

Naturalism and its Discontents

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Every philosopher has taken his stand on a sort of dumb conviction that the truth must lie in one direction rather than another.

William James

Introduction

In 1922, the philosopher Roy Wood Sellars proclaimed, “We are all naturalists now” (1922, vii). If by “we” Sellars meant fellow philosophers or academics, his triumphant declaration, though untrue then, is closer to being true now. At the turn of the 21st century, naturalism is the reigning orthodox assumption of most faculty in most universities across the English-speaking world. In the discipline of philosophy, philosophers increasingly identify themselves as naturalists.

What exactly is naturalism? Naturalism, we will learn, admits of no single, simple definition and comes in a wide variety of shapes and sizes (depending, for example, on its commitment to the natural sciences). After distinguishing ontological or metaphysical naturalism from the considerably more modest methodological naturalism, I will discuss the historical development of ontological naturalism, as well as arguments for or against naturalism generally. Before concluding, I will take moral goodness and badness as a case study of the problems and prospects for ontological naturalism.

What Is Naturalism?

It is impossible to offer a single precise definition of “naturalism,” one that captures everything that goes by the name. Defined too narrowly, it leaves out wide swaths of human thought and experience; defined too broadly, it includes many things that naturalists hope to exclude. A better approach, then, is to consider various understandings of naturalism, as

well as naturalism's historical development and recent rise. As we will see, naturalism has been understood in a great many ways. Given the diversity of understandings, we will cast our nets widely and consider the many different views and ideas that fall under the banner of "naturalism," while noting uniting features that (at least most) naturalists share.

Naturalists, as might be expected, give pride of place to the natural world, to nature, and are dubious or even dismissive of claims that go beyond the natural world: so-called "supernatural" claims. These include most importantly the belief that God exists, but also beliefs in other sorts of non-natural or spiritual entities, such as ghosts and, for most naturalists, the human soul or spirit (as an entity that is independent from the brain), as well as non-natural or spiritual powers such as *qi* and astrological forces. So naturalists are typically atheists who reject, among other things, mind-body dualism. As such, naturalism is an *ontology*: it makes claims about what exists (and, perhaps more importantly, what does not). This view is frequently called *metaphysical naturalism*.

This rough formulation doesn't tell us too much about the commitments of ontological or metaphysical naturalists. Nevertheless, there is one way in which it is helpful. That is, we can think of naturalism as standing in opposition to allegedly "spooky" – spiritual or theistic – understandings of the world and reality. Naturalists, then, reject any appeals to divine or supernatural entities or powers in their explanation of the world. Examples include, as we've seen, the claim that God created the universe and everything it contains and that human persons are a composition of soul and body. Naturalism came to prominence as an alternative to theism as a way of explaining the world.

As with all philosophies and philosophers, there is disagreement among naturalists. What precisely is "the natural world"? Some claim that it consists ultimately of subatomic particles (Rosenberg 2011), the ultimate and indivisible material reality. If the world were constructed out of material atoms, then naturalism would be synonymous with materialism (the view that everything is matter). But science has gone beyond (or "beneath") atoms in its understanding of nature. Perhaps nature is made up not of atoms, but instead of matter and energy, or matter/energy in its various manifestations and relations. Or perhaps matter is reducible to waves or packets of energy, or even some sort of mental stuff. The point is, we don't really know just what constitutes the natural world (and thus we don't really know what lies beyond the limits of the natural world).

To be sure, naturalism is not by definition materialistic. Logical positivism, which arose out of philosophical naturalism, rejected attempts to go beyond the domain of human experience. Positivism's severe empiricism restricted knowledge (and knowledge-based reality) to sensory experience (usually called "sense data") and logical constructions of sense experience. Physical objects were considered no more than bundles of sense data. A chair, for example, is not a solid, enduring physical object (out there, in the mind-independent world); a chair, instead, is a collection of actual and possible experiences or sensations. Since experience is mental, reality for the positivist is mental. In short, for the logical positivist, naturalism (when allied with strict empiricism) entails idealism (the idea that reality is fundamentally mental).¹

It's also hard to know what counts as supernatural. Most naturalists would say that God, spirits, angels, demons, and souls are supernatural entities. But, beyond these, there is little consensus. What about such apparently non-natural, immaterial things as numbers, moral facts, merely possible beings (such as unicorns or fictional characters), and other abstract

1 This inference would not follow if sense data were physical objects.

entities (like the concepts “red” and “true”)? Where in the natural world do we find “Murder is wrong,” Pegasus, or “ $2 + 2 = 4$ ” (or the number 2)?

On these matters, as well as many others, naturalists themselves disagree. Even some atheist philosophers resist the temptation to naturalism. They don’t believe in God or gods, all right, but they do believe in such non-natural, immaterial entities or facts as numbers and morality, so they don’t believe they can in good conscience call themselves naturalists. Some naturalists, on the other hand, believe that immaterial entities such as numbers and other abstract entities are part and parcel of the natural world (or will eventually be shown to be so).

For the discussion that follows, we will (with provisos along the way) understand naturalism in the metaphysical or ontological sense that *everything that exists is included in the natural world; there are no supernatural entities*. We will from now on call metaphysical or ontological naturalism, unless otherwise noted, “Naturalism.”

Naturalism and Science

Some contemporary Naturalists go further, holding that scientific inquiry is *the way of knowing in general* and that the finally established results of science (especially physics) determine our view of reality. According to these Naturalists, *the sciences are the only guide to understanding reality*. Wilfrid Sellars, in a playful paraphrase of Protagoras, writes: “Science is the measure of all things, of what is that it is, and of what is not, that it is not” (Sellars 1963, 173). Such Naturalists have a correspondingly low regard for nonscientific forms of inquiry, such as those that appeal to intuition or tradition, or to religious experience and texts. Because such Naturalists believe science is the sole guide to understanding reality, they think we should apply the methodology of science to all domains of inquiry. Recent debates in metaphysics divide over those who think metaphysics should be studied/advanced independent of any considerations of science and those more naturalistically inclined who think metaphysics should take its cues from science.²

Scientific Naturalism constitutes a role reversal for traditional approaches to philosophy, which have relied on *a priori* theorizing about the nature and extent of reality. Philosophy comes first in the order of inquiry, on this traditional view, and science comes second; accordingly, philosophy has authority over science. But philosophy is no longer considered the queen of the sciences, sitting in judgment over scientific claims; philosophy is often now believed to be the servant of the sciences, taking its dictates as the sober and ultimate truth about the nature of Reality. Science, on this view, has authority over philosophy. Philosophy may help us understand the foundations and methods of the sciences, which scientists employ in their various practices, but science sets the limits and nature of human inquiry. Philosophy, on this view, simply accedes to the dictates of science.

Privileging science has much to commend it: there is no other domain of human inquiry that has been so remarkably successful in understanding the world and achieving rational consensus. Tradition, authority, and Holy Writ, for example, have failed to produce the rational consensus that we find in science (or any rational consensus whatsoever). Even those who affirm this or that text as Scripture find themselves with substantial disagreement

² See Chalmers, Manley, and Wasserman (2009) for the former view and Ross, Ladyman, and Kincaid (2013) for the latter.

as to what their Scripture teaches. Science or scientific inquiry offers what religion promised but has failed to offer: a method of inquiry for attaining rational consensus.

More than consensus, though, science also seems to be uniquely capable of attaining the truth: the universal law of gravitation, for example, or our sun-centered planetary system, or the age of the universe. More controversially, but I think undeniably, it has shown that all species, including the human species, have evolved from a single ancestor.

Finally, commitment to scientific modes of inquiry brings to Naturalists a certain open-mindedness: one should follow science wherever it leads, even if it challenges or contradicts some of one's fundamental and cherished assumptions about the nature of reality. A scientific Naturalism may claim that nature is all that exists but also hold that nature is whatever will be disclosed by the ideal natural sciences. Since contemporary science is not, at least as far as we can tell, the ideal science, at this point in human history we may know very little about nature. So the scientific Naturalist remains open to understanding nature as science continues to disclose it.

Despite these marks in favor of naturalism, there are reasons to think that science is not able to adjudicate truth all by itself. For example, science must assume the mathematical truths that are so essential to its success. Where in the natural world can one find numbers? And while science has shown the dependence of the mental on the physical, it has not yet shown, even in principle, that consciousness is reducible to the brain or to brain states. Finally, and even more pressing existentially, is that science, the world of facts, seems devoid of everything that we so deeply value: goodness, meaning, and purpose. The physicist Erwin Schroedinger is a critic of science-based Naturalism: "I am very astonished that the scientific picture of the real world around me is very deficient. It gives a lot of factual information, puts all our experiences in a magnificently consistent order, but is ghastly silent about all and sundry that is really near to our heart, that really matters to us. It cannot tell us a word about red and blue, bitter and sweet, physical pain and physical delight; it knows nothing of beautiful and ugly, good or bad, God and eternity" (1954, 95).

Such is the project of scientific Naturalism: to explain without loss, with the data science allows, all of reality, including mathematics, mind, and value.

Finally, the commitment to nature as science reveals it presents Naturalism with a dilemma. If Naturalism is committed to what current science tells us about reality, we have no reason to accept the current deliverances of science as definitive of reality. With respect to all of human history, the natural sciences are in their infancy, and contemporary natural science, for all we know, may turn out to be completely wrong. An assured commitment to the deliverances of contemporary science seems unfounded. If, on the other hand, Naturalism is committed to "the ideal science" – the so-called end of human inquiry about the nature of nature – then we simply have no idea what to believe right now. The ideal science, whatever that may be, offers no guidance in the present.

Strict and Broad Naturalism

Naturalism, understood metaphysically or ontologically, can be further divided between strict forms and more broad versions.

Strict Naturalists tend to privilege science in such a way as to downplay or explain away elements of our common understanding of human experience (sometimes condescendingly called "folk beliefs"). Paul Churchland (1998), for example, argues that the things we normally consider to be the basic elements of human cognition or mentality – thoughts,

beliefs, perceptions, desires, and preferences – are unnecessary to explain what happens in the physical world. Strict Naturalists believe that we can, without loss, reduce human mentality or consciousness to the physical; we are meat computers. They have also claimed that things such as free will, the self, and morality are illusions. It goes without saying that strict Naturalists think God is a folk belief that has been or can be “explained away.” While folk beliefs may be useful for living our lives, they are not needed to explain the world we live in. In fact, proper scientific understanding explains such things away.

Broad Naturalists, while still metaphysical or ontological Naturalists, are more willing to accommodate at least some elements of our common or “folk” understanding of human experience. Broad Naturalists are more inclined to allow for things such as subjective experience, a self, free will, and morality. David Chalmers (1996), for example, argues that, despite their promise, Churchland-like scientific explanations fail to account for the reality of consciousness.³ Chalmers is a Naturalist who thinks that human consciousness cannot be reduced to physical processes or properties. Broad Naturalists are motivated by the conviction that things like consciousness, morality, and freedom are irreducible to the physical.

Methodological Naturalism

Naturalism, as defined so far, talks about the *what* of reality. Methodological naturalism, on the other hand, tells us *how* we should conduct scientific inquiry: methodological naturalism forbids appeal to supernatural entities. Common features of a methodological naturalism are an emphasis on empirical research and a rejection of *a priori* theorizing (in which one starts by analyzing concepts and terms, apart from experience, and moves from this to claims about the world and what exists). Methodological naturalism, unlike Naturalism, is in principle neutral with respect to the existence of supernatural entities. So a scientist who is a methodological naturalist could be either a theist or an atheist. But methodological naturalists, atheist and theist alike, hold that science properly understood and practiced (and perhaps also philosophy) should not appeal to supernatural entities or forces.

Some Naturalists contend that methodological naturalism somehow leads to Naturalism. The story might go as follows: The naturalistic worldview has not been proven by a compelling argument (and probably never will), yet in science a naturalist worldview has proven enormously successful and is likely to continue to be explanatorily successful. Within that worldview there is no room for spooky supernatural powers like gods and ghosts. The supernatural is scientifically irrelevant. Our current best understanding of the world needs no supernatural God. Likewise, progress in, say, neuroscience precludes our taking mental causation or mental entities as *real*: Platonic–Cartesian views of persons as composites of mind–body or spirit–soul–body are no longer scientifically tenable. The mind, which Gilbert Ryle derisively called “the ghost in the machine,” is nothing more than the brain. Science has exorcised the world of gods and ghosts (even ghost-like minds). And if we don’t need those entities to explain anything, why think that they exist? Good riddance.

But this “argument” is more hope than reality, and methodological naturalism makes no claims about domains outside of scientific inquiry.

3 Chalmers is not, to be clear, a mind–body dualist. He is a property dualist who argues that we must view consciousness as a fundamental natural property. Perhaps the difference is that broad Naturalists think that there are emergent levels in nature, whereas strict Naturalists think the lowest level, whatever it is, is the most/only real level.

The Historical Development of Naturalism

When we look at the historical development of Naturalism, it is important to keep in mind two motivations that reflect the methodological and ontological components mentioned earlier. The first is the attempt to do philosophy in a way that is consistent with the methods and results of science. The second is the attempt to understand the world without any appeal to supernatural beings or entities (God, souls, ghosts, etc.). These projects can be seen, to varying degrees, in the work of the many individuals who contributed to the development of contemporary Naturalism. Thus, it will come as no surprise that the development of modern science was crucial to the historical development of Naturalism.⁴

The scientific revolution of the 17th century transformed scientific inquiry. In the works of individuals such as Copernicus, Galileo, and Kepler we find an increased emphasis on experimental methods and a more extensive use of mathematics in the construction of theories, which were better at explaining the natural world than their predecessors. The success of these theories resulted in a spillover effect, as the emerging scientific methodology was applied to other domains.

This spillover can be seen in the work of several philosophers writing around this time. So, for example, we find the 16th-century philosopher Descartes attempting to model philosophical inquiry on geometrical reasoning by deducing conclusions from self-evident first principles that could be known outside of experience. Similarly, Thomas Hobbes brought the methodology of geometry to philosophy, in a slightly different way, attempting to synthesize and analyze the ideas that we obtain through sense experience. David Hume, generally considered one of the fathers of Naturalism, brought experimental methods to bear on many areas of inquiry. Evidence for this is seen in the subtitle to his *Treatise of Human Nature: Being an Attempt to Introduce the Experimental Method of Reasoning into Moral Subjects*. Sensory experiences, Hume claimed, provide the foundation for all areas of inquiry – not just science, but also logic, mathematics, morality, and politics.

Another important development in the history of naturalism involved several books written on the scientific method. Publications by the likes of John Herschel, John Stuart Mill, and William Whewell helped to strengthen the view that supernatural explanations did not belong in scientific work. They also helped to advance the growing interest in increasing the range of phenomena investigated through scientific methods. Yet, while scientists and philosophers from Copernicus and Galileo to Descartes and Herschel commended methodological naturalism, they were not Naturalists. Copernicus was a priest, Galileo wrote an essay on the proper interpretation of Scripture, Descartes offered several proofs of the existence of God, and Herschel was a devout Christian. How then did things progress from methodological naturalism to Naturalism?

The dramatic and unparalleled success of science in explaining more and more of the natural world contributed to the rise of Naturalism. In this regard, perhaps the most significant scientific contribution was Darwin's *Origin of Species* in 1859. Many have argued that Darwin's publication had monumental consequences for how we ought to view the world. Contemporary biologist Richard Dawkins, for example, writes, "although atheism might have been logically tenable before Darwin, Darwin made it possible to be an intellectually fulfilled atheist" (1986, 6). Prior to Darwin, design (by God) was considered necessary to

4 This section follows Rea (2004).

explain biological complexity; but after Darwin, divine design seemed unnecessary. Darwin's publication went a long way in boosting the explanatory power of nontheistic explanations of the natural world.

The significance of Darwin goes beyond the support it afforded atheism.⁵ Prior to its publication, some areas of inquiry seemed shut off from scientific investigation. The most notable among these, of course, were questions concerning the origin of species, particularly of humans. Thus, as Michael Rea notes, before Darwin "there was still room for the idea that some domains of inquiry were better explored by other methods" (Rea 2004, 30). But Darwin's work opposed this idea. He suggested ways that science could investigate a whole host of phenomena, not solely the origin of species and life. Darwin's *Descent of Man* offered natural explanations of, among other previously untouchable items, morality and religion.

As post-Darwinian optimism for scientific investigation of these once sacred areas grew, Naturalism flourished. Science could explain everything, or so it seemed.

Naturalism has become an increasingly dominant view or approach to philosophy over the course of the last century. In John Dewey's early 20th-century work, *Experience and Nature* (1929), he attempted to achieve continuity of both methods and results between philosophy and the natural sciences. In the area of ethics, Dewey urged a "thoroughly empirical study" of the subject. In the second half of the 20th century, Harvard philosopher W.V.O. Quine did more than perhaps any other to advance a Naturalistic approach to philosophy and help bring it to dominance. Quine shared with Dewey the highest regard for the sciences and believed that philosophy should apply scientific methods to other areas of inquiry (Quine 1981). Unlike Dewey, however, Quine claimed that the subject matter of philosophy was continuous with science. For example, instead of worrying about the justification of beliefs (knowledge), Quine thought we should just study how the brain takes in sensations through the sensory organs and transforms them into beliefs (Quine 1969). The success of science, Quine thought, provided its own justification for the claims it made; it did not need outside justification from philosophy.

Following in the footsteps of these notable individuals, Naturalism and Naturalistic views have subsequently become dominant across a wide range of fields in philosophy. In the last several decades, there has been a flood of work under the banner of "Naturalism," with philosophers applying naturalistic approaches to virtually every area of human inquiry, including epistemology, rationality, jurisprudence, consciousness, ontology, and morality.

Arguing for Naturalism

Given this narrative of the rise of Naturalism, we can ask what are the motivations and arguments that have led to the dominance of Naturalism? The development and success of science may have caused or contributed to the acceptance of Naturalism, but the success of science is insufficient *reason* for accepting Naturalism. If one methodologically precludes the non-natural at the outset, it should be no surprise if the non-natural is then missing in one's explanations. Whether or not there could be arguments for naturalism is itself a matter of debate. As noted earlier, some take naturalism to be a research project; that is, a set of

⁵ Interestingly, Darwin himself was at varying times while developing and defending his theory a theist (Clark 2014, ch. 5).

methodological dispositions for how to approach inquiry. If this is the case, then these dispositions will determine what one counts as evidence, how one weighs different sorts of evidence, and so on. Thus, some think that naturalism itself isn't something that can be directly argued for.

Perhaps the most significant motivation for adopting a naturalist stance is a lack of belief in God. A unifying feature of naturalism, we noted, is a rejection of the supernatural. One might reject God's existence for a variety of reasons (the problem of evil, divine silence, lack of evidence). What is important is that once God falls out of the picture, Naturalism seems to many the only plausible alternative: Naturalism is the only game in town (Kitcher 1992; Stroud 1996).

Still, the plausibility of Naturalism involves more than arguments against the existence of God. A general feature of arguments in favor of Naturalism is an attempt to achieve a sort of simplicity in one's theorizing. Naturalists often argue that they can account for certain features of the world, like consciousness, the human person, or morality, without postulating the existence of non-natural entities, since such things are not explanatorily necessary. The motivation for this line of thought, which is commonly traced back to the medieval philosopher William Ockham and referred to as Ockham's razor or Occam's razor, is that we shouldn't multiply entities beyond necessity. That is, we should only postulate the existence of the bare minimum number of entities required for an adequate explanation.

Once one affirms Occam's razor, the crucial question is which entities we need and which we don't. Naturalists, across a wide array of areas, argue that supernatural entities are not (or are no longer) needed to explain our world. There might be such entities, but they are not necessary for belief. Moreover, once they are eliminated as explanatorily necessary, there is no reason to believe in them; we are neither required nor permitted to believe in them. Since they can adequately explain the world without appeals to the supernatural, Naturalists argue their position is rationally superior to non-naturalist philosophies.

Consider an analogy. Suppose you spend a week studying naturalism in a friend's upstairs study. Your friend has warned you that the attic is haunted by ghosts, which keep her awake at night and distracted during the day. As you are studying, you recall this and are pleasantly surprised by how quiet the room is. You stop every now and again and listen intently, but you hear no ghostly noises. After a few days, you find yourself coming to believe that there are no ghosts in the attic. You could be wrong, of course; those pesky ghosts could be sleeping or haunting someone else's house. So, while you concede the possibility of ghosts in the attic, you find yourself believing that there are none. For the Naturalist, belief in God may be like your belief in ghosts. It's logically possible that God, like ghosts, exists, but there's no reason to believe that either God or ghosts exist. And so you move on to your reading without ghost beliefs and to thinking philosophically without God beliefs. Just as one *could* believe in ghosts in the absence of evidence, so, too, one *could* believe in God in the absence of evidence. But why believe in either?

Naturalism and the Good

We don't have the space in this introduction to consider every topic involved in a complete discussion of naturalism. Let us consider just one area. For many religious believers, God is seen as the foundation of morality. If an all-powerful, all-loving, all-knowing, and perfectly good being exists, then it seems plausible that this being has authority over how we live our

lives. If God does not exist, as Naturalists believe, then we might wonder what grounds our moral claims and renders them authoritative. When we say that murder is wrong or honesty is good, are these claims true? And if these and other claims are true (as most believe), then what makes them so? Naturalists are faced with the challenge of providing answers to these questions, illustrating where ethics fits in with the natural world, and explaining how morality can exist in a world without God (or godlike beings, forces, or properties). Can our common understandings of morality fit with strictly Naturalist assumptions about the world?

Here's a way to put the problem. Richard Dawkins claims that the world that science discovers has "no design, no purpose, no evil and no good, nothing but blind, pitiless indifference." He goes on: "In a universe of blind physical forces and genetic replication, some people are going to get hurt, other people are going to get lucky, and you won't find any rhyme or reason in it, nor any justice. The universe we observe has precisely the properties we should expect if there is, at bottom, no design, no purpose, no evil and no good, nothing but a blind, pitiless indifference" (Dawkins 1995, 133). While the natural world is replete with elephants, asteroids, and atoms, which have extension, duration, and number, among many other properties, it is devoid of good and bad.

How can you get the Good from matter/energy in its various manifestations? Simon Blackburn argues that for a naturalistic ethics, "The problem is one of finding room for ethics, or placing ethics within the disenchanting, non-ethical order which we inhabit, and of which we are a part" (1998, 49). Naturalists have offered many responses to this not insignificant problem. We can divide these into those that attempt to preserve objective truth in morality and those that do not.

When we say that a moral claim is *objectively* true, we mean that what makes it true does not depend on our imparting or projecting moral features on the world in the way, say, that we impart the property *being worth five dollars* to a piece of paper.⁶ For example, suppose Hitler had successfully united Europe around his Nazi ideals. Suppose further that, through indoctrination, all Europeans had come to believe that the elimination of Jews from Europe was a good thing. An objectivist would claim that, given such circumstances, all Europeans were simply wrong – they were wrong because their beliefs violated an objective moral standard, one which prohibited the killing of innocent human beings; moreover, those who killed Jews were similarly wrong, in spite of their feelings or desires or attitudes to the contrary.

One Naturalistic account that denies objective moral truths is error theory. Error theory holds that when we make moral claims, we are attempting to state truths (Mackie 1977; Joyce 2007). The error theorist goes on to argue that there are no such truths. Thus, all of our moral claims (that one should keep one's promises or that slavery is wrong) are in error. There is no truth when it comes to morality. Many find this position too extreme to accept.

According to expressivist accounts, very broadly speaking, when I say, "Murder is wrong," I am not claiming, as one might think, that there is a *fact* that murder is wrong. Rather, I am *expressing* my strong disapproval of murder. Expressivism is the view that moral claims aren't attempts to state propositions about the world, but are expressions of emotions, or approval or disapproval, or commitments we hold (Gibbard 1990; Blackburn 1993). Over the years, these accounts have grown in sophistication, but in expressivism's crudest form "Murder is wrong" could be translated into something like "Boo Murder!" and "Honesty is good" into something like "yay Honesty!" An alleged advantage of expressivist

6 See Shafer-Landau (2003) for an account of stance-independence and moral realism.

views over error theories is that, if they are correct, then when we engage in moral discourse we are not fundamentally in error, since we aren't attempting to state moral truths (Blackburn 1998). Thus, the fact that there are no such truths shouldn't concern us. However, contra expressivism, we do, or so it seems, make claims about facts when we make moral claims, and the lack of such facts should concern us. When we claim that injustice is wrong, we don't mean (merely) to express our own feelings or desires (or the feelings or desires of a group). Thus, it isn't clear how much of an advantage expressivism offers over error theory (Cuneo 2006; 2007; Egan 2007; Parfit 2011).

Conceding the inadequacy of these views, some Naturalists have attempted to retain the truth of some of our moral claims while accounting for and explaining them within a Naturalist worldview.⁷ This falls under the category of ethical naturalism and is a species of moral realism: its proponents believe that there are objective moral facts and properties, so we aren't always in error when we make moral claims. We don't create the rules, so to speak. The rules stand over us and we are obliged to them; nevertheless, they are fully natural (Boyd 1988; Brink 1989; Copp 2003; Sturgeon 2006). Moral facts and properties, on this view, are *natural* facts and properties; that is, moral facts are or are reducible to the sorts of facts studied by the natural sciences.

How is it possible to understand moral facts and properties "natural as"?

Evolution and Ethics

One attempt to account for morality within a naturalistic framework, in a way that is continuous with science, has been to explain the origin and development of our moral judgments, values, and norms. Many factors are considered in this project, but our evolutionary history is claimed to have had a particularly large role in shaping morality. The well-known scientist E.O. Wilson declared that the time has come "for ethics to be temporarily removed from the hands of the philosophers and biologized" (1975, 562).

At first glance, it makes sense to think of morality as at least partly continuous with the sciences. It is an empirical fact that humans make moral judgments, have certain feelings, and act in certain ways (often to obtain various ends or goals). Since these are empirical phenomena, we can look to science for a causal explanation for how they developed. For example, how is it that human beings have come to make moral judgments? This sort of explanatory project is different from the types of questions and concerns philosophers have traditionally had when they attempt to understand and account for morality. Philosophers traditionally have wanted to know if anything grounds the truth of moral judgments (if there are moral facts that make moral claims true). They have wanted to know the foundation of values and norms, not how human beings acquired the ability to make value judgments. Moreover, while humans may characteristically behave in various ways, ethicists are typically concerned with how humans *should* behave; they want to understand the sources of normativity, not the wellsprings of human action. So philosophers have usually focused on things such as the *justification* of moral claims, the *foundation* or *grounds* of morality or moral truth, and how we *ought* to live our lives. These questions seem to be of a very different sort than the empirical questions pursued by science. However, some have

⁷ Adequate space cannot be given to all the different metaethical positions naturalists have proposed. Other prominent positions include constructivist and relativistic accounts.

argued that the explanation of morality's origin and development has important implications for these philosophical questions (Street 2006).

At the outset, it might seem puzzling to propose that evolutionary forces had a role in the origin and development of morality. We might think that evolution, working through natural selection, would promote selfish behavior in individuals. How could evolution lead to the cooperative behavior that seems necessary for the development of morality or the altruistic behavior that comes at the expense of an individual's own reproductive fitness? How do we get from "selfish genes" to nonselfish behavior? As it turns out, a good case can be made that evolutionary forces played some role in the development of cooperative or helping behaviors for many species, including *Homo sapiens*. To see how this could work, consider kin selection. A good example of this process comes from social insect colonies, such as the *Hymenoptera* (bees, ants, and wasps). In these colonies, we find high degrees of cooperation. Labor, food, and information are shared, and individuals not only cooperate but also sometimes sacrifice their lives in the colony's defense. What explains how evolution could lead to this cooperation and self-sacrifice? The answer lies in the fact that the colony is essentially a big family.

One common way of improving an organism's gene ratios – the way most of us are familiar with – is through reproductive success, promoting copies of the gene in more organisms in succeeding generations. However, gene ratios can also be improved if "sacrificial behavior" permits an organism's kin to have greater reproductive success. This happens because an organism and its relatives share many of the same genes. Kin selection can explain how social insects such as worker bees, which share virtually identical genes, were able to evolve apparently "selfless" traits that aid the survival and reproduction of the queen bee. By doing so, they were able to promote the very similar genes of their kin.

Nevertheless, helping one's kin and even engaging in helping behavior are not the same as being moral (Joyce 2005; Kitcher 2006). And apparently selfless traits are not the same as moral virtues.⁸ Under most construals, morality occasionally requires helping non-kin or helping another with the motivation to benefit that other (and not, say, with the hidden motivation to spread one's genes into the next generation). Moreover, morality seems to have a kind of normative force or authority that scientific descriptions of the development of kin-regarding behaviors omit. One could help kin and have no thoughts about what one ought to do. Moral behavior, however, requires thoughts of this sort (or at least the capacity to act from such thoughts). There is much more to be said here, but the problems of establishing morality on the basis of kin selection are clear.⁹

While some have just been concerned with empirical questions – examining the ways in which evolutionary forces might have led to the development of cooperative behavior – others have gone further, to explore the significance this influence might have for philosophical questions regarding the existence and nature of morality. Some have argued that these evolutionary influences suggest ways we should approach ethical theories of how we ought to live our lives.

Rosalind Hursthouse (1999) grounds morality in a biologically informed account of human nature, one stripped of the decidedly non-natural *telos* of Aristotle. Aristotle's

8 Some argue that morality is not just concerned with our emotions and behaviors, but, crucially, with moral judgments about how we ought to live our lives. If that means that morality requires us to make moral judgments before we can act morally, then their conception of morality seems too intellectualistic.

9 We are considering just a few of the issues involved in treating ethics as continuous with science; in this case, evolutionary biology. We leave aside other evolutionary explanations of morality.

ideal human (the human *telos*) is beyond nature (no one, for example, has seen or even could see, touch, taste, smell, or hear this perfected human). Hursthouse claims that the human standard of goodness is grounded in species-typical goods such as survival and reproduction, but also, along with higher species, in freedom from pain and the enjoyment of pleasure. Finally, since humans are by nature social animals, their good is partly constituted by their contribution to a fully functioning group. Hursthouse contends that social goods, evaluated and affirmed by a robust conception of human rationality, ground what we mean when we say that a human being is good. In Chapter 2 of this volume, Flanagan et al. argue along similar lines: “One common rationale for favoring a norm or set of norms is that they are suited to modify, suppress, transform, or amplify some characteristic or capacity belonging to our nature – either our animal nature or our nature as socially situated beings” (pp. 29).¹⁰ As self-reflective, social animals we have come to affirm certain values as essential to a life well lived, including happiness, love, friendship, and respect.

It is an open question, though, how well-grounded these values can be without some idea of a perfected human nature (a *telos*) to determine which of our many and conflicting desires and emotions are morally praiseworthy and which are not. But the idea of a perfected human nature lies outside of nature and so is not available to the Naturalist. The problem is that we find in nature many types of species-typical “goods” that are morally abhorrent: ants that take other ants as slaves, or sea otters that rape baby seals. Humans, in addition to caring for others and desiring friendship, are also inclined toward selfishness and tribalism (and for good evolutionary reasons). So, we cannot simply look to nature for a guide to living our lives. Without an independent, perhaps non-natural standard of the good, how can we demonstrate that ignoble desires are bad and noble ones are good?¹¹

Finally, an evolutionary justification of morality in terms of its instrumental or practical value may not be the type of justification or grounding most of us are seeking. Many people believe that morality makes certain demands on us; it has, as Richard Joyce (2005) puts it, “clout.” Instrumental or practical justifications, so it seems, cannot ground or justify the authority or demands of morality. Even if morality has practical value, why should I, in any particular circumstance, think it applies to or has authority over me?

For Joyce, the problem is exacerbated. Joyce contends that the evolutionary origins of morality debunk the claim that there are objective moral facts. He contends that since we can provide an evolutionary account of the development of our moral concepts without any appeal to “moral facts,” these facts are unnecessary to an adequate explanation and, thus,

10 Some argue that psychological studies can help us determine where emotional responses might be distorting our moral response to certain thought experiments or situations. After doing so, we can note ways in which evolutionary influences might have led to these emotional responses, and, subsequently, come to a better normative ethical theory in light of this information. Joshua Greene (2003) uses this sort of argument to argue for consequentialism over other normative ethical theories.

11 Robert Richards (1987) argues that evolution has constructed human beings to act for the community good. The “community good,” he contends, is what we mean by “moral.” And since human beings are moral beings – that is, since this is an unavoidable condition produced by evolution – each of us ought to act for the community good. There are several problems with this argument. For one, it is doubtful that “the good of the community” is what we mean by the word “moral.” But, beyond this, Richard’s conclusion – that each of us ought to act for the community good – does not seem to follow from his argument. Why must we all act for the community good? Richards seems to be moving from an “is” to an “ought.”

should be rejected.¹² However, Joyce thinks that since rejecting moral facts would undermine morality, we should treat morality as a “useful fiction.”

For the naturalist, making sure that our accounts of morality are consistent with our best science is not optional. But it requires answering some profound questions: Is it possible to base value on fact (morality on, say, evolutionary forces)? Is morality thus construed as true or is it a fiction (useful or otherwise)? Does a naturalistic account of morality require substantial revision to our traditional understandings of morality and its demands?

Discontents

We have briefly surveyed the problems and prospects of a Naturalistic account of ethics. There are, as we’ve mentioned, a great many other issues that require adequate Naturalistic explanations. Peter Railton, for example, raises the problem of a naturalistic account of free will: “Where in the portrait of the natural world and its laws, and of the human organism and its physio-chemical nature, does one find anything corresponding to *free will* as we understand it?” (2012, 22). In *Darwin’s Dangerous Idea*, Daniel Dennett (1995) claims that evolution is a universal acid that eats through (undermines or debunks) many of our very ordinary ways of understanding the world; while God is the first to go, human uniqueness, morality, freedom, the soul, an enduring self, and consciousness succumb to evolution’s corrosive powers. Dennett, following Jeremy Bentham, calls human rights, “nonsense on stilts” (but, inexplicably, “good nonsense”).

Some critics reject Naturalism for its inability to find a place for morality, freedom, and the self (as just three examples). These critiques commonly claim that strictly Naturalistic assumptions cannot adequately explain what the Naturalist hopes to explain. Timothy Williamson (2011), a self-professed atheist, rejects Naturalism, especially of the scientific variety, because of its inadequacy at accounting for everything: history, literature, logic, linguistics, and mathematics. As noted, strict Naturalists are criticized for failing to adequately explain subjective conscious experience (say, the sweet taste of honey or the sharp feel of pain); despite the promise of a science of the mind, not a single item of conscious experience has been shown to be reducible to the brain and its chemistry. Some strict Naturalists have gone so far as to deny the existence of subjective consciousness, and even the continued identity of persons over time. But consciousness and persons are, at least *prima facie*, features of the natural world that need to be explained. Failure to do so, critics argue, represents a failure of Naturalism and provides good reason to reject it.

Naturalism’s alleged failures are, the committed Naturalist hopes, its opportunities. Like the belief that roses are red (that colors are in the objects they represent), some cherished and commonsensical beliefs will be scientifically explained away. It is an open question, however, whether or not free will and morality, for example, have been or can be scientifically dispatched. And, like heliocentrism and evolution, some philosophical beliefs may eventually yield to scientific explanation (without science having explained them away). Like the science it rightly esteems, Naturalism is in its infancy, and what it can or cannot explain remains to be discovered.

¹² Sharon Street (2006) offers a slightly different argument for the same conclusion. She claims that because evolutionary forces are not truth-directed, but rather push toward reproductive success, we cannot be confident that any of our moral beliefs are true.

The Shape of the Book

This collection contains mostly adherents but also some critics. Naturalism is part of an ongoing and fundamental debate in contemporary philosophy. To present it without criticism seemed imprudent. Each defender of Naturalism has been asked to define Naturalism as they understand it and then to explore this or that area of philosophy from the perspective of naturalism. Critics, no surprise here, were asked to define and then criticize various naturalist proposals. We offer definitions, defenses, and criticisms of naturalism *simpliciter*, as well as developments of a naturalistic understanding of various philosophical domains: science, metaphysics, mind, knowledge, truth, mathematics, free will, ethics, religion, and social/political philosophy. Since discussions of naturalism/non-naturalism have been so lively in ethics, this was afforded some prominence.¹³

Unlike “the assured results of modern science,” there are no assured results of Naturalism in any of its guises. Indeed, there is no definitive understanding of Naturalism itself. Defined too narrowly, it leaves out wide swaths of human thought and experience; defined too broadly, it includes many of those things that naturalists hope to exclude. Nonetheless, we hope the reader gets some sense of philosophy as exploration, as trying out this or that route, all the while lacking a clear map or even a sense of destination. Most of the authors, like most philosophers, have taken their path, but they have not taken that path blindly, and even their failures are illuminating. We hope the reader catches the sense of excitement that philosophers feel as we explore, and a sense of intellectual humility as we attempt to see through the glass, darkly.

References

- Blackburn, S. (1993). *Essays in Quasi-Realism*. Oxford: Oxford University Press.
- Blackburn, S. (1998). How to Be an Ethical Anti-Realist. *Midwest Studies in Philosophy* 12: 361–375.
- Boyd, R. (1988). How to Be a Moral Realist. In *Essays in Moral Realism*, edited by Geoffrey Sayre-McCord, pp. 187–228. Ithaca: Cornell University Press.
- Brink, D.O. (1989). *Moral Realism and the Foundations of Ethics*. Cambridge: Cambridge University Press.
- Chalmers, D. (1996). *The Conscious Mind: In Search of a Fundamental Theory*. Oxford: Oxford University Press.
- Chalmers, D., Manley D.M. and Wasserman, R. (eds.) (2009). *Metametaphysics: New Essays on the Foundations of Ontology*. Oxford: Oxford University Press.
- Churchland, P.M. (1988). *Matter and Consciousness*. Cambridge, MA: MIT Press.
- Clark, K. (2014). *Religion and the Sciences of Origins*. London: Palgrave-Macmillan.
- Copp, D. (2003). Why Naturalism? *Ethical Theory and Moral Practice* 6: 179–200.
- Cuneo, T. (2006). Saying What We Mean: An Argument against Expressivism. In *Oxford Studies in Metaethics*, vol. 1, edited by Russ Shafer-Landau, pp. 35–71. Oxford: Oxford University Press.
- Cuneo, T. (2007). *The Normative Web: An Argument for Moral Realism*. Oxford: Oxford University Press.

¹³ In case you are thinking, “Why wasn’t this or that (obviously better) topic discussed?,” the list of topics was developed in conversation both with Wiley-Blackwell’s editors and with the contributors themselves. Moreover, Wiley-Blackwell imposed word limits. Given that we couldn’t discuss everything, we did our best to select topics that most deeply manifested the prospects and problems of Naturalism.

- Dawkins, R. (1986). *The Blind Watchmaker*. New York: Norton & Company.
- Dawkins, R. (1995). *River Out of Eden*. New York: Basic Books.
- Dennett, D. (1995). *Darwin's Dangerous Idea: Evolution and the Meanings of Life*. New York: Simon & Schuster.
- Dewey, J. (1929). *Experience and Nature*. London: George Allen and Unwin.
- Egan, A. (2007). Quasi-Realism and Fundamental Moral Error. *Australasian Journal of Philosophy* 85(2): 205–219.
- Gibbard, A. (1990). *Wise Choices, Apt Feelings: A Theory of Normative Judgment*. Oxford: Oxford University Press.
- Greene, J. (2003). From Neural “Is” to Moral “Ought”: What Are the Moral Implications of Neuroscientific Moral Psychology? *Nature Reviews Neuroscience* 4: 847–850.
- Hursthouse, R. (1999). *On Virtue Ethics*. Oxford: Oxford University Press.
- Joyce, R. (2005). *The Evolution of Morality*. Cambridge, MA: MIT Press.
- Joyce, R. (2007). *The Myth of Morality*. Cambridge: Cambridge University Press.
- Kitcher, P. (1992). The Naturalists Return. *Philosophical Review* 101.1: 53–114.
- Kitcher, P. (2006). Ethics and Evolution: How to Get Here from There. In *Primates and Philosophers*, Frans de Waal, pp. 120–139. Princeton: Princeton Science Library.
- Mackie, J.L. (1977). *Ethics: Inventing Right and Wrong*. New York: Penguin Books.
- Parfit, D. (2011). *On What Matters*. Oxford: Oxford University Press.
- Quine, W.V.O. (1969). Epistemology Naturalized. In *Ontological Relativity and Other Essays*. New York: Columbia University Press.
- Quine, W.V. (1981). *Theories and Things*. Cambridge, MA: Harvard University Press.
- Railton, P. (2012). Nietzsche's Normative Theory? The Art and Skill of Living Well. In *Nietzsche, Naturalism and Normativity*, edited by Christopher Janaway and Simon Robertson. Oxford: Oxford University Press.
- Rea, M. (2004). *World Without Design: The Ontological Consequences of Naturalism*. Oxford: Oxford University Press.
- Richards, R. (1987). *Darwin and the Emergence of Evolutionary Theories of Mind and Behavior*. Chicago: University of Chicago Press.
- Rosenberg, A. (2011). *The Atheist's Guide to Reality: Enjoying Life without Illusions*. New York: W.W. Norton.
- Ross, D., Ladyman, J., and Kincaid, H. (2013). *Scientific Metaphysics*. Oxford: Oxford University Press.
- Schrodinger, E. (1954). *Nature and the Greeks and Science and Humanism*. New York: Cambridge University Press.
- Sellars, R.W. (1922). *Evolutionary Naturalism*. Chicago and London: Open Court.
- Sellars, W. (1963). *Science, Perception and Reality*. London: Routledge & Kegan Paul and New York: The Humanities Press.
- Shafer-Landau, R. (2003). *Moral Realism: A Defense*. New York: Oxford University Press.
- Street, S. (2006). A Darwinian Dilemma for Realist Theories of Value. *Philosophical Studies* 127: 109–166.
- Stroud, B. (1996). The Charm of Naturalism. *Proceedings and Addresses of the American Philosophical Society* 70: 43–55.
- Sturgeon, N. (2006). Ethical Naturalism. In *The Oxford Handbook of Ethical Theory*, edited by David Copp, pp. 91–121. Oxford: Oxford University Press.
- Williamson, T. (2011). What is Naturalism? *New York Times*, September 4. Available from: <http://opinionator.blogs.nytimes.com/2011/09/04/what-is-naturalism/> (last accessed July 15, 2015).
- Wilson, E.O. (1975). *Sociobiology*. Cambridge, MA: Harvard University Press.