

From Pluralism to Naturalism

This chapter will argue for a systematic naturalistic metaphysics, understood in a particular way. The motivation is to answer, or diminish, traditional objections to naturalism and recent objections to systematic metaphysics. Doing so will distance my naturalism from others, including some held to be obvious, intuitive, or valid without argument as a kind of non-metaphysical default position. For naturalism is a metaphysics and it must be defended against two sorts of criticisms: that naturalism is too narrow, being incompatible with any adequate account of mind, meanings, culture and, relevant only to some, the divine; and that no systematic or general metaphysics, naturalist or physicalist or dualist or idealist, can be justified.

The naturalism described herein will be distinctive. As Section I of this chapter will describe, it understands metaphysics as fallibilist and *a posteriori*, and rejects metaphysical and methodological globalism, the notion that the validity of a metaphysical analysis of a thing or order of things hangs on the valid characterization of the most inclusive order in which it functions. Hence (in Section II) it avoids all talk of the Whole or Foundations, instead adopting a radically pluralist language for the discrimination of any being or evidence whatsoever. That is our background metaphysical language. Naturalism will then (in Section III) be hypothesized as the most robust theory to account for whatever is discriminated within this pluralism. That is, a localist approach to metaphysics allows us to adopt a naturalistic perspective within or on the basis of pluralism, resulting in a pluralistic form of naturalism capable of employing the work of multiple sciences while blunting traditional criticisms. Given all this, I will argue (in Section IV) that *naturalism is at least locally true*. The task will then be to work out such a naturalism in conversation with multiple sciences, showing that

important features of reality can be included in it. That will require the rest of the book. The present chapter tries only to outline the project and show that it stands a chance.

I. A Fallibilist and Local Metaphysics

John Herman Randall, a philosopher at Columbia University, argued that metaphysics, on Aristotle's view, is distinguished from other inquiries by its subject-matter, not a special method. It investigates, "the general characters and the ultimate distinctions illustrated and exhibited in each specific and determinate kind of existence and existential subject-matter" (Randall 1958, p. 144). This approach differs, he claimed, from the traditions of metaphysics that have sought the Unity of existence, trying to synthesize all knowledge into a unified system, or the True Being behind all appearances (Randall 1958, pp. 124–33). Following Aristotle, Randall argues metaphysics is the inquiry that seeks the most generic features of the plural kinds of determinate beings that obtain—all existence being at least partly, not completely, determinate—and are studied by all other disciplines. This means what distinguishes metaphysics from other inquiries is its generality, not its method. Philosophy, including metaphysics, is inquiry, continuous with other forms of inquiry from physics to art history. It is only more general.

A century earlier the American philosopher Charles Peirce argued there is no type or line of argument that is infallible or certain or complete; there are only degrees of likelihood, trustworthiness, and confidence. We never know anything with certainty, and we never know everything about anything. We can hope for neither certainty nor completeness in any inquiry. Peirce extended this as far as to include even deductive arguments, for the simple reason that even mathematicians make mistakes. Sometimes these are errors of reasoning, more often ambiguities which accumulate along a chain of arguments, as do perturbations in some physical systems. As a result, Peirce claimed that philosophy ought more to trust a plurality of seemingly reliable and compatible arguments from different sets of premises than a single deductive series of arguments each member of which is dependent for its reliability on the preceding argument.

Philosophy ought to imitate the successful sciences in its methods . . . to trust rather to the multitude and variety of its arguments than to the conclusiveness of any one. Its reasoning should not form a chain which is no stronger than its weakest link, but a cable whose fibers may be ever so slender, provided they are sufficiently numerous and intimately connected. (Peirce 1992b, p. 29)

This means avoiding, as a basic or global strategy, deductive or axiomatic methods, as well as dialectical method (in which the content of one concept leads to an alternate concept it philosophically implies or presupposes, the combination of which implies a third that overcomes the antithesis between them). It does *not* mean, of course, that deduction and dialectic are never to be used, only that they ought not characterize the overall argumentative structure. Under Peirce's cable metaphor the justification of any claim will be a bundle of more or less independent reasonings toward the claim, what we might call *argumentative pluralism*.

Akin to Peirce's, and Randall's, approach is something that, oddly, seems to go unrecognized in some quarters: that the validity of a metaphysical theory can hang on empirical generalizations which might later be shown to be false by improved empirical methods. In short, metaphysics can be *a posteriori*. An example is Abner Shimony's notion of "experimental metaphysics."¹ Shimony holds, as did most philosophers of the seventeenth century, that metaphysics ought to make sense in terms of the best science of the time. The early modern philosophers, however, attempted to do so by creating an *a priori* philosophy, in which the justification of their chosen ontology was deductive, although their reason for choosing it—in the order of discovery, one might say—was in fact its inferential appropriateness to current science. Shimony, following Peirce, is unafraid to infer, fallibly, from the empirical science to the ontology. Given his work in the conceptual foundations of quantum mechanics, he attempted to glean what must be true of the ontology of the natural world for the science to be as it is, taking into account differences of interpretation, likelihood of theory stability, and guesses at what may come later on. Of course, as Shimony rightly says, "One should not anticipate straightforward and decisive resolution of metaphysical disputes by the outcomes of experiments," since the significance of

those outcomes will be highly mediated by other notions and dependent on conceptual analysis, all legitimately evaluated with respect to coherence with explanations of other phenomena (Shimony 1993b, p. 64). Any of our claims, including metaphysical claims, are open to rejection based on their failure adequately to cohere with our other reliable guesses about things.

William Wimsatt, partly inspired by Peirce's cable notion, has recently developed another idea connected to argumentative pluralism, *robustness* (Wimsatt 2007, pp. 42–74). Those phenomena are robust to which we have multiple means of access, whether via multiple sensory modalities, multiple ways of measuring, or multiple independent theoretical inferences. The conviction is that multiplicity of independent sources of measurement, experience, or description, must enhance confidence (which is not to say achieve certainty). Following Donald Campbell's invocation of the importance of coincidence of object boundaries for vision (opacity) and touch (impenetrability), Wimsatt notes that access by multiple sensory modalities is a deeply entrenched human criterion of objectivity (Campbell 1960). One might say empiricists, positivists, and phenomenologists made similar claims, but they gave evidential priority to degree of immediacy rather than relative invariance across inquirers, observational circumstances, or areas of inquiry. Robustness is the Peircean alternative to an idealized immediacy that twentieth-century philosophy showed to be unavailable. Wimsatt suggests robustness is the appropriate argumentative strategy for error-prone beings of finite reasoning capacity, namely, us.

It should be noted in passing that a fallibilist and *a posteriori* metaphysics is entirely compatible with epistemic realism, the claim that our true knowledge is made true, at least in part, by its objects. (A fuller discussion must be postponed to Chapter 10). Certainly the validity, or truth, of our judgments is relative to a host of nested characteristics of the judgment: its natural language, its logic, its conceptual grammar, its perspective, its encompassing theory, etc. A chastened realism can admit all that. Particularly important for what follows, the fact that we aspire to true judgments made true by a relation to their objects does *not* say what kind of objects there are. There is a tendency in the discussion of epistemic realism versus anti-realism (the view that truth is fixed by relations among our judgment) in the philosophy of science to assume that realism

must refer to *entities*. Some of the most sophisticated commentators continue to presuppose that realism is tied to entities, and so claim, for example, that since quantum mechanics undermines traditional notions of entity it likewise undermines realism.² But surely what reality is like, or what the objects of an inquiry are, are contingent questions that should not be preempted by the definition of knowledge or truth. Structures, relations, processes, interactions, events, states, or properties are no less real and may, given the circumstances, be more explanatorily relevant than entities. Epistemic realism need not presuppose a particular metaphysics.

Now to a key methodological point: metaphysics can be “local.” Localism in metaphysics signifies a rejection of methodological globalism. The globalism being rejected is evident throughout the history of philosophy in thinkers as disparate as Plato and Democritus, Hegel and Quine. The rejected view claims that the metaphysical validity of any description or explanation of any being or order of beings necessarily hangs on the relation of that being or order to more inclusive orders of beings, hence transitively to the most inclusive order. Bertrand Russell and others rebelled against F. H. Bradley’s idealism for just this reason, that it seemed to imply that the metaphysical connections among the plural orders of things was so tight that nothing valid could be said about a cup or spoon until one knew the role of the cup or spoon in the context of the Whole (although Russell went on to construct what is arguably another version of the same approach). If we reject such globalism, the task of metaphysics is to begin with robust or more reliably accessible and knowable orders of things, and, having described them and their properties and performances, to relate those orders to other orders that are less robustly accessible or more controversial. Metaphysics on this conception is local, it describes one neighborhood, then another, then another, and relations among them. In Wimsatt’s term, it proceeds “piecewise.”

Notice that this localism is not synonymous with what Husserl called “regional ontology” or Strawson “descriptive metaphysics” (Husserl 1982, Strawson 1990). Those try to describe the nature or the necessary and sufficient conditions of a kind of being or beings, e.g., experienced physical objects or individuals. These are specialized metaphysics of a particular zone of reality. Local metaphysics does describe particular orders but afterward invites us to push

outward to other types of orders. It is general but not global. It does not say that the location of an order of beings in more inclusive orders of beings is *irrelevant* to the understanding of the former, or that we ought to renounce the aim of pressing our understanding as far as possible. Rather, it regards the location of an order in more inclusive orders as an ongoing project whose present unavailability does not undermine the validity of local ontologies. For it is the local descriptions against which any broader and more inclusive scheme must be tested. A robust approach to metaphysics does not hold its description of types of being hostage to a description of the most inclusive order. Hence localism concerns itself first of all with those descriptions of beings that remain invariant with respect to differences of global ontology.

Imagine three philosophers sitting at a lunch counter discussing metaphysics, one an eliminative materialist, another a Spinozist, the third a Berkeleyan idealist. The Spinozist drops her spoon and the others lunge to grab it before it falls. The question is: to what degree are their antithetical beliefs about the most inclusive order of being entangled in, hence determinative of, their perceptions, attitudes, actions, and expectations about the spoon, e.g., about what it is, what its use is, what is happening to it, or what ought to be done about it? With respect to local description, the answer seems to be: negligibly little. All three believe that spoons are for eating, hands can grab spoons, friends help friends, and eating utensils are better when clean, regardless of whether they think all is matter, nothing is matter, or matter and mind are parallel processes.

We may take a famous philosopher's example. Imagine an anthropologist and a native who share no linguistic commonality walking through the forest. Suddenly the native points at what the anthropologist recognizes to be a rabbit and shouts, "Gavagai!" (Quine 1960). Quine's point was that the anthropologist's observation of the native's verbal behavior, in connection with his/her nonverbal behavior and the observable environment, will always be inadequate to specify whether "Gavagai!" means individual-physical-object-rabbit or particularization-of-the-form-of-rabbithood or momentary-phase-of-the-process-of-rabbiting. The native's ontology could be any one of these, and no native behavior or anthropological observation could discriminate between them. Quine called this the "indeterminacy of translation."

That famous phrase was overstated: the example shows only translation's *under*-determination. For there are all sorts of meanings ruled out, or made highly unlikely, by the behavioral situation. If the native is competent mentally, linguistically, and visually—hence an appropriate object of Donald Davidson's principle of charity—"Gavagai!" does not mean, "Dog!" or "Water!" or "Myself!" or "Don't look, nothing's happening there!" In fact, the possible meanings which cannot be ruled out or decided are a rather rarefied class, even if indefinitely large in extension. Leaving the ontology free to float, that is, *not* deciding whether the native meant "individual-physical-object-rabbit" or "phase-of-rabbiting" or "instance-of-rabbithood," in how many situations of interaction with the native is the anthropologist likely to go wrong? Very few, as Quine recognized. The anthropologist and native could identify and re-identify Gavagai, capture it, together make it a pet or a meal, without ever going wrong. The point is the native's or anthropologist's ontology may have no decisive role in fixing the contextual meaning of "Gavagai."³

In metaphysics localism decouples the understanding of anything from the description of the most inclusive order of being, whether that be Democritean atoms, Platonic Forms, a Hegelian Absolute, Husserlian lived experience, Whiteheadian actual occasions, Heideggerian *Sein*, Quinean physical objects, Derridean *différance*, or any conception of the Ultimate, the Comprehensive, or the Underlying. If globalism were true we would be in permanent trouble, for our knowledge of the ultimate *must* be less reliable than our knowledge of more robust scales. The extreme of physical reductionism, which would claim all existents are nothing but collections of or interactions among the simplest beings, *and* the extreme of idealism, whether Hegelian or Platonic, whether claiming all is a manifestation of Spirit or of eternal Forms, are equally violations of localism.

The rejection of globalism has two special consequences. Given the absence of reference to a Whole or Foundations we cannot assert the *a priori* or general priority of any one feature of reality, or any one method of investigation. Physics, phenomenology, cultural studies, pragmatism, biology, logic; quantum fields, experience, signs, social action, organisms, meanings—none is first *a priori*. We can of course make one of them first in our account

of reality, but we must argue and give evidence for that. Its priority cannot be built into the conceptions with which we start our general metaphysics.

This is related to the second consequence. The loss of the Whole enables us to distinguish the language in which we discriminate beings—our starting point, a bit like a “meta-language”—from the language that we conclude gives the most likely true and intelligible account of them—like an “object-language.”⁴ We must be able to handle things in a preliminary way without predetermining our conclusions about them. We must select a starting point as *comparatively* neutral as possible with respect to major competing metaphysical theories, complete neutrality being impossible. The comparatively neutral language will be substantive; it will not reveal beings naked of our conceptual formation. However it will be relatively less substantive or partisan with respect to anticipated metaphysical disagreements than any other language. Also, like any theory, a metaphysical theory can be evidenced only if we can state the evidence in a language independent of the theory. We have to be able first to “name” things in a way that does not presuppose what we will decide is the best theory of them. Thus we need two languages: a more neutral language for setting out *what there is* to account for, and a less neutral language in which we *account for* it. We can use these two languages because we regard *any* language or theory as a hypothetical, limited reference point for maximizing probable truth and intelligibility, not a description of the Whole.

II. A Pluralist Language for Metaphysics

So, our metaphysics is going to be fallible, open to interdisciplinary and empirical information, a hypothesis to account for whatever we discriminate in a localist, pluralist preliminary language. We need the latter to begin. But what should it look like? Thomas Nagel famously denied that philosophy can seek a “view from nowhere,” as if from outside the universe, because all judgments are made from somewhere or from some particular perspective (Nagel 1989). Presumably this also means there can be no view from everywhere, that is, from all possible perspectives at once. But a view from *anywhere* would be quite another thing. Eschewing the attempt to

characterize the Whole it would provide a scheme by which anything can be analyzed locally.⁵

Such a language exists. It was developed by the American philosopher and scholar of Peirce, Justus Buchler, arguably the most systematic pluralist in recent metaphysics. In his “metaphysics of natural complexes” Buchler stipulated a principle of *ontological parity*, according to which nothing we can discriminate is more or less real or genuine than anything else (Buchler 1990). That is, he rejected entirely the various traditional philosophical distinctions between the “real,” “true” (regarding things, not propositions), or “genuine,” and the “apparent,” “epiphenomenal,” or “illusory.” A fictional character, the possibility of my dying, the imaginary number *i*, and Heaven are all no less real than the computer keys under my fingers. Anything that can be discriminated, hence anything that is or was or will be in any sense, is a “natural complex.” Complexes can be physical objects, facts, processes, events, universals, experiences, institutions, numbers, possibilities, artifacts, and all their relations and properties and functions. The theory of natural complexes is a natural complex. For Buchler the qualifier “natural” signifies that there can be no discontinuous realms of complexes, no worldly versus transcendent complexes, while the noun “complex” means that nothing is simple or incapable of further analysis. Like Peirce, Buchler denies that anything is either utterly determinate or absolutely indeterminate, or that the traits of any complex can be exhausted.

Pluralism and parity require Buchler to endorse *ordinalism*. The question “What is real?” is transformed into, to use Randall’s phrase, “How is something real?” or for Buchler, “In what orders of relation does it function?” (Randall 1958, p. 131). This is what replaces our usual distinction between the real and apparent. A fictive truck and the truck bearing down on me are equally real, but the fictive truck functions in a literary order while the truck approaching me stands in an order of physical fact that includes my body. Every complex must be related to some other complexes—which is *not* to say related to *all* others, for things can be unrelated—hence is located in one or more contexts of relations or orders in which the complex functions and hence has an “integrity.” Complexes and orders are related to others either strongly, to the other’s integrity—hence an internal or constitutive relation—or

weakly, to its breadth or scope in that order. A complex's identity or, in Buchler's terms its "contour," is the continuous relation between each of the complex's integrities and its total collection of integrities (Buchler 1990, p. 22). He extends parity to possibility and actuality. Possibilities are as real, as experience-able, as potentially causal, as actualities. They are traits of a complex in whatever order in which it functions. There are no fully determinate actualities, actualities without possibilities, nor "pure" possibilities without actualities.⁶ Possible traits must be actualizable, hence commensurate with the identity of the complex; a baseball player has the possibility of striking out but not of scoring touchdowns.⁷ Partly to accommodate possibilities and nonfactual orders, Buchler uses the language of "prevalence" and "alescence." A complex prevails in an order when it excludes other complexes from that order, or traits from its contour or identity; it alesces in so far as it admits traits into its contour and ceases to prevail. The rain prevails when it is raining, and alesces as the sun returns. A possibility prevails in an order, even though it is not "actual."

Last, Buchler rejects any substantive talk of the "Whole" or the "World." There is no "Order of orders" (Buchler 1990a,b). Such a Whole would fail to be ordinally located, it would not be related to anything outside itself. There can be no hierarchy of complexes and orders that is not itself ordinally located. Each thing is objectively contextual; we cannot determine non-contextual facts about contexts. We may use the phrase "innumerable orders" or the "provision of complexes" to speak of complexes indifferently.

I suggest that Buchler's is the closest thing we have to a metaphysics of any possible world. This is not to say it is presuppositionless, or neutral with respect to all other philosophical systems, but it is the nearest thing to it, the least suppositional, and the most neutral with respect to standard metaphysical problems. Conceive realities or worlds very different from our own, for example, a system of disembodied spirits, a quark-plasma, a set of Platonic forms, an Olympus of Greek gods, or a world in which beings otherwise like ourselves routinely communicate telepathically. Buchler's metaphysics would apply equally well to these worlds. Buchler deploys a scheme that is determined by only four parameters: a) pluralism, the claim that there are multiple "things," each exhibiting multiplicity or complexity, hence nothing is simple; b) ordinality or logical

distributiveness, each integrity of a complex obtaining in a context of relationships, at least some of which are “strongly related” or in usual philosophical language “internal” to the complex’s identity; c) continuity, meaning no orders are utterly discontinuous with each other, e.g., there is no transcendent or supra-natural versus mundane or natural orders; and d) parity, that there are no non- or supra-ordinal norms with respect to which complexes can be metaphysically ranked.⁸ As long as a possible world does not violate these parameters it can be understood through the metaphysics of natural complexes. Buchler’s is the most pluralistic metaphysics we have.

But if Buchler’s metaphysics fits many possible worlds, then it is equally true to say that it does *not* pick out this world. His scheme underdetermines our reality. For example, as far as we can reliably judge, in our world lives, minds, selves, intentionality, and meanings require organisms, matter, bodies, neurons, and cultural objects, respectively. These relations of dependence are not symmetrical, for while living things presuppose the existence of atoms, atoms do not presuppose the existence of living things. Buchler’s ordinal metaphysics thus allows all sorts of facts and processes that either cannot or at least do not occur in our reality as far as we can tell. Whether this is a vice or virtue depends on one’s view of what the business of metaphysics is, that is, how far a metaphysics should go in fixing or entailing features of our world. My point is that Buchler’s metaphysics is not by itself naturalistic in any strong sense; it merely denies supra-naturalism or transcendence.⁹ It is a pluralism, not a naturalism.

The virtue of Buchler’s scheme is that it provides us with an indispensably pluralistic background language for metaphysics. It allows us to speak of *anything* without needing to speak of *everything*. This will permit me to represent a kind of naturalism within or on the basis of his pluralism, one which will still reap distinctive conceptual benefits from the latter. In a sense, what follows is an attempt at a *new* metaphysics of natural complexes.

III. Naturalism

Suppose we now entertain a metaphysical hypothesis: *we, and whatever we robustly discriminate, can be included in nature*. This

would be a kind of naturalism. We distinguish among all complexes or anything we might discriminate, those complexes we will call *natural* complexes, now in a strong sense of the qualifier (unlike Buchler's). We do not identify nature with the Whole or an Order of orders. Out of all complexes, I am focusing our attention on a restrictive class of orders, constituted by the most robustly accessible complexes, collectively called nature.¹⁰ Nature is *an* (not *the*) order of orders.

Depending on how we characterize these orders, such an ordinal or pluralistic naturalism could fully accord with naturalism as commonly understood. While variously formulated, I will assume that to be "naturalistic" any contemporary view must accept the following three minimal constraints. First, a naturalism must hold that nature is one temporally enduring ensemble whose members are open to at least indirect mutual causal influence (subject to spacetime segregation, e.g., humans can neither affect dinosaurs or other galaxies). That is, no natural objects *and* their causal antecedents are in principle exempt from even mediated causal interaction with the rest of nature *and their* causal antecedents (past causal histories cross). No members of nature are causally isolated *in principle*. Hence nature is not divided into domains incapable of interaction, as in the Cartesian, Lockean, or Spinozan dualism of "mind" and "matter." Second, "nature" must include *at least* the physical, material, biological, mental, and cultural. This is a non-exhaustive shorthand list of some different kinds of entities, events, and properties. A naturalist must regard not only the objects of physics, the material and the biological sciences, but minds, intentionality, meanings, communications, societies, artworks, etc., all as natural or part of nature. How they can be included may vary, but if one is to be a naturalist, included they must be. Third, the conclusions of the natural sciences must have robust significance for the metaphysics of nature. This does not mean no other sources of knowledge exist, or that whatever the natural sciences say must be adopted at face value. Still, to fail to take the natural sciences seriously in one's metaphysics is not to be a naturalist.

But the present naturalism will reject two other claims common among naturalisms. First, my naturalism will *not* assume that everything that is or was or will be is natural. Our job is to describe those complexes that are natural. We make no *a priori* stipulation

that nature exhausts all complexes. It might, but we do not presume it must. Whether we can discriminate any complexes that cannot be included in the orders of nature remains an ongoing question. The function of the rest of the book is to argue that kinds of complexes which might seem not to be natural, are. Second, nature is plural, having multiple kinds of entities, properties, structures, and processes. This means we will not assume nature is physical or material (more about which in Chapter 3). Nature must *include* the physical but we make no *a priori* presupposition about the ubiquity of physical entities, properties, or processes in nature. To claim nature is in principle all physical or material, or all natural events or properties are determined by the physical or material, is to be a physicalist or materialist, not a naturalist.

Let us briefly examine this. A pluralistic or ordinal naturalism accepts that all orders of natural complexes are ontologically on a par. It accepts both an entity-pluralism and a property-pluralism, hence what Wimsatt calls a “tropical rainforest ontology” rather than a Quinean “desert landscape” (Wimsatt 2007, p. 213).¹¹ This is associated with the notion of *emergence*, the claim that complex systems can exhibit irreducible properties (which will be examined in Chapter 3). In terms of scientific explanation, we shall see that nonreductive as well as reductive explanations are inescapable, because some properties of some systems are not explicable as linear products or aggregations of the properties of relatively isolable parts. Reduction and emergence are matters of degree, hence compatible. And since the justification of an ontology is its explanatory necessity, acceptance of multiple, irreducible sciences is *prima facie* reason to accept emergence and hence ontological pluralism. This will be argued in the following three chapters. For the moment we may say that an endorsement of emergence is nothing more than the combination of two ideas: that nature is pluralistic, composed of many different kinds of things and properties; and that some of those things and properties are ontologically dependent on others, e.g., the mental on the biological, the biological on the chemical. This means accepting a hierarchical view of natural beings and processes. Thus we are adopting a metaphysical naturalism that does not presume nature is one kind of thing, instead depending on a series of empirical studies and their philosophical analysis to see what nature is like.

Such pluralism also serves to unhook thought from the dominant bipolar disorder of modern metaphysics, the belief that there are at most two sorts of actuality, the physical and the mental. The former is intuitively identified with ponderable matter, but in philosophical practice epitomized by the objects of physics. The latter is intuitively identified with human consciousness, in philosophical practice epitomized by representational “belief-and-desire” states. The core issues of much of contemporary philosophy aggregate around the question of whether the latter can be reduced to the former (hence physico-material reductionism), or we are stuck with some kind of dualism of physical and mental existence (or even, at the other end of the spectrum, idealism or panpsychism), or we can accept nonreductive physicalist theories which hold that even if everything is in some sense physical, psychological explanation is true independent of physical explanation. The discussion generally assumes that there are no other relevant metaphysical kinds, that the objects of chemistry, the Earth sciences and biology are merely placeholders for the physical. Many concepts in current philosophy of science, theory of knowledge, and philosophy of mind and language, as well as metaphysics, presuppose this dualism. In contrast, the current naturalism will accept that the physical and the mental exist and are different, and the mental (like the cultural, biological, and chemical) is dependent (although, we shall see, indirectly) on physical entities, processes, and properties. But, I will argue, that does not justify physicalism, it merely justifies a naturalism which recognizes that dependence. The problems attendant on the bipolar dualism, the relation of the physical and mental, become more tractable when relocated from basic ontology to an empirical relation of dependence among two of several kinds of entities, processes, and properties.

IV. The Local Argument for Naturalism

Only now can I give the argument for my naturalism. Why ought pluralism lead to naturalism, any more than to any other “ism”? I will give a familiar and unremarkable argument for naturalism, one which will seem to beg metaphysical questions. But I will then argue that, given a *local* metaphysics, those questions are rightly begged.

First, locally speaking, no one doubts that in most of the events of personal and public human existence, cultural meanings and human minds subsist within, or on the basis of, biological, material, and physical nature. That is, no one doubts that human minds are dependent on human nervous systems, communicated meanings dependent on language and culture, life on chemical metabolism, etc. I do not mean minds depend *only* on brains, or that there is no downward causality or reciprocal dependence of brain on mind or environment. Obviously, while my biological cells depend on chemical macromolecules, my macromolecules also depend on living cells, which produce them. Nor do I even mean that there can be no disembodied minds or spirits *in principle* or *a priori*. I mean only that as far as we can tell, brain injury usually affects the mind of the person whose brain it is.

Second, we cannot practically doubt the validity of large areas of contemporary natural science, which reinforce and deepen the location of human life in nature. We can logically doubt it, of course, but we cannot fail to act as if it were valid, given our daily use of technologies whose functioning is explained and designed by natural science. We also cannot doubt that natural science is a prime example of communal, rational inquiry which subjects its conclusions to test, hence a commitment to such method must imply some confidence in the former. Repeatedly confirmed results of a community of self-critical inquirers is in principle a robust source of knowledge. What *can* reasonably be doubted is, first, the reliability or approximate truth of any particular scientific claim or theory, and second, the interpretation of accepted claims. Any scientific claim may be re-describable with a different set of ontological assumptions or in the language of another theory, or later be seen as true for a more limited domain of phenomena. We can certainly disagree with the ontological presumptions that attach to the formal or experimental claims of a theory, even admitting that this distinction is itself fuzzy. And we may believe natural scientific accounts of a phenomenon are insufficient to explain it, hence insist on supplementing the former, e.g., with divine intervention in human evolution, a dualist account of mind, parallel mental and physical explanations of behavior, a phenomenology of experience, a pragmatic account of human agency, etc. But nobody reasonably doubts that natural science gives us approximately true descriptions of how a baseball bat interacts with a baseball or electricity drives

a motor, nor doubts the dependence of living organisms on their chemistry and human minds on human brains. This doesn't mean such knowledge is certain; it means we have reasons for believing it probably true.

Third, only in the last eighty years has science achieved a comprehensive and robust picture—the product of the dovetailing of multiple disciplines—of the temporal evolution of the universe.¹² The physical origin of the universe created an enormity of energy and the simplest kinds of gaseous matter, which only after billions of years formed stars, which then generated all the heavier elements, hence eventually solar systems with terrestrial planets and, at least in one case, a terrestrial environment in which life arose, itself evolving from the simplest forms to encephalized animals and later human beings. Unless natural science is *grotesquely* wrong, the minds we know are late achievements of the universe and cannot be imagined otherwise. This is the strongest argument against the claim that mind (idealism), experience (phenomenology), action (pragmatism), signs or culture or history (poststructuralism), or some “primary experience” or “symbiosis” prior to the subject-object distinction, is the fundamental context of reality.¹³ Mind or experience or action or writing or culture—pick the one you prefer—has recently concluded that nature existed long before itself.

Philosophically, the foregoing may seem beside the point. The anti-naturalist may say, “Yes, of course, but the serious metaphysical question is about what underlies or causes or renders possible the *apparently* physical world studied by natural science, presupposed by social practice and to some extent confirmed in everyday experience. Those who reject naturalism do not deny that my mind depends on my brain, they believe the brain and its fellow material or physical objects must *depend upon something non-physical* that lies behind or supports or causes or constitutes or constructs the apparently physical world, whether that be something independent of humanity or a constructive process of human mind and/or culture.”

It is part of the point of localism to deal with this objection. Whether one claims that reality in the most comprehensive or fundamental sense is physical or mental, some combination of the two, some third thing, or eschews all such questions, one must still account for the facts that my unaided imagination seems unable to alter the world, that human personalities exist in a con-

text much of which they neither create nor control, that intentional meanings arise only through performances of neural systems of embodied acculturated organisms that are necessarily late and rare in cosmogenesis. Even if one locates the physical within, or claim it emerges from, something non-physical, one must still explain how individual minds and meanings emerge within or from their local physical, material, biological neighborhoods. Whatever the ultimate metaphysical context, however one may want to characterize the Whole or the Underlying, that problem remains. The absolute or Berkeleyan idealist, the German idealist, the Kantian or social constructivist, the dualist Cartesian or Lockean, the Spinozan psycho-physical parallelist, the Husserlian or (early) Heideggerian phenomenologist, the Derridean or Foucaultian poststructuralist, all must still explain the interactions of individual mentality or meanings or sign-use with local physical, material, and biological phenomena. The core local problems remain largely unchanged, like the lurching philosophers grabbing the spoon. Even if it were true that reality is fundamentally mental or semiotic or spiritual or ideal we would still have to explain how the apparently mental, semiotic, or spiritual interacts with what is apparently not mental, semiotic or spiritual. There is no cheap way to avoid at least a local naturalism here, short of global skepticism or solipsism. The point is that the local relation between orders is the issue that must be addressed, regardless of what one takes reality globally to be, which task we have declined. *Naturalism is at least locally true.*

That is the argument for my naturalism. Its validity will depend on its success at addressing the common objections to naturalism, and demonstrating just how much it can render intelligible with claims that are likely true. While the rest of the book is required for these tasks, we can at least suggest here how the common objections to naturalism can be addressed.

The most prominent, if not most comprehensive, objection is that naturalism is reductionist, and particularly that it produces an inadequate account of mind, self, and meaning. But, obviously, that holds only for a reductionist naturalism. If emergence and ontological pluralism are naturalistically respectable, then the objection disappears. The relevant question is whether an emergent, pluralistic naturalism can formulate a plausible account of them. I will argue that it can.

Likewise, the use of natural science in metaphysics will indicate to some a “privileging” of natural science and its methods over social, cultural, and humanistic inquiries. But as we will see, pluralism will mean that, *prima facie*, physical methods are robustly informative for the physical, as are material methods for the material, biological methods for the biotic, psychological methods for the mental, and cultural methods for the cultural. Any “privilege” or cognitive priority must be partial, relative to subject matter, not to mention fallible and tentative. Given a pluralistic view of nature, *all* those methods are “natural” which examine orders of nature. Each order is a domain whose best investigative treatment is a contingent matter. My focus on what are called “natural” as opposed to the “human” sciences is due to the fact that the former are more general, the latter being concerned with one biological species and its products.

A related objection is that naturalism is in principle unable to justify a normative ethics. We must postpone until Chapter 12 discussions of the naturalistic fallacy and related matters. But we can say something now. The objection is that naturalism can only say what happens in nature, what natural facts and processes are, and not justify normative judgments about them or anything else. This objection is sometimes put in the form that we cannot find values in nature. That, however, is false: as we shall see, there certainly are values, ends, and norms in biological nature, for organisms value certain ends, and part of what nature selects is that propensity to value (as we shall see in Chapter 7). At the very least, as long as biology’s use of functional and teleonomic explanations are not reduced to physical modes of explanation, values obtain in nature.

However, this retort serves only to redirect, not resolve, the problem. The relevant difficulty is, I believe, twofold. First, naturalism raises the possibility of informing ethics with biology, e.g., sociobiology or evolutionary ethics, which seems to some to reduce the cultural to the biological. But that again presumes a reductionist naturalism. If a nonreductive account of mind and culture is possible within a naturalistic theory, so is a nonreductive account of human ethics. At this point, the critic may open a larger issue, that a naturalistic description of, say, values inherent in biological or human being cannot serve to justify why we inquirers *ought to value* or *disvalue* those described values. This is to claim that naturalistic

description distinctively suffers from a “fact-value dichotomy.” But whatever the validity of that dichotomy, or lack thereof (we shall see in Chapter 12), it is a difficulty regarding which most non-naturalistic accounts of reality have no *a priori* advantage. Absent a Platonic Form, or Divine dictation, of the Good, the problem of reasoning from, say, an ontologically distinctive conceptual or mental or spiritual or cultural realm to why we ought to value one thing over another is just as great for non-naturalistic as for naturalistic perspectives. If some non-natural source dictates moral values, then that is a fact from which, *if* there is a fact-value dichotomy, we are just as unable to infer what we ought to do as from a biological fact. My point is not to prejudge fundamental issues here, but to suggest that nonreductionist naturalism suffers from no unique, “in principle” disadvantage with respect to normative claims.

Lastly, if nothing else, naturalism is for some narrow in that it denies the supra-natural. Naturalism would seem to eliminate the divine. But a pluralist and local naturalism avoids this objection. It could in principle accept divinity understood naturalistically, as continuous with and causally interacting with other orders of nature. And local naturalism refuses to claim that everything is natural, but leaves that question open. Whether there are good reasons for positing divinity remains for it a serious question that would have to be approached from the standpoint of robustly accessible natural orders (as will be seen in Chapter 11). Now, such openness may seem anti-naturalistic. Shouldn't naturalism deny that anything can be supra-natural? Not if our approach to metaphysics is local and fallibilist. We can argue that what we robustly discriminate is in nature. But how to justify a claim that *nothing else exists*? We could make that claim only if we knew everything or the limits of everything. That is not something we should expect to be able to do.

My claim, then, is that given a localist practice of metaphysics, the way is clear for a pluralistic metaphysical language to claim that a naturalism which takes multiple sciences seriously is at least locally true. My working hypothesis is that the robustly accessible complexes *can* be incorporated into nature, thus understood. The task will then be to survey a host of contemporary studies, from physics to anthropology, to tease out the most robust and defensible notions of the kinds of beings, processes, and relations that charac-

terize nature. Whether this approach advances understanding with respect to enough important problems to make it worthwhile can only be known by testing, empirically and conceptually, descriptions of robust orders and their relations, and their usefulness as staging grounds for extension to less robust orders, all within the framework of natural orders. We shall see.