argument a proponent offers in the course of an exchange, though it is a proof relative to the opponent's view, fails to be one relative to the proponent's view.

29. Sometimes an inductive argument leads not to an outright acceptance of its conclusion, but to "hypothetical acceptance"—as something to be taken into consideration but not to be used freely in reasoning. Later argumentation may convert the hypothetical acceptance to an outright acceptance. For example, a series of experiments with gases may suggest a conclusion that we call "Avogadro's Hypothesis," but which we are unable to accept unconditionally. Further experiments and argumentation may transform our attitude and lead us to rename the conclusion "Avogadro's Principle." I reflect below on one process that effects such conversions (§§348–349).

30. See Bruce Aune, *An Empiricist Theory of Knowledge*, chapter 6, for a short but useful discussion of the difficulties. For a fuller account, see John Vickers, "Problem of Induction," and the works cited there.

31. The problem of induction, as Hume formulates it in the *Enquiry*, assumes an absolutist conception of empirical reasoning:

As to past *Experience*, it can be allowed to give *direct* and *certain* information of those precise objects only, and that precise period of time, which fell under its cognizance: But why this experience should be extended to future times, and to other objects, which, for aught we know, may be only in appearance similar; this is the main question on which I would insist (§4).

It is at the heart of the absolutist conception that experience, by itself and independently of view, provides information about objects.

This failure may be acceptable in some cases, but it is not always acceptable. If, for example, the argument is offered not to persuade the opponent but only to bring her to recognize a commitment, the failure may well not be a cause for concern. For another example, suppose that the proponent knows the color of Obama's tie but does not himself see the tie. Now the Obama Argument will not count as a proof relative to the proponent's view, for step (ii) will fail to meet the required condition; but, again, this is not a cause for concern. On the other hand, there are cases where the failure suggests paternalism, and even deception, on the proponent's part. Suppose that, in the course of arguing that the economy is improving, the proponent fails to mention the signs he takes to point to a deteriorating economy. The argument mounted may be persuasive, but it would also be deceptive if the omitted signs are significant. Let us call an argument \mathcal{A} offered in a simple exchange \mathcal{E} *honest* iff the proponent of \mathcal{E} accepts the propositions in the rational basis of \mathcal{A} and, furthermore, the proponent does not omit any considerations from \mathcal{A} that he takes to count against the conclusion of \mathcal{A} . Honesty is a plausible requirement on arguments offered in the course of many empirical debates, though, I grant, not all of them.

334. *An empirical proof can substantially enrich a view.* Indeed, a series of empirical proofs can, without relying on proponent testimony, transform a sparse and narrow view into a rich and broad one. Enrichment of view is the typical consequence of empirical proofs as well as of good empirical exchanges. One is told new things and one is shown new things, and one's view is richer. Empirical argumentation is marked not so much by its depth, at least when compared to mathematical argumentation, as by its breadth. In mathematics, it is subtle and deep argumentation, carried out with highly limited resources, that can have eye-opening consequences. In the empirical realm, it is argumentation built on extensive and careful observations, conducted over a far-ranging domain, that can have the same kind of effect.

335. *An empirical proof can establish the existence of an unobservable.* The opponent may be shown a box and testimony offered concerning experimentation with the box under various circumstances such as the vibrations produced when the box is shaken in certain ways and the volume of water displaced when the box is put in a bathtub. The conclusion of the argument may be that the box contains exactly one item, namely, a nugget of gold.

The nugget may be unobservable, yet the argument may count as a non-aporetic proof relative to the opponent's view. Note that the grade of unobservability of the gold nugget is irrelevant to the probative force of the argument. The force would remain the same whether the opponent judges it to be only practically impossible to break the box open to reveal the nugget or whether the impossibility is judged to be rooted in physical law.³²

336. *An empirical proof can put a subject in an aporetic state; see §80 for an example.* Here empirical proof differs from its mathematical counterpart. If one begins with a coherent starting point, mathematical proof will never burden one with inconsistent commitments. Not so with empirical proof. An empirical proof can put one in an aporetic state even when one begins with a coherent view.

337. *An empirical proof can result in subtractions from a view.* In the Obama example, the opponent may antecedently have accepted, on the basis of ordinary testimony, the negation of the conclusion. The Obama Argument can lead the opponent to change her view and accept the conclusion instead. More complex arguments can bring about more radical subtractions from a view. They can effect, for example, a shift in items that are regarded as real. A visible object, which was initially taken to be a man, may in light of the argument come to be regarded as a mere image.

32. A real-life example of this kind of argument can be found in the century-long debate over the reality of atoms—a debate that began with John Dalton's discovery of the law of multiple proportions and his postulation of atoms, that continued through the development of the kinetic theory of gases by James Clerk Maxwell and Ludwig Boltzmann among others, and that culminated in Albert Einstein's and Jean Perrin's investigations of Brownian motion. Perrin provides a lovely account of the argument and its history in his book *Atoms*. (A briefer account can be found in Perrin's lecture "Discontinuous Structure of Matter.") Perrin's own contribution to the debate was to establish the sizes of molecules through a painstaking study of Brownian motion of microscopic particles suspended in various kinds of liquid. Perrin's experimental work was powerful enough to persuade skeptics such as Henri Poincaré of the existence of atoms.

A few general observations about the argument establishing the reality of atoms: (i) It is not absolute. Like all empirical arguments, ordinary as well as scientific, it is directed to, and is efficacious with respect to, only certain views. (ii) The argument does not answer, and does not aim to answer, all possible skeptical challenges to the atomic hypothesis. This fact does not in any way diminish the force of the argument with respect to the views to which it is directed. (iii) The probative force of the argument is not affected by the grade of unobservability that is attributed to atoms.

338. Proofs must satisfy a certain constraint if they are to sustain changes in view. A precise formulation of the constraint is difficult. I shall only motivate the constraint, without attempting a precise formulation. Imagine a subject Y who goes to her ophthalmologist for an eye examination. After some tests, the ophthalmologist hands Y a test sample and tells her that if the sample turns red after two days, then Y is suffering from severe problems with her color vision, problems that interfere with the perception of the true color of things. (Let ' Q ' abbreviate the consequent of this conditional.) At the end of the specified two days, Y looks at the sample and issues the perceptual judgment "the test sample is red" and goes on to conclude Q . Plainly, something has gone wrong here. The conclusion Y reaches undermines the reasoning by which Y reaches the conclusion. Y 's new view does not entail the perceptual judgment "the test sample is red," which was a part of the rational basis that led Y to conclude Q .

The example motivates the following definition. Suppose \mathcal{E} is a simple exchange, and \mathcal{A} is the argument offered the opponent, Y , in \mathcal{E} . Suppose, further, that v is Y 's antecedent view, and \mathcal{A} qualifies as a proof relative to v . Finally, suppose that the exchange prompts Y to accept the focal proposition and arrive, thereby, to a new view, v^* . Then, \mathcal{E} is *stable* iff \mathcal{A} qualifies as a proof relative to v^* .

It is a tempting thought that stability of exchange is necessary and sufficient for its argument to sustain the acceptance of the conclusion. But stability is not a necessary condition. For the argument in the exchange may contain intermediate steps such as "it is now exactly 5:00 P.M.," which are not entailed by v^* , even though the argument sustains the acceptance of the conclusion. Moreover, stability is perhaps too weak to serve as a sufficient condition. For it may be that the argument is a multiple-step affair, and there are local violations of stability that undermine the move to the conclusion.³³

339. *The conclusion of an empirical proof may be false*, for some of the propositions in the rational basis of the proof may be false. Nonetheless, the following is true: if the propositions in the rational basis are true (rela-

33. To spell this out a bit, suppose $\langle P_i, R_i \rangle$ is a step in the argument. It can happen that the step meets the requirement imposed by the notion of proof relative to the initial view as well as the final view, but not relative to the view at which the subject arrives at stage i . This instability may undermine the move to the conclusion.

tive to their respective parameters; henceforth, I suppress this qualification) then the conclusion of the proof must be true. We can also say that if the antecedent view is correct (§83), then again, the conclusion must be true.

Two consequences of all this are worth noting. First, empirical proof does not presuppose acquaintance with the world—nor, indeed, any capacity to know the world. The rational effectiveness of a proof does not depend on whether the opponent knows the truth of the propositions in the rational basis. Furthermore, empirical proof does not necessarily yield knowledge. If a subject comes to accept a conclusion on the basis of an empirical proof, she does not necessarily *know* that conclusion. Let us observe also that there is no a priori guarantee that subjects pursuing rational empirical inquiry will, in the long run, reach truth. There is no a priori guarantee that they will even reach convergence. No such a priori guarantees are needed to pursue empirical inquiry in a cooperative and rational way.³⁴

Second, in the empirical realm, rational disagreement is quite possible; hence, the falsity of a subject's empirical belief does not reflect poorly on the subject's rationality. Two subjects may each have pursued empirical inquiry faultlessly and yet may disagree with one another. In mathematics, it is otherwise, as we saw above. If two mathematicians reach contrary judgments on the basis of their mathematical proofs, then one of the proofs must contain an error and one of the mathematicians must have made a mistake.

340. *Empirical proof does not rest on heavy presuppositions*, presuppositions such as “the senses and / or our methods of forming perceptual beliefs are generally reliable,” “the course of nature is uniform,” and “perceptual judgments are likely to be true.”³⁵ The Obama Argument, for example,

34. A “knowledge-first” approach, however useful it may be elsewhere, is not a fruitful one for understanding empirical reasoning. For an exposition of this approach, see Timothy Williamson, *Knowledge and Its Limits*.

35. According to Alston, no person who rejects the reliability of sense experience can accept ordinary perceptual judgments. Alston calls the reliability of sense experience an “epistemic presupposition” of perceptual beliefs, and he sees the presupposition as generating a circularity in justification. See his “Epistemic Circularity,” pp. 328–329. (I myself do not think that there is any circularity of the sort claimed by Alston.)

Russell claims in *Problems of Philosophy* that “all arguments which, on the basis of experience, argue as to the future or the unexperienced parts of the past or present, assume the inductive principle” (p. 68).

can serve as an empirical proof, but no proposition in it implies or presupposes any of these heavy (and murky) claims. The rational effectiveness of the Argument is not damaged if the opponent rejects these claims. Furthermore, the claims are not useful in meeting legitimate challenges that might lodged against the Obama Argument. For the claims, if invoked, would generate legitimate challenges that are harder, if not impossible, to meet.

Empirical proof does not require that experiences belong to a specific ontological category, such as state, action, and process; nor does empirical proof require that inquirers agree on the ontological category of experience. Furthermore, empirical proof does not presuppose that inquirers agree on the items presented in experience. The probative force of the Obama Argument remains intact even if the participants in the exchange disagree over the ontological category of experience, over the account of experience, and over the items to which experience is directed.

Finally, empirical proof does not require that objects manifest the same appearances to the inquirers. One inquirer may possess exceptionally sharp color vision and the other may be color-blind; still, they can engage in a cooperative empirical inquiry and can offer one another empirical proofs (including those about the colors of things).

10C. COMPELLING EMPIRICAL PROOFS

341. One feature of empirical proofs merits extended discussion: *an empirical proof can be compelling*. An empirical proof, like its mathematical counterpart, can sometimes leave the subject no other option but to accept its conclusion. The Obama Argument, for example, can force a specific change in view; the Argument can force the subject to accept the conclusion in place of its negation.

Surprisingly, even though it goes against manifest fact, the idea of *voluntarism* has gained currency in philosophy—the idea that *all* rational changes

Recall Sellars's claim in "Structure of Knowledge" (III.45) that we must accept the likely truth of perceptual judgments "*to be thinking and perceiving beings at all*" (see footnote 22 in Chapter 2 above). Recall also Elizabeth Asmis's interpretation of Epicurus (mentioned in footnote 23 of Chapter 2). According to Asmis's Epicurus, we must accept that all perceptions are true because otherwise there would be no way of conducting any inquiry.

in view are optional; that in any rational change, the subject invariably has choices. Thus, van Fraassen claims in his *Empirical Stance*:

Changes in view are not rational because they are rationally compelled; they are rational exactly if they are rationally permitted, if they do not transgress the bounds of reason. (p. 92)

Quine also makes a similar claim, as we saw earlier. “Our statements about the external world,” Quine tells us, “face the tribunal of sense experience not individually but only as a corporate body.” Furthermore, “A recalcitrant experience can . . . be accommodated by any of various alternative reëvaluations in various alternative quarters of the total system.” Quine mentions “pleading hallucination” as a possible reevaluation when one is faced with recalcitrant experience.³⁶ The existence of alternative reevaluations leads Quine to advocate a pragmatic conception of empirical rationality:

Each man is given a scientific heritage plus a continuing barrage of sensory stimulation; and the considerations which guide him in warping his scientific heritage to fit his continuing sensory promptings are, where rational, pragmatic. (“Two Dogmas of Empiricism,” p. 46)

It is an obvious fact, however, that empirical proof sometimes forces specific changes in view, and it does so without the aid of any pragmatic considerations and without requiring any assessment of the total system.³⁷ How can good thinkers be led to deny the obvious?

342. Erroneous conceptions of experience and empirical reason, I think, have led philosophers astray here. Van Fraassen, for example, favors a coherence theory of rationality, according to which coherence is the only constraint

36. “Two Dogmas of Empiricism,” pp. 41, 44, and 43; quoted earlier in §103.

37. I myself do not know of any instance of empirical reasoning that requires an assessment of the total system, such as its simplicity. Thanks to axiomatization, we have some sense of what the total mathematical system comes to, and we can make some rough comparisons between alternative mathematical systems. However, I, for one, have no sense of how to compare total empirical systems, and I have never seen any plausible empirical argument that appealed to such a comparison.

on rational belief. In “False Hopes of Traditional Epistemology,” van Fraassen sums up his position thus:

We supply our own opinion, with nothing to ground it, and no method to give us an extra source of knowledge. *Only the ‘empty’ techniques of logic and pure math are available either to refine and improve or expose the defects of this opinion.* That is the human condition. But it is enough. (p. 279; italics added)

If “the ‘empty’ techniques of logic and pure math” are the only resources available for improving opinion, then, yes, there are always choices. However, van Fraassen is overlooking the most vital resource: experience. Experience makes a robust rational contribution to empirical thought, both in exposing defects in our view as well as in guiding its improvement. Experience can force a specific revision in a view.³⁸

343. Quine assimilates experiences with “barrages of sensory stimulation” and acceptance of view with assent to sentences. If this assimilation were correct, then, yes, there could always be multiple alternatives open in empirical revision. The sensory barrage impinging on an organism together with the organism’s antecedent dispositions to assent may well not fix, it is easy to imagine, consequent dispositions to assent; some other factor would need to be in play to fix consequent dispositions.³⁹ However, whatever the attractions of the Quinean assimilation, they are confined solely to the context of a naturalist inquiry; they have no plausibility whatsoever within the logical inquiry, in which we are at present engaged.⁴⁰

38. It is remarkable that van Fraassen, one of the most prominent empiricists today, assigns little or no role to experience in empirical inquiry. Van Fraassen seems keen to preserve only one element in earlier empiricist thinking, namely, its anti-metaphysical stance. My own inclination is to jettison this element while preserving the idea that experience plays a vital rational role.

39. If one subscribes to a syntactic conception of theories, whereby theories are simply sets of accepted sentences, then, perhaps, there are always many options to choose from in empirical revision. This conception of theories, though fruitful in mathematics, is completely out of place in the empirical domain, however. Rational revision of an empirical theory depends on the theory’s interpretation. Hence, interpretation is internal to theory acceptance, not external to it. Interpretation is not something imposed once the theory is accepted; instead, interpretation is in play in the very acceptance of the theory.

40. For a more specific critique of Quine’s conception, see my *Empiricism and Experience*, part 2E.

344. Another idea, perhaps the most entrenched one, that leads philosophers to deny that empirical proof ever possesses compelling force is an absolutist conception of empirical reason: an argument that is compelling for one thinking subject, the idea has it, must be compelling for *all* thinking subjects. Hence, if there is a possible view relative to which an argument is not compelling, then it is not compelling at all. But, for any genuinely empirical argument, one that aims to add synthetic content to a person's view, such a view is always possible. (For example, the Obama Argument is not compelling relative to a view according to which the subject is hallucinating.) It follows that no genuinely empirical argument is compelling for all thinking subjects. Hence, the thought goes, none is ever compelling for any thinking subject.

There is an error in this line of thought. The fact that an empirical proof is not compelling for one subject (say, one who holds a view according to which he is hallucinating) shows nothing about whether it is compelling for a different subject (say, one who holds a view according to which she is in a normal condition). The failure to be compelling for the first subject does not mean that this subject's view is an available option to the second subject as she responds to the proof. The second subject may have no option but to accept the conclusion of the proof.⁴¹ "Absolute" and "compelling" are, in short, different features of proofs. A proof can fail to be absolute and can, nonetheless, be compelling.⁴²

345. Some related lines of thought that lead philosophers to deny the compulsiveness of empirical proofs are these: (i) Every genuinely empirical argument is subject to unanswerable challenges. Hence, no empirical argument compels its conclusion. The premiss of this argument is true if it is read as saying that for every genuinely empirical argument there are one or more views relative to which unanswerable challenges can be issued. The conclusion does not follow, however, without assuming absoluteness of challenges.

41. Similarly, the fact that a future course of experience could lead the subject to view her present experience to be a hallucination does not mean that this view is an available option to her right now.

42. An analogy: A force has no one specific effect on all bodies. The effect of a force is invariably relative: the force moves some bodies one way, and other bodies a different way. Still, given a particular body, the force can move it in one specific way. Similarly, an empirical argument has no one specific effect on all views; its effect can vary from view to view. Still, an empirical argument can move a particular view to the acceptance of its conclusion.

Relative to the view to which the argument is directed (in the course of an exchange), there may well be no unanswerable challenges.

(ii) Evidence invariably underdetermines theory; hence, the acceptance of a particular theory always involves choice and, consequently, so does all theory revision. On some conception of evidence—for example, those on which evidence is identified with experience—the premiss of this line of thought is true. But the transition to the conclusion is invalid. For there are factors other than experience—for example, actions and antecedent view—that determine theory revision, and the possibility remains that these factors leave no room for choice.

346. The idea that in empirical revision there are always choices rests, then, on erroneous conceptions of experience or reason or both. Indeed, the actual situation is quite the opposite. Often there is only one option available, and sometimes, when empirical proof puts the inquirer in an aporetic state, there appear to be *no* viable options. The problem facing such an inquirer is not that of choosing one revision from several viable alternatives; the problem is to find even *one* alternative that is viable. (Quine's "pleading hallucination" is rarely a viable way out.) Sometimes the discovery of a viable alternative involves a radical reconception of the world and our place in it—a reconception that is unique and that requires a creative genius to bring to light.

347. Let us reflect on the logical processes that can be in play in reconceptualizations prompted by aporia. To begin with, let us generalize the notion of proof to that of **derivation**: in a derivation, one may appeal, in noninferential steps, not only to perceptual judgments and proponent testimony but also to a *hypothesis*. We may think of derivations as products of simple exchanges in which participants *hypothetically accept* a proposition and go on to reason on its basis. Note that perceptual judgments issued under a hypothesis can be different from those issued in categorical contexts, for the views brought to bear on experience in the two situations can be different.

Let *v* be an aporetic view, and let the totality of propositions involved in the aporia, *the aporetic propositions*, be *C*. The propositions in *C* are entailed by the aporetic view in conjunction with the relevant experiences. Now, a rational revision of *v* can sometimes be gained through the following five steps. First, there is a *discovery of a hypothesis*: a hypothesis *H* is discovered

that divides C into two nonoverlapping parts, *the preserved propositions*, C^+ , and *the rejected propositions*, C^- . Hypothesis H allows the derivation (possibly in conjunction with the relevant experiences) of the preserved propositions C^+ but blocks the derivation of the rejected propositions C^- . Furthermore, H makes available explanations of why the rejected propositions seemed initially to be true. Second, there is an *inversion of the derivation*: one shows that hypothesis H can be derived from C^+ together with minimal assumptions that are already a part of view v . Third, a *coherence with common practices* is established: one shows that the hypothesis can be accepted and, at the same time, common practices preserved, at least within certain acceptable bounds specified by the hypothesis. This coherence does not preclude a rejection of claims highly entrenched in v . Fourth, an *absence of alternatives* is noted. It is observed that no other hypothesis is available for which the previous three steps can be carried out. Fifth, and finally, there is *the conversion of the hypothetical to the categorical*. One resolves the aporia by accepting outright the hypothesis H together with the consequences C^+ and by rejecting propositions C^- . We can call this five-step process *the internal empirical resolution of aporia*.

348. The five-step process is best appreciated through an example. Imagine that in ancient times, around the time of Pythagoras, geographers find themselves in an aporetic state. The surveys of distances separating various cities and landmarks reveal violations of the Pythagorean theorem. The surveys reveal, for example, that there is a city Y directly north of a city X at a distance of 3,000 stadia and a city Z directly east of X at a distance of 4,000 stadia, but the distance between Y and Z is significantly less than the 5,000 stadia that the Pythagorean theorem would lead one to expect. The geographers accept, let us imagine, the teaching of Anaximenes of Miletus, a predecessor of Pythagoras, that the earth is flat,⁴³ and find themselves in an aporetic state, one that they cannot easily escape. They cannot, for example, attribute the anomaly to the terrain between X and Y or to the inaccuracy of their measurements. Furthermore, let us imagine that the anomaly is not an isolated occurrence; the pattern exhibited in it repeats with numerous other triads of cities and landmarks.

43. Thomas L. Heath, *Greek Astronomy*, p. 11.

Let us see how a five-step process of the sort outlined above can lead to the resolution of the aporia.

(i) **DISCOVERY OF THE HYPOTHESIS.** The inspired hypothesis H is put forward that the earth is a sphere with a particular diameter, d stadia, where d is a large number. It is shown that the measured distance between cities Y and Z can be derived from this hypothesis on the basis of the location of X relative to Y and Z . The same is shown for the other triads, problematic as well as unproblematic. It is shown also that the hypothesis does not permit derivations of some of the claims involved in the aporia (e.g., that the earth is flat). The hypothesis thus divides the aporetic propositions C into two parts, the preserved propositions C^+ and the rejected propositions C^- . Hypothesis H explains the apparent truth of the rejected propositions, let us imagine, by appealing to the largeness of the earth's diameter. For example, the apparent truth of the proposition that the earth is flat is explained by observing that the curvature of the earth is too small to be perceptible in everyday circumstances.

(ii) **INVERSION OF THE DERIVATION.** The hypothesis H is deduced from C^+ using a minimal claim—for example, the claim that the earth has a surface whose shape is the same everywhere (if one ignores small local irregularities such as mountains). This claim is implied by, and is much weaker than, the claim that the earth is flat. The inversion shows that the aporetic view is already committed to the hypothesis H .

(iii) **COHERENCE WITH COMMON PRACTICES.** It is shown that the acceptance of H allows the preservation of much of common practice. So, for example, it is observed that one need not change the connotation one associates with the two-place predicate 'up', nor need one change many of the familiar ways of working with this predicate in everyday situations. One can give the same old instructions for the same old jobs (e.g., "change the light bulb up above the stove"). Some familiar ways of working with the predicate may well need to be confined within certain bounds derivable from H . So, for example, one may no longer unrestrictedly transition from judgments "I saw that b was above a " and "he saw at the same time that d was above c " to the judgment "at that time, the straight line joining b and a was parallel to the

one joining *d* and *c*.” Such transitions are legitimate only under certain conditions set by *H*.

Let us note that while common practices are mostly preserved, the hypothesis entails a substantial shift in the conception of the self and the world and, relatedly, in ontology. Before, the binary concept “up” qualified as perspicuous, but later it is ruled nonperspicuous. Before one could take “*b* is up above *a*” as a fact that is presented to consciousness in an experience, but not later. The hypothesis thus entails a shift in one’s conception of presentation.

(iv) ABSENCE OF ALTERNATIVES. One observes that there are no competitors to *H* with comparable properties. In particular, the flat-earth hypothesis is unable to explain the apparent violations of the Pythagorean theorem.

(v) CONVERSION OF THE HYPOTHETICAL TO THE CATEGORICAL. One accepts *H* outright and rejects the propositions in *C*[−]. One goes on to adjust one’s common practices so that they are in accord with *H*.

The five-step process delivers a unique resolution of the aporia, and this resolution is forced. The subject has no choice but to change her view and accept that the earth is spherical in shape.⁴⁴

349. The example brings to light some noteworthy points:

(i) The geographers’ view becomes aporetic as a result of their observations. The view was not aporetic initially, but it became aporetic as the geographers’ surveys expanded to include more cities and landmarks. The tendency to become aporetic when incorrect is a good feature of a view. Solipsism lacks the feature, and this is a mark against it. Our commonsense view possesses the feature in abundance, and this is one of its strengths.⁴⁵

44. According to some ancient authorities, Pythagoras was the first to declare the earth spherical. We do not know, though, how Pythagoras arrived at this conclusion. I am not proposing the above story as a reconstruction of his reasoning.

45. The condemnation of commonsense conceptions is a recurring theme in the Idealist tradition. Thus, Berkeley condemned the notion of material object as incoherent. The later British Idealists (e.g., F. H. Bradley) attempted to show of various commonsense notions (e.g., those of space, time, and relation) that they are self-contradictory. I myself have not found the Idealist arguments here persuasive, and I do not think that the commonsense view is inherently incoherent. However, there is a truth in the neighborhood of the Idealist claims: the

(ii) Precision in measurements and the repeatability of measurements play an essential role in generating the aporia as well as in enabling its resolution. Without precision and repeatability, outcomes of measurements that generate the aporia would command little confidence. Furthermore, the outcomes would be too scattered to permit the discovery and deduction of a suitable hypothesis. Precision and repeatability are rightly valued in empirical thinking, for they play a vital role in our gaining a better conception of ourselves and of our situation in the world.

(iii) Mathematics, too, plays an essential role in the above example, both in bringing to light the aporia and in its resolution. The Pythagorean theorem is crucial in the generation of the aporia, and the geometry of the sphere is crucial in the discovery of the hypothesis and in its deduction. More generally, mathematics provides an indispensable tool for figuring out the consequences of abandoning entrenched assumptions. Without the precision of mathematics, it would be impossible to gain a clear idea of the consequences of abandoning, for example, the absoluteness of simultaneity.

(iv) The mathematical argumentation in the five-part process can be formalized but not the process as a whole. Here, one cannot abstract away the denotations and connotations of symbols and the specific concepts the symbols express.

(v) The minimal claim used in the inversion step can be substantially weakened. Instead of deducing H from the claim that the surface of the earth has the same shape everywhere, one could deduce it from the weaker claim that the shape is uniform within each of n regions in a specified partition of the earth's surface. The former deduction needs information only from one aporetic triad to deduce H ; the latter needs information from n suitable triads for the deduction. By weakening the claim further we can make the deduction yet more empirical. The weaker claim could lead us to shift the shape attributed to the earth from spherical to spheroid, for example, if measurements so warranted it.

(vi) The resolution of an aporia by the above method can be so compelling that one accepts the resolution even though it generates new aporia. Thus, it may become rational to accept that the earth is spherical in shape even though the idea generates difficulties elsewhere—for example, in one's

commonsense view can become self-contradictory when enriched with certain experiences. This feature deserves to be applauded, I think, not condemned.

physics. To shift to a different example, the Copernican resolution of astronomical aporia can compel acceptance even though it generates new dynamical aporia that would take a Galileo and a Newton to resolve.

350. Empirical argumentation can be as compelling as mathematical proofs. Just as we have no choice but to accept that the Pythagorean theorem is true of Euclidean space, similarly we have no choice but to accept that the earth is roughly spherical in shape, that measles are caused by a virus, and that water is not a continuous substance but consists of molecules widely separated from one another. No account of empirical argumentation is acceptable that fails to acknowledge its compulsive force.

The principal difference between empirical proofs and their mathematical counterparts is this: mathematical proofs possess an absoluteness that is lacking in the former. The standard governing mathematical proofs is fixed (at least as far as mainstream mathematics is concerned). Empirical proofs, on the other hand, are essentially relative to view. This difference does not entail any difference, however, in the compulsive force of the two sorts of proof.

351. The account of experience and reason put forward here provides great theoretical freedom: it allows the theoretician freedom to fundamentally reconceive nature and our place in it. At the same time, the account grants empirical reason great power to constrain: empirical reason can necessitate a particular conception of the self and the world. It is a singular virtue of the account offered here that it delivers both theoretical freedom and rational constraint.

The General Logic of Empirical Dialectic

THE RELATIVITY OF empirical proof, discussed in the previous chapter, implies a substantive distinction between rationality and dialectical power, and in Part 11A below, I draw attention to some of the consequences of this distinction. The distinction implies, in particular, freedom from certain, seemingly plausible, dialectical demands. In Part 11B, I go on to propose an alternative demand, Ur-Convergence, as governing empirical dialectic. I conclude, in Part 11C, with a summary statement of the logical features of empirical dialectic that emerge in the course of this and earlier chapters.

11A. RATIONALITY AND DIALECTICAL POWER

352. Two distinct sorts of evaluation of a subject's view of the world are of special interest. One sort of evaluation pertains to *how* a subject, *X*, arrived at his view or might have arrived at his view. This sort of evaluation requires an assessment of, among other things, the arguments by which *X* arrived at, or might have arrived at, the view. The other sort pertains to *what*

dialectical capacity the view imparts to *X*: which actual or possible opponents does the view enable *X* to persuade—and of which propositions. This sort of evaluation requires an assessment, among other things, of the arguments the view makes available. The first sort of evaluation concerns, in part, the arguments that *lead to* the view; the second sort, the arguments that *issue from* the view. The first sort of evaluation falls under the rubric of *rationality*; the second sort, under the rubric of *dialectical power*.

353. In general, the greater the breadth and accuracy of a view, the greater its dialectical power. If one's view pronounces on the location of Packet #22 and the color of the balloons in it and, furthermore, these pronouncements are true, then one would be in a better position to persuade some individuals—not necessarily all—of the proposition “not all balloons in Packet #22 are yellow.” For example, in an empirical debate centered on this proposition, one might issue the following *empirical directive* to an opponent:

Go to the chest of drawers behind you. Take out the packet marked ‘Packet #22’ from the top drawer. Open the packet and look at the balloons inside. Observe that some balloons in the packet are green. Conclude that not all the balloons in Packet #22 are yellow.

So long as one's view is accurate in the relevant parts, these instructions can be expected to lead to a rationally effective exchange. Furthermore, if one's view is richer and one has true beliefs about lighting conditions, one would be in a better position to meet certain challenges that may be issued in the course of the empirical debate.

In general, the capacity to bring about rationally effective exchanges increases when one's view is broader, more accurate, and conceptually clearer—and, it may be added, when one understands better the logic of empirical dialectic.

354. Assessments of rationality concern not the arguments and reasons that the view enables one to offer but the exchanges, arguments, and reasons that led one, or might have led one, to the view. Such assessments can be more or less broad in scope and more or less liberal. *First*, breadth of assessment. In assessing the rationality of one of *X*'s beliefs, say, we can assess not only the particular arguments and exchanges that led *X* to the belief, we

can assess also how *X* arrived at the beliefs that form the rational bases of, or are presupposed by, those arguments and exchanges. And we can iterate this process down *X*'s rational life, perhaps even to his childhood. If one or more essential steps in the process by which *X* reached the belief are fallacious or otherwise improper, we can deem *X*'s belief irrational; otherwise, we can deem it rational. (Less strict assessments that do not extend very far back are also possible.) *Second*, liberality. Instead of focusing solely on the arguments and exchanges by which *X* arrived at his belief, we can consider also the reasonings that are or were available to *X*. *X*'s actual reasoning may have been fallacious, but if nonfallacious reasonings to the same conclusion were available to him (or readily available to him), we may still deem *X*'s belief rational—in one sense. Plainly, several different standards are available by which we can assess the rationality of a view and of its constituents.

355. Suppose *X* arrives at his belief that *Q* through a series of exchanges that include empirical arguments. We can call the propositional bases of these arguments *X*'s *propositional reasons for Q*, and we can call *X*'s experiences that ground the perceptual judgments invoked in the arguments *X*'s *experiential reasons for Q*. We can say that *X*'s propositional reasons for *Q* are *logically good* iff the arguments in which the propositional bases figure qualify as valid. More liberal assessments of logical goodness are possible, as also are assessments of goodness along other dimensions. One point deserves emphasis. Questions concerning the rationality of a subject's belief are not, in general, reducible to questions about the goodness of the subject's propositional reasons for the belief. Rationality of a belief can depend on a complex set of factors, including the rationality of various actions, that extend far beyond propositional reasons and the varieties of their goodness.

356. The two dimensions of assessment, rationality and dialectical power, are substantially different, at least in the empirical domain. One may have come to accept a proposition, *Q*, on the basis of the most careful and error-free empirical inquiry, yet one may not be in a position to persuade others of *Q*. Provision of a persuasive argument in the empirical domain requires, in general, greater (or, at any rate, different) resources than those deployed in coming to accept *Q*. For here one needs to provide a path, so to speak, that the opponent may follow to rationally reach *Q*. The fact that one has oneself followed a rational path to reach *Q* does not mean that one is in a

position to provide rational guidance that would enable others to reach Q . (Analogy: One may have reached a mountain peak on the basis of one's know-how, but may be unable to provide instructions to others, situated in their different locations on the mountain, to find their way to the peak. Working up the instructions that can guide others requires different resources than those required to reach the peak oneself.)

In the empirical domain, then, rationality does not imply dialectical power. Equally, dialectical power does not imply rationality. A subject may put irrational faith in a book that accidentally provides an accurate account of the world. The subject has no good reasons for his faith, yet he would possess dialectical power.

In mathematics, with its rigorous notion of proof, the distinction between the two dimensions of assessment is not so substantial. If a subject arrives at the mathematical belief that Q with the aid of a rigorous proof, then she has the capacity to persuade others of Q . Conversely, if she can persuade others of Q with the aid of a rigorous proof, then there is available to her a way of reaching Q that is faultless.

357. The relativity of empirical reason renders it necessary to distinguish several different relations of dependency. Suppose, for simplicity, that a subject Y arrives at an empirical belief Q through a simple exchange. Then the following notions are all distinct:

- (i) *Rational propositional basis for Q* . This is the propositional basis of the argument by which Y arrives at the belief Q . So, if Q is a perceptual belief then the rational propositional basis for Q is empty.
- (ii) *Rational dependence basis for Q* . This consists of the propositions R the subject accepts that satisfy the following condition: if the subject's acceptance of R is not rational then the subject's belief is not rational either. A perceptual belief, for example, may bear rational dependency to many other beliefs, but none of these would belong to the rational propositional basis of the belief (see §105).
- (iii) *A proof basis for Q relative to a view v* . Suppose that Y can give an argument to convince a person who accepts view v of proposition Q . Then the premisses of this argument constitute a proof basis for Q . The proof basis depends on the view v to which the proof is directed

and, generally, it is distinct both from the rational propositional basis and from the rational dependence basis for Q .

- (iv) *Epistemic basis for Q in a context c* . Assuming that, in context c , Y rightly claims to know that Q , the epistemic basis consists of those propositions whose knowledge justifies Y 's claim that Q . This notion, too, is distinct from the previous three. Observe, for example, that epistemic basis can sometimes coincide with rational propositional basis and sometimes with proof basis. This sort of variability is found even with mathematical beliefs. A mathematician who arrives at a mathematical belief Q through fallacious reasoning can, in a dialectical context, rightly claim to know that Q if she is prepared to provide a proof of Q . Knowledge claims sometimes track dialectical power.¹

358. The gap between rationality and dialectical power has important consequences for empirical dialectic. If, in an empirical debate, one participant, Y , challenges the other, X , to establish the truth of one of X 's beliefs, X may decline the challenge without harming his dialectical position. The failure to meet the challenge does not reflect poorly on the rationality of X 's belief.² The situation is quite different, it should be noted, if the challenge is issued in the course of X 's *attempt to persuade*. Now the challenge is consequential if it is directed to a claim to which X appeals but which Y does not accept. Failure to meet the demand in this situation puts in jeopardy the success of X 's attempt to persuade. It is important to mark the context of a demand for proof in an empirical debate: the demand is consequential only in certain contexts (e.g., when one is attempting to persuade); it is inconsequential in others.

359. We have a natural inclination to try to reach consensus in debate. It is, thus, natural for us to attempt to win the others over to our view and

1. The point I am making relies only on uncontroversial facts about the pragmatics of knowledge claims. I do not wish to take a stand on the bearing of these facts on the analysis of 'know'. There is a large debate on the latter topic, with important contributions by Keith DeRose, John Hawthorne, David Lewis, Ernest Sosa, Jason Stanley, Jonathan Vogel, and others. See Hawthorne's *Knowledge and Lotteries* for an illuminating discussion and references.

2. In mathematics, where the gap between rationality and dialectical power is narrow, a failure to meet the challenge can harm one's dialectical position.

assume, thereby, the burden of persuading others. Natural though this tendency is, it is not dialectically required. In fact, it can get us into trouble if it is left unchecked. The skeptic exploits this tendency to further his own mischievous end, namely, to disrupt rational dialectic. The skeptic enters into a debate with us, and we are naturally inclined to convert him to our view; we are inclined to try to persuade him of the truth of our ordinary beliefs. But this is a fool's errand, for the skeptic assumes a stance that renders it impossible to persuade him of much of anything. The proper response to the skeptic is to suppress our inclination to try to persuade. We need to recognize that the challenge to persuade the skeptic is inconsequential and, by declining it, we violate no requirement of empirical rationality. Empirical reason does not require us to persuade the unpersadable.

360. A similar point holds for demands for justification. Suppose *Y* challenges *X* to provide justification for one of *X*'s beliefs, *Q*. Suppose that *X* came to believe that *Q* on the basis of an argument, and *X* presents this argument to *Y*. *Y* responds by asking for the justification for the premisses of this argument. *Y* plans, let us imagine, to reenact the old skeptical trick and repeatedly reissue her demand to provide justifications until, as she hopes, *X* is impaled on one of the horns of the familiar trilemma: offering an insufficient basis or being caught in an outright circle or in an infinite regress of justification. *X* should not, however, be cooperative here. *X* can, and should, decline to play *Y*'s dialectical game. By declining to play it, *X* does not weaken his dialectical position. The failure to meet the repeated demands for justification shows nothing about the rationality of *X*'s beliefs. The rationality of these beliefs lies in the process by which *X* came to these beliefs (or might have come to these beliefs), a process that can involve complex actions, extended rational exchanges, and substantial changes in view. This process may involve judgments that have no counterparts among *X*'s beliefs at the moment when *X* enters into a debate with *Y* (e.g., the judgment "it is 5:00 P.M. now," issued at a moment long before the debate). The skeptical ploy shows at best that *X*'s current beliefs do not instantiate a foundationalist justificatory structure. No such structure is required, however, by the rationality of those beliefs.

Let us observe that knowledge claims made during a dialectical exchange, too, do not require any foundationalist structure of justification—nor does dialectical power. We can reject the entire idea of such a structure without

causing any harm to empirical dialectic. Empirical dialectic neither requires nor delivers a foundationalist justificatory structure.

361. Let us observe also that, as with empirical proof, greater (or, at any rate, different) resources are needed to establish the rationality of a belief than in gaining that belief rationally. One can be in a position to establish the rationality of one's beliefs only if one has maintained a detailed record of the evolution of one's cognitive life. This is possible only if one dedicates extensive cognitive resources to the task—something that is not feasible for creatures with highly limited resources struggling to survive in a hostile environment.³ Furthermore, our primary concern in empirical dialectic is to cooperatively obtain a better understanding of the layout of the world. We care more for proofs that would help us improve our view of the world than for the defenses the participants might mount of their rationality. We would rather have the limited resources dedicated to working out proofs than to working up defenses of rationality. So, in short, a failure to meet the challenge to defend the rationality of one's beliefs does not cast doubt on the rationality of those beliefs. One may decline the challenge without harming one's dialectical position. On the other hand, if the opponent were to mount a proof that one or more of the claims in an argument offered by the proponent were irrationally acquired, that would damage the proponent's position and could undermine his argument.

362. The points made about demands for proof and for justification hold also for demands for explanations of meanings. Such demands can be significant in certain contexts (e.g., when attempting to persuade an opponent), but they are not always significant. Failure to meet the demands shows nothing about the meaningfulness of one's terms. For, first, the demand may be issued from an impoverished viewpoint (e.g., that of a solipsist), and the failure may be due to the defectiveness of this viewpoint rather than

3. This is to deny that internalism (in one sense of 'internalism') holds of the concept of rationality: the subject of a rational belief may well not have access to the facts needed to establish the rationality of the belief. (Earl Conee and Richard Feldman call a variant of this reading of 'internalism' *accessibilism*; see Conee and Feldman, "Internalism Defended.") "Rationality" remains internalist in the sense that the counterpart beliefs of counterparts with subjectively identical lives are bound to be equi-rational. See the discussion of the Equivalence Principle in Part 7A.

any defectiveness in the terms under scrutiny. Second, as with empirical proofs, there is a significant gap between the resources needed to rationally introduce an empirical term with the aid of an ostensive definition and, on the other hand, the resources needed to work up a definition that would help the opponent grasp the empirical term. Even if the opponent's view is not impoverished, a failure to meet the demand does not indicate any lack of meaning.

363. The very act of entering an empirical debate does not burden one with the task of defending one's view, of providing justifications for one's beliefs, and of explaining the meanings of one's terms. We can acquire these burdens as we make various moves in the course of the debate. But we are not required to come to the debate ready with justifications and explanations of meanings. We do not need to dress up our view in a quasi-mathematical garb, stitched together with pretend primitive concepts and pretend primitive axioms. Empirical debate is an informal affair; we can enter it with our view just as it is, without any fancy logical costume.

364. Demands for proofs, justifications, and explanations of meaning are, we have observed, not always significant or even legitimate. In assessing these demands, it is important to attend not only to the view to which they are directed (call this *the receiving view of* the demand) but also to the view from which they are issued (call this *the issuing view of* the demand). The former view sets the resources that are *available* for meeting the demand; the latter view, the resources that are *permissible* in meeting the demand. For each contingent claim and empirical term, an issuing view is possible relative to which the demands for proof and explanation of meaning cannot be met, for the issuing view permits too few resources. If the claim is about the future, the view permits only premisses concerning the past and the present. If the claim is about the past, the view permits only premisses concerning the present. If the claim is about the physical, the view permits only premisses concerning the mental; if about the mental, the view permits only premisses concerning the behavioral. The game is old and familiar, and it does not warrant any skeptical conclusion.⁴ The demands for proof are

4. Consider the demand to justify beliefs about the past solely on the basis of beliefs about the present, first from the viewpoint of empirical rationality and then that of dialectical power.

not significant, and the failure to meet them shows nothing about the receiving view.⁵

I I B. UR-CONVERGENCE

365. I have been arguing that various demands for proofs, justifications, and explanations of meaning—including those that the skeptic is fond of issuing—are illegitimate. The demand to prove the rationality of one's beliefs can be declined without casting doubt on one's rationality or damaging one's dialectical position. The same is true of the demand to persuade the solipsist of one's view and also of the weaker demand to refute the solipsist. Still, there is one kind of demand that, it seems to me, is reasonably imposed on views that enter empirical dialectic. Let me set out one instance of such a demand and then motivate it.

The Ur-Convergence Condition. A view v satisfies *Ur-Convergence* iff v or a rational enrichment of it provides a *critically sound proof* that transforms what I shall call *the Ur-View* into a view v^* that is, in the main, in agreement with v ; in particular, v^* shares with v the same conception of the self and the world.⁶

Let me first explain the notion “Ur-View” and then I will turn to “critically sound proof.” The idea behind the Ur-View is this: We humans come into the world not only with a particular sensory apparatus that shapes our

The demand would be reasonable from the viewpoint of empirical rationality only if the exchanges, reasonings, and so on by which one arrives at a belief about the past appeal only to the beliefs about the present—something that obviously fails. From the viewpoint of dialectical power, the demand would be reasonable only if the opponent in the exchange held only belief about the present—something that, too, obviously fails. There is no legitimate notion of justification, epistemic or other, that requires that beliefs about the past be justified solely on the basis of beliefs about the present. In assessing demands for justification it is important to keep in mind the relativity of empirical reason and the view relative to which the demand is issued.

5. Particular demands for proofs, justifications, and explanations of meaning can be legitimate, and even highly significant, given a specific context within a specific exchange. However, these demands are not absolute; they are liable to shift from exchange to exchange, and even from stage to stage within a single exchange.

6. Stronger (weaker) versions of the demand can be obtained by imposing stronger (weaker) conditions on the relationship between v and v^* . We could require, for instance, that v and v^* agree also on the specifics of the layout of the world. We could even require that v be identical to v^* —though this requirement is too strong, I think.

perception but also with a tendency to take the world to be a certain way. Nature endows us with a view. There is variation here, to be sure, just as there is variation in sensory apparatuses. Still, the variations cluster around a center, and I am calling this center *the Ur-View*. This is the view that children acquire at an early age. It is also the view that evolves into a commonsense view as the human child explores the world and that, later, can evolve into a sophisticated scientific view as the child receives an education.⁷ The Ur-View is not necessarily correct; indeed, it contains many misconceptions. Its great virtue lies in its capacity to evolve in light of experience, argument, and dialectical exchanges. (It is the analogue in the domain of rationality of stem cells.) Ur-Convergence requires, in rough terms, that a view (or one of its rational enrichments through experience) be able, through empirical dialectic, to bring the Ur-View into agreement with itself. Putting it differently, but still only roughly, Ur-Convergence requires that the view potentially possess resources to rationally educate the human child so that the child comes to accept the view. These formulations are rough because experience, argumentation, and education can all involve appeals to testimony. Through these appeals, the Ur-View can be led to admit almost anything—thus blunting the force of Ur-Convergence. (So-called authoritative testimony is the principal route through which erroneous ideas gain admittance into our view.) The requirement of “critical soundness” on proofs is meant to block this admittance. I propose understanding “critical soundness” as follows:

An exchange \mathcal{E} qualifies as a *critically sound proof* iff (i) \mathcal{E} is rationally effective and (ii) \mathcal{E} contains a response to every legitimate challenge that may be offered at any stage in \mathcal{E} ; it is understood that appeals to testimony are always open to a legitimate challenge.

7. I am thinking of the Ur-View as containing (i) a distinction between the self and the others, both conceived as temporally enduring; (ii) a sorting of things on the basis of their perceived primary and secondary qualities; and (iii) some relational concepts such as “up above,” “bigger than,” “causes to move.”

I grant the Ur-View is a fiction, but it is a useful fiction. The uniqueness presupposed by the talk of “*the* Ur-View” is not essential to the proposal I am making.

Testimony is essential in the rational education of the human child. Ur-Convergence requires that the testimony invoked must be able to withstand critical scrutiny.

366. Ur-Convergence can serve as a critical tool for assessing views. If there is no way that a view can meet Ur-Convergence, then that is a defect in the view. Solipsism, by its very nature, fails to satisfy Ur-Convergence. So does the evil-demon view, the view according to which there is an evil demon bent on deception. No series of showings, sayings, and doings will transform the Ur-View to the evil-demon view—given the way things actually are.

Ur-Convergence, let us observe, is a different standard for assessing views than rigidity (§95). Rigidity concerns the responsiveness of a view to the force of experience; Ur-Convergence, on the other hand, concerns the view's capacity for dialectical power. A view may be rigid and yet satisfy Ur-Convergence. A view of the form "the following list comprises all the truths . . . , and these truths are God-given and immutable" is rigid, but it could satisfy Ur-Convergence if the blanks are filled in a rich enough way. Plainly, a nonrigid view can fail to satisfy Ur-Convergence.⁸

367. The idea of Ur-View can be used to institute one kind of unification in empirical reason. We can set down a unified empirical directive that, if followed, would transform the Ur-View to our current view while at the same time meeting all legitimate challenges.⁹ Essentially, the empirical directive sweeps within itself canonical versions of our best empirical proofs and exchanges; it is an idealized template for the rational initiation of the human child into the mature scientific view. Note that the unification of empirical reason, unlike the unification of mathematical reason, is an ongoing affair. As the world changes and as our view of the world evolves, the unifying axioms and definitions of mathematics can stay fixed. Not so for the unifying empirical directive, however.

8. Ur-Convergence is different also from coherence and receptivity (§95). Note that an incoherent view can satisfy Ur-Convergence.

9. I am assuming that legitimate challenges are finite in number.

IIC. SUMMARY OF THE MAIN FEATURES OF EMPIRICAL DIALECTIC

368. I gather together now the principal conclusions about empirical dialectic reached in this and earlier chapters. I wish to emphasize that my aim has not been to work up a comprehensive treatment of empirical dialectic, which would require several volumes, but to highlight some points that are of special logical and philosophical importance.

Some preliminaries: We are to think of empirical dialectic as an exercise through which we attempt to resolve possible differences in our views of the world. The differences we attempt to resolve may be minor (such as over the color of the balloons in a particular packet) or of cosmic significance (such as over the finitude of the past) or something in between (such as over the number of planets). Each participant engages in the exercise with the aim of improving his or her view of the world. Each participant tries to convince the other, in a rational and fair way, of his or her own position. And each tries to resist the other, again in a rational and fair way. We are concerned to discover what the rational and fair ways of conducting oneself are in an empirical debate. We wish to know which moves are legitimate and which illegitimate.

369. CONCERNING RECEPTIVENESS AND RESPECT. (i) In empirical debate, we should be receptive to other views; we should be willing to change our view even in its most fundamental respects. The empirical proofs offered to us may not only enrich our view with new details, they may transform our understanding of things. The proofs may lead us to shift our ideas about the reality of things and about our place in the scheme of things. The account of experience and reason offered above recognizes the possibility of proofs that *force* radical changes in view.

(ii) Our stance in empirical debate should not be passive and defensive, but active and open. Our goal in debate is not to defend and preserve our view. Our goal is to better understand ourselves and the world around us, and we should happily change our view for the sake of this goal. Mere acceptance of a view is not any reason for the view. Conservativeness is not a principle of reason.

(iii) In the empirical domain, unlike the mathematical, *rational* disagreement is possible. In mathematics, confidence in one's claim provides a reason to think not only that the opponent is wrong in her contrary claim

but also that the opponent has made a mistake, that the opponent has not been perfectly rational. Not so in the empirical domain. Here disagreement does not indicate any irrationality on the part of any participant. Two inquirers who have conducted faultless empirical inquiry can arrive at opposite conclusions. Confidence in one's claims does not warrant any dismissal of the other as irrational.

(iv) The opponent's view deserves respect, even if it is logically flawed. For example, the view may be rigid, yet deserving of respect. The opponent may believe that a powerful intelligence is bent on deceiving her, and she may believe this for strong empirical reasons. For another example, the opponent's view may be inconsistent, yet the opponent may have landed in an inconsistency because of her rich experiences. An opponent with a logically defective view may have much to teach one.

370. CONCERNING EMPIRICAL DIRECTIVES AND ARGUMENT. (i) In the empirical domain, rational persuasion involves not only purely conceptual arguments but also actions and experiences. In order to persuade the opponent, a proponent may issue an *empirical directive* in which the opponent is asked (e.g.) to go to such and such a place and examine such and such things and draw thus-and-so conclusions (see §353 for an example). Experiences and bodily actions play an essential rational role in empirical debate. An *empirical argument*, as defined above, is a particular kind of directive that appeals at most to a single experience, called *the grounding experience* of the argument (see §327 for an example). Empirical arguments, so understood, are not rarified things; they are found in ordinary life. An offering of a scientific paper can count as an offering of an empirical argument.

(ii) Unlike mathematics, where an absolute (i.e., non-view-relative) assessment of arguments is available, the assessment of empirical arguments is doubly view-relative.¹⁰ The full assessment of an empirical argument has to take into account the view of its proponent (*the issuing view*) and the view of the inquirer receiving the argument (*the receiving view*). An argument will not qualify as *proof* if the perceptual judgments invoked in it are not entailed by the receiving view relative to the grounding experience. The argument will not qualify as *honest* if the claims urged under the guise of testimony

10. For the sake of simplicity, I am restricting myself to empirical debates in which there are exactly two inquirers.

are no part of the issuing view (§333). Empirical reasoning is essentially view-relative. The rational effect of an empirical argument can vary from view to view. The argument can be compelling relative to one view and totally ineffective relative to another. It is a fundamental error to suppose that lying behind ordinary view-relative arguments there are absolute arguments that can be recovered by logical analysis. There are no such arguments, and no such arguments are needed to understand empirical thought. The relativity of empirical reason is a direct consequence of a principal thesis put forward here: that the given in experience is hypothetical.

(iii) All empirical argumentation consists fundamentally of the same kinds of moves: perceptual judgments; ostensive definitions; deduction of consequences; and resolution of aporia, possibly through ontological shifts. These moves are found in ordinary, everyday argumentation, and the same moves power argumentation leading to the most surprising scientific conclusions.

371. CONCERNING CHALLENGES AND THEIR LEGITIMACY. (i) Challenges are an integral part of empirical dialectic. An argument offered in the course of an empirical exchange can be rationally effective only if it uses no resources beyond those permitted by the receiving view. However, in the empirical domain, unlike the mathematical, it is not common knowledge what all the permitted resources are. Often it is not possible for a proponent to offer, right off, an argument that counts as a proof relative to the receiving view. What the permissible resources are is often discovered through a dialectical back-and-forth. In the course of a debate, it is legitimate for the proponent to offer an argument that is not a proof, but such an argument is subject to challenges. If the argument invokes a term that the opponent does not understand, the opponent may ask for an explanation of its meaning; if it invokes a claim under the rubric “perceptual judgment” that the opponent’s view does not entail (relative to the grounding experience), the opponent may challenge the claim; and so on. If the challenges are not met, then the dialectical standing of the proponent is harmed: the proponent’s effort to rationally persuade the opponent is threatened with failure. If, on the other hand, the proponent responds to the challenges, his responses may give rise to fresh challenges. The back-and-forth between the proponent and the opponent may extend over many stages. A failure to meet any legitimate challenge at any stage harms the proponent’s dialectical standing.

(ii) Challenges may not be issued willy-nilly; only certain challenges are legitimate at any given stage of an empirical debate. It is illegitimate to ask for an explanation of the meaning of a term when one understands the term perfectly well, or to ask for a proof of a claim when one accepts the claim.

(iii) It is, in general, illegitimate to challenge the other to establish the rationality of his or her view or to establish that his or her methods of inquiry lead to truth. A failure to meet such a challenge shows nothing about the rationality of the view and does not damage dialectical standing. On the other hand, if the challenger can prove that one or more of the other's claims that are in play are irrational or that the other's methods of inquiry do not lead to truth, then that does damage dialectical standing. The burden of proof lies with the challenger.

372. CONCERNING COMMONSENSE VIEW AND ORDINARY PRACTICES.

(i) The commonsense view does not enjoy a privileged status in empirical dialectic; it is not immune to challenge and revision.

(ii) Empirical dialectic can force fundamental changes in commonsense ontology. For example, it can force an abandonment of the idea that colors are qualities of physical things. For another example, it can force a shift in our conception of space and time.

(iii) A substantial change in commonsense ontology does not entail a substantial change in ordinary practices. One can abandon that colors are qualities of physical things and still retain many ordinary uses of color vocabulary.

(iv) The logic underlying our ordinary empirical ways of thinking itself leads to radically new ways of conceiving the world. Ordinary empirical thinking rests on the ideas of interdependence, of multiple-factorizability, and of the distinction between appearance and reality. And it is these ideas that make available the possibility of radical changes in our conception of ourselves and our place in the world. Just as what separates proofs of surprising theorems in mathematics from proofs of elementary ones does not lie in the argument forms deployed, but in the ingenuity with which the familiar forms are woven together. Similarly, what distinguishes scientific reasoning that arouses our admiration from everyday reasoning is not new types of argumentation. What distinguishes it is the subtlety, depth, and breadth with which familiar moves are conjoined to deliver surprising

conclusions. When scientific argumentation overturns common sense, it does so using only common argumentative moves.

373. CONCERNING OBSERVATIONAL CONCEPTS AND PERCEPTUAL JUDGMENTS. In the course of a debate, we sometimes deploy observational concepts and issue perceptual judgments. The following points are noteworthy about such concepts and judgments:

(i) No empirical debate is possible unless the participants agree on some observational concepts and some perceptual judgments. There is, however, no one set of observational concepts and no one set of perceptual judgments on which the participants must agree, across all different empirical debates.

(ii) The notions “observational concept” and “perceptual judgment” are view-relative. “Coriander,” for example, may be an observational concept relative to one view—the view may associate a rich application profile with “coriander”—but may fail to be observational relative to another view.

(iii) Hence, what may be put forward as “observational” or “perceptual”—I make no distinction between the two—may shift from debate to debate, and even from stage to stage within a debate. In the context of one debate, nothing beyond the phenomenological may qualify as observational. In the context of a different debate, even such a theoretically loaded statement as “all the circuits in this room are carrying less than five amps of current” may be put forward as observational. Empirical dialectic does not presuppose or need an absolute notion of “observation.”

(iv) There can be agreement on perceptual judgments concerning *F*s even though there is wide disagreement on the proper conception of *F*. Participants in an empirical debate may agree on perceptual color attributions (e.g., “such and such things are blue”) even though they conceive colors very differently.

(v) The observational/theoretical distinction does not necessarily coincide with the perspicuous/nonperspicuous distinction. That a concept is observational does not imply that it is perspicuous; that a concept is theoretical does not imply that it fails to be perspicuous.¹¹ There may be perfect agreement in an empirical debate on perceptual judgments as well as on con-

11. A reversal is possible of the common picture in which observational concepts are viewed as perspicuous and theoretical concepts are viewed as possessing only instrumental value. Empirical considerations may lead one to conclude that while the theoretical concepts are perspicuous, the observational ones possess only instrumental value.

cepts that count as observational, and yet there may be disagreement on concepts that qualify as perspicuous.

374. CONCERNING MEANING. (i) In empirical dialectic, a challenge to explain the meaning of a nonlogical term can be met by providing a suitable definition, ostensive or other.¹² The challenge cannot be met by providing a bare ostensive definition: one may not explain the meaning of a term *G* by saying “*G* is that” while pointing in some direction or other. Nor can one meet the challenge by providing a compendium of uses of the term.

(ii) The explanation of the meaning of an empirical term is view- and context-relative; the explanation can shift as the receiving view shifts and as the context in which the explanation is offered shifts. Unlike mathematical terms, empirical terms may well possess no absolute definitions.

(iii) In response to legitimate challenges to explain meanings, one may have issued a variety of definitions. There is no requirement that these definitions fall into a foundationalist structure. In particular, there are no so-called basic terms to which all explanations of meaning must reduce. It is an illegitimate demand to require that explanation of meanings be given in phenomenological terms or some designated set of observational terms.

(iv) A failure to provide a satisfactory explanation of the meaning of a term in the course of a dialectical exchange does not establish that the term is meaningless. At most, the failure harms the proponent’s dialectical standing.

375. CONCERNING REASONS AND BELIEFS. (i) To understand *reasons* for empirical beliefs, one should look to *empirical reasonings* (including *empirical proofs*) that lead to these beliefs. And to understand *empirical reasoning*, one should look to *empirical dialectic*, which is its proper home. *Empirical reason is essentially dialectical*, and two of its fundamental movements are the generation of aporia and the resolution of aporia.

(ii) An argument, a judgment, and an experience can all count as reasons for an empirical belief, but they are all reasons *relative to a view*; there is no absolute notion of reason for belief. To say that an experience is a reason for a belief relative to a view is to say that the experience entails, in conjunction with the view, judgments that lead, or can lead in certain circumstances, to

12. I have inserted the restriction “nonlogical” only because I have bracketed questions about the meanings of logical terms.

the enrichment of the view with the belief. View plays an essential role here, for experience, by itself, entails no judgments.

(iii) In the course of empirical dialectic, one may have provided reasons for various of one's beliefs. There is no requirement that these reasons place one's beliefs in a foundationalist structure. In particular, there are no so-called basic beliefs that lie at the foundations of all reasoning.

376. CONCERNING THE PRESUPPOSITIONS OF EMPIRICAL DIALECTIC. The presuppositions of empirical dialectic are light:

(i) Empirical dialectic does not presuppose a particular ontology. It does not presuppose of any specific terms (including 'I', 'think', and 'extended') that they are perspicuous. The perspicuity of all terms is open to empirical debate.

(ii) Empirical dialectic does not presuppose that nature is uniform or is governed by fixed causal laws or is susceptible to rational explanation. An outcome of an empirical dialectic can be that some or all of these ideas are false.

(iii) Empirical dialectic does not presuppose that perceptual judgments are likely to be rational or to be true, nor that rational methods of inquiry lead to truth.¹³

(iv) Empirical dialectic requires neither primitive acquaintance-based concepts nor primitive known truths. Empirical reasoning and proof do not *presuppose* knowledge, immediate or mediate. Instead, under suitable conditions, they *deliver* knowledge.

(v) Empirical dialectic does not presuppose an absolute notion of proof.

(vi) Empirical dialectic neither requires nor delivers foundationally structured systems of concepts or systems of beliefs.

377. PRESUPPOSITIONS CONCERNING EXPERIENCE. (i) Empirical dialectic does not presuppose that experiences belong to a particular ontological category: state, process, or instantiation of a relation. Disagreement over the ontological category of experiences does not vitiate empirical debate.

13. A subject's view can be rational even though most of the perceptual judgments the subject has issued are false and even irrational. The perceptual judgments are not the rational basis for the view.

(ii) Empirical dialectic does not presuppose a particular account of the objects of perception. Nor does it presuppose that participants in an empirical debate agree on the objects of perception. Two inquirers who disagree on the presentational complexes to which experiences are directed can, nevertheless, engage in rational empirical exchanges and in joint empirical inquiry.

(iii) Empirical dialectic does not presuppose that appearances manifested in the experiences of the inquirers are the same or are structurally isomorphic.

(iv) Empirical dialectic does not require any specific relationship between appearances and reality, such as an isomorphism or a homomorphism between the structures exhibited by the two.

(v) Empirical dialectic does not require any reduction of thinking to experience (or of experience to thinking). *Pace* Hume, we do not need to see experience as providing the vehicles of thought, through some such operation as copying. We can allow that there is an imaginative capacity that enables us to enter into states subjectively similar to experiences. However, we do not need to think of these states as thoughts, or as generating vehicles for thoughts. More generally, empirical dialectic does not require us to see experience as temporally prior to thought. We can allow the possibility that both experience and thought appear on the scene together.

378. PRESUPPOSITIONS CONCERNING TRUTH AND RATIONALITY. Empirical dialectic does not require that rationality be grounded in truth. When pursuing empirical inquiry, we do not need special judgments, nor special methods, with assured reliability. Our judgments can be perfectly rational even though they are mostly false; our methods may be perfectly rational even though they fail to be truth-conducive. Truth and rationality are distinct notions, and they should be kept separate. Empirical dialectic does not require either notion to be defined or explained in terms of the other.

379. CONCERNING SKEPTICAL PLOYS. (i) One of the skeptic's ploys is to engage us in what appears to be a normal debate. As we attempt to persuade him, the skeptic challenges us to establish various claims and to define various terms; and when we respond to the challenges, the skeptic issues further challenges to establish various further claims and to define various further terms. All this is normal. However, the skeptic iterates his challenges without

any limit. At each stage of the debate, it appears as though the skeptic holds a definite view and allows us some definite resources to achieve our end. But the apparent view and the resources allowed shift from stage to stage and vanish to nothing in the limit. The skeptic seduces us into attempting the impossible. But all this skeptical ploy shows is that if nothing is antecedently accepted, nothing can be proved; and if nothing is antecedently understood, nothing can be explained. Our inability to satisfy the skeptic as he goes through the vanishing act does not reflect at all poorly on our view or on our rationality.

(ii) Another of the skeptic's ploys is to espouse a rigid view (e.g., Cartesian solipsism). There is again a temptation to attempt the impossible, to persuade the skeptic. The lesson to take away from the ploy is only that empirical rationality does not require one to bring about convergence with rigid views.

(iii) Yet another of the skeptic's ploys, one that I think is the most instructive, is to exploit the natural idea that empirical reason is absolute. This enables the skeptic to thin out the given in experience and to argue that a commonsense view of the world cannot be rational. Humean skepticism takes this form, and the proper response to it, I have argued, is to reject the absoluteness of empirical reason. The hypothetical given provides us with the means to do so.¹⁴

(iv) The skeptic is a masterful dialectician and knows how to exploit our weaknesses in debate. A study of the skeptic's moves helps us understand better the logic of empirical dialectic.

380. CONCERNING THE CARTESIAN SKEPTICAL METHOD. In the empirical domain, unlike the mathematical, ever stronger skeptical doubt cannot be used to uncover empirical foundations—the empirical has no foundations. Nor can skeptical doubt be used to uncover perspicuous concepts.

381. CONCERNING CRITIQUES OF VIEWS. We have seen that foundationalist demands are not a legitimate basis for a critique of views. Concepts may well not fall into a foundationalist scheme, and yet be perfectly legitimate;

14. The skeptic is fond of pointing to the relativity of perception. But he never draws our attention to the relativity of empirical reason. No wonder, for it is by combining the relativity of perception with the supposed absoluteness of empirical reason that he creates dialectical trouble for us.

the same holds for beliefs. The demand that views be rationally acquired is legitimate, but this demand does not provide a useful basis for a critique of views. For a failure to show that one's view is rational casts no doubt on the rationality of the view. There is one demand, however, that is both legitimate and provides a useful basis for a critique. The demand, roughly stated, is this: that the view provide proofs that bring about convergence with the Ur-View (§365). This demand ensures that concepts and conceptions contained in the view can be acquired by the human child through a critically sound and rationally effective exchange. The demand possesses a critical bite, for it rules against views built around skeptical hypotheses (e.g., solipsism).

382. CONCERNING THE OUTCOME OF EMPIRICAL DIALECTIC. Empirical disagreements are not always resolvable; empirical dialectic can reach a stalemate. Two subjects may have arrived at their respective views through diligent empirical inquiry, yet neither may be able to persuade the other. In the empirical domain, unlike the mathematical, perfect rationality does not necessarily put inquirers in a position to reach convergence. Neither the failure to persuade the other nor the other's incapacity to persuade one is indicative of any failure of rationality.

383. CONCERNING THE STRUCTURE OF EMPIRICAL KNOWLEDGE. The rational structure of empirical knowledge is neither top-down nor bottom-up. It is not as if we are given a priori a skeleton or outline view, which we then fill in through empirical inquiry (as children fill in their coloring books). Empirical inquiry requires no synthetic a priori: it requires no a priori structure of space and time; it requires no substantive a priori relations between universals. Furthermore, it is not as if we are given some building blocks that we then logically cement together to construct our knowledge of the world. These building blocks as well as the logical cement are mythical, and empirical inquiry requires no such things. Finally, it is not as if we are given, instead of specific outlines and materials, particular methods for arriving at knowledge of the world. Our methods of inquiry, insofar as we possess them, are fragmented and are themselves a product of empirical inquiry; they are not a presupposition of empirical inquiry or, more specifically, of empirical dialectic. Empirical dialectic requires, in short, no Archimedean fixed point in either specific materials (concepts and judgments) or in special structures or in particular methods.

384. CONCERNING REFORMED EMPIRICISM. The account of empirical dialectic put forward here allows us to preserve the core insights of empiricism while avoiding its traditional excesses, including improper demands on concepts and illegitimate critiques of religion and metaphysics.

The account allows us to reject entirely the idea of a nonempirical capacity (such as reason or faith) that provides us with any factual insight into the world. It allows us to see the legitimacy of our concepts, conceptions, and theories as rooted in experience; and to see the distinction between the real and the derivative to be empirical. The errors and excesses of traditional empiricism arise from the idea that experience provides us with *materials* of reason and knowledge.¹⁵ This idea, I have argued, pins the contribution of experience in the wrong place. Just as with motion, where to understand the effect of forces, we need to attend not to velocities, but to *changes* in velocity. Similarly, to understand the rational force of experience, we need to attend not to concepts and judgments, but to *changes* in concepts and judgments. The rational role of experience is not to provide us with concepts and judgments; it is, instead, to provide us with reasons for *changing* concepts and judgments. Experience has the power to bring divergent views into agreement. In the resolution of factual disagreements, experience trumps all other authorities. Our view of the layout of reality, insofar it is rational, is shaped by experience.^{16,17}

15. Thomas Aquinas attributed to Aristotle the view that “there is nothing in the intellect which was not previously in the senses” (D. W. Hamlyn, “Empiricism,” pp. 500 and 501).

Locke expresses the idea thus in *Essay* II.i.2: “Whence has it [the Mind] all the materials of Reason and Knowledge? To this I answer, in one word, From *Experience*. In that, all our Knowledge is founded; and from that it ultimately derives it self.”

16. Let me stress that Reformed Empiricism implies nothing about the proper methodology to use when pursuing a special science. For example, it is neutral on the question whether sociology should focus on data collection or on building theoretical models. The right attitude to take on this question depends on the state of the science and may shift as the science evolves.

Reformed Empiricism is neutral also on the question of the role of sensory stimulations in empirical cognition. Whether this role is broad, with a relatively minor contribution from innate structures with which evolution has endowed us, or whether it is narrow—these are questions to be decided empirically, not through a logical reflection on empirical reason.

17. See my *Empiricism and Experience*, parts 6B and 6C, for an extended discussion of Reformed Empiricism; see also part 1A of that book.

Physicalism from the Logical Point of View

IN HIS DEDICATORY letter, in which he begged the Faculty of Theology at the Sorbonne for its approval of the *Meditations*, Descartes claims that he provides in this work proofs of the real distinction between mind and body, proofs that are “as certain and evident as the proofs of geometry, if not more so” (p. 5; AT VII 4). Descartes’s *Meditations* is an enticing reflection on the foundations of human knowledge, and one of its central themes is that our minds (and also God, but that is not our present concern) “are the most certain and evident of all possible objects of knowledge for the human intellect” (p. 11; AT VII 16). Descartes’s proofs bring into play this epistemological idea in order to deliver a metaphysical conclusion: the real distinction between mind and body.

Neither the Faculty of Theology at the Sorbonne nor later philosophers agreed with Descartes on his assessment of the particular proofs he offered. Nonetheless, it is a persistent theme in modern and contemporary philosophy that our knowledge of our minds *is* special and that this fact renders a dualism of mind and body inevitable. At the very least, epistemological considerations create, it is held, severe problems for physicalism and, more

particularly, for any identification of mental states with bodily states. My aim in this chapter is to argue that this whole idea is rooted in a faulty epistemology, one founded on erroneous conceptions of experience. The account of experience developed above provides, I shall argue, a better epistemological picture, one that does not permit a priori proofs of the real distinction (Part 12A). Contrary to how it may seem at first sight, this account *serves* physicalism—at least, physicalism of the sort that matters to the empirical sciences (Parts 12B and 12C).

It was in Descartes's interest to please the Faculty of Theology by working out an epistemology that delivered a priori proofs of the real distinction. Our situation, however, is considerably different. Our interest lies in an epistemology that increases theoretical freedom and removes a priori barriers in the way of empirical investigations.

12A. KRIPKE'S ARGUMENT AGAINST MENTAL-PHYSICAL IDENTITY

385. Contemporary philosophy provides a number of epistemological arguments against mental-physical identities. Perhaps the most powerful, and certainly the most ingenious, is that put forth by Kripke. I will confine my discussion to an extended examination of this argument, and I will show how the account of experience and thought offered above enables us to respond to it.¹

Kripke argues that familiar scientific identities, such as the identification of heat with molecular motion (this is an example Kripke works with), are importantly different from the proposed identities of the mental with the physical, such as the identification of pain with the stimulation of C-fibers (also an example Kripke works with).² The latter, Kripke thinks, gives rise to an epistemological difficulty that does not arise with the former. The difficulty is as follows.

1. The contemporary debate on mental-physical identity is vast, and I cannot take into account even its most prominent strands, let alone all the excellent contributions that have been made to it. My aim here is only to illustrate the bearing on this debate of the account of experience and thought developed above. I do not pretend to be offering a full treatment of all the relevant issues.

2. Serious doubts can be raised about each of the two examples. Since Kripke's argument does not depend on the details of the examples, I will suppress these doubts. (The pain example, in particular, seems to be nothing but sheer philosophical fiction.)

Kripke argues that names are rigid designators: they pick out the same objects across possible situations. Hence, if *a* and *b* are names, then the identity statement '*a* = *b*' is, if true, necessarily true.³ This is not to say, however, that the identity statement is a priori. Kripke points out nicely that the distinction between necessity and contingency is not the same as that between *a priori* and *a posteriori*. A true identity statement may be both necessary and a posteriori. The identity of the Morning Star with the Evening Star, for example, was a great empirical discovery. Nevertheless, the names 'the Morning Star' and 'the Evening Star' pick out the same object, Venus, across possible situations, and consequently, the identity 'the Morning Star = the Evening Star' is a necessary truth.

Kripke extends the thesis of the necessity of identity to theoretical identities. If heat (*H*) is molecular motion (*M*) then the identity '*H* = *M*' is necessarily true. Similarly, if pain (*P*) is the stimulation of C-fibers (*C*) then '*P* = *C*' is also necessarily true. The first identity, '*H* = *M*', is plainly a posteriori; its truth is discovered empirically. The physicalist philosophers want to say the same of the second identity, '*P* = *C*'; its truth, they hold, is also a matter for empirical discovery. But this idea gives rise, Kripke argues, to a serious epistemological difficulty.⁴

386. The identity of heat and molecular motion is necessarily true. It could not have turned out otherwise, and hence, it could not have been discovered to be otherwise. Nevertheless, as Kripke points out, a natural explanation can be offered of its a posteriori character:

Although 'heat' is a rigid designator, the reference of that designator was determined by an accidental property of the referent, namely the property of producing in us the sensation *S* [the sensation of heat]. It is thus possible that

3. Following Kripke, I use 'name' as an abbreviation of 'proper name'. Also, again following Kripke, I bracket issues arising from the possible nonexistence of objects, for these issues have no material bearing on Kripke's argument. Let us assume, for simplicity, that the same objects exist across possible situations.

4. Kripke argues against both the identification of mental tokens with physical tokens ("Jones's pain at 06:00 was his C-fiber stimulation," to use an example of Kripke's) and also against the identification of mental types with physical types. The argument given below is directed against type-type identities, and these will be my primary concern. The identity '*P* = *C*' above should be read as identifying the mental type "pain" with the physical type "stimulation of C-fibers."

a phenomenon should have been rigidly designated in the same way as a phenomenon of heat, with its reference also picked out by means of the sensation S , without that phenomenon being heat and therefore without its being molecular motion.⁵

The reference of 'heat', Kripke is saying, is fixed via a description such as 'the phenomenon that produces in us the sensation S '.⁶ If so, the contingency of the identity

- (1) $M = \text{the phenomenon that produces in us the sensation } S$

enables us to explain how ' $H = M$ ' is a posteriori. For we could be in a *qualitatively identical epistemic situation* in which (1) is false. In this situation, we fix the reference of 'heat' in the same way, namely, through the description 'the phenomenon that produces in us the sensation S ', and the reference of 'heat' will now be something other than molecular motion (for the sensation S may now be caused by, say, photons).⁷ In the actual situation, (1) is true—it is molecular motion that produces the sensation of heat—and this is a substantive empirical discovery; hence, so also is the discovery that heat is molecular motion.

Identities such as ' $H = M$ ', then, are not contingent; they could not be otherwise. Moreover, their a posteriori character does not imply that they are contingent; there is only an *illusion* of contingency here. What is truly possible in these cases is, in Kripke's words, this:

Someone could, *qualitatively* speaking, be in the same epistemic situation as the original, and in such a situation a *qualitatively* analogous statement [such as (1)] could be false. . . . Consider how the references of the designa-

5. *Naming and Necessity*, p. 152. All parenthetical references in this part are to the pages of this work.

6. Kripke does not distinguish between "reference" and "denotation," and the points made in this part do not depend on the distinction. A couple of points do appeal, however, to the distinction between real and derivative items.

7. I am assuming that our neural structure is a contingent feature of our bodies. If it were not, the qualitatively identical epistemic situation would need to be described differently. Its description would involve reference not to us but to conscious beings epistemically similar to us.

tors are determined; if these coincide only contingently, it is this fact which gives the original statement its illusion of contingency. (150)

387. Identities such as that of pain with the stimulation of C-fibers, Kripke argues, generate an epistemological difficulty: their necessity is in tension with their a posteriori character. More specifically, the explanation offered above cannot, Kripke argues, be extended to them. He points to two obstacles facing such an extension. First:

Pain . . . is not picked out by one of its accidental properties; rather it is picked out by the property of being pain itself, by its immediate phenomenological quality. Thus pain, unlike heat, is not only rigidly designated by 'pain' but the reference of the designator is determined by an essential property of the referent. (152–153)

Second:

To be in the same epistemic situation that would obtain if one had a pain *is* to have a pain; to be in the same epistemic situation that would obtain in the absence of pain *is* not to have a pain. The apparent contingency of the connection between the mental state and the corresponding brain state thus cannot be explained by some sort of qualitative analogue as in the case of heat. (152)

In the case of heat, epistemic sameness implies nothing about the existence of heat. Consider a qualitatively identical epistemic situation, one in which we have "the same sensory evidence" (142) and one in which we fix the reference of 'heat' in the same way (e.g., via the same description). In this situation, we need bear no particular relation to heat (= molecular motion), and the reference-fixing description may well pick out some phenomenon other than heat. In contrast, with pain, Kripke tells us, epistemic sameness *does* imply the existence of pain. Pain must exist in the qualitatively identical epistemic situation in which the reference of 'pain' is fixed in the same way. And, by hypothesis, this pain must be identical to the stimulation of C-fibers. So, although a certain separation (or apparent separation) is possible between heat and molecular motion in qualitatively identical epistemic situations, this separation is not possible with pain and the stimulation of C-fibers. The

mental-physical identity must, it appears, be both necessary and a priori; it cannot be a posteriori.

388. Let us note some features of Kripke's argument that enhance its interest and strength.

(i) The argument is not a simple modal argument of the sort that has received much attention in the philosophical literature. Kripke's argument does not move from conceivability to possibility and thence to nonidentity. The argument is not that we can conceive C-fiber stimulations to exist without pain; so, the nonidentity of C-fiber stimulation with pain is possible; and, therefore, the nonidentity must be actual. This kind of argument is easily blocked. We can reject the move from conceivability to possibility, and Kripke himself provides us with resources to do so. The argument presented above is different. It concerns not conceivability but a posterioricity. The argument appears to show that mental-physical identities cannot be a posteriori. An adequate response to the argument requires us to provide a plausible explanation of the a posteriori character of mental-physical identities.

(ii) Kripke's argument does not presuppose any strong epistemological theses about mental states, such as that they are self-presenting. The argument does not assume, for example, that if a subject is in pain, then he knows (or is in a position to know) that he is in pain. The argument rests on the highly plausible idea that if a subject is in pain, then in any epistemically similar situation, he is bound to be in pain. No further assumption is needed about the subject's knowledge of pain in the actual situation or in the epistemically similar situation.

(iii) Kripke's argument is not directed against the possibility of a perfect correlation between pain and the stimulation of C-fibers. The argument allows that the correlation holds. What it sets out to show is that, notwithstanding the correlation, pain should not be identified with the stimulation of C-fibers. Remarkably, Kripke renders this thoroughly incredible conclusion plausible.

(iv) Kripke's argument raises a problem for a highly local physicalist thesis, one that a working neurophysiologist might well find tempting and useful. This is in contrast to several other prominent arguments that create problems for large-scale versions of physicalism (such as that everything is physical or that everything mental is physical or that everything mental supervenes on the physical). These versions of physicalism face a whole swath of

difficulties, including that of satisfactory formulation. Kripke's argument attacks a thesis that is not subject to these difficulties. His argument retains interest even if the large-scale versions of physicalism are set aside.⁸

389. Let us begin our critical examination of Kripke's argument by noting that it makes a crucial appeal to the notion "the way the referent of a term is determined." The referent of 'heat', Kripke claims, is determined via a contingent description (such as 'the phenomenon that produces in us the sensation of heat'); the referent of 'pain', on the other hand, is determined via an essential property of the referent. This difference between the two ways of determining referents plays an important role in Kripke's argument. If the referent of 'pain' were also determined via a contingent description (such as 'the phenomenon that Fred dreads most'), then the two cases, heat and pain, would be perfectly analogous, and Kripke's argument would be blocked. Kripke needs to isolate some descriptions as bearing a special conceptual relationship to a term: these descriptions not only pick out the referent of the term, they are, as we may put it, *canonical* determiners of the referent.⁹ One problem with Kripke's argument is that it is difficult to find a basis for distinguishing canonical from noncanonical determiners of referents for ordinary terms. The meaningful use of these terms (e.g., 'heat' and 'pain') does not require a class of canonical determiners of referent; it does not even require that the terms possess a unique referent.¹⁰ These terms are not introduced through explicit definitions, and the explanations of their meanings are highly context-dependent and various. The explanations extend beyond the narrow class of canonical descriptions required by Kripke's argument.¹¹

8. Frank Jackson's Knowledge Argument and David Chalmers's Zombie Argument both attack large-scale versions of physicalism. For Jackson's argument, see his "Epiphenomenal Qualia"; for Chalmers's argument, see his "Consciousness and Its Place in Nature."

9. Note that the descriptions need not be synonymous with the term; they need not fix the sense of the term. Also, Kripke's talk of "*the* way the referent of a term is determined" implies uniqueness. Since Kripke's argument can go through even if uniqueness fails, I am allowing that there may be several canonical determiners of the referent of a term.

10. Kripke's referential picture of meaning suggests that, without a unique referent, 'heat' and 'pain' would not be meaningful terms.

11. Kripke draws a distinction between two types of definitions: those that merely fix the referent of a term and those that fix also the meaning (the sense) of the term. I am not questioning this important distinction. The difficulty to which I am drawing attention concerns ordinary terms (e.g., 'heat') that are not introduced via explicit definitions of either sort. These

390. Not only can the legitimacy of the general notion “the way the referent of a term is determined” be questioned, but Kripke’s specific applications of this notion can be questioned also. Kripke says that the referent of ‘heat’ is determined through a description such as ‘the phenomenon that produces in us the sensation of heat’. This description uses the term ‘heat’, and renders the determination of referent circular: to determine the referent of ‘heat’ we need to figure out which phenomena fall under “produces in us the sensation of heat,” but this requires the very thing that we are trying to determine, namely, the referent of ‘heat’. Circular determination is not always improper, but it seems to be improper here, for the concept “heat” is not circular.

It may be suggested that ‘heat’ is an empirical term, and its referent is determined with the aid of sensations of heat. Hence, it must be possible to identify the referent of ‘sensation of heat’ without mentioning heat. However, first, the referent of ‘heat’ can be fixed through an ostensive definition that does not bring into play sensations of heat at all—for example:

Heat =_{Df} the phenomenon that is causing the water in *this* pot to boil
[said while pointing to a boiling pot of water on a stove].

Second, the referent of ‘heat’ may be fixed through an ostensive definition such as the following:

Heat =_{Df} the quality that *this* ball is transmitting to my hand
[said when holding a hot ball in one’s hand].¹²

In this definition, sensations of heat are playing an essential role, but only through being a part of the grounding experience. Unlike Kripke’s account, this definition does not bring into play the concept “sensation of heat.” It does not refer to sensations of heat, and it does not require that the referent of ‘sensation of heat’ to be identifiable independently of the identification of heat.¹³

terms can have referents, and these referents can be picked out by a variety of descriptions, but no one kind of description stands out as canonical.

12. Kripke’s reference-fixing description as well as the two ostensive definitions given here are, obviously, only rough approximations. This fact does not materially affect the present point.

13. Kripke says something curious:

Heat is something which we have identified . . . by its giving a certain sensation, which we call ‘the sensation of heat’. We don’t have a special name for this sensation other

About 'pain', Kripke says that its referent is "picked out by the property of being pain itself, by its immediate phenomenological quality" (§387). One point to notice here is that there are other, more natural ways of picking out pain, such as the following:

Pain =_{Def} the kind of feeling that is causing *this* child to cry
[said while pointing to a child who is crying because of pain], and

Pain =_{Def} the kind of thing I am feeling in my knee
[said when one is experiencing pain in one's knee].

These ways of picking out pain cannot count as canonical for Kripke. For if they did, there would be no difficulty in explaining how the mental-physical identification of pain with C-fiber stimulation, ' $P = C$ ', can be both necessary and a posteriori.

To make his argument work, Kripke needs to hold that there is at least one canonical way of picking out pain that is inconsistent with the a posterioricity of the mental-physical identity ' $P = C$ '. As we have seen, Kripke proposes such a way: pain is "picked out by the property of being pain itself, by its immediate phenomenological quality." This proposal is unsatisfactory in a couple of ways, however. First, it assumes that the property of being pain is simply available to us in determining the referent of 'pain'. It is difficult to see how this assumption can be warranted other than through a Cartesian equation of presentation with acquaintance. One suffers pain, the thought goes, and one becomes acquainted with the property pain, and one goes on to use the property to think and talk about things. I have already argued against this way of conceiving of the relationship of experience to thought. Second, Kripke's proposal assumes that the property of being pain is "its immediate phenomenological quality." This assumption

than as a sensation of heat. It's interesting that the language is this way. Whereas you might suppose it, from what I am saying, to have been the other way. (131)

It is not only "interesting that the language is this way," it is *revealing* that the language is this way. The concept "sensation of heat" is not prior to the concept "heat."

Kripke allows ostensive reference-fixing definitions, but he seems to think that these can be "subsumed" under nonostensive definitions (see *Naming and Necessity*, footnote 42 on p. 96). This is an error, and I suspect this error is responsible, at least in part, for his erroneous claims about 'heat'.

plays an essential role in his argument, for it ensures that the necessity of ' $P=C$ ' implies its a priority. I have already argued, though, that phenomenology is not a property; there is no such thing as "phenomenological quality" (§§152–155).¹⁴

391. Kripke's argument rests on a particular conception of pain. This conception takes the following identities to hold:

- (2) Pain (P) = the property sensed when one undergoes pain experiences
 = the phenomenology of pain experiences
 = the property of pain sensations/experiences that distinguishes them from other sensations/experiences.

To be in pain, on this conception, is to experience pain, which is the same as undergoing an experience with pain phenomenology, which in turn is the same as having a sensation that instantiates the property pain. The property to which pain experiences are directed (namely, P) is, on this conception, nothing other than a property of the experiences themselves, and the phenomenology of the experiences is nothing other than this property. This conception is reminiscent of Reid's view of sensation. Recall Reid's statement that there is "no difference between the sensation and the feeling of it; they are one and the same thing. . . . In sensation, there is no object distinct from that act of the mind by which it is felt."¹⁵

If Kripke's conception of pain is correct, then his conclusion is also correct: the mental-physical identity ' $P=C$ ' must be a priori if it is necessary. For suppose it is not. Then there would need to be a possible situation s , epistemically same as the actual one, of one of the two following types. (i) In s , the subject undergoes an experience with pain phenomenology and, furthermore, the subject is not in state C . To undergo an experience with pain phenomenology is, however, to be in a state that has the property pain—by the second and third identities in (2). Thus there is a situation in which the subject is in state P but not in state C . (ii) In s , the subject is in state C but does not undergo an experience with pain phenomenology. This implies,

14. It is easy to read footnote 66 in lecture III of *Naming and Necessity* as suggesting a Cartesian picture. The same can be said of several remarks Kripke makes in the rest of lecture III.

15. Quoted in footnote 15 of Chapter 2 above.

again by the second and third identities in (2), that the subject is not in a state that has the property pain. In either case, the necessity of ' $P=C$ ' is violated.

392. Kripke's argument assimilates things that should be distinguished: the three items identified in (2) are all distinct. (The talk of sensations encourages the assimilation, and this is one reason I have avoided "sensation" talk in setting out my positive account of experience.) Of the three items only the first,

(3) the property sensed when one undergoes pain experiences,

can with any plausibility be identified with C . Moreover, the identification is plausible only if (3) is understood in a particular way—namely, as the property to which pain experiences are directed, the property that is an element of the presentational complexes of pain experiences. Let this property be P_{Π} . Whether there is such a property is an empirical question, and it is also an empirical question what this property is. It is within the realm of empirical discovery that $P_{\Pi} = C$. The identity ' $P_{\Pi} = C$ ' can, thus, be both necessary and a posteriori. This point can be made vivid through an example.

Consider a subject undergoing a pain experience e , say of a throbbing pain in his left big toe. Let us take it that our subject is experiencing the property P_{Π} ; that is, P_{Π} is an element of the presentational complex Π_e . Now, the phenomenology of the pain experience does not settle the character of the presentational complex; in particular, it does not settle the character of the property P_{Π} . "Inner" experiences such as those of pain are just as much subject to multiple-factorization as "outer" experiences such as those of color. So, for example, P_{Π} could be a property of a nonphysical, nonbiological substance, aptly conceived as mental. (Whether this is so is an empirical question, not settled by an introspection of the experience.) Or P_{Π} could be a property of a subtle vital fluid that fills our subject's big toe. Or it could be a property of a certain part of the spinal cord, or of a part of the brain. Indeed, empirical investigation could reveal P_{Π} to be C . The property to which pain experiences are directed is, in short, not settled by the phenomenology of pain experiences. The nature of P_{Π} is wide open to empirical discovery.

393. Kripke claims that the heat and pain cases are dissimilar:

In the case of molecular motion and heat there is something, namely, the sensation of heat, which is an intermediary between the external phenomenon and the observer. In the mental-physical case no such intermediary is possible, since here the physical phenomenon is supposed to be identical with the internal phenomenon itself. (151–152)

We can counter that the two cases, heat and pain, are in the relevant respects similar. In both cases, there are intermediaries. The intermediaries are not, however, internal phenomena but phenomenology. The phenomenology of heat experiences leaves the nature of heat undetermined; similarly the phenomenology of pain experiences leaves the nature of pain (P_{Π}) undetermined. Epistemic sameness in each case requires only the sameness of phenomenology, allowing the nature of the item in question, heat or pain, to be an empirical question.

394. There is another way of reading (3). On this reading, in the throbbing-pain example, (3) refers to a property, say P^* , of something that qualifies as pain in the left big toe of our subject. This property may well be different from P_{Π} , for P_{Π} may fail to be instantiated by anything in the left big toe. What, given what we know about the physiology of toes, could this something be, though, that qualifies as pain in the left big toe, and what could this property P^* be? I think the thing to say here is that this something that qualifies as pain is not anything real. The pain in the subject's left big toe is a derivative object, analogous to a mirror image, and P^* is a derivative property of this object. We can make true claims about this object, such as that it is a throbbing pain, but the truth of these claims does not lie in a correspondence to any real goings-on in the toe (compare §273). The property P^* cannot be identified with C , nor with any other physical property.¹⁶

It is the tendency to take P^* to be a property of a real thing and to identify it with the phenomenology of pain experiences that leads to the idea

16. Wittgenstein, *Philosophical Investigations*, §304: "It [the sensation of pain] is not a *something*, but not a *nothing* either!"

that there is a distinct mental reality that is known in a special way and that must be distinct from the physical. The pain in the left big toe is not a physical item, the thought goes, but it must be something real. Hence, it must belong to a different realm, a realm where properties constitute phenomenology. This realm is not open to an empirical identification with the physical; its very nature ensures its distinction from the physical. What is derivative and image-like thus gets transformed into mental reality.

395. If phenomenology is conceived as property, as it is by Kripke, then Kripke's argument leads to a more general conclusion than merely that pain cannot be identified with a property of brain states. It leads to the conclusion that pain cannot be identified with a property of any substance, including mental substance, *so long as* the identity is supposed to be empirical. The nature of the pain property, on this conception, cannot be open to empirical discovery. Pain states *have* to be peculiar states of a peculiar substance—a substance not subject to empirical investigation, a substance that is the bearer of phenomenology.

On the account of experience and empirical reason I have offered, phenomenology does not fall in the category of property. On this account, the status of “the pain in the left big toe,” whether it is a real thing or an image-like thing, is an empirical question. Similarly, the existence and nature of P_{Π} is an empirical question. More generally, on this account, the status and nature of the self and its states is to be discovered through an extended empirical inquiry—not through a priori meditations, nor through acts of introspection.

396. OBJECTION: “Isn't the essential point Kripke is making right, though, that there is an important asymmetry between the identities concerning pain and heat? The identity of pain with the stimulation of C-fibers leaves an *explanatory gap*, whereas the identity of heat with molecular motion is fully explanatory. The principal characteristics of heat can all be explained by identifying heat with molecular motion. In contrast, the crucial characteristic of pain—namely, the way pain feels—is left a mystery by the identity of pain with the stimulation of C-fibers. It is this explanatory gap that is the source of the apparent contingency of the identity of pain with C-fiber stimulations, which powers Kripke's argument. Unless a way is shown of closing

the explanatory gap, Kripke's argument will remain compelling. And you have provided no way of closing the gap."¹⁷

REPLY: (i) The apparent contingency of the mental-physical identity is fully analogous, I have argued, to the apparent contingency of the identity of heat with molecular motion. If this point holds, Kripke is answered. To block Kripke's argument, we do not need to close any explanatory gaps. It suffices to undermine the conceptual and epistemological presuppositions of the argument.¹⁸ (ii) The distinctive qualitative feel that pain manifests has its source in the phenomenology; it is not a feature of pain (which is identified, we are supposing, with C-fiber stimulations). The question "why do C-fiber stimulations manifest this qualitative feel?" is like the question "why is a person with such and such genetic makeup five meters from a mailbox?" An explanatory gap is certainly palpable between genetic makeup and the "quality" of being five meters from a mailbox, but it is not a burden on any science to bridge this gap. On the other hand, once various facts are brought into play, there may be a perfectly good explanation of why a person with a particular genetic makeup *is* five meters from a mailbox. The situation with pain and C-fiber stimulations is exactly parallel. There is, we can grant, an explanatory gap between "C-fiber stimulation" and the qualitative feel. But this qualitative feel is not a *quality* of pain, and it is not a burden on any science to bridge this gap. Furthermore, there may be a perfectly good explanation of why C-fiber stimulations manifest this feel once various facts about sentient beings and their environment and their brains are brought into view.¹⁹

17. This objection is based on an argument put forth by Joseph Levine; see his "Materialism and Qualia."

18. The parallel between the identity ' $P_n = C$ ' and the identity ' $H = M$ ' extends to the existence of the explanatory gap. Parallel to the question "why does C feel the way it does?" there is the question "why does M feel the way it does?"

19. Levine takes the problem of explanatory gap to be interdependent with the problem of determining which mental-physical identities are true. If this is right, then the explanatory gap may be bridgeable, for there may be ample theoretical reasons for identifying the stimulation of C-fibers (as opposed to other neural firings) with pains. Recall that Kripke's argument is an argument against mental-physical *identity*, not against perfect mental-physical correlation. The argument allows perfect correlations, and it raises a problem only for the theoretical identification of mental states with physical states. The mental-physical correlations provide reasons for particular identities, and thus, it appears, provide resources for closing the explanatory gap.

397. OBJECTION: "You are working with an identity of the wrong sort. You are working with an identity between a brain state and pain qua "object" of pain experience, between C and P_{Π} , as you call them. What is wanted, though, is an identity between brain state and pain qua experiencing, between C and P_E , as we may call them. Kripke's argument shows that there is a problem with *this* kind of identity: it cannot be both necessary and a posteriori. You have done nothing to undermine Kripke's argument when it is correctly interpreted."

REPLY: (i) Kripke's argument concerns both pain qua "object" and pain qua experiencing, P_{Π} as well as P_E . It identifies the two: pain, as it figures in Kripke's argument, is both a property of pain experiences and what pain experiences are directed to. Any satisfactory interpretation of Kripke's argument must recognize this identification. I have argued, against Kripke, that P_E and P_{Π} should be distinguished and, furthermore, that there is no conceptual bar to the empirical discovery that $P_{\Pi} = C$. (ii) Pain experiencings are not *states* of a subject or of any constitutive part of the subject, and there is no reason to identify them with brain states. When a subject undergoes an experience, the subject stands in a certain complex relation to the world: a portion of the world is presented to the subject's consciousness, and this portion, and the elements in it, manifest appearances to the subject's consciousness. This general account holds of "outer" experiences as well as "inner" ones; it holds of visual experiences as well as pain experiences. The obtaining of the complex presentation-manifestation relation between the subject and the world is plainly distinct from the occurrence of a brain state. For one thing, the subject is a constituent of the former but not of the latter. A neurophysiologist investigating pain may well be led by empirical findings to identify P_{Π} with C . She would have no reason to identify P_E with C . (iii) Despite the failure of identity between P_E and brain states, we can allow that there may be representations associated with the occurrence of an experience and that these representations may be identical to brain states. Whether there are such representations is an empirical question, and whether these representations are identical with brain states is also an empirical question. Kripke's argument creates no difficulty for this sort of identity. (iv) The physical status of P_E needs to be approached with caution. The account I am offering of empirical reason does not require that concepts such as "experience," "presentation," and "appearance" be regarded as perspicuous. (Contrast this with Russell's accounts, where "sense-data," "acquaintance" and "percept" are taken to denote

what he calls “ultimate constituents of the world.”) The account I am offering allows that empirical argumentation may lead to a physicalist view of reality, but the soundness of the reasoning does not require that experience, presentation, and such be regarded as constituents of reality, ultimate or nonultimate.²⁰ One can rationally arrive at a physicalist view of the world on the basis of experience and yet be free of any commitment to fit experience as a real element within the physicalist worldview.

12B. TYPES OF PHYSICALISM

398. Building metaphors are popular in epistemology. Descartes compared our knowledge to an edifice and concerned himself with foundations, for these seemed to him of paramount importance: “Once the foundations of a building are undermined, anything built on them collapses of its own accord” (*Meditations* I). The aptness of Descartes’s comparison can be doubted. Nonetheless, *a* comparison in the neighborhood is apt, I think. One may usefully compare the *process* of constructing an edifice, say a large arch, with the *process* of dialectically building up our knowledge of reality. The arch is built out of bricks, beams, and other things that make up such edifices. These materials are insufficient, however, if we are to build the arch. We need to put up a scaffolding, and this requires further ancillary materials. The scaffolding, though not a proper part of the edifice, is essential for the construction of the arch by *us*, beings with certain specific capacities. Similarly, our knowledge of reality consists of our knowledge of certain real things possessing certain properties and bearing certain relations to one another and to us. We arrive at this knowledge through empirical dialectic—a process that involves observation, imaginative experimentation, and rational debate. The dialectical building-up of our knowledge also requires, like the construction of the arch, ancillary resources. It, too, requires what we may call a **logical scaffolding**. Notions such as “truth,” “implication,” “judgment,” and “phenomenology” make up this logical scaffolding. That the scaffolding is not a proper part of the building does not in the least diminish its importance. Similarly, that the logical scaffolding consists of concepts that are nonperspicious—assuming they are nonperspicious—does not in the least diminish *its* importance. The

20. A parallel: some of the premisses of an argument may make claims about images, but the soundness of the argument does not require that images qualify as real items.

tourist gawking at the unfinished arch can afford to regard the scaffolding as a nuisance and a distraction, but not the engineer who is building the arch, nor the theoretician who is studying the construction of the arch.²¹

The resources provided by our conceptual system are not all of the same kind: all for picturing reality. Some resources are purely logical. These help us to refine and even radically rework our current account of reality. We have been engaged, for some time now, in taking a measure of these logical resources.

399. There is an ambitious form of physicalism—*hyperphysicalism*, to give it a name—that denies the existence of, and the need for, a separate logical scaffolding. It insists that the logical inquiry must be conducted within a sparse physicalist framework, and that notions such as “truth” and “phenomenology” are legitimate only to the extent that they can be reduced or reconstructed within this sparse framework. The following points may be observed against this type of physicalism. (i) Philosophers such as Quine and Sellars, who have pursued the logical inquiry within the constraints set by hyperphysicalism, do not provide a satisfactory account of empirical reason. I argued above that Sellars is led astray precisely because of his adherence to these constraints. I think the same is true of Quine.²² (ii) A main motivation for hyperphysicalism—and this motivation is particularly evident in Quine—is the desire to escape Cartesian conceptions of experience. The desire is laudable, but there are better ways of satisfying it. The principal motivation for Cartesian conceptions, I have argued, is logical: the idea that the given in experience is propositional. The proper response to Cartesian conceptions is to reject the propositional given—not to move to hyperphysicalism, which puts us in no better position to understand empirical reason than do Cartesian conceptions. (iii) The practice of science provides no support whatsoever to hyperphysicalism. Science is a rational activity. All empirical sciences employ logical notions such as “truth,”

21. I do not mean to suggest that logical resources (e.g., “truth”) *cannot* be elements of our picture of reality, that they must belong only to the logical scaffolding. We can perhaps improve the scaffolding metaphor by imagining that the design of the arch is incomplete and shifts as the construction progresses. Parts of the scaffolding can, in later designs, become incorporated in the edifice itself. The point I wish to stress is that the legitimacy of notions such as “truth” does not depend on whether they pick out real properties or not. They may pick out real properties (or not); they may be a part of the edifice (or not); but they are certainly a part of the scaffolding and thus legitimate.

22. See my *Empiricism and Experience*, pp. 46–55, for a critical discussion of Quine.

“implication,” “evidence,” and “experience.” It is true that these notions do not occur in the *products* of most empirical sciences, the *theories* these sciences produce. (Logic is the principal science whose product explicitly contains these notions.) However, the rational processes by which these sciences *arrive* at their products do bring into play these notions. Even the very question of legitimacy implicates these notions. Hence, it is not true that the logical notions are legitimate only if they can be reconstructed in terms of the special vocabulary of some special sciences, say, neurophysiology and behavioristic psychology. The logical terms occupy a privileged position. They make up the framework within which the legitimacy of concepts and claims is assessed, including those belonging to the most fundamental sciences. The logical concepts do not answer to the special concepts of the sciences; if anything, it is the other way around.

400. Another form of physicalism has ambitions that, though far-reaching, fall short in some respects to those of hyperphysicalism. This form of physicalism aspires to a particular high-level viewpoint and may, therefore, be called *meta-physicalism*. This physicalism sets forth the overarching thesis that *everything is physical* as a framework principle within which to conduct specific philosophical inquiries—say, about number, values, and consciousness. The thought here is that the march of science presupposes or indicates that everything *is* physical, and it is a task of philosophy to paint a synoptic picture consistent with this idea. If a domain of inquiry—be it mathematics, ethics, or epistemology—cannot be brought under the physicalist umbrella, a tear exists in our synoptic vision that demands repair, and the task of making the repair falls to the philosopher. This form of physicalism is weaker than hyperphysicalism in that it does not offer a specific program for the logical inquiry, and it does not set itself up as an arbiter of legitimate concepts. It sets itself up only as an arbiter of legitimate philosophy. Any philosophy whose products cannot be brought under the physicalist umbrella is, for that very reason, defective or incomplete or, at worst, unscientific.

401. One difficulty with this form of physicalism is the obscurity in the very meaning of its overarching thesis—that everything is physical. What counts as physical? What is the scope of ‘everything’? And what is the

meaning of 'is'? Which prescriptions, which philosophical tasks, the thesis entails depend crucially on how these questions are answered. If the physical is confined to subatomic particles and wholes built out of them; if the scope of everything includes spacetime and statues; and if 'is' means identity, then spacetime and statues are ruled problematic and no philosophy is entirely adequate that countenances them. It is now unsurprising if the same verdict should fall on a philosophy that countenances consciousness. If, on the other hand, 'is physical' is read to mean 'supervenes on facts about the physical' then, pending clarification of 'supervenes' and 'physical', there is no evident problem about spacetime and statues, nor about consciousness.²³

The thesis that everything is physical is *not*, I think, a presupposition of science—it is much too broad, vague, and philosophical to occupy that exalted position. Nor can we say that it is the destination to which science is headed—science is much too fragmented, specific, and problem-driven to have any *one* visible destination. The thesis that everything is physical is speculative, and meta-physicalism recruits it for a *metaphilosophical* end. The propriety of the recruitment is not a given and should be assessed by how much illumination it brings to philosophical inquiry. The full assessment must await clarification of the idea that everything is physical. Still, what is troubling about meta-physicalism is that it unduly narrows both the range of problems that should concern philosophy and the options available for addressing the problems. To take the most immediate example at hand, the problem of how to fit conscious experience into the physicalist scheme is not the only philosophical problem about experience, nor the most interesting one. I myself think that the problem of fit is best left to the empirical sciences; philosophy is ill placed to solve it.

Philosophy concerns itself with regions where there are fissures in our understanding. These fissures are not all of the same kind; their contours are

23. A substantial debate in recent philosophy centers around the proper formulation of the physicalist thesis and the assessment of its consequences for the study of conscious experience. For instance, Jackson and Chalmers, independently, formulated a version of physicalism according to which microphysical truths entail a priori all truths, and they argued that this thesis is in conflict with manifest facts about conscious experience. Their claim is challenged by Ned Block and Robert Stalnaker in their illuminating paper, "Conceptual Analysis, Dualism, and the Explanatory Gap." See Chalmers's and Jackson's "Conceptual Analysis and Reductive Explanation" for their response to Block and Stalnaker.

not regular; and they seem to occur haphazardly over the whole range of our thought. It is neither necessary nor useful to impose a simple pattern on them. The synoptic ambition is perhaps useful in philosophy; it is not useful, I think, in metaphilosophy.

402. One further type of physicalism, the last one I shall remark on, is worth considering here. This physicalism—*modest physicalism*, as I shall call it—takes physics to be the discipline that reveals the fundamental elements of reality, and it favors physical explanations over all others. Thus, it favors explanations of macrophysical phenomena (such as chemical reactions, life, and vision) in microphysical terms; and it disfavors (e.g.) the postulation of primitive “vital spirits” to explain biological phenomena.

Modest physicalism does not aim to be all-encompassing. It has no large ambitions, philosophical or metaphilosophical. It sets no particular program for philosophy. It offers no prescriptions for the logical inquiry. On the contrary, modest physicalism recognizes the results of the logical inquiry, including those concerning conscious experience, and works with them.

Modest physicalism makes, despite its name, a hefty metaphysical claim, and it adopts a strong methodological stance. Both the claim and the stance can be challenged. My concern here is not to defend them but to show that they can work productively with the account of conscious experience I have offered. Modest physicalism can help explain facts about conscious experiences, especially their phenomenology. Furthermore, the account of conscious experience I have offered can help underwrite the rationality of accepting modest physicalism, assuming empirical discoveries warrant it.

403. Let us look at some possible explanations of the phenomenology of conscious experiences that modest physicalism allows.

(i) Consider a visual experience, e_1 , of seeing simultaneously a blue triangle and its perfectly matching image in an arrangement of mirrors. Imagine that the mirrors are perfect and, hence, invisible. Let us take it that the mirror image, being a derivative object, is not presented in e_1 ; so e_1 is directed to only one blue triangle. Now, we can explain the manifestation of the duplicate appearance of a blue triangle in the following way. We consider a subjectively identical experience, e_2 , directed to two real triangles that match perfectly the real triangle seen in e_1 . And we show through a physical argument, based on the laws of reflection, that the light rays reaching the eyes

when e_1 occurs are of the same type as those reaching the eyes when e_2 occurs. The sameness of stimulus implies, other things being equal, the sameness of phenomenology. Hence, since a duplicate appearance of a blue triangle is manifested in e_2 , such an appearance must also be manifested in e_1 . Observe that this pattern of argument can be used to explain the phenomenology of a broad range of visual experiences, such as those enjoyed when looking at things reflected in concave and convex mirrors, and even mirrors with unusual geometry.

(ii) Consider next the phenomenon of persistence of vision: the spokes of a wheel are visible when the wheel spins slowly; when the speed is increased, however, the wheel looks like a spinning disk. The phenomenology of the latter experience cannot be explained in the way sketched in (i), for the rays (or the pattern of photons or waves) reaching the eyes when the wheel is spinning fast and when one is looking at a spinning disk are quite different. Still, a similar kind of explanation can suffice. Before, in the mirror example, we could explain the phenomenology through an identity at the level of external stimulus; now, in the wheel example, we need to seek an identity deeper in the brain. If we can show that at a certain stage of visual processing in the brain, the same output results in the two cases, the spinning wheel and the spinning disk, then we would have an explanation why the spinning wheel looks like a spinning disk. Note that this kind of explanation can be highly illuminating; it can provide us with an understanding of (e.g.) why persistence of vision sets in at certain rotational speeds and not at lower ones.²⁴

(iii) The explanantia in the previous examples rely on elements that manifest the puzzling appearances. This limitation can be removed: we can generalize the pattern of explanation to cases where no elements manifest the puzzling appearances. Assume that the phenomenology of an experience of pulsating pain is never an appearance of any element. Now, we cannot explain the phenomenology of the experience in the ways sketched in (i) and (ii). Still, we can explain this character if we can show that such pain experiences involve distinctive neuronal patterns implicated in the veridical experiences of pulsating things (e.g., light and heat) in other sense modalities.

24. There is a coarser version of this kind of explanation that relies on broad similarities in brain processes instead of identity of output. For real-life examples of the coarser kind of explanation, see V. S. Ramachandran, *A Brief Tour of Human Consciousness*—especially his treatment of Capgras syndrome and of synesthesia.

This kind of explanation, too, can be highly illuminating and useful. It can, for example, help us understand and treat various pain disorders.

(iv) Finally, neurological facts can be used to explain, in the manner illustrated above, the phenomenology of dream experiences. Indeed, neurological facts may lead us to sharpen, even revise, our conception of conscious experience. Suppose we discover that, from the neurological viewpoint, there are two different kinds of dreaming: one in which the relevant sensory parts of the brain exhibit activity of the sort that occurs in the course of (e.g.) seeing, and the other in which the sensory part is virtually inactive but the linguistic and conceptual parts exhibits strong activity. Such a discovery would be grounds for taking the first kind of dreaming to involve visual conscious experiences and the second to involve only something like inner storytelling with no accompanying visual phenomenology at all.

404. Let us note some features of the explanations offered in these examples.

(i) The explanations rest on the idea that conscious experience involves physical interactions between the subject and the world, and moreover, a relevant similarity at the level of physical interactions implies a similarity at the level of phenomenology.²⁵

(ii) The above explanations implicate our understanding of ourselves. As we improve our capacity to give these explanations, we improve our understanding of our own physical constitution and situation in the world.

(iii) There are no apparent barriers to extending the above kinds of explanation to the whole range of human experience. Through empirical investigations, we may well be able to explain, in the above manner, the phenomenology of all human conscious experiences. We may thus gain a thorough physical understanding of the phenomenology of human experience. The problems that hamper a physical understanding of other aspects of mind (e.g., the problem of freedom and determinism) create no hindrance here. The physical processes lying at the basis of human conscious

25. Various precise principles linking conscious experience and brain processes are possible. For example, we may hold that there is a neurological difference when human subjects undergo phenomenologically distinct experiences, and furthermore that the neurological difference is explanatory of the phenomenological difference. Note, though, that this principle, if true, is an empirical truth.

experiences may well be law-governed, and indeed, they may be governed by relatively simple laws.

(iv) The above explanations do not provide, and do not require, a *reduction* of states of conscious experience to physical states, much less a reduction of any appearances to physical properties. The explanations retain their theoretical and practical usefulness even without any reduction of the mental to the physical.²⁶

405. One further point deserves emphasis. In the explanations above, features of some experiences are explained on the basis of certain physical facts *and* features of certain other experiences (e.g., that of seeing two blue triangles). If the explanandum is a conscious experience and its phenomenology, then the explanans also invariably includes one or more conscious experiences and their phenomenology. So, modest physicalism does not provide resources for answering riddles that an ambitious physicalism aspires to address, such as: Why is there any phenomenology at all? How can a merely physical thing be conscious? From the viewpoint of modest physicalism, these riddles are analogous to the riddle “why is there something rather than nothing?”—suitable for recreational speculation but no part of the agenda of a serious scientific study. Modest physicalism does not aim to explain the very existence of conscious experience and its phenomenology. It accepts them as fact and as essential to empirical reason, and it goes on to illuminate them using physicalist resources.²⁷

26. Note that, even if we accept the identity of a state of undergoing a conscious experience with a physical state, it is not settled thereby whether the physical state is, from the physicalist viewpoint, a representational state. And if it is a representational state, it is not settled what the relationship is between its representational content and the presentational complex. The role of representational content in the physicalist theory is quite different from the role of presentational complex in logic. Hence, it must not be assumed that an identification of a state of undergoing conscious experience with a physical state will entail any alignment of representational content with presentational complex. Nor should it be assumed that the notions “conscious experience” and “presentational complex” would be salient from within the physicalist viewpoint, that these notions would be recoverable from a purely physicalist perspective.

27. It is important to distinguish two readings of a question such as “why does a human subject undergo an experience with XYZ phenomenology in such and such physical circumstances?” On the ambitious reading, the question asks for an explanation entirely in physical terms and thus demands an explanatory reduction of consciousness to the physical. To answer the question under this reading, we must close the explanatory gap pointed out by Levine (§396). On the modest reading, the question allows explanations to appeal to conscious experiences and their phenomenology, and there is thus no demand to close Levine’s explanatory

406. QUESTION: “You lean hard on empirical reason in setting out and defending your account of conscious experience. What if this prop is taken away from you? Imagine that we can explain—better, predict—everything about ourselves and the world in purely physical terms. What would you say now about conscious experience? You must answer the fundamental question you have tried to evade: whether, and how, there can be consciousness in a purely physical world.”

RESPONSE: First, I do not think that I need to answer the so-called fundamental question. My principal concern is with the logical inquiry; I am concerned to understand empirical reasoning and empirical dialectic. This concern does not require an answer to the “fundamental” question. The question can be neglected without any harm to the logical inquiry. Second, the question is not fundamental even to the physicalist inquiry into conscious experience, at least as it is conceived under modest physicalism. As I have just argued, the physicalist inquiry retains its vitality even if, following modest physicalism, we grant logic authority over the proper treatment of conscious experience. Logic exercises its authority softly. It allows the physicalist explorer great latitude, and it remains open to the explorer’s discoveries about consciousness. Third, a good answer to the “fundamental” question would bring into play details concerning the physical constitution of the world and ourselves, details that we do not possess. Absent these details, the question is asking for mere speculation, and this is something in which one may rightfully decline to engage.

12C. PHYSICALISM WITHIN THE BOUNDS OF REASON

407. The epistemological picture I have painted allows us to see the sciences—and, in particular, physics—as playing a vital role in our cognitive endeavors. One of the aims of cognition, I have argued, is to determine

gap. Under the ambitious reading, the stress in the question falls on ‘phenomenology’: Why is there XYZ *phenomenology* (as opposed to no phenomenology at all)? Under the modest reading, the stress falls on ‘XYZ’ (granted there is phenomenology): Why is there XYZ phenomenology (as opposed to, say, ABC phenomenology)? I am arguing that even if we set aside the ambitious reading of the question, a vast field of exploration remains, one that promises deep insights into consciousness and its relationship to the physical. The exciting current work in neuropsychology falls, it seems to me, squarely in this field.

the nature of elements presented to consciousness in experience. This requires us to work out an account of the world *and* of the constitution and situation of our own selves, a task in which the sciences play the most vital role. In the picture I have painted, mind is not known first. It is not, of all possible objects of knowledge, “the most certain and evident.” Our knowledge of our minds does not lie at the basis of our knowledge of the external world. Nor, for that matter, does our knowledge of the external world lie at the basis of our knowledge of our minds. Neither kind of knowledge, internal or external, has epistemological priority. In the picture I have painted, the logical structure of our knowledge is not foundationalist. The picture emphasizes, instead, the interdependence of our knowledge of mind and our knowledge of the external world. We do not begin with one, and through some rational process, work up the other—there is no rational process that will effect this magic. Our situation, instead, is this: we possess an imperfect understanding of ourselves and the world, and we improve this understanding with the aid of experience—a task that is well within the reach of empirical reason.

Since, in the picture I have painted, neither our conception of mind nor our commonsense conception of the world has epistemic priority (and thus privilege), there is no *a priori* demand that these conceptions be preserved in every rational revision of our account of the self and the world. Our everyday concepts and conceptions, no matter how natural and useful they may be, are not sacrosanct. They can be radically revised, even abandoned, in light of empirical discoveries. Theoretical reason has, under the scheme I have offered, great freedom. Thus, I argued above that there is no conceptual barrier to the identification of pain with brain state—that the arguments to the contrary rest on erroneous conceptions of experience. Whether we should subscribe to this identity depends entirely on the outcome of our empirical investigations; the issue is not settled by *a priori*, conceptual arguments.

408. This epistemological picture allows us to sustain a robust realism about the sciences. We can see the sciences as providing our most perspicuous account of the world and of our constitution and situation. The considerations that power instrumentalist and other anti-realist interpretations of science find no home in the account I have offered. The anti-realist interpretations of science arise most fundamentally from the idea of the propositional

given. This idea makes it appear that there is a logical gulf between the propositions immediately warranted by experience and the claims made in science. Thus, for example, on the Naive-Realist reading of the propositional given, our evidence for physics consists of some truths about perceptible everyday objects. It appears, therefore, that there is a wide logical gulf between this evidence and the theoretical claims made in physics, which concern such imperceptible items as spacetime regions, fields, and subatomic particles. The logical gulf cannot be bridged, it is thought, if the physical claims are taken at face value. Thus, to bridge the gulf, the anti-realist reinterprets the claims of physics: the claims are either reduced to claims about perceptible everyday objects or ramsified away (§322), or they are denied the status of genuine claims altogether and treated as uninterpreted syntax or as useful fictions. The motivations for anti-realism are, in short, rooted in a particular epistemological conception: one domain or other of thought (the ordinary everyday conception or a sense-datum conception or some other) is taken to be epistemologically and semantically secure, and the theoretical terms and claims of the sciences are taken to be epistemologically and semantically problematic. In the picture I have offered, this epistemological conception has no place. I reject the whole idea of the propositional given and of a semantically privileged observational vocabulary. I have argued that our everyday concepts and conceptions, for example, carry with them no epistemological or semantic privilege. Furthermore, we can make sense of the content and the rationality of theoretical claims without having to reinterpret these claims in extraordinary ways. The picture I have painted thus allows us to subscribe to a robust realism about science. Science is not a mere instrument, one that compiles convenient generalizations about phenomena or one that allows us to manipulate nature. The role of science is more profound: it provides us with our best understanding of reality and of ourselves and our situation in the world.

409. The picture of empirical reason I have painted allows us to grant the physicalist philosopher that, of all the sciences, physics has a special status. We can grant that there are reasons for taking physics to be the fundamental science—a science especially revealing of reality—and for favoring physical modes of explanation. The only point that I would insist on is that these reasons are empirical in character. The special authority of physics, like that of science in general, issues from experience. Physics is a

child of empirical reason. It gains its strength, its authority, from empirical reason.

Some physicalist philosophers would, however, grow this child into a monster that destroys its own parent. They see the reach of physical explanations as growing and eventually applying to the cognizing subjects themselves and then undermining the entire framework of rationality. The point is debatable whether this is inevitable, that physics fully grown is bound to be in conflict with logic—witness the debates over soft determinism in action theory. Still, what to say of such a physicalism, a physicalism that leaves no room for consciousness and reason, one that regards consciousness and reason as superstitious posits unfit for a place in an enlightened worldview?²⁸

I think we should reject outright the picture such a physicalism paints. For let us notice, first, that the picture is merely speculative. The authority we have granted physics does not extend to this speculative extension of it. By rejecting the picture, we are not in any way diminishing the central role in cognition we have granted physics. Second, this physicalist picture is dialectically unstable. To defend it in the course of a debate is like defending the proposition “what I am now saying is irrational.”²⁹ The person defending the picture acknowledges, by his very act of defense, the demands of reason; yet, at the same time, his claim negates these demands. This is not outright inconsistency, but in a dialectical context, it is no less embarrassing. Third—and this is the most important point—in any fundamental conflict between the viewpoint of logic and the viewpoint of physics, the viewpoint of logic should have priority. For, from the viewpoint of logic, we can make full sense of physics. Now, if from the viewpoint of physics we cannot make sense of logic, then it follows that the viewpoint of logic is the more expansive and thus should have priority. We need to make sense of both logic and physics, and, by hypothesis, only the viewpoint of logic allows us to do so.

In a conflict between logic and physics, logic has a distinct advantage. Physics cannot do without empirical reason: it owes its existence and its authority to empirical reason. Hence, in a conflict with logic, physics can win only if it gives a superior account of empirical reason. The battle between

28. See Paul Churchland’s “Eliminative Materialism and the Propositional Attitudes.”

29. Since the physicalist picture has empirical content, a better example is “the earth’s core is hot and this conjunctive claim of mine is irrational.”

the two is thus conducted on logic's turf, for it is the primary concern of logic to give an account of reason. A physicalist who would object to an account of empirical reason had better be prepared to offer a better one; otherwise, he comes ill-prepared to the debate.

The relationship between physics and logic is not like that between physics and astrology: physics is in no position to declare logic a mere superstition. Nor is the relationship like that between physics and chemistry: physics is in no position to subsume logic, since the conceptual apparatus of physics is designed for explanatory concerns radically different from those of logic. The building cannot serve, at least in its current state and design, as its own scaffolding.

410. There are two opposing philosophical tendencies that we should resist. The first tendency, impressed by the centrality of science in cognition, sees science as all-encompassing and as providing little room for reason; it thus proceeds to negate reason. The second tendency, impressed by the thought that science is subject to the demands of reason, sees these demands as substantive and proceeds to impose reinterpretations and a priori constraints on science. This tendency finds expression in (e.g.) anti-realist interpretations of science and in a priori arguments for mind-body dualism.

The picture I have painted respects the underlying motivations of these opposing tendencies but without falling into their excesses. Science *does* occupy a central place in cognition. It *is* the final authority on all that is real. Nonetheless, science owes all its authority to reason, and it is in no position to undermine reason. On the other hand, even though science is subject to the demands of reason, and even though these demands are nontrivial (witness the admissibility constraints), they limit neither theoretical freedom nor the authority of science.³⁰ It is an illegitimate conception of experience and its rational role that leads to a reification of phenomenology as mental reality and, thence, to improper demands of reason and to anti-realist reinterpretations of science. One of my principal aims in this work has been to free cognition from these improper demands. The

30. Under the conception I have offered, reason does not pronounce on how the distinction between the real and the derivative is to be drawn. It does not require that logical vocabulary (such as 'appearance' and 'presence') be viewed as perspicuous.

central idea with which I began is an idea from pure logic: the legitimacy of logical interdependence. It is this idea which, by bringing into view the possibility of the hypothetical given, enables us to recognize that experience plays a substantive rational role, even though experience does not, by itself, provide us with perspicuous concepts or with epistemologically privileged propositions. This recognition puts us in a position to sharply separate presence from acquaintance. We can now make sense of the idea that although real elements are presented to consciousness in experience, they are not thereby known. Cognition does not begin with knowledge of real elements presented to consciousness. Instead, it aims, through the construction of a view of the self and the world, to discover these elements and their natures. We thus arrive at a conception that allows us to see science as engaged in the discovery of the true constituents of reality. This conception does not reify mind and phenomenology. It thus makes room for as robust a physicalism as any working scientist might want—a physicalism not barred by Cartesian scruples from exploring the physical basis of experience itself.

411. Conceptions of reason and nature—logic and physics—have often been at war with one another. My aim has been to recognize the legitimate claims of each and to bring them into harmony. If I expand the domain of logical ideas (e.g., by countenancing interdependence and a new notion of appearance), it is to give physics (and the sciences, more generally) greater authority and autonomy. If I confine physicalism within the bounds of reason, it is to prevent speculative growths whose weight threatens to undermine the very authority of physics. A physicalism bounded by reason is a physicalism freed of speculative excesses, and a physicalism that frees the imagination of the theoretician.

References

- Alston, William P. "Epistemic Circularity." Reprinted in his *Epistemic Justification: Essays in the Theory of Knowledge*, pp. 319–349. Ithaca, NY: Cornell University Press, 1989. Originally published in 1986.
- Alston, William P. "Back to the Theory of Appearing." *Philosophical Perspectives* 13 (1999), 181–203.
- Aristotle. *De Anima*. Translated by J. A. Smith. In *The Works of Aristotle*, vol. 3, edited by W. D. Ross. Oxford: Clarendon Press, 1931. This work dates from about 350 B.C.E.
- Armstrong, D. M., and Malcolm, Norman. *Consciousness and Causality: A Debate on the Nature of Mind*. Oxford: Basil Blackwell, 1984.
- Asmis, Elizabeth. "Epicurean Empiricism." In *The Cambridge Companion to Epicureanism*, edited by James Warren, pp. 84–104. Cambridge: Cambridge University Press, 2009.
- Aune, Bruce. *An Empiricist Theory of Knowledge*. Montague, MA: Bowler Books, 2009.
- Austin, J. L. *Sense and Sensibilia*. Reconstructed by G. J. Warnock. Oxford: Clarendon Press, 1962.
- Ayer, A. J. *The Foundations of Empirical Knowledge*. London: Macmillan, 1940.

- Ayer, A. J. "Has Austin Refuted the Sense-Datum Theory?" *Synthese* 17 (1967), 117–140.
- Baars, Bernard J. "Understanding Subjectivity: Global Workspace Theory and the Resurrection of the Observing Self." *Journal of Consciousness Studies* 3 (1996), 211–216.
- Beck, Ori. *On Learning from Experience*. Doctoral Dissertation. University of Pittsburgh, 2015.
- Bengson, John. "The Intellectual Given." *Mind* 124 (2010), 707–760.
- Bengson, John, Grube, Enrico, and Korman, Daniel Z. "A New Framework for Conceptualism." *Noûs* 45 (2011), 167–189.
- Berkeley, George. *Three Dialogues between Hylas and Philonous*. Edited by Jonathan Dancy. Oxford: Oxford University Press, 1998. Originally published in 1713.
- Berker, Selim. "Gupta's Gambit." *Philosophical Studies* 152 (2011), 17–39.
- Block, Ned, and Stalnaker, Robert. "Conceptual Analysis, Dualism, and the Explanatory Gap." Reprinted in *Philosophy of Mind: Classical and Contemporary Readings*, edited by David J. Chalmers, pp. 371–394. Oxford: Oxford University Press, 2002. Originally published in 1999.
- Bosanquet, Bernard. *The Essentials of Logic*. New York: Kraus Reprint, 1968. Originally published in 1895.
- Brandom, Robert B. *Making It Explicit: Reasoning, Representing, and Discursive Commitment*. Cambridge, MA: Harvard University Press, 1994.
- Brewer, Bill. *Perception and Reason*. Oxford: Clarendon Press, 1999.
- Brewer, Bill. *Perception and Its Objects*. Oxford: Oxford University Press, 2011.
- Brown, Derek H. "Losing Grip on the World: From Illusion to Sense-Data." In *Perception, Realism, and the Problem of Reference*, edited by Athanassios Raftopoulos and Peter Machamer, pp. 68–95. Cambridge: Cambridge University Press, 2012.
- Bruni, Riccardo, and Sillari, Giacomo. "A Rational Way of Playing: Revision Theory for Strategic Interaction." *Journal of Philosophical Logic* 47 (2018), 419–448.
- Burge, Tyler. "Perceptual Entitlement." *Philosophy and Phenomenological Research* 67 (2003), 503–548.
- Burge, Tyler. *Origins of Objectivity*. Oxford: Clarendon Press, 2010.
- Byrne, Alex. "Experience and Content." *Philosophical Quarterly* 59 (2009), 429–451.
- Byrne, Alex, and Hilbert, David R. *Readings on Color I: The Philosophy of Color*. Cambridge, MA: MIT Press, 1997.
- Byrne, Alex, and Logue, Heather. "Either/Or." In *Disjunctivism*, edited by Adrian Haddock and Fiona Macpherson, pp. 57–94. Oxford: Oxford University Press, 2008.

- Camp, Joseph L., Jr. *Confusion: A Study in the Theory of Knowledge*. Cambridge, MA: Harvard University Press, 2002.
- Campbell, John. "Berkeley's Puzzle." In *Conceivability and Possibility*, edited by Tamar Szabó Gendler and John Hawthorne, pp. 127–143. Oxford: Oxford University Press, 2002.
- Campbell, John. *Reference and Consciousness*. Oxford: Clarendon Press, 2002.
- Campbell, John. "Consciousness and Reference." In *The Oxford Handbook of Philosophy of Mind*, edited by Brian P. McLaughlin, Ansgar Beckermann, and Sven Walter, pp. 648–662. Oxford: Clarendon Press, 2009.
- Campbell, John. "Demonstrative Reference, the Relational View of Experience, and the Proximality Principle." In *New Essays on Singular Thought*, edited by Robin Jeshion, pp. 193–212. Oxford: Oxford University Press, 2010.
- Campbell, John, and Cassam, Quassim. *Berkeley's Puzzle: What Does Experience Teach Us?* Oxford: Oxford University Press, 2014.
- Carnap, Rudolf. "On Protocol Sentences." *Noûs* 21 (1987), 457–470. Translated by Richard Creath and Richard Nollan. Originally published in 1932.
- Carnap, Rudolf. "The Elimination of Metaphysics through Logical Analysis of Language." Translated by Arthur Pap. In *Logical Positivism*, edited by A. J. Ayer, pp. 60–81. New York: Free Press, 1959. Originally published in 1932.
- Carnap, Rudolf. "Testability and Meaning." Reprinted in *Classics of Analytic Philosophy*, edited by Robert R. Ammerman, pp. 130–195. New York: McGraw-Hill, 1965. Originally published in 1936–1937.
- Carnap, Rudolf. "Empiricism, Semantics, and Ontology." Reprinted in *Semantics and the Philosophy of Language: A Collection of Readings*, edited by Leonard Linsky, pp. 208–228. Urbana: University of Illinois Press, 1952. Originally published in 1950.
- Carrasco, Marisa. "Visual Attention: The Past 25 Years." *Vision Research* 51 (2011), 1484–1525.
- Carruthers, Peter. "Natural Theories of Consciousness." Reprinted in his *Consciousness*, pp. 36–60. Oxford: Clarendon Press, 2005. Originally published in 1998.
- Carruthers, Peter. "HOP over FOR, HOT Theory." Reprinted in his *Consciousness*, pp. 61–78. Oxford: Clarendon Press, 2005. Originally published in 2004.
- Caston, Victor. "Aristotle on Consciousness." *Mind* 111 (2002), 751–815.
- Chalmers, David J. "Consciousness and Its Place in Nature." Reprinted in his *The Character of Consciousness*, pp. 103–139. Oxford: Oxford University Press, 2010. Originally published in 2002.
- Chalmers, David J. "Perception and the Fall from Eden." Reprinted in his *The Character of Consciousness*, pp. 381–454. Oxford: Oxford University Press, 2010. Originally published in 2006.
- Chalmers, David J., and Jackson, Frank. "Conceptual Analysis and Reductive Explanation." *Philosophical Review* 110 (2001), 315–361.

- Chapuis, André. "Rationality and Circularity." In *Circularity, Definition, and Truth*, edited by André Chapuis and Anil Gupta, pp. 49–78. New Delhi: Indian Council of Philosophical Research, 2000.
- Chirumuuta, M. *Outside Color: Perceptual Science and the Puzzle of Color in Philosophy*. Cambridge, MA: MIT Press, 2015.
- Chisholm, Roderick M. *Perceiving: A Philosophical Study*. Ithaca, NY: Cornell University Press, 1957.
- Churchland, Paul. "Eliminative Materialism and the Propositional Attitudes." *Journal of Philosophy* 78 (1981), 67–90.
- Cicero, Marcus Tullius. *On Academic Scepticism*. Translated by Charles Brittain. Indianapolis: Hackett Publishing, 2006. Originally written in 45 B.C.E.
- Clark, Romane. "Sensuous Judgments." *Noûs* 7 (1973), 45–56.
- Clark, Romane. "The Sensuous Content of Perception." In *Action Knowledge and Reality: Critical Studies in Honor of Wilfrid Sellars*, edited by Hector-Neri Castañeda, pp. 109–127. Indianapolis: Bobbs-Merrill, 1975.
- Coates, Paul. *The Metaphysics of Perception: Wilfrid Sellars, Perceptual Consciousness and Critical Realism*. New York: Routledge, 2007.
- Cohen, Stewart. "How to Be a Fallibilist." *Philosophical Perspectives* 2 (1988), 91–123.
- Coliva, Annalisa. *Extended Rationality: A Hinge Epistemology*. Basingstoke, UK: Palgrave Macmillan, 2015.
- Conee, Earl, and Feldman, Richard. "Internalism Defended." In their *Evidentialism: Essays in Epistemology*, pp. 53–82. Oxford: Clarendon Press, 2004. Originally published in 2001.
- Crane, Tim. "Is There a Perceptual Relation?" In *Perceptual Experience*, edited by Tamar Szabó Gendler and John Hawthorne, pp. 126–146. Oxford: Clarendon Press, 2006.
- Davidson, Donald. "On the Very Idea of a Conceptual Scheme." Reprinted in his *Inquiries into Truth and Interpretation*, pp. 183–198. Oxford: Clarendon Press, 1984. Originally published in 1974.
- Davidson, Donald. "A Coherence Theory of Truth and Knowledge." Reprinted in his *Subjective, Intersubjective, Objective*, pp. 137–157. Oxford: Clarendon Press, 2001. Originally published in 1983.
- Davidson, Donald. "Intellectual Autobiography." In *The Philosophy of Donald Davidson*, edited by Lewis Edwin Hahn, pp. 3–70. Chicago: Open Court Publishing, 1999.
- Dawes Hicks, G. "Sense-Presentation and Thought." *Proceedings of the Aristotelian Society* 6 (1905–1906), 271–346.
- de Bruijn, David Micha. *Experiential Self-Consciousness: Rationalism about the Value and Content of Experience*. Doctoral Dissertation. University of Pittsburgh, 2017.
- Demircioğlu, Erhan. "The Given in Perceptual Experience." *Synthese* 192 (2015), 2667–2693.

- Demopoulos, William. "On the Rational Reconstruction of Our Theoretical Knowledge." Reprinted in his *Logicism and Its Philosophical Legacy*, pp. 108–139. Cambridge: Cambridge University Press, 2013. Originally published in 2003.
- Demopoulos, William. "Three Views of Theoretical Knowledge." Reprinted in his *Logicism and Its Philosophical Legacy*, pp. 140–168. Cambridge: Cambridge University Press, 2013. Originally published in 2011.
- Demopoulos, William. *On Theories*. Forthcoming.
- Demopoulos, William, and Friedman, Michael. "Bertrand Russell's *The Analysis of Matter*: Its Historical Context and Contemporary Interest." Reprinted in Demopoulos's *Logicism and Its Philosophical Legacy*, pp. 90–107. Cambridge: Cambridge University Press, 2013. Originally published in 1985.
- Dennett, Daniel. "On the Absence of Phenomenology." In *Body, Mind, and Method*, edited by Donald F. Gustafson and Bangs L. Tapscott, pp. 93–113. Dordrecht, The Netherlands: D. Reidel, 1979.
- Dennett, Daniel. "Wondering Where the Yellow Went." *The Monist* 64 (1981), 102–108.
- DeRose, Keith, and Warfield, Ted A., eds. *Skepticism: A Contemporary Reader*. New York: Oxford University Press, 1999.
- Descartes, René. *Meditations on First Philosophy*. In *The Philosophical Writings of Descartes*, vol. 2, translated and edited by John Cottingham, Robert Stoothoff, and Dugald Murdoch, pp. 1–62. Cambridge: Cambridge University Press, 1984. Originally published in 1641.
- Descartes, René. *Principles of Philosophy*. In *The Philosophical Writings of Descartes*, vol. 1, translated and edited by John Cottingham, Robert Stoothoff, and Dugald Murdoch, pp. 177–291. Cambridge: Cambridge University Press, 1985. Originally published in 1644.
- deVries, Willem A. *Wilfrid Sellars*. Montreal: McGill-Queen's University Press, 2005.
- Dickie, Imogen. "We Are Acquainted with Ordinary Things." In *New Essays on Singular Thought*, edited by Robin Jeshion, pp. 213–245. Oxford: Oxford University Press, 2010.
- Dretske, Fred. "Simple Seeing." In *Body, Mind, and Method*, edited by Donald F. Gustafson, and Bangs L. Tapscott, pp. 1–15. Dordrecht, The Netherlands: D. Reidel, 1979.
- Dretske, Fred. "Entitlement: Epistemic Rights without Epistemic Duties?" *Philosophy and Phenomenological Research* 60 (2000), 591–606.
- Dretske, Fred. "Perception without Awareness." In *Perceptual Experience*, edited by Tamar Szabó Gendler and John Hawthorne, pp. 147–180. Oxford: Clarendon Press, 2006.
- Earman, John. *Bayes or Bust? A Critical Examination of Bayesian Confirmation Theory*. Cambridge, MA: MIT Press, 1992.

- Engstrom, Stephen. "Understanding and Sensibility." *Inquiry* 49 (2006), 2–25.
- Evans, Gareth. *The Varieties of Reference*. Edited by John McDowell. Oxford: Clarendon Press, 1982.
- Evans, Gareth. "Understanding Demonstratives." In his *Collected Papers*, pp. 291–321. Oxford: Clarendon Press, 1985.
- ffytche, Dominic H. "Visual Hallucinatory Syndromes: Past, Present, and Future." *Dialogues in Clinical Neuroscience* 9 (2007), 173–189.
- ffytche, Dominic H. "The Hallucinating Brain: Neurobiological Insights into the Nature of Hallucinations." In *Hallucinations: Philosophy and Psychology*, edited by Fiona Macpherson and Dimitris Platchias, pp. 45–63. Cambridge, MA: MIT Press, 2013.
- Firth, Roderick. "Coherence, Certainty, and Epistemic Priority." Reprinted in *Perceptual Knowledge*, edited by Jonathan Dancy, pp. 164–176. Oxford: Oxford University Press, 1988. Originally published in 1964.
- Fish, William. *Perception, Hallucination, and Illusion*. Oxford: Oxford University Press, 2009.
- Frege, Gottlob. "Thoughts." Translated by P. T. Geach and R. H. Stoothoff. In *Logical Investigations*, edited by P. T. Geach, pp. 1–30. New Haven, CT: Yale University Press, 1977. Originally published in 1918–1919.
- Frey, Christopher. "On the Rational Contribution of Experiential Transparency." *Philosophy and Phenomenological Research* 82 (2011), 721–732.
- Fumerton, Richard A. *Metaphysical and Epistemological Problems of Perception*. Lincoln: University of Nebraska Press, 1985.
- Fumerton, Richard A. "Direct Realism, Introspection, and Cognitive Science." *Philosophy and Phenomenological Research* 73 (2006), 680–695.
- Gennaro, Rocco J., ed. *Higher-Order Theories of Consciousness: An Anthology*. Amsterdam: John Benjamins, 2004.
- Genone, James. "Appearance and Illusion." *Mind* 123 (2014), 339–376.
- Ghijsen, Harmen. *The Puzzle of Perceptual Justification: Conscious Experience, Higher-Order Beliefs, and Reliable Processes*. Switzerland: Springer, 2016.
- Ginsborg, Hannah. "Reasons for Belief." *Philosophy and Phenomenological Research* 72 (2006), 286–318.
- Glüer, Kathrin. "Colors without Circles." *Erkenntnis* 66 (2007), 107–131.
- Glüer, Kathrin. "Looks, Reasons, and Experiences." In *Does Perception Have Content?*, edited by Berit Brogaard, pp. 76–102. Oxford: Oxford University Press, 2014.
- Goldman, Alan H. "The Given." In *A Companion to Epistemology*, edited by Jonathan Dancy and Ernest Sosa, pp. 159–162. Oxford: Blackwell, 1992.
- Goldman, Alvin, and Beddor, Bob. "Reliabilist Epistemology." *Stanford Encyclopedia of Philosophy* (Winter 2016 ed.), edited by Edward N. Zalta. First published in 2008. <https://plato.stanford.edu/archives/win2016/entries/reliabilism>.

- Grimes, John. "On the Failure to Detect Changes in Scenes across Saccades." In *Perception*, edited by Kathleen Akins, pp. 89–109. Oxford: Oxford University Press, 1996.
- Gupta, Anil. "A Critique of Deflationism." Reprinted in his *Truth, Meaning, Experience*, pp. 9–52. Oxford: Oxford University Press, 2011. Originally published in 1993.
- Gupta, Anil. "Meaning and Misconceptions." Reprinted in his *Truth, Meaning, Experience*, pp. 164–195. Oxford: Oxford University Press, 2011. Originally published in 1999.
- Gupta, Anil. "On Circular Concepts." Reprinted in his *Truth, Meaning, Experience*, pp. 95–134. Oxford: Oxford University Press, 2011. Originally published in 2000.
- Gupta, Anil. "An Argument against Tarski's Convention T." Reprinted in his *Truth, Meaning, Experience*, pp. 53–72. Oxford: Oxford University Press, 2011. Originally published in 2002.
- Gupta, Anil. "Deflationism, the Problem of Representation, and Horwich's Use Theory of Meaning," *Philosophy and Phenomenological Research* 67 (2003), 654–666.
- Gupta, Anil. *Empiricism and Experience*. Oxford: Oxford University Press, 2006.
- Gupta, Anil. "Finite Circular Definitions." In *Self-Reference*, edited by Thomas Bolander, Vincent F. Hendricks, and Stig Andur Andersen, pp. 79–93. Stanford, CA: CSLI Publications, 2006.
- Gupta, Anil. "Definitions." *Stanford Encyclopedia of Philosophy* (Summer 2015 ed.), edited by Edward N. Zalta. First published in 2008. <https://plato.stanford.edu/archives/sum2015/entries/definitions>.
- Gupta, Anil. "Equivalence, Reliability, and Convergence." Reprinted in his *Truth, Meaning, Experience*, pp. 230–253. Oxford: Oxford University Press, 2011. Originally published in 2009.
- Gupta, Anil. "Frey on Experiential Transparency and Its Rational Role." *Philosophy and Phenomenological Research* 82 (2011), 717–720.
- Gupta, Anil. "Replies to Selim Berker and Karl Schafer." *Philosophical Studies* 152 (2011), 41–53.
- Gupta, Anil. *Truth, Meaning, Experience*. Oxford: Oxford University Press, 2011.
- Gupta, Anil. "An Account of Conscious Experience." *Analytic Philosophy* 53 (2012), 1–29.
- Gupta, Anil. "The Relationship of Experience to Thought." *The Monist* 96 (2013), 252–294.
- Gupta, Anil, and Belnap, Nuel. *The Revision Theory of Truth*. Cambridge, MA: MIT Press, 1993.
- Gupta, Anil, and Standefer, Shawn. "Conditionals in Theories of Truth." *Journal of Philosophical Logic* 46 (2017), 27–63.

- Hacker, P. M. S. "Frege and Wittgenstein on Elucidations." *Mind* 84 (1975), 601–609.
- Hacker, P. M. S. "Wittgenstein on Ostensive Definition." *Inquiry* 18 (1975), 267–287.
- Hamlyn, D. W. "Empiricism." In *The Encyclopedia of Philosophy*, vol. 2, edited by Paul Edwards, pp. 499–505. New York: Macmillan, 1967.
- Hanson, Norwood Russell. *Patterns of Discovery: An Inquiry into the Conceptual Foundations of Science*. Cambridge: Cambridge University Press, 1958.
- Hardin, C. L. "A Spectral Reflectance Doth Not a Color Make." *Journal of Philosophy* 100 (2003), 191–202.
- Harman, Gilbert. "The Intrinsic Quality of Experience." Reprinted in his *Reasoning, Meaning and Mind*, pp. 244–261. Oxford: Clarendon Press, 1999. Originally published in 1990.
- Harris, James, F. "Language, Language Games and Ostensive Definition." *Synthese* 69 (1986), 41–49.
- Hawthorne, John. *Knowledge and Lotteries*. Oxford: Clarendon Press, 2004.
- Heath, Thomas L. *Greek Astronomy*. New York: Dover, 1991. Originally published in 1932.
- Hempel, Carl G. "The Empiricist Criterion of Meaning." Reprinted in *Logical Positivism*, edited by A. J. Ayer, pp. 108–129. New York: Free Press, 1959. Originally published in 1950.
- Hill, Christopher S. *Thought and World: An Austere Portrayal of Truth, Reference, and Semantic Correspondence*. Cambridge: Cambridge University Press, 2002.
- Hill, Christopher S. *Consciousness*. Cambridge: Cambridge University Press, 2009.
- Hill, Christopher S. *Meaning, Mind, and Knowledge*. Oxford: Oxford University Press, 2014.
- Hill, Christopher S. "The Content of Visual Experience." In his *Meaning, Mind, and Knowledge*, pp. 218–236. Oxford: Oxford University Press, 2014.
- Hinton, J. M. "Experiences." *Philosophical Quarterly* 17 (1967), 1–13.
- Horgan, Terence. "Original Intentionality Is Phenomenal Intentionality." *The Monist* 96 (2013), 232–251.
- Horgan, Terence, and Tienson, John. "The Intentionality of Phenomenology and the Phenomenology of Intentionality." In *Philosophy of Mind: Classical and Contemporary Readings*, edited by David J. Chalmers, pp. 520–533. Oxford: Oxford University Press, 2002.
- Horgan, Terence, Tienson, John, and Graham, George. "Internal-World Skepticism and the Self-Presentational Nature of Phenomenal Consciousness." Reprinted in *Self-Representational Approaches to Consciousness*, edited by Uriah Kriegel and Kenneth Williford, pp. 41–61. Cambridge, MA: MIT Press, 2006. Originally published in 2005.

- Horwich, Paul. *Truth*. 2nd ed. Oxford: Clarendon Press, 1998. The 1st ed. appeared in 1990.
- Horwich, Paul. *Meaning*. Oxford: Clarendon Press, 1998.
- Huemer, Michael. *Skepticism and the Veil of Perception*. Lanham, ND: Rowman and Littlefield, 2001.
- Hume, David. *A Treatise of Human Nature*. Edited by David Fate Norton and Mary J. Norton. Oxford: Oxford University Press, 2000. Originally published in 1739–1740.
- Hume, David. *An Enquiry concerning Human Understanding*. Edited by Tom L. Beauchamp. Oxford: Oxford University Press, 1999. Originally published in 1748.
- Husserl, Edmund. *The Crisis of European Sciences and Transcendental Phenomenology: An Introduction to Phenomenological Philosophy*. Translated by David Carr. Evanston, IL: Northwestern University Press, 1970. Originally published in 1954.
- Iranzo, Valeriano. "On the Epistemic Authority of Experience." *International Journal of Philosophical Studies* 17 (2009), 307–314.
- Jackson, Frank. "Epiphenomenal Qualia." Reprinted in *There's Something about Mary: Essays on Phenomenal Concepts and Frank Jackson's Knowledge Argument*, edited by Peter Ludlow, Yujin Nagasawa, and Daniel Stoljar, pp. 39–50. Cambridge, MA: MIT Press, 2004. Originally published in 1982.
- Jackson, Frank. "The Knowledge Argument, Diaphanousness, Representationalism." In *Phenomenal Concepts and Phenomenal Knowledge: New Essays on Consciousness and Physicalism*, edited by Torin Alter and Sven Walter, pp. 52–64. Oxford: Oxford University Press, 2006.
- Johnston, Mark. "The Obscure Object of Hallucination." *Philosophical Studies* 120 (2004), 113–183.
- Johnston, Mark. "Better Than Mere Knowledge? The Function of Sensory Awareness." In *Perceptual Experience*, edited by Tamar Szabó Gendler and John Hawthorne, pp. 260–290. Oxford: Clarendon Press, 2006.
- Kant, Immanuel. *Critique of Pure Reason*. Translated by Norman Kemp Smith. London: Macmillan, 1964. The 1st ed. appeared in 1781, and the 2nd in 1787. Kemp Smith's translation was originally published in 1929.
- Kaplan, David. "Afterthoughts." In *On Sense and Direct Reference: Readings in the Philosophy of Language*, edited by Matthew Davidson, pp. 782–820. Boston: McGraw-Hill, 2007. Originally published in 1989.
- Kaplan, David. "Demonstratives: An Essay on the Semantics, Logic, Metaphysics, and Epistemology of Demonstratives and Other Indexicals." In *On Sense and Direct Reference: Readings in the Philosophy of Language*, edited by Matthew Davidson, pp. 720–782. Boston: McGraw-Hill, 2007. Originally published in 1989.

- Kennedy, Matthew. "Heirs of Nothing: The Implications of Transparency." *Philosophy and Phenomenological Research* 79 (2009), 574–604.
- Kim, Jaegwon. "Perception and Reference without Causality." *Journal of Philosophy* 74 (1977), 606–620.
- Kind, Amy. "What's So Transparent about Transparency." *Philosophical Studies* 115 (2003), 225–244.
- Koethe, John. *Scepticism, Knowledge, and Forms of Reasoning*. Ithaca, NY: Cornell University Press, 2005.
- Kriegel, Uriah. "Philosophical Theories of Consciousness: Contemporary Western Perspectives." In *The Cambridge Handbook of Consciousness*, edited by Philip David Zelazo, Morris Moscovitch, and Evan Thompson, pp. 35–66. Cambridge: Cambridge University Press, 2007.
- Kriegel, Uriah, and Williford, Kenneth, eds. *Self-Representational Approaches to Consciousness*. Cambridge, MA: MIT Press, 2006.
- Kripke, Saul. *Naming and Necessity*. Cambridge, MA: Harvard University Press, 1980. Originally published in 1972.
- Kripke, Saul. *Reference and Existence*. Oxford: Oxford University Press, 2013.
- Ladyman, James. "Structural Realism." *Stanford Encyclopedia of Philosophy* (Winter 2016 ed.), edited by Edward N. Zalta. First published in 2007. <https://plato.stanford.edu/archives/win2016/entries/structural-realism>.
- Leeds, Stephen. "Theories of Reference and Truth." *Erkenntnis* 13 (1978), 111–129.
- Levine, Joseph. "Materialism and Qualia: The Explanatory Gap." Reprinted in *Philosophy of Mind: Classical and Contemporary Readings*, edited by David J. Chalmers, pp. 354–361. Oxford: Oxford University Press, 2002. Originally published in 1983.
- Loar, Brian. "Phenomenal Intentionality as the Basis of Mental Content." In *Reflections and Replies: Essays on the Philosophy of Tyler Burge*, edited by Martin Hahn and Bjørn Ramberg, pp. 229–257. Cambridge, MA: MIT Press, 2003.
- Locke, John. *An Essay concerning Human Understanding*. Edited by Peter H. Nidditch. Oxford: Oxford University Press, 1975. Originally published in 1689.
- Lycan, William G. *Consciousness and Experience*. Cambridge, MA: MIT Press, 1996.
- Lycan, William G. "The Superiority of HOP to HOT." In *Higher-Order Theories of Consciousness*, edited by Rocco J. Gennaro, pp. 93–113. Amsterdam: John Benjamins, 2004.
- Lyons, Jack C. *Perception and Basic Beliefs: Zombies, Modules, and the Problem of the External World*. Oxford: Oxford University Press, 2009.
- Martin, M. G. F. "The Transparency of Experience." *Mind and Language* 17 (2002), 376–425.

- Martin, M. G. F. "The Limits of Self-Awareness." *Philosophical Studies* 120 (2004), 37–89.
- Martin, M. G. F. "On Being Alienated." In *Perceptual Experience*, edited by Tamar Szabó Gendler, and John Hawthorne, pp. 354–410. Oxford: Clarendon Press, 2006.
- Marushak, Adam. "On the Hypothetical Given." Forthcoming.
- Matthen, Mohan. "How Things Look (and What Things Look That Way)." In *Perceiving the World*, edited by Bence Nanay, pp. 226–253. Oxford: Oxford University Press, 2010.
- Maund, Barry. "Color." *Stanford Encyclopedia of Philosophy* (Winter 2012 ed.), edited by Edward N. Zalta. Originally published in 1997. <http://plato.stanford.edu/archives/win2012/entries/color>.
- McDowell, John. "Criteria, Defeasibility, and Knowledge." Reprinted in his *Meaning, Knowledge, and Reality*, pp. 369–394. Cambridge, MA: Harvard University Press, 1998. Originally published in 1982.
- McDowell, John. *Mind and World*. Cambridge, MA: Harvard University Press, 1994.
- McDowell, John. "Avoiding the Myth of the Given." Reprinted in his *Having the World in View*, pp. 256–272. Cambridge, MA: Harvard University Press, 2009. Originally published in 2008.
- McDowell, John. "Sensory Consciousness in Kant and Sellars." Reprinted in his *Having the World in View*, pp. 108–126. Cambridge, MA: Harvard University Press, 2009. Originally published in 2008.
- McDowell, John. "The Disjunctivist Conception of Experience as Material for a Transcendental Argument." In *Disjunctivism*, edited by Adrian Haddock and Fiona Macpherson, pp. 376–389. Oxford: Oxford University Press, 2008.
- McDowell, John. "The Given in Experience: Comment on Gupta." *Philosophy and Phenomenological Research* 79 (2009), 468–474.
- McDowell, John. *Perception as a Capacity for Knowledge*. Milwaukee, WI: Marquette University Press, 2011.
- Merleau-Ponty, Maurice. "The Primacy of Perception and Its Philosophical Consequences." In his *The Primacy of Perception and Other Essays on Phenomenological Psychology, the Philosophy of Art, History and Politics*. Translated by James M. Edie. Evanston, IL: Northwestern University Press, 1964. Originally published in 1947.
- Moore, G. E. "The Refutation of Idealism." Reprinted in his *Philosophical Studies*, pp. 1–30. Paterson, NJ: Littlefield, Adams, 1959. Originally published in 1903.
- Moore, G. E. "The Status of Sense-Data." Reprinted in his *Philosophical Studies*, pp. 168–196. Paterson, NJ: Littlefield, Adams, 1959. Originally published in 1913–1914.

- Moore, G. E. "Some Judgments of Perception." Reprinted in his *Philosophical Studies*, pp. 220–252. Paterson, NJ: Littlefield, Adams, 1959. Originally published in 1918.
- Moore, G. E. *Philosophical Studies*. Paterson, NJ: Littlefield, Adams, 1959. Originally published in 1922.
- Moore, G. E. "A Defence of Common Sense." Reprinted in his *Philosophical Papers*, pp. 32–59. New York: Collier Books, 1962. Originally published in 1925.
- Moore, G. E. "Visual Sense-Data." Reprinted in *Perceiving, Sensing, and Knowing*, edited by Robert J. Swartz, pp. 130–137. Berkeley: University of California Press, 1965. Originally published in 1957.
- Neta, Ram. "Empiricism about Experience." *Philosophy and Phenomenological Research* 79 (2009), 482–489.
- Noë, Alva. "Thought and Experience." *American Philosophical Quarterly* 36 (1999), 257–265.
- Noë, Alva. "Experience and the Active Mind." *Synthese* 129 (2001), 41–60.
- Noë, Alva. "Experience of the World in Time." *Analysis* 66 (2006), 26–32.
- Pautz, Adam. "Why Explain Visual Experience in Terms of Content?" In *Perceiving the World*, edited by Bence Nanay, pp. 254–309. Oxford: Oxford University Press, 2010.
- Peacocke, Christopher. *The Realm of Reason*. Oxford: Clarendon Press, 2004.
- Perrin, Jean. *Atoms*. Translated by D. Ll. Hammick. London: Constable, 1916. Originally published in 1913.
- Perrin, Jean. "Discontinuous Structure of Matter." Nobel Lecture, December 1926.
- Plato. *Theaetetus*. Translated by F. M. Cornford. In *The Collected Dialogues of Plato*, edited by Edith Hamilton and Huntington Cairns, pp. 845–919. New York: Pantheon Books, 1961. This work dates from about 369 B.C.E.
- Pryor, James. "The Skeptic and the Dogmatist." *Noûs* 34 (2000), 517–549.
- Quine, Willard Van Orman. "Two Dogmas of Empiricism." Reprinted in his *From a Logical Point of View: 9 Logico-Philosophical Essays*, pp. 20–46. Cambridge, MA: Harvard University Press, 1953. Originally published in 1951.
- Quine, Willard Van Orman. "Epistemology Naturalized." In his *Ontological Relativity and Other Essays*, pp. 69–90. New York: Columbia University Press, 1969.
- Quine, Willard Van Orman. "Ontological Relativity." In his *Ontological Relativity and Other Essays*, pp. 26–68. New York: Columbia University Press, 1969.
- Quine, Willard Van Orman. *Philosophy of Logic*. 2nd ed. Cambridge, MA: Harvard University Press, 1986. The 1st ed. appeared in 1970.
- Ramachandran, V. S. *A Brief Tour of Human Consciousness*. New York: Pi Press, 2004. Originally published in 2003.

- Ray, Nicholas. *Ordinary Empirical Judgments and Our Scientific Knowledge: An Extension of Reformed Empiricism to the Philosophy of Science*. Doctoral Dissertation. University of Western Ontario, 2012.
- Richardson, Alan W. "Conceiving, Experiencing, and Conceiving Experiencing: Neo-Kantianism and the History of the Concept of Experience." *Topoi* 22 (2003), 55–67.
- Rosenhagen, Tom Raja. *Experience and Belief: An Inquiry into the Doxastic Variability of Experience*. Doctoral Dissertation. University of Pittsburgh, 2018.
- Rosenthal, David M. "A Theory of Consciousness." Revised version reprinted in *The Nature of Consciousness*, edited by Ned Block, Owen Flanagan, and Güven Güzeldere, pp. 729–753. Cambridge, MA: MIT Press, 1997. Originally published as a technical report in 1990.
- Russell, Bertrand. "Knowledge by Acquaintance and Knowledge by Description." Reprinted in his *Mysticism and Logic*, pp. 202–224. Garden City, NY: Doubleday Anchor Books, 1957. Originally published in 1911.
- Russell, Bertrand. *The Problems of Philosophy*. Oxford: Oxford University Press, 1959. Originally published in 1912.
- Russell, Bertrand. "The Nature of Sense-Data: A Reply to Dr. Dawes Hicks." *Mind* 22 (1913), 76–81.
- Russell, Bertrand. "On Scientific Method in Philosophy." Reprinted in his *Mysticism and Logic*, pp. 93–119. Garden City, NY: Doubleday Anchor Books, 1957. Originally published in 1914.
- Russell, Bertrand. *Our Knowledge of the External World: As a Field for Scientific Method in Philosophy*. London: George Allen and Unwin, 1926. Originally published in 1914.
- Russell, Bertrand. "The Relation of Sense-Data to Physics." Reprinted in his *Mysticism and Logic*, pp. 140–173. Garden City, NY: Doubleday Anchor Books, 1957. Originally published in 1914.
- Russell, Bertrand. "The Philosophy of Logical Atomism." Reprinted in his *Logic and Knowledge: Essays 1901–1950*, edited by Robert Charles Marsh, pp. 177–281. London: George Allen and Unwin, 1956. Originally published in 1918.
- Russell, Bertrand. *Introduction to Mathematical Philosophy*. London: George Allen and Unwin, 1919.
- Russell, Bertrand. "On Propositions: What They Are and How They Mean." Reprinted in his *Logic and Knowledge: Essays 1901–1950*, edited by Robert Charles Marsh, pp. 285–320. London: George Allen and Unwin, 1956. Originally published in 1919.
- Russell, Bertrand. *The Analysis of Mind*. London: George Allen and Unwin, 1921.
- Russell, Bertrand. *The Analysis of Matter*. New York: Dover, 1954. Originally published in 1927.

- Russell, Bertrand. *An Inquiry into Meaning and Truth*. London: George Allen and Unwin, 1940.
- Russell, Bertrand. "My Mental Development." In *The Philosophy of Bertrand Russell*, edited by Paul Arthur Schilpp, pp. 1–20. La Salle, IL: Open Court, 1989. Originally published in 1944.
- Russell, Bertrand. *Human Knowledge: Its Scope and Limits*. New York: Simon and Schuster, 1948.
- Russell, Bertrand. *My Philosophical Development*. New York: Simon and Schuster, 1959.
- Russell, Bertrand. *Theory of Knowledge: The 1913 Manuscript*. Edited by Elizabeth Ramsden Eames. London: Routledge, 1992. Originally published in 1984.
- Ryle, Gilbert. *The Concept of Mind*. London: Hutchinson, 1949.
- Schafer, Karl. "The Rationalism in Anil Gupta's *Empiricism and Experience*." *Philosophical Studies* 152 (2011), 1–15.
- Schellenberg, Susanna. "Situation-Dependency of Perception." *Journal of Philosophy* 105 (2008), 55–84.
- Schellenberg, Susanna. "Perceptual Content Defended." *Noûs* (2011), 714–750.
- Schiffer, Stephen. "Contextualist Solutions to Scepticism." *Proceedings of the Aristotelian Society* 96 (1996), 317–333.
- Sellars, Wilfrid. "Particulars." Reprinted in his *Science, Perception and Reality*, pp. 282–297. London: Routledge and Kegan Paul, 1963. Originally published in 1952.
- Sellars, Wilfrid. "Inference and Meaning." Reprinted in *In the Space of Reasons*, edited by Kevin Scharp and Robert B. Brandom, pp. 3–27. Cambridge, MA: Harvard University Press, 2007. Originally published in 1953.
- Sellars, Wilfrid. "Some Reflections on Language Games." Reprinted in his *Science, Perception and Reality*, pp. 321–358. London: Routledge and Kegan Paul, 1963. Originally published in 1954.
- Sellars, Wilfrid. "Empiricism and the Philosophy of Mind." Reprinted in his *Science, Perception and Reality*, pp. 127–196. London: Routledge and Kegan Paul, 1963. Originally published in 1956.
- Sellars, Wilfrid. "Being and Being Known." Reprinted in his *Science, Perception and Reality*, pp. 41–59. London: Routledge and Kegan Paul, 1963. Originally published in 1960.
- Sellars, Wilfrid. "Philosophy and the Scientific Image of Man." Reprinted in his *Science, Perception and Reality*, pp. 1–40. London: Routledge and Kegan Paul, 1963. Originally published in 1962.
- Sellars, Wilfrid. "Phenomenalism." In his *Science, Perception and Reality*, pp. 60–105. London: Routledge and Kegan Paul, 1963.
- Sellars, Wilfrid. "The Intentional Realism of Everett Hall." Reprinted in his *Philosophical Perspectives: Metaphysics and Epistemology*, pp. 29–48. Atascadero, CA: Ridgeview, 1977. Originally published in 1966.

- Sellars, Wilfrid. *Science and Metaphysics: Variations on Kantian Themes*. London: Routledge and Kegan Paul, 1968.
- Sellars, Wilfrid. "Science, Sense Impressions, and Sensa: A Reply to Cornman." *Review of Metaphysics* 25 (1971), 391–447.
- Sellars, Wilfrid. "Givenness and Explanatory Coherence." *Journal of Philosophy* 70 (1973), 612–624.
- Sellars, Wilfrid. "Meaning as Functional Classification: A Perspective on the Relation of Syntax to Semantics." Reprinted in *In the Space of Reasons*, edited by Kevin Scharp and Robert B. Brandom, pp. 81–100. Cambridge, MA: Harvard University Press, 2007. Originally published in 1974.
- Sellars, Wilfrid. "Autobiographical Reflections." In *Action Knowledge and Reality: Critical Studies in Honor of Wilfrid Sellars*, edited by Hector-Neri Castañeda, pp. 277–293. Indianapolis: Bobbs-Merrill, 1975.
- Sellars, Wilfrid. "The Structure of Knowledge." In *Action Knowledge and Reality: Critical Studies in Honor of Wilfrid Sellars*, edited by Hector-Neri Castañeda, pp. 295–347. Indianapolis: Bobbs-Merrill, 1975.
- Sellars, Wilfrid. "Kant's Transcendental Idealism." Reprinted in *Kant's Transcendental Metaphysics*, edited by Jeffrey F. Sicha, pp. 403–417. Atascadero, CA: Ridgeview, 2002. Originally published in 1976.
- Sellars, Wilfrid. "Some Reflections on Perceptual Consciousness." Reprinted in *Kant's Transcendental Metaphysics*, edited by Jeffrey F. Sicha, pp. 431–441. Atascadero, CA: Ridgeview, 2002. Originally published in 1978.
- Sellars, Wilfrid. "The Role of Imagination in Kant's Theory of Experience." Reprinted in *Kant's Transcendental Metaphysics*, edited by Jeffrey F. Sicha, pp. 419–430. Atascadero, CA: Ridgeview, 2002. Originally published in 1978.
- Sellars, Wilfrid. "More on Givenness and Explanatory Coherence." Reprinted in *Perceptual Knowledge*, edited by Jonathan Dancy, pp. 177–191. Oxford: Oxford University Press, 1988. Originally published in 1979.
- Sellars, Wilfrid. "Foundations for a Metaphysics of Pure Process." *The Monist* 64 (1981), 3–90.
- Sellars, Wilfrid. "Sensa or Sensings: Reflections on the Ontology of Perception." *Philosophical Studies* 41 (1982), 83–111.
- Sextus Empiricus. *Outlines of Scepticism*. Translated by Julia Annas and Jonathan Barnes. Cambridge: Cambridge University Press, 2000. The original work dates from about 2nd century C.E.
- Shoemaker, Sydney. "On the Ways Things Appear." In *Perceptual Experience*, edited by Tamar Szabó Gendler and John Hawthorne, pp. 461–480. Oxford: Clarendon Press, 2006.
- Siegel, Susanna. *The Contents of Visual Experience*. Oxford: Oxford University Press, 2010.

- Smith, A. D. *The Problem of Perception*. Cambridge, MA: Harvard University Press, 2002.
- Snowdon, Paul. "Perception, Vision, and Causation." Reprinted in *Perceptual Knowledge*, edited by Jonathan Dancy, pp. 192–208. Oxford: Oxford University Press, 1988. Originally published in 1980–1981.
- Soteriou, Matthew. *The Mind's Construction: The Ontology of Mind and Mental Action*. Oxford: Oxford University Press, 2013.
- Speaks, Jeff. "Transparency, Intentionalism, and the Nature of Perceptual Content." *Philosophy and Phenomenological Research* 79 (2009), 539–573.
- Strawson, P. F. "Perception and Its Objects." Reprinted in *Perceptual Knowledge*, edited by Jonathan Dancy, pp. 92–112. New York: Oxford University Press, 1988. Originally published in 1979.
- Tarski, Alfred. "The Semantic Conception of Truth and the Foundations of Semantics." Reprinted in *The Nature of Truth: Classical and Contemporary Perspectives*, edited by Michael P. Lynch, pp. 331–363. Cambridge, MA: MIT Press, 2001. Originally published in 1944.
- Thompson, Brad. "Senses for Senses." *Australasian Journal of Philosophy* 87 (2009), 99–117.
- Travis, Charles. "The Silence of the Senses." *Mind* 113 (2004), 57–94.
- Tye, Michael. *Ten Problems of Consciousness: A Representational Theory of the Phenomenal Mind*. Cambridge, MA: MIT Press, 1995.
- Tye, Michael. *Consciousness Revisited: Materialism without Phenomenal Concepts*. Cambridge, MA: MIT Press, 2009.
- van Fraassen, Bas C. "The False Hopes of Traditional Epistemology." *Philosophy and Phenomenological Research* 60 (2000), 253–280.
- van Fraassen, Bas C. *The Empirical Stance*. New Haven, CT: Yale University Press, 2002.
- van Fraassen, Bas C. *Scientific Representation: Paradoxes of Perspective*. Oxford: Clarendon Press, 2008.
- Vickers, John. "The Problem of Induction." *Stanford Encyclopedia of Philosophy* (Spring 2016 ed.), edited by Edward N. Zalta. First published in 2006. <https://plato.stanford.edu/archives/spr2016/entries/induction-problem>.
- Vuletić, Miloš. *Ways of Appearing: Experience and Its Phenomenology*. Doctoral Dissertation. University of Pittsburgh, 2015.
- Weiner, Matt. "The (Mostly Harmless) Inconsistency of Knowledge Ascriptions." *Philosophers' Imprint* 9 (2009), 1–25.
- Whitehead, Alfred North, and Russell, Bertrand. *Principia Mathematica*, vol. 1. 2nd ed. Cambridge: Cambridge University Press, 1925. The 1st ed. appeared in 1910.
- Williamson, Timothy. *Knowledge and Its Limits*. Oxford: Oxford University Press, 2000.

- Wilson, Mark. *Wandering Significance: An Essay on Conceptual Behavior*. Oxford: Clarendon Press, 2006.
- Wittgenstein, Ludwig. *Tractatus Logico-Philosophicus*. Translated by D. F. Pears and B. F. McGuinness. London: Routledge and Kegan Paul, 1961. Originally published in 1921.
- Wittgenstein, Ludwig. *Philosophical Investigations*. Translated by G. E. M. Anscombe. New York: Macmillan, 1953.
- Wittgenstein, Ludwig. *The Blue Book*. In *The Blue and Brown Books: Preliminary Studies for the "Philosophical Investigations."* New York: Harper and Row, 1958.
- Wright, Crispin. "Warrant for Nothing (and Foundations for Free)?" *Proceedings of the Aristotelian Society, Supplementary Volume* 78 (2004), 167–212.
- Wu, Wayne. *Attention*. London: Routledge, 2014.
- Yolton, John W. *Perceptual Acquaintance: From Descartes to Reid*. Minneapolis: University of Minnesota Press, 1984.

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