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The Will to Truth and the Will to Believe: Friedrich Nietzsche and William James Against Scientism

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THE WILL TO TRUTH AND THE WILL TO BELIEVE: FRIEDRICH NIETZSCHE AND WILLIAM JAMES AGAINST SCIENTISM

Rachel Cristy

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Abstract: My dissertation brings into conversation two thinkers who are seldom considered together and highlights previously unnoticed similarities in their critical responses to *scientism*, which was just as prevalent in the late nineteenth century as it is today. I analyze this attitude as consisting of two linked propositions. The first, which Nietzsche calls "the unconditional will to truth," is that the aims of science, discovering truth and avoiding error, are the most important human aims; and the second is that no practice other than science can achieve them. Both Nietzsche and James criticize the unconditional will to truth for privileging a transcendent ideal over the demands of human life. This unconditional will regards truth as valuable in itself and demands that we pursue it under all circumstances—even if that demand comes into conflict with other values. I lay out the ways in which Nietzsche and James view the value of truth and the imperative to pursue it as *conditional* on its promotion of human flourishing. In response to the second proposition of scientism, both philosophers argue that science can neither tell us what we should value, nor fully account for the value we in fact find in certain objects, activities, and experiences. And crucially, science cannot tell us whether or why its own goal of attaining truth is valuable. Nietzsche and James reach different conclusions about what is ultimately valuable, and whether traditional religious belief is defensible in light of the discoveries of science. Nonetheless, the hitherto unappreciated similarities I have uncovered in their arguments show that principled opposition to scientism need not be associated with any particular moral or religious viewpoint. This analysis is not only of historical interest: those who consider scientism to be ill-founded and intellectually confining can take some cues from our nineteenth-century predecessors' strategies for combating it.

Table of Contents

Abstract iii

Acknowledgments v

General Introduction: The Problem of Scientism 1

Part I: Against the Unconditional Will to Truth

Part I Introduction 14

Chapter 1: Nietzsche's Critique of the Unconditional Will to Truth 22

Chapter 2: James's Epistemic Anti-Asceticism 62

Part II: Against the Hegemony of Science

Part II Introduction 100

Chapter 3: Nietzsche's Protest Against the Hegemony of Science 104

Chapter 4: James's Defense of the Religious Attitude 133

References 179

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General Introduction: The Problem of Scientism

Since the Enlightenment, science has taken on more and more of the roles that religion used to play in the lives of educated Westerners. Now it is science, not religion, that explains the origins of the universe, life, and humankind, and science that foretells how these things might end. We turn to the natural and social sciences rather than religion for an account of human nature, of the human capacities for both good and evil. But it is not only as a source of factual information that science now encroaches on the former territory of religion. Some champions of science go so far as to claim that science can tell us what counts as good or evil, and therefore what projects we should devote our lives to. Still others claim that the project of science itself is what provides life with meaning and purpose after science has undermined the authority of religion and speculative philosophy to furnish such purposes.

These last two claims illustrate a faith in science that goes beyond a well-founded respect for its achievements and into the realm of *scientism*. At its most basic, scientism is an attitude of science-worship. It involves an uncritical faith in the methods of the modern sciences, an uncritical acceptance of their assumptions and conclusions (at least until they are replaced by newer ones), and a quasi-religious faith in the overriding value of the scientific enterprise. For reasons I will explain a little further on, I explicate scientism as a pair of linked propositions: (1) that the aims of science—namely, discovering truth and avoiding error—are the most important human aims; and (2) that no practice other than science can achieve these aims.

Scientism is very popular today, both within and outside the academy. It can be seen in politicians who advocate cutting humanities programs in universities to focus exclusively on the

sciences[1]; in public intellectuals who declare all religious belief to be indefensible in light of the discoveries of science, and thus a sign of weak-minded gullibility[2]; in academic philosophers who dismiss the "softer" humanities disciplines and subfields, and take philosophy seriously only if it is somehow made "scientific"—for example, by incorporating formal and quantitative methods from the sciences, or limiting itself to interpreting their results. But scientism is by no means a *new* attitude; it was just as prevalent in the latter half of the nineteenth century, when institutional academic science was becoming established and successful, and powerful new theories—evolution by natural selection, molecular thermodynamics, electromagnetism—were capturing the popular imagination. This dissertation explores and compares the critical responses of two late nineteenth-century philosophers, Friedrich Nietzsche and William James, to the scientism they encountered among their contemporaries.

Nietzsche and James may seem like an unlikely pair of philosophical allies. True, they were close contemporaries: James was born only two years before Nietzsche and died only ten years after him, and his active writing career almost entirely overlapped Nietzsche's.[3] But they had no influence on each other: Nietzsche never read James's work (indeed, had probably never heard of him), and while James read some of Nietzsche's writing—at least the passage from *On the Genealogy of Morality* that he quotes (and misinterprets) in *The Varieties of Religious Experience* (*VRE* 295–6)—he dismisses him as a "peevish" pessimist in the vein of Schopenhauer (*VRE* 39). It is understandable that on a cursory reading, James, as well as current

[1] An especially striking example: in response to "a letter from education minister Hakubun Shimomura sent to all of Japan's 86 national universities, which called on them to take 'active steps to abolish [social science and humanities] organizations or to convert them to serve areas that better meet society's needs,'" twenty-six Japanese universities agreed to "either close or scale back their relevant faculties" (Grove 2015).
[2] One thinks here of the "New Atheists" or the so-called "Brights"—a term intended to suggest that religious believers are, by contrast, *dim*—such as Richard Dawkins, Daniel Dennett, Sam Harris, Christopher Hitchens, Penn Jillette, and Steven Pinker.
[3] James was born in 1842, Nietzsche in 1844; James died in 1910, Nietzsche in 1900. James was publishing from 1878 until 1910, Nietzsche from 1872 to 1888.

readers, would not see Nietzsche as his ally: James was a defender of equality, democracy, and the right to believe in God—or at least an eternal moral order to the universe—with a clean epistemic conscience. Nietzsche, meanwhile, was a champion of both social and spiritual hierarchy, who considered a continued belief in God and providential order, in light of modern scientific and philosophical developments, to be "mendaciousness […], weakness, and cowardice" (*GS* 357).

But on many epistemological matters, Nietzsche and James's views are remarkably similar. No, Nietzsche did not have a pragmatic theory of truth (contra Danto [1965]). Nonetheless, they agree extensively about the workings of human cognition and the historical and evolutionary origins of the basic categories of thought, which I believe is at least partly a result of the common influence of early naturalistic neo-Kantians like F.A. Lange and Ernst Mach.[4] More importantly, for my purposes, their statements about the *value* of truth and the limitations of the scientific pursuit thereof resonate with each other in surprising ways. These similarities do not seem to be attributable to any common influence[5]; it appears that their conclusions converged simply because of their attunement to a shared cultural environment and their careful consideration of the philosophical problems raised by attitudes and assumptions that were ubiquitous in that environment—scientism being one of the most prevalent and, to both Nietzsche and James, one of the most troubling.

[4] Nietzsche read Lange's *History of Materialism* in 1866–7 and made extensive notes on its contents (Brobjer 2004: 26); in 1886 or 1887 he purchased and read Mach's *Contributions to the Analysis of the Sensations* and seems to have approved of Mach's work because he sent Mach a copy of *On the Genealogy of Morality* when it was published (2004: 43–4). James cites both Lange and Mach extensively in his writings on psychology, and also counts Mach among his fellow "humanists" regarding truth (*MT* 44).

[5] While both counted Emerson as a positive influence, he does not engage in any extended, systematic exploration of truth, knowledge, or science of the kind that both Nietzsche and James do, so it seems implausible that he accounts for the parallels.

A number of different definitions of scientism have been proposed both by those who oppose it and by those who, paradoxically, "reclaim" the term and defend it, such as Alex Rosenberg (2011) and Steven Pinker (2013). From the negative side, Susan Haack describes it as "an exaggerated kind of deference towards science, an excessive readiness to accept as authoritative any claim made by the sciences" (2007: 17–8). Tom Sorell identifies as the core of scientism "the belief that science, especially natural science, is much the most valuable part of human learning"—perhaps even "the *only* valuable part of human learning"—"because it is much the most authoritative, or serious, or beneficial," often accompanied by the related view "that it is always good for subjects that do not belong to science to be placed on a scientific footing" (1991: 1). He goes on to say, "What is crucial to scientism is […] the thought that the scientific is much more valuable than the non-scientific, or the thought that the non-scientific is of negligible value" (9). Rosenberg, one of scientism's defenders, describes it as "the conviction that the methods of science are the only reliable ways to secure knowledge of anything" (2011: 6) and that "[s]cience provides all the significant truths about reality" (7).

Mikael Stenmark (2001) helpfully distinguishes a number of different, and progressively more extreme, types of scientism, illustrating each with examples from twentieth-century scientistic thinkers. Scientism could be the relatively restricted "academic-internal" view that "all, or at least some, of the genuine, non-scientific disciplines can eventually be reduced to (or translated into) science proper, i.e. natural science" (2001: 1–2) or the "academic-external" view "that all or, at least, some of the essential non-academic areas of human life can be reduced to (or translated into) science" (3). This academic-external scientism can be divided into different types depending on which areas of human life are to be taken over by science. Stenmark identifies two variants of epistemological scientism: epistemic, which claims "that the only reality that we can

know anything about is the one science has access to" (4), and rationalistic, the stronger claim "that we are *rationally entitled to believe* only what can be scientifically justified" (6). These, in turn, are distinguished from ontological scientism, "[t]he view that the only reality that *exists* is the one science has access to" (8; emphasis added in all of the foregoing). Then there is *axiological* (or, as I prefer, *ethical*) scientism, the view "that science alone can explain morality and replace traditional ethics" (2001: 12).

Most of the types of scientism I have named are no doubt familiar enough, but the reader may wonder whether anyone really espouses ethical scientism. Stenmark (2001: 12) cites the biologist E.O. Wilson as endorsing both of its components. On the matter of explaining existing moral practices, he says, "science may soon be in a position to investigate the very origin and meaning of human values from which all ethical pronouncements and much political practice flow" (Wilson 1978: 5). But he also makes the more contentious claim that science can *replace* traditional ethics: "through neurophysiological and phylogenetic reconstructions of the mind, 'a biology of ethics [will be fashioned], which will make possible the selection of a more deeply understood and enduring code of moral values'" (Stenmark 2001: 12, quoting Wilson 1978: 96) or, as he touts it elsewhere, a "genetically accurate and hence completely fair code of ethics" (Wilson 1975: 575). Nietzsche and James encountered ethical scientism in the late nineteenth century as well: in his widely read and influential book *The Data of Ethics* (1879), Herbert Spencer—whom both Nietzsche and James singled out for mockery at various points—attempted to derive an ethical theory from Darwin's theory of evolution, as he understood it. In his review of the book, James quotes Spencer as saying: "My ultimate purpose, lying behind all proximate purposes, has been that of finding for the principles of right and wrong in conduct at large, a scientific basis" (*ECR* 348).

Lest the reader think that such hubris has been left behind in the nineteenth and twentieth centuries, here are a couple of examples from recent years of writers who claim that science can deliver ethical truth (though amusingly, both writers are at pains to insist that it is not what they are claiming):

> [T]he worldview that guides the moral and spiritual values of an educated person today is the worldview given to us by science. Though the scientific facts do not by themselves dictate values, they certainly hem in the possibilities. […] And in combination with a few unexceptionable convictions—that all of us value our own welfare and that we are social beings who impinge on each other and can negotiate codes of conduct—the scientific facts militate toward a defensible morality, namely adhering to principles that maximize the flourishing of humans and other sentient beings. This humanism, which is inextricable from a scientific understanding of the world, is becoming the de facto morality of modern democracies, international organizations, and liberalizing religions, and its unfulfilled promises define the moral imperatives we face today. (Pinker 2013)

> I do not claim that utilitarianism is the moral truth. Nor do I claim, more specifically, and as some readers might expect me to, that science proves that utilitarianism is the moral truth. Instead, I claim that utilitarianism becomes uniquely attractive once our moral thinking has been *objectively improved* by a scientific understanding of morality. (Whether this makes it the "moral truth" I leave as an open question.) Although we may not be able to establish utilitarianism as the moral truth, I believe that we can nevertheless use twenty-first-century science to vindicate nineteenth-century moral philosophy against its twentieth-century critics. (Greene 2014: 189, original emphasis)

Stenmark's inventory continues with existential scientism, the view "that science alone can explain and replace religion" (2001: 14). Scientific explanations for religion, usually explanations that aim to debunk religion's claims to truth, are common: works like Richard Dawkins' *The God Delusion* (2006) provide deflationary explanations for the widespread belief in God in terms of evolutionary biology and psychology (while also arguing that the belief is both false and harmful). In the first lecture of *The Varieties of Religious Experience* (1901–2), "Religion and Neurology," James describes under the heading of "medical materialism" a number of theories that purport to discredit religious luminaries and undermine their claims to insight by diagnosing them with various pathological conditions:

> Medical materialism finishes up Saint Paul by calling his vision on the road to Damascus a discharging lesion of the occipital cortex, he being an epileptic. It snuffs out Saint Teresa as an hysteric, Saint Francis of Assisi as an hereditary degenerate. George Fox's discontent with the shams

> of his age, and his pining for spiritual veracity, it treats as a symptom of a disordered colon. (*VRE* 20)

What about the belief that science can *replace* religion? Stenmark cites claims from both Richard Dawkins and Stephen Hawking that science can answer the existential questions that it has traditionally been the function of religion to answer. "Dawkins says that since we have modern biology, we have 'no longer … to resort to superstition when faced with the deep problems: Is there a meaning to life? What are we for? What is man?'" (Stenmark 2001: 13, quoting Dawkins 1989: 1). The answer that biology provides, according to Dawkins, is this: "We are machines built by DNA whose purpose is to make more copies of the same DNA. […] That is *exactly* what we are for. […] It is every living object's sole reason for living" (Dawkins 1991). Such an answer might settle the *questions* that have been traditionally answered by religion, but it can hardly fill all the traditional roles of religion. William James, however, reports attempts in his day to find scientifically respectable targets for the impulses of awe and worship. "Even the laws of physical nature have, in these positivistic times, been held worthy of divine honor and presented as the only fitting object of our reverence," he says (*WB* 97). In a note to this passage, James remarks, with an undercurrent of snark, "Haeckel has recently (*Der Monismus*, 1893, p. 37) proposed the Cosmic Ether as a divinity fitted to reconcile science with theistic faith" (*WB* 97, n. 5).

In light of this variety of forms that scientism can take and has taken, it is a challenge to formulate a definition that captures the unifying spirit of scientism from the late nineteenth century to now, as well as precisely what Nietzsche and James were objecting to. Here, again, is my two-part gloss on scientism: (1) that the aims of science, discovering truth and avoiding

error, are the highest human aims[6]; and (2) that no practice other than science can achieve these aims. For the purposes of brevity in referring, I call the first proposition "the unconditional will to truth" and the second "the hegemony of science," borrowing two (perhaps grandiose-sounding) phrases from Nietzsche. I have made this division in large part because I identified two distinguishable strands of criticism in both Nietzsche's and James's work that would best be discussed separately. Accordingly, the main body of the dissertation is divided into two parts. Part I, "Against the Unconditional Will to Truth," addresses each philosopher's objections to proposition (1): first Nietzsche's in Chapter 1, then James's in Chapter 2. Part II, "Against the Hegemony of Science," similarly addresses in turn each philosopher's objections to proposition (2).

Each of these propositions *can* be held independently of the other. Proposition (1) alone, held without proposition (2), would of course no longer count as scientism. Nietzsche's and James's criticisms of (1) tend to focus on its role as a component of scientism, and so my analysis will as well. But they also recognize that there can be religious and philosophical rather than scientistic versions of the unconditional will to truth, and Nietzsche emphasizes (as I

[6] Desmond Hogan wondered why I posit such "highly intellectualistic" aims for science in my proposed definition of scientism, as opposed to, e.g., Descartes' conception of the aim of science as "mastery and possession of nature." One reason is that Nietzsche and James seem to assume that the targets of their criticism regard truth as the aim of science; if they did not, there probably would not be such a close connection between their challenges to the overvaluation of *truth* and to the overvaluation of *science*. Another reason is that, even if "mastery and possession of nature" is regarded as the *ultimate* aim of science, attaining knowledge of the workings of nature is the distinctive means by which science (as opposed to mere technology) achieves this aim; that proximate aim is what is held in common between the champions of science who regard it as a means to control nature and those who regard knowledge of nature as an end in itself. Someone who takes mastery of nature to be the ultimate aim of science might still place that aim above all others and regard science's pursuit of the truth about nature to be the best or only way to achieve it. A final concern one might have with this definition is that it appears to preclude anyone who is not a scientific realist—i.e., anyone who thinks that truth is not even a proximate aim of science, and replaces truth with some weaker aim like empirical adequacy or technological usefulness—from counting as a proponent of scientism. Since forms of scientific anti-realism, instrumentalism, etc. are often motivated by epistemic humility on behalf of science, this may not pose too much of a problem. However, in order to accommodate anti-realists whom we might like to label scientistic (the logical positivists, for example), the aims of "discovering truth and avoiding error" might be replaced with whatever *broadly* epistemic (though not truth-oriented) aim they take science to have.

explain in Chapter 1) that the unconditional will to *scientific* truth is a descendant of these earlier versions. Proposition (2) held without proposition (1) might still be called scientism, but it would be a more benign form of scientism, in that it still might accord considerable value to pursuits whose goal is not epistemic. It is in combination that they constitute the strong form of scientism that, as I explain over the course of the dissertation, Nietzsche and James take to pose a distinctive danger to the psychological health of individuals and the cultural health of societies.

Proposition (2) captures a combination of ontological and epistemological scientism; for the purposes of exploring Nietzsche's and James's arguments, it is not terribly important to distinguish between the view that any reality beyond the ken of science does not exist and the view that (even if it does exist) we have no epistemic access to it, and so are not justified in saying anything about it. The most extreme version of the hegemony of science claims that the methods of the quantitative natural sciences are the only legitimate path to truth, and tends to regard mathematical physics as the paradigmatic rigorous science after which all other sciences should be modeled, or to which they should be reduced. More moderate conceptions of the hegemony of science may permit a plurality of research methods and acknowledge that the quantitative methods of physics are not appropriate to all objects of study. But all versions of it draw a line between epistemic practices that count as "science" and those that are "non-science" and affirm that only those on the "science" side of the line have epistemic value. This is not to say that skepticism about pseudoscientific practices such as astrology or homeopathic medicine counts as objectionable scientism. Those who accept the hegemony of science deny that *any* non-science practice has epistemic legitimacy. Religion is usually their primary target of scorn, but art and philosophy are also excluded from (at least non-accidental) access to truth. These

practices may be admitted to have some sentimental or hedonic value, but they should not be regarded as providing any meaningful information, let alone knowledge, about the world.[7]

The hegemony of science, as (briefly) the idea that science can answer any question worth asking, also *conditionally* captures ethical scientism, as a consequence of ontological scientism, i.e., the view "that the only reality that exists is the one science has access to" (Stenmark 2001: 8). Understood as the conditional "If it is a question worth asking, science can answer it," this view leaves open two possible approaches to the question about what is ultimately valuable. The *modus ponens* approach—which we have seen taken by Wilson (1975, 1978), Pinker (2013), and Greene (2014)—is to conclude from the assumption that the question is worth asking that science can answer it. But one could also take the *modus tollens* route and conclude that because science cannot answer such questions, they cannot be answered at all. This is the route that Rosenberg (2011) takes: "In a world where physics fixes all the facts, it's hard to see how there could be room for moral facts. […] We need to face the fact that nihilism is true" (2011: 94–5); "Real moral disputes […] can never really be resolved by finding the correct answers. There are none" (96).[8]

It may be less obvious why my definition includes proposition (1), the unconditional will to truth: the view that the aims of science, discovering truth and avoiding error, are the most important human aims. Although, as I shall show in Part I, Nietzsche and James certainly argued against such a view, one might wonder whether anyone really held or still holds it. In Chapter 2, I provide some quotations from W.K. Clifford—an English mathematician and public

[7] Thus Rosenberg: "When it comes to real understanding, the humanities are nothing we have to take seriously, except as symptoms. But they are everything we need to take seriously when it comes to entertainment, enjoyment, and psychological satisfaction" (2011: 307).
[8] However, he maintains, this is not really a problem because almost everyone is "committed to the same basic morality and values" (2011: 95) thanks to our evolutionary programming. His is a "nice nihilism."

intellectual whose essay "The Ethics of Belief" (1877) was the primary target of opposition in James's famous "The Will to Believe" (1896)—suggesting that he can justly be identified as an adherent to the unconditional will to truth. But is this also a component of contemporary scientism?

Unlike the view that science can provide a complete account of everything that exists or is knowable, or can answer any question worth asking (even ethical ones), one does not generally find people explicitly voicing the view that truth is the most important aim of human life. However, I can provide some circumstantial evidence that this attitude still persists in some contemporary incarnations of scientism. Some proponents of scientism can be seen expressing the somewhat less bizarre-sounding attitude that *science* is the most important or valuable human pursuit:

> People frequently ask Richard Dawkins: "Why do you bother getting up in the morning if the meaning of life boils down to such a cruel pitiless fact, that we exist merely to help replicate a string of molecules?" As he puts it: "They say to me, how can you bear to be alive if everything is so cold and empty and pointless? […] One answer is that I feel privileged to be allowed to understand why the world exists, and why I exist […] I think science is one of the supreme things that makes life worth living," he says. (Hughes 1998: 6)

Rosenberg (2011), in keeping with his avowed nihilism, is skeptical of such claims. He laments that "[e]ven so adamant an atheist as Richard Dawkins has succumbed to the delusion that a substitute for religion is required and available from science" (2011: 278). He doubts that Dawkins' remedy for the meaninglessness of the universe can help most people. "More important," he continues, "does Dawkins have an argument or a reason or a basis to claim that science makes life worth living for [anyone]? It's hard to see how science itself could provide any argument for the supreme or intrinsic value of science or anything else for that matter" (278–9).

Remarkably, Rosenberg has anticipated one of the points that both Nietzsche and James raise as a limitation of science (as I will discuss in Chapters 3 and 4, respectively). But what Rosenberg fails to question at any point is that it is better to believe the truth, however bleak and depressing, than to entertain illusions about anything, including morality or the possibility of meaning. Dawkins needs "an argument or a reason or a basis" for the claim that science makes life worth living (Rosenberg 2011: 278): the repetition underlines the importance of the demand for justification. Had he not denied that anything is either right or wrong, one might suspect him of subscribing to Clifford's Principle: "It is wrong always, everywhere, and for everyone, to believe anything upon insufficient evidence" (Clifford 1999 [1877]: 77).

The subtitle of Chapter 1 of Rosenberg's book, "Answering Life's Persistent Questions," is "Do You Want Stories or Reality?" (2011: 1), but he never even considers the possibility that it might be *better*, at least in some cases, to believe stories. His attitude toward illusion, including the natural tendency to prefer information that comes in narrative form—as he puts it, the fact that "[w]e are suckers for a good story" (8)—is consistently contemptuous, even when he acknowledges the psychological difficulty of confronting the truths that science presents:

> It's true that scientism asks us to surrender a lot of complacent beliefs in exchange for the correct answers to the persistent questions. If this seems hard to take, the last chapter cushions the blow, showing that we can surrender all the illusions of common sense, religion, and new-age and traditional mystery mongering, along with the meretricious allure of storytelling; indeed, physics, chemistry, biology, and neurology have shaped most of us to survive very nicely without them. And just in case, there's always Prozac. (Rosenberg 2011: 19)

According to Rosenberg, science has proven that nothing has genuine value, not even science itself. So why does he seem to assume that, however difficult, disappointing, or painful, it is always better to believe truth than to accept illusions, however beautiful or comforting? The answer Nietzsche would offer is that he is one of those supposed "free spirits" who, in spite of their disavowal of all traditional faiths, "*still have faith in truth*" (*GM* III, 24).

As this example illustrates, our nineteenth-century predecessors can provide insights that help us to diagnose and challenge the assumptions underlying contemporary examples of scientism. An analysis of Nietzsche's and James's arguments against scientism is of interest not only for what it can reveal about the historical philosophers' views, but also for the fresh ammunition it can provide for contemporary critics of scientism. The striking *similarities* between Nietzsche's and James's concerns about scientism—both its epistemic justification and its corrosive effect on the spiritual health of individuals and societies—and their strategies for attacking it are especially interesting in light of their dramatically different views about what is truly valuable, and about whether traditional religion is still viable in the face of modern science's discoveries. These surprising points of convergence tell us that principled opposition to scientism need not be associated with any particular moral or religious viewpoint: devoted Christians and staunch atheists, egalitarian altruists and elitist defenders of hierarchy can be allies in the cause of protecting the autonomy of art and philosophy from the encroachments of science.

Part I: Against the Unconditional Will to Truth

In the General Introduction I laid out the definition of scientism that I am using, which consists of two linked propositions: (1) the aims of science—discovering truth and eliminating false belief—are the most important human aims; and (2) the only appropriate way to pursue those aims is through the methods of modern science. In the next two chapters, I will explore and compare Nietzsche and James's critiques of the first proposition, to which I will refer using Nietzsche's term "the unconditional will to truth." Nietzsche introduces this expression in section 344 of *The Gay Science* (in Book V, published in 1887) and in the same section characterizes it as "the faith, the principle, the conviction […]: *'Nothing* is needed *more* than truth, and in relation to it everything else has only second-rate value.'"

There are two possible senses in which the version of the will to truth that Nietzsche and James both attack could be called *unconditional* (*unbedingt*), and Nietzsche intends the term to encompass both. First, this will regards the value of truth as unconditional in that its authority does not depend on any higher value or commandment: truth is a *final* rather than an *instrumental* aim, to be pursued for its own sake rather than as a means to some other goal. Second, this will is unconditional in that its application is *unrestricted*: truth is to be pursued always and everywhere, regardless of any other goals or values one might have, and whether the pursuit of truth advances or hinders these other aims, helps or harms the pursuer herself.

These two senses of "unconditional" may sometimes be conflated (James does, as I discuss below) because they often non-coincidentally overlap. If a goal or value is unconditional in the first sense, i.e., final rather than instrumental, the obvious conditions that set limits on pursuing an instrumental aim—namely, that it does not, in a given case, advance the final aim

toward which it is instrumental—would not be applicable. For example, if the value of drinking wine is *instrumental* toward other values—the values of aesthetic and physical pleasure, for example, or of social ease—one should drink wine only as long as it advances these other aims, and stop drinking if it tastes bad, starts to make one sick, or makes the social situation more rather than less uncomfortable. It is clear, then, how an instrumental aim would also end up being a *restricted* aim; there is no such obvious mechanism for placing circumstantial restrictions on a final aim.

Nonetheless, the two types of unconditionality can come apart. First, an end could be conditional in the sense of being *instrumental* toward a final end but unconditional in the sense of being *unrestricted*, because the final end to which it is a means is unrestricted and pursuing the instrumental aim necessarily advances the final aim under all circumstances. An example: suppose that someone takes doing God's will to be both a final and an unrestricted end and believes that loving one's neighbor is always an instance of doing God's will, but also believes that the actions God commands are not valuable independently, but only in virtue of having been commanded by God. Such a believer would then regard the aim of loving one's neighbor as unconditional in the "unrestricted" sense, but its value would still be *conditional* on (merely instrumental toward) the value of doing God's will.

Second, an end could be unconditional in that it does not derive its value from any higher aim, but the conditions under which it is to be pursued might still be limited by other final ends with which it competes.[9] For example, one might think that creating art is valuable in itself, not merely as a means to advancing any other aim. But that certainly does not mean that artists

[9] Of course, this kind of situation could only arise under a value theory that permits multiple final ends. It would not be a possibility according to utilitarianism, which holds that there is only one final value—happiness (or pleasure)—which is to be pursued under all circumstances, and that any more specific end is valuable only in virtue of being instrumental to producing happiness.

should spend all their time creating art, or that all the ends they pursue when they are not presently creating art should be regarded as instrumental to the creation of art. If, say, an author regarded her friendships as valuable only because she could use her experience of friendship to inform her writing, then she would be missing the distinctive value of friendship. Artists, we imagine, should regard both their art and their friendships as final ends, each placing limits on the time and effort to be spent pursuing the other. And when the demands of one final aim interfere with the demands of another, it is a difficult question which of them should take precedence over the other, or what kind of balance should be struck between them.

Most contemporary value theorists agree that the *perfect* duties[10] of morality take precedence over all others, even if the values that impose these other duties—such as art or friendship—are also final rather than merely instrumental.[11] The demands that artistic creation places on a morally virtuous artist are *unconditional* in that they do not derive their force from a value higher than art itself, but his obligation to follow them is *conditional* on their not conflicting with the demands of morality.[12] But different agents will work out different balances among the *imperfect* duties imposed by different kinds of value, and may weigh the perfect duties of different value types differently.[13] The duties ranked lower will be conditional on the

[10] Kant characterizes *perfect duties* as those that agents may not neglect, regardless of any other private interests or desires they may have (Ak. 4: 421 n.). *Imperfect duties*, meanwhile, must be followed to some degree, but the extent to which one follows them, and the balance one strikes among different imperfect duties which may compete for one's time, is a matter of choice for the agent (6: 390).

[11] Nehamas (2016) argues, contra the prevailing assumption, that the distinctive value of friendship and the duties that proceed from it are not moral, but closer in kind to aesthetic value.

[12] Such an artist, if faced with Gauguin's decision between going to Tahiti to pursue his artistic inspiration and staying to support his family—to borrow Bernard Williams' famous example—would unhesitatingly choose the latter.

[13] Kant might not approve of the use of the term "perfect duties" to describe duties imposed by non-moral values, but I think it is reasonable to suppose that there are things one absolutely must or must not do if one is to respect the value in question. Many perfect aesthetic duties (that one must not mix good wine with root beer, for example) are not the kind that could conflict with perfect duties of morality. Perfect duties of friendship, however, might—for instance, if morality requires that one betray a friend who has committed a crime by turning him in to the authorities.

ones ranked higher in the sense that their scope is restricted so that they do not conflict with the higher-ranked ones.

It seems that Nietzsche intended the "unconditional will to truth" to include both meanings, non-instrumental and unrestricted.[14] "Seek truth and avoid error" is regarded as a *categorical* rather than a hypothetical imperative. In calling the imperative "unrestricted," we need not suppose that adherents of the unconditional will to truth are obligated to actively pursue truth at every moment when they aren't meeting basic biological needs.[15] Nonetheless, possessors of an unconditional will to truth do regard truth-seeking as their most important normative aim, in much the way that followers of altruistic morality regard helping others as the most important normative aim.

Like deontological forms of altruism, the unconditional will to truth imposes imperfect positive duties and perfect negative duties. Just as followers of altruistic morality should seek out opportunities to help others, to an extent that may vary from agent to agent, followers of the unconditional will to truth are required to make the active pursuit of truth a central part of their lives. Just as altruistic morality demands that its adherents not pass up a clear opportunity to help another, the unconditional will to truth demands that its adherents not pass up an opportunity to uncover new truth, whether this is evidence that they stumble across or a line of reasoning that occurs to them; they must follow the evidence, or the argument, wherever it leads. And just as altruistic morality strictly forbids its followers to harm another deliberately or negligently, the unconditional will to truth forbids its followers to willfully or carelessly ignore evidence or

[14] Of course, someone who takes the ultimate aim of science to be mastery of nature rather than truth (as discussed in note 6 to the General Introduction) will not regard science's pursuit of truth as having final rather than instrumental value, which means that many of Nietzsche's and James's criticisms of the unconditional will to (scientific) truth will not apply to such a person.

[15] Still, some particularly fanatical devotees of truth, notably those employed by the academy, may do just that, as Nietzsche suggests with his remark about "[t]he proficiency of our finest scholars, their heedless industry, their heads smoking day and night" (*GM* III, 23).

arguments, or to place their belief in a proposition insufficiently supported by the evidence. As William James remarks in "The Will to Believe" (1896), the categorical imperative-like structure of the unconditional will to truth leads its adherents to rank the "avoid error" component of the imperative above the "seek truth" component—a tendency expressed especially forcefully in the negative formulation set forth by James's opponent W.K. Clifford in "The Ethics of Belief": "It is wrong always, everywhere, and for everyone, to believe anything upon insufficient evidence" (Clifford 1999 [1877]: 77). Nietzsche, in his attacks on the unconditional will to truth, seems to assume a similar ordering of priority, though he does not acknowledge it explicitly.

Because they regard the pursuit of truth as their highest normative duty, adherents to the unconditional will to truth will adjudicate any direct conflict of values in favor of the will to truth. This does not necessarily mean that they will always refrain from lying to others,[16] and they may not make a point of debunking others' comforting illusions (about, e.g., God, or an afterlife, or a "reason" for all misfortunes).[17] But it does mean that they will not allow *themselves* to entertain any pleasant illusions even if doing so would make their lives better in practical respects, whether by furnishing more effective motivation to act or simply by providing comfort.

Assuming that the will to truth with which Nietzsche and James find fault is unconditional in both senses—that it regards truth as having final rather than instrumental value, and the scope of the will to truth as unrestricted by other values—what kind of *conditional* will might they recommend as an alternative? The options are as follows:

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[16] As Nietzsche says in *The Antichrist*: "By lie I mean: wishing *not* to see something that one does see; wishing not to see something *as* one sees it. Whether the lie takes place before witnesses or without witnesses does not matter. The most common lie is that with which one lies to oneself; lying to others is, relatively, an exception" (*A* 55).

[17] However, since these unconditional devotees of truth most likely feel contempt for anyone who needs such illusions to function (see *GS* 2–3 on this point), they will not perceive a conflict here between the duties of truth and the duties of *friendship:* they will assume (correctly or not) that anyone they consider a friend can handle unvarnished truth.

(A) A will to truth that is conditional only in the sense of being *restricted*. Such a will would regard the value of truth as *final*, in the same way as the value of friendship and of art, but would place it lower among the final values that the agent recognizes, so that other values—for example, the "life-affirming" values that Nietzsche prizes (strength, power, health, growth, courage, and self-overcoming, in his peculiar senses thereof)—take precedence in case of conflict.

(B) A will to truth that is conditional only in the sense of being *instrumental*. The value of truth would be seen as *unrestricted*, but only because in all circumstances, pursuing truth advances a further aim to which it is instrumental.

(C) A will to truth that is conditional in both senses, regarding the value of truth as merely instrumental to other values and, accordingly, restricted to the circumstances in which it promotes them.

First, in Chapter 1, I discuss the critique of the unconditional will to truth that Nietzsche delivers in his later works,[18] which charges that this will, and the institution of science insofar as it is motivated by this will, is the latest incarnation of the *ascetic ideal*: the stance that privileges another, metaphysical world and its demands above the needs and well-being of living creatures. My discussion focuses in particular on *GS* 344, which presents his most sustained argument against the unconditional will to truth, and the Third Essay of *On the Genealogy of Morality* (1887), which reiterates and expands on the critique in *GS* 344. Then I explore the mode of

[18] Starting with *The Gay Science* (1882) and devoting particular attention to the works of 1886–7 (*Beyond Good and Evil*, the second edition of *The Gay Science*, and *On the Genealogy of Morality*), in which his attack is strongest and most focused. Nietzsche does express concerns about the deleterious effects of the overvaluation of truth, and especially scientific truth, in his earlier works, including *The Birth of Tragedy* (1872) and the *Untimely Meditations* (1873–6). However, given that many of his views changed substantially between that period and that of the later works, it was easier to identify a coherent position by focusing on a narrower time period. Determining which elements of Nietzsche's later views were already present in the earlier works may be the goal of future research.

pursuing truth that Nietzsche implicitly recommends as an alternative to the ascetic unconditional pursuit of the disciples of modern science: *gay science*. I shall argue that, based on the key texts of *The Gay Science* from which I draw my understanding of what the practice of gay science consists in, Nietzsche favors option (C) listed above: a version of the will to truth that is conditional in *both* senses. First, it regards the value of truth, and of the will to truth itself, as *instrumental* to promoting the life-affirming values of strength and courage; and second, it *restricts* the pursuit of truth to those circumstances in which it advances these higher values. In principle, this instrumental pursuit of truth could be conducted in an unrestricted fashion, if the agent is already strong and courageous enough that the dangers of too much truth no longer threaten her psychological well-being and her capacity to love life. In fact, I would regard the ability to pursue truth unrestrictedly as a kind of regulative ideal for Nietzsche. But this ideal still has value only in the service of other values; and it is important to know when one has *not* yet reached the point at which persisting in the pursuit of truth cannot pose a threat to the life-affirming values that Nietzsche holds highest.

Then, in Chapter 2, I present James's critique of the unconditional will to truth, focusing on the criticisms, both implicit and explicit, that he levels at traditional conceptions of truth while presenting his alternative conception in *Pragmatism* (delivered as a public lecture series in 1906 and published in 1907). In this discussion it becomes clear that James favors option (B). In fact, the pragmatic understanding of truth as that which will be, in the long run, beneficial for humans to believe (*P* 106–7) *guarantees* that the imperative to believe truth will be unrestricted, in the sense that there is no truth that it would be better for humankind not to know; but it is still only a *hypothetical* imperative, because the value of truth is merely instrumental toward the benefits in terms of which it is defined.

I will make the case that Nietzsche and James's criticisms rest on the same basic idea: that the unconditional will to truth is *ascetic*, in Nietzsche's terms. It elevates truth to the status of a god who imposes on human beings the demand that they believe only truth, regardless of their earthly needs and capabilities; it makes an idol of only one of many genuinely valuable goals, and sacrifices the rest of human life to the idol of truth.

However, each thinker picks up on aspects of the problem that the other misses. Nietzsche, for example, explicitly acknowledges the usefulness of positively *false* beliefs and the potential harmfulness of truth where James does not. Meanwhile, James, unlike Nietzsche, underlines the distinction, and the difference in value for life, between the *two* goals of the unconditional will to truth: attaining as much truth as possible, and avoiding false beliefs to the extent possible. The unconditional will to truth, particularly as expressed by Clifford's Principle, emphasizes the "avoid error" component of the imperative of truthfulness over the "seek truth" component. And because James regards all truths as beneficial, he considers this emphasis on avoiding error to be what makes Clifford's position ascetic: it forces people to go without beliefs that may be true, and therefore may be beneficial, if they lack the kind of evidentiary support that scientific method would consider respectable. As I will argue in Chapter 2, these differences in their critiques of the unconditional will to truth—like the difference in their conclusions about what kind of *conditional* will to truth would be preferable—may be consequences of James's pragmatic conception of truth, which Nietzsche does not share.

Chapter One

Nietzsche's Critique of the Unconditional Will to Truth

1. "How we, too, are still pious": the will to truth as a faith

In his two sustained attacks on the unconditional will to truth—section 344 of *The Gay Science* and the Third Essay of *On the Genealogy of Morality*—Nietzsche explicitly connects this will to the aims and the practice of science. *GS* 344 starts with an observation about science:

> In science convictions have no rights of citizenship, as one says with good reason. Only when they descend to the modesty of hypotheses, of a provisional experimental point of view, of a regulative fiction, they may be granted admission and even a certain value in the realm of knowledge […] —But does this not mean […] that a conviction may obtain admission to science only when it *ceases* to be a conviction? Would it not be the first step in the discipline of the scientific spirit that one would not permit oneself any more convictions?

The stringency of this policy raises for Nietzsche a question about its motivation: "*To make it possible for this discipline to begin*, must there not be some prior conviction—even one so commanding and unconditional that it sacrifices all other convictions to itself?" Yes, he answers: "The question whether *truth* is needed must not only have been affirmed in advance, but affirmed to such a degree that the principle, the faith, the conviction finds expression: '*Nothing* is needed *more* than truth, and in relation to it everything else has only second-rate value.'" Paradoxically, he concludes—to some degree anticipating the results of the argument that follows—"We see that science also rests on a faith; there simply is no science 'without presuppositions.'"

What does Nietzsche mean by calling the unconditional will to truth a "faith" (*Glaube*), or a "conviction" (*Ueberzeugung*) of the kind that scientific inquiry does not permit? Nietzsche offers a definition of "conviction" in *Human, All Too Human* (1878): "Conviction [*Ueberzeugung*] is the belief [*Glaube*] that on some particular point of knowledge one is in

possession of the unqualified truth" (*HAH* I, 630). A conviction, then, is a view that is no longer open to question for those who hold it. In the same section, Nietzsche maintains (as he does nine years later) that scientific thinking precludes convictions: the presuppositions of having a conviction as he has defined it—"that unqualified truths exist; likewise that perfect methods of attaining to them have been discovered; finally, that everyone who possesses convictions avails himself of these perfect methods"—"demonstrate at once that the man of convictions is not the man of scientific thought" (*HAH* I, 630). Thinking scientifically requires regarding *everything* as open to question and defeasible by the evidence, even the methods of science itself.

However, this definition of convictions does not explain how they could naturally "descend to the modesty of hypotheses" or "a provisional experimental point of view"—as Nietzsche says they must in order to be "granted admission" into science (*GS* 344)—since these are decidedly not regarded by those who entertain them as unqualified truths. What such tools of inquiry do have in common with convictions as defined in *Human, All Too Human* is that they are not *presently* open to question; they are being *assumed* until the evidence for or against them comes in. Bernard Reginster (2003) argues that Nietzsche's "man of conviction" (*HAH* I, 630ff.) is the same type of person as the "fettered spirit" whom he earlier on (*HAH* I, 225ff.) contrasts with the "free spirit." According to Nietzsche, the fettered spirit can justify his beliefs only by "reasons judged *a posteriori* on the basis of consequences": "only regard this as true, he says, and you will see how much good it will do you" (*HAH* I, 227). In a sense, this is true of hypotheses and regulative fictions as well; they are adopted in advance of the evidence, "without first having given [oneself] an account of the final and most certain reasons pro and con," (*GS* 2[19]), and their adoption is (one hopes) vindicated by their usefulness in guiding inquiry.

[19] Reginster also ties this section, which laments the rarity of possessing an "intellectual conscience," to the issue of the "fettered spirit" or "fanatic"; see 2003: 55, 56.

The difference is that the fettered spirit will not give up his belief even if the evidence runs counter to it: having formed a belief "out of habit," "he may perhaps have also devised a couple of reasons favorable to his habits; but if one refutes these reasons, one does not therewith refute him in his general position" (*HAH* I, 226). "An article of faith could be refuted before [the believer] a thousand times—if he needed it, he would consider it 'true' again and again" (*GS* 347). A scientific hypothesis, by contrast, is genuinely on trial, and while it may be adopted as "a provisional experimental point of view" (*GS* 344) ahead of the evidence, it must be abandoned if the predictions made on its basis are not borne out or if it leads nowhere as a guide for a research program.[20] But the principle that one must "not permit oneself any more convictions" (*GS* 344)—that any assumption is subject to revision—is itself not merely a provisional assumption of scientific practice, but an unrevisable one. The integrity of science depends on applying this requirement to regard everything as open to question, except for the assumption of this requirement itself.

Why does Nietzsche draw the extreme conclusion that the prohibition on convictions expresses the conviction that "[*n*]*othing* is needed *more* than truth, and in relation to it everything else has only second-rate value" (*GS* 344)? We can understand this inference by considering, first, that if some belief were placed beyond question, one would not be open to any evidence indicating that it, or any conclusion drawn from it, was in fact false. True, it is the desire to avoid or eliminate *false* beliefs rather than to acquire *true* beliefs that primarily motivates this rule of

[20] I'm not sure that what Nietzsche has in mind by "hypothesis" or "provisional experimental point of view" is what has come to be the technical meaning of *hypothesis* in scientific methodology: namely, the possibility that a particular experiment is designed to test. This may be *one* of the things he has in mind; this kind of hypothesis does resemble a conviction in the way I've suggested above, in the limited sense that experiments are often designed by assuming temporarily that the hypothesis is true, and then predicting what would happen under certain producible conditions. I suspect, however, that what he means is more along the lines of a candidate theory or a component of a theory that one would assume for the purposes of an entire program of observation and experiment.

method[21]; as noted above, the unconditional will to truth tends to emphasize avoiding false beliefs over attaining true ones. However, the desire not to miss new truths also plays a role: a mistaken assumption could lead scientific inquiry down the wrong path, blocking discoveries that might have been available otherwise. And Nietzsche's point in saying that the principle "*Nothing* is needed *more* than truth" is a "prior conviction" or a "faith" is that it is *not* genuinely open for question—violating the rule that the principle itself imposes on all other propositions by forbidding any (other) convictions.

But why does Nietzsche claim that the commitment to question every assumption presupposes that "in relation to [truth] everything else has only second-rate value" (*GS* 344)? After all, scientific inquiry is only one area of life; and while ensuring that one has the truth about every scientific matter is also the highest scientific priority, this does not mean that science or its practitioners claim that truth must be the highest value in life overall. Nietzsche has not established yet that overvaluing truth in the way that science demands interferes with the conduct of life or the pursuit of other values. In section 2.2 below I will present and discuss samples of the many texts in which Nietzsche argues that the unconditional will to truth, particularly as it is expressed in science, can be detrimental to human life. As a preview of those arguments, however, I will say here that the pursuit of scientific truth cannot be so easily cordoned off from the rest of life. Some of the convictions that science orders us to sacrifice might be ones that many people need to make the world or their own lives seem valuable or even merely bearable.

GS 344 continues with the question how one might arrive at the unrevisable conviction that truth has overriding value and must be pursued under all circumstances. Nietzsche's answer comes in the form of one of the few relatively conventional (albeit still somewhat elliptical)

[21] William James does point out this distinction in "The Will to Believe" (James 1979 [1896]: 24), and calls this abstemious method of science "nervousness" "organized […] into a regular *technique*" (26–7).

philosophical arguments in his oeuvre. All quotations in the following reconstruction are from *GS* 344.[22]

1. The unconditional will to truth might be a prudential rule ("I will not allow myself to be deceived") or a moral rule ("I will not deceive, not even myself").
2. The conviction that it is most *prudent* or *useful* to know the truth under all circumstances "could never have come into being if both truth and untruth constantly proved to be useful"—or, relatedly, if "much trust *as well as* much mistrust" of appearances (i.e., endorsing one's immediate impression as well as stopping to investigate further) were both useful in some situations. That is, someone who believed that one should always seek the truth on the grounds that truth is always more useful than ignorance or falsehood could not long hold onto such a view if, in fact, truth were *not* always more useful, because her own commitment to the pursuit of truth would lead her to that conclusion.
3. Both "truth and untruth," "trust and mistrust," are sometimes useful.
4. Therefore, from (2) and (3), the unconditional will to truth is not prudentially motivated: "the faith in science, which after all exists undeniably, cannot owe its origin to such a calculus of utility; it must have originated *in spite of* the fact that the disutility and dangerousness of 'the will to truth,' of 'truth at any price' is proved to it constantly" (I will remark on this point following the reconstruction).
5. From (1) and (4), the unconditional will to truth is a moral principle.
6. Morality in general, understood as an unconditional rule to do or refrain from something, is highly unusual in the world we live in ("life, nature, and history are 'not moral'"). So,

[22] Reginster gives a helpful reconstruction of the argument of that section (2003: 65–8); I take some cues from him in my own version of the reconstruction.

more specifically, is the moral injunction always to be truthful ("especially if it should seem—and it does seem!—as if life aimed at semblance, meaning error, deception, simulation, self-delusion, and when the great sweep of life has actually always shown itself to be on the side of the most unscrupulous *polytropoi*"[23]).

7. "[T]hose who are truthful in that audacious and ultimate sense that is presupposed by the faith in science" thus set themselves apart from the rest of the world.
8. This "might perhaps be a quixotism, a minor slightly mad enthusiasm; but it might also be something more serious, namely, a principle that is hostile to life and destructive." Nietzsche seems to dismiss the first option and favors the second, leading him to:
9. **Conclusion:** Those who espouse the unconditional will to truth "*thereby affirm another world* than the world of life, nature, and history," and consequently "negate its counterpart, this world, *our* world."

Why does Nietzsche conclude that, by following the unconditional will to truth as a *moral* principle, the champions of science "*affirm another world*" and negate our own? We can make sense of this opaque inference by recalling the "world-to-mind" direction of fit of normative claims: if a norm and the world do not agree, it is the *world* that we take to be at fault and to need to change. *Prudential* norms demand that a subject make certain changes to the world in order to satisfy her own needs or desires. But this subject's needs and desires, like all natural parts of the world, are changeable; and if they change, the former prudential norms no longer hold. Prudential norms are by nature responsive to the needs and desires of creatures in the world. *Moral* norms, by contrast, are unconditional: they always apply, no matter what

[23] Probably what Nietzsche has in mind with this rather grandiose statement is that in the natural world, defense mechanisms based on deception—camouflage, mimicry of predatory or poisonous species—do tend to promote the survival and flourishing of the organisms that use them.

circumstances obtain in the world. What, then, is holding the world accountable to a demand that it should change? The norm cannot *come from* the moral agent who honors it,[24] because she takes herself to be subject to it as well. As part of the world governed by it, she too is at fault and must change her conduct if she violates it; and no change in her desires or situation can cancel it. Nothing in the natural world is as unchanging as a moral imperative. Even laws of nature take the form of a hypothetical imperative: the way things behave always depends on the antecedent circumstances in which the law operates. Nietzsche concludes that unconditional moral rules presuppose another world, a "*metaphysical*" world, that imposes demands on our world and holds it at fault, *condemns* it, if it fails to obey them.[25] Nietzsche puts the point succinctly in a note from 1887: "Insofar as we believe in morality we pass sentence on existence" (*KSA* 12:10[192], published as *WP* 6).

We must still ask how Nietzsche arrives at premise (3) in the argument above, i.e., that both truth and untruth are sometimes useful—or, as he puts it more strongly in the passage quoted under premise (4), that "the disutility and dangerousness of 'the will to truth,' of 'truth at any price' is proved […] constantly." Alexander Nehamas offers an example to illustrate the weaker claim: if your friend was eaten by a large yellow spotted animal and you see another such animal, it is not in your interest to count the spots to make sure it is the same animal; you should

[24] Kant notwithstanding: the moral law may come from the agent regarded abstractly as a purely rational subject, stripped of all contingent distinguishing features, but it does not come from her *qua* human being in the phenomenal world. Nietzsche indicates that he does not credit Kant's claim that only moral actions are truly autonomous (because the moral law is legislated by the agent as transcendental subject, while non-moral actions are caused by natural events outside the agent) with his quip that "'autonomous' and 'moral' are mutually exclusive" (*GM* II, 2). In any event, Kant certainly is not immune from the charge of "affirming another world" over our own!

[25] Nietzsche's claim that acceptance of unconditional moral rules commits us to a "metaphysical world" sounds odd and hyperbolic, and deliberately conjures up fanciful images of the Christian or Platonic Heaven, but this "metaphysical world" can be understood in a much more minimal sense. Nietzsche is arguing that there can be no naturalistic explanation for unconditional moral norms; they require metaethical non-naturalism. The overlay of non-natural moral facts condemning natural states of affairs and making demands on human agents is already a "metaphysical world," albeit a fairly thin one.

trust the initial false judgment that it is the same one and run away (Nehamas 2017: 317). But Nietzsche appeals to a very different example to defend the stronger claim, about "the disutility and dangerousness of 'the will to truth'": "'At any price': how well we understand these words once we have offered and slaughtered one faith after another on this altar!" (i.e., of truth; *GS* 344). One of Nietzsche's central criticisms of the unconditional will to truth is that it tends to tear down the ideals that people once lived by, depriving them of the sources of meaning and value in their lives, by showing the metaphysical assumptions on which they rested to be false and the divine sources of their authority to be counterfeit. This example points to the potential utility of holding wholly *false* beliefs, as opposed to merely trusting imprecise heuristics or inaccurate first impressions.

Nietzsche's criticism of the unconditional will to truth, on the basis of this analysis, is twofold. The first component is an internal criticism, effectively a charge of hypocrisy. We have already seen one version of this charge in Nietzsche's rhetorical question: "*To make it possible for this discipline [science] to begin,* must there not be some prior conviction—even one so commanding and unconditional that it sacrifices all other convictions to itself?" (*GS* 344). As I noted before, the conviction motivating the rule against convictions—that truth has overriding value—violates its own rule: it stands unquestioned as long as the rule to permit oneself no convictions is obeyed. Or, to put it differently, the will to truth is not truly unconditional as long as it does not question itself.[26] More specifically, Nietzsche finds it ironic that "It is still a *metaphysical faith* upon which our faith in science rests […], we seekers after knowledge today, we godless anti-metaphysicians" (*GS* 344). The partisans of science and adherents to the

[26] Nietzsche, of course, does pose this question, acknowledging that he is motivated to the will to truth (see *BGE* 1 and *GM* III, 27, which I will discuss in section 3). But his criticism of (fellow?) adherents to the unconditional will to truth—of which there are many among the late-nineteenth century admirers of science—is that they are inconsistent by failing to have done this already.

unconditional will to truth are committed to skepticism about anything that cannot be observed or otherwise verified by the methods of science. They may, for example, subscribe to Clifford's Principle, that it is wrong to believe anything on insufficient evidence, and accordingly withhold belief from any invisible supernatural entities (including God or a Platonic heaven) for which evidence, particularly of the kind demanded by science, is scant. Nonetheless, Nietzsche argues, their own unconditional will to truth implicitly commits them to the existence of some sort of invisible world beyond the one we live in, for which there is little to no evidence—certainly not enough to satisfy someone who consistently follows Clifford's Principle.

The second component of Nietzsche's critique of the unconditional will to truth is ethical: that it expresses an attitude of condemnation toward the world we live in—the only world there is, according to Nietzsche. With his assertion that "life, nature, and history are 'not moral'" (*GS* 344), he implies that our world will inevitably flout such moral rules. Meanwhile, claims he makes elsewhere about our extremely limited condition as knowers (see, e.g., *GS* 107, 110; *BGE* 24, 34) imply, more specifically, that we will inevitably fail to conform to the demand that we believe nothing but truth. Finally, those who endorse and hold themselves bound by unconditional moral rules thus declare their allegiance to this metaphysical world (be it the Platonic world of Forms, the Christian Heaven, or the Kantian noumenal realm) in preference to our own. They declare their willingness to condemn our world for its inevitable moral shortcomings and (as I will detail in what follows) to sacrifice the needs and interests of life on earth to the moral demands of the metaphysical world.

2. The asceticism of science

The third essay of *On the Genealogy of Morality* (1887), entitled "What is the Meaning of Ascetic Ideals?", opens, as Nietzsche advertises in the Preface, with an aphorism that he then

explicates in the remainder of the essay (*GM* Pref. 8). This aphorism runs through the meaning of ascetic ideals for several types of people: artists, "philosophers and scholars," women, "the physiologically deformed and deranged (the *majority* of mortals)," priests, and saints (*GM* III, 1); he does not specifically mention science here. He explains *why* "the ascetic ideal has meant so many things" to so many different types of people in terms of the "*horror vacui*" of the human will: "*it needs a goal*—and it will rather will nothingness than *not* will." Then after asking, "Have I been understood?" and answering himself, *"Not at all, my dear sir!"*, he declares, "Then let us start again, from the beginning" (I, 1), and embarks on the "commentary" or "exegesis" he promised in the Preface (section 8), explaining his remarks on each of the groups in the aphorism, more or less in order.

In the commentary, however, he makes a couple of alterations to the inventory in the aphorism ("scholars" have been removed from their place with philosophers, who are the topic of *GM* III, 6–9, and are now explained in the same terms as saints or the sick majority of mankind, as I will discuss below; mercifully, women are missing entirely). And another group has been added: "the last idealists left among philosophers and scholars," "these last idealists of knowledge" (III, 24). He introduces them by way of considering a proposed counterexample to his thesis that the ascetic ideal has been so prevalent only because humanity has lacked any rival ideal, and needs some ideal or other. "But they tell me it [a rival ideal] is *not* lacking," Nietzsche remarks (III, 23);

> it has not merely waged a long and successful fight against [the ascetic] ideal, it has already conquered this ideal in all important respects: all of modern *science* is supposed to bear witness to that—modern science which, as a genuine philosophy of reality, clearly believes in itself alone […] and has up to now survived well enough without God, the beyond, and the virtues of denial.
> (*GM* III, 23)

But Nietzsche rejects this purported counterexample and shoots back that "where [science] still inspires passion, love, ardor, and *suffering* at all, it is not the opposite of the ascetic ideal but

rather *the latest and noblest form of it*" (III, 23)—that for the "idealists of knowledge" who pursue science with passion, love, and ardor, who suffer for its sake, "this ideal is precisely *their* ideal, too; […] they themselves are its most spiritualized product" (III, 24). "Does this sound strange to you?" he asks (III, 23)—because he intends that it should. This revelation, that science is not the enemy but the "*kernel*" (III, 27) of the ascetic ideal, is, in the terms of his description of the *Genealogy* in *Ecce Homo*, the "*new* truth" that "in the midst of perfectly gruesome detonations […] becomes visible […] among thick clouds" (*EH* "GM"). He therefore could not preview it in the opening aphorism: he needed to lure in his readers, many of whom are probably such "idealists of knowledge" themselves.

In this section, I will explain first what Nietzsche understands by the ascetic ideal, and then why he takes science to be "*the latest and noblest form of it*" (*GM* III, 23). In brief: the ascetic ideal denigrates the world we live in; it is "life-denying" above all. And science, insofar as it is motivated by the unconditional will to truth introduced in *GS* 344, is life-denying because it is willing to sacrifice any of the needs and interests of life to the pursuit of truth.

2.1 Science as the "kernel" of the ascetic ideal

At its most basic level, the ascetic ideal is the devaluation of worldly goods and pleasures of the flesh, the glorification of "poverty, humility, chastity" (*GM* III, 8). This is the component of the ascetic ideal that, according to Nietzsche, makes it appealing to philosophers: they espouse ascetic ideals not because they are opposed to life, but because the avoidance of worldly distractions provides "an optimum condition for the highest and boldest spirituality" (III, 7). But, he claims, the appeal of these surface trappings of the ascetic ideal sometimes seduces philosophers into promoting the attitude at the heart of the ideal, as embodied by the *ascetic priest* (III, 10):

> The idea at issue here is the *valuation* the ascetic priest places on our life: he juxtaposes it (along with what pertains to it: "nature," "world," the whole sphere of becoming and transitoriness) with a quite different mode of existence which it opposes and excludes, *unless* it turn against itself, *deny itself*: in that case, the case of the ascetic life, life counts as a bridge to that other mode of existence. The ascetic treats life as a wrong road on which one must finally walk back to the point where it begins, or as a mistake that is put right by deeds—that we *ought* to put right […] (*GM* III, 11)

As should be obvious from this description, Christianity is an important and typical expression of the ascetic ideal. God, who is pure spirit, eternally changeless, perfectly wise and loving, represents the "different mode of existence" opposed to our own corporeal, time-bound, limited and selfish one. God is "the ultimate antithesis of [our] own animal instincts," and we come to see "these animal instincts themselves as a form of guilt before God" (*GM* II, 22). Nietzsche also names Indian Vedanta philosophy (*GM* III, 12) and Buddhism (III, 17) as religious incarnations of the ascetic ideal. These religions turn their adherents away from things of the flesh, at best through self-denial (moderation, chastity, minimization of attachments), at worst through self-torment (long fasts, flagellation, violent guilt and self-hatred) (see *GM* III, 17–21).

But of course, not all incarnations of the ascetic ideal are religious; some (officially) non-religious philosophies have expressed it in various ways. One whom Nietzsche clearly has in mind is Schopenhauer, who, inspired by Indian philosophy and religion, argued from the ubiquity and inevitability of suffering that the world ought not to exist, and so we should all make an effort to take it out of existence by extinguishing our desires. In Schopenhauer's case, the only "different mode of existence" being contrasted favorably with our own is *non*-existence. Another philosophical example Nietzsche names is Kant, who posits a noumenal realm of things in themselves (including, ultimately, God and the perfectly free rational agent, standing in for the "immortal soul") that we can think about but never know. In Kant's philosophy, Nietzsche claims, "the ascetic self-contempt and self-mockery of reason declares: '*there is* a realm of truth and being, but reason is *excluded* from it!'" (*GM* III, 12).

How, then, is modern science not an opponent of the ascetic ideal, but "*the latest and noblest form of it*" (*GM* III, 23)? The people whom Nietzsche charges with perpetuating the ascetic ideal are "the last idealists among philosophers and scholars" (*GM* III, 24) mentioned above:

> These Nay-sayers and outsiders of today who are unconditional on one point—their insistence on intellectual cleanliness; these hard, severe, abstinent, heroic spirits who constitute the honor of our age; all these pale atheists, anti-Christians [*Antichristen*], immoralists, nihilists; these skeptics, ephectics,[27] *hectics*[28] of the spirit […]; these last idealists of knowledge in whom alone the intellectual conscience dwells and is incarnate today—they certainly believe they are as completely liberated from the ascetic ideal as possible, these "free, *very* free spirits"; and yet, to disclose to themselves what they themselves cannot see […]: this ideal is precisely *their* ideal, too […] They are far from being *free* spirits: *for they still have faith in truth.* (*GM* III, 24)

The first thing to notice about this passage (other than the forcefulness of its rhetoric) is Nietzsche's rather favorable characterization of "these last idealists of knowledge" (*GM* III, 24). Although he does not explicitly identify himself as one of them, he leaves some clues. First, he refers to them as "*Antichristen*"—which is most naturally understood to mean "anti-Christians" in this context, but could also be interpreted as "Antichrists"—perhaps in anticipation of his forthcoming book *Der Antichrist* (published the following year, 1888), which makes clear that he is the titular "Antichrist."[29] Second, he calls them "immoralists," a word he had already applied to himself in *Beyond Good and Evil* (section 32) and the preface to the new 1886 edition of *Daybreak* (Pref. 4), and which he would emphatically claim in *Ecce Homo* (1888; IV, 2–6).[30] His references to "intellectual cleanliness" and "the intellectual conscience" are also telling. In *The Gay Science* he confesses, "I do not want to believe it although it is palpable: *the great majority*

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[27] Ones who practice *ephexis*, or suspension of judgment (related to the Greek term *epochē*, used by the Pyrrhonian skeptics for their practice of suspending judgment; see Berry 2014: 131).
[28] Fevered consumptives.
[29] In an editorial footnote (*GM* III, 24, p. 149, n. 8), Walter Kaufmann also refers the reader to the preface Nietzsche wrote for the new edition of *The Birth of Tragedy* published in 1886, "Attempt at a Self-Criticism," in which he plays on the ambiguity of the German word *Antichrist* and identifies the Antichrist as Dionysus (*BT* Pref. 5).
[30] Again, Kaufmann points to these references in his editorial note (*GM* III, p. 149, n. 8).

of people lacks an intellectual conscience," implying that he is one of the very few exceptions (*GS* 2). In *Beyond Good and Evil*, he says that the "philosophers of the future" will be "skeptics," in the sense of being ruthlessly critical of every doctrine they are presented with: "Critical discipline and every habit that is conducive to *cleanliness* and severity in matters of the spirit will be demanded by these philosophers not only of themselves" (*BGE* 210, emphasis added). Finally, the phrase in quotation marks, "free, *very* free spirits," is a reference to *BGE* 230, where the full phrase is "**we** free, *very* free spirits" (italics original, bold emphasis mine), and Nietzsche is very clearly referring to himself and people of a similar cast of mind (as I will discuss in section 3 below).

Nietzsche's (at least partial) self-identification with the targets of his critique is confirmed when he goes on to quote from the conclusion of *GS* 344:

> those who are truthful in that audacious and ultimate sense that is presupposed by the faith in science *thereby affirm another world* than that of life, nature, and history; and insofar as they affirm this "other world"—look, must they not by the same token negate its counterpart, this world, *our* world? … It is still a *metaphysical faith* upon which our faith in science rests—even **we** seekers after knowledge today, **we** godless anti-metaphysicians, **we**, too, take **our** fire from the flame lit by a faith that is thousands of years old, that Christian faith, which was also Plato's, that God is truth, that truth is *divine*. (*GS* 344, quoted *GM* III, 24; ellipsis and italics original, bold emphasis mine)

Nietzsche here brings down upon the "idealists of knowledge" like himself the critique explained above in section 1: that their "*faith in truth*" (*GM* III, 24)—by which he means their faith in the absolute *value* of truth, as made clear in *GS* 344—negates "*our* world," the world "of life, nature, and history," in favor of "*another world*," a "metaphysical" world (*GS* 344). And this is precisely the structure of the ascetic ideal, as described previously. The ascetic priest "juxtaposes [our life] (along with what pertains to it: 'nature,' 'world,' the whole sphere of becoming and transitoriness) with a quite different mode of existence which it opposes and excludes," and devalues it in comparison with that other world (*GM* III, 11). In just the same way, the idealists of knowledge, those who have "faith in science" (*GS* 344), hold our world accountable to a

metaphysical world that unconditionally demands of us, regardless of what our earthly needs may be, that we believe only truth, and as much truth as possible.

True, Nietzsche acknowledges, these "godless anti-metaphysicians" (*GS* 344) have done away with most of the characteristics of the "other world" as the ascetic priest posits it. A stern but benevolent, incorporeal God no longer dwells there, promising eternal bliss in his world if we "turn against" and "*deny*" everything pertaining to our own world (*GM* III, 11) (i.e., by humiliating the body and its desires), or threatening eternal punishment if we fail to do so. But, as Nietzsche points out, these details are hardly essential to the spirit of the ascetic ideal, and in fact, any promises of bliss or claims about a God who cares about the fate of human beings run positively *counter* to it, self-indulgent as they are. Truly obeying the self-denying spirit of the ascetic ideal requires stripping the ideal of these ornaments. In its purest form,

> it does without ideals of any kind—the popular expression for this abstinence is "atheism"—*except for its will to truth*. But this will, this *remnant* of an ideal, is, if you will believe me, this ideal itself in its strictest, most spiritual formulation, esoteric through and through, with all external additions abolished, and thus not so much its remnant as its *kernel*. (*GM* III, 27)

The unconditional will to truth recognizes a *demand* from the "other world," one that takes no account of the needs or circumstances of beings in our world, but does away with the promise of a *reward* from that other world if we satisfy its demands. Even doing away with the threat of punishment for disobeying is self-denying in a certain way. Kant insists, with his typical austerity, that an action has moral worth only if it is performed from the rational motive of duty, not from the basely sensuous desire to gain reward or avoid punishment—even of the divine sort (see Ak. 4:406, 5:38, 27:557, etc.). The unconditional will to truth *permits* only duty as a motive

for obeying it; such ordinary, selfish human motivations as reward and punishment are not even in the offing.[31]

2.2 The asceticism of science made concrete

So far Nietzsche's argument has been very abstract: he has argued that *in principle* science is ascetic, assuming the institution of science is grounded in the unconditional will to truth. What evidence does he have that science *as it is practiced* is beholden to the ascetic ideal? Nietzsche gives some concrete examples of the asceticism of modern science in the last few sections of *GM* III. First, he claims that for many of those who "work[ ] rigorously in the sciences," "science […] is a *hiding place* for every kind of discontent, disbelief, gnawing worm, *despectio sui*, bad conscience—it is the unrest of the *lack* of ideals, the suffering from the *lack* of any great love" (*GM* III, 23). The "heedless industry" of "our finest scholars," "their heads smoking day and night," enables those same scholars to *hide* from themselves their own sense of the meaninglessness of their lives, and science thus functions for them "as a means of self-narcosis" (III, 23). In this way, the activity of science resembles one of the remedies the ascetic priest prescribes to distract his sick, self-loathing flock ("the *majority* of mortals," per III, 1) from their suffering: "*mechanical activity* […] today called, somewhat dishonestly, 'the blessings of work'" (III, 18). Along similar lines, Nietzsche points out that "[p]hysiologically […], science rests on the same foundation as the ascetic ideal: a certain *impoverishment of life* is a presupposition of both of them—the affects grown cool, the tempo of life slowed down" (III, 25). This resembles Nietzsche's characterization of the *saint's* efforts to dull his unhappiness "by means that reduce the feeling of life in general to its lowest point" (III, 17). Nietzsche describes

[31] Lest it be objected that the reward for believing truths is greater success in one's earthly projects and the punishment for believing falsehoods is frustration and failure, recall that Nietzsche already ruled out the prudential explanation for the unconditional will to truth in *GS* 344. We are talking about seeking to attain truth and root out falsehood *beyond the point* where it is useful for life.

"the *ideal* scholar in whom the scientific instinct […] blossoms and blooms to the end" as achieving (like the ascetic saint) a complete "'unselfing' and depersonalization of the spirit," and even something like an *unio mystica* with the object of knowledge: he becomes no more than "a *mirror*"; "he is accustomed to submit before whatever wants to be known, without any other pleasure than that found in knowing and 'mirroring'" (*BGE* 207).

But these are relatively superficial matters; it is in the knowledge which science uncovers that its deepest connection to the ascetic ideal can be found. "Has the self-belittlement of man, his *will* to self-belittlement, not progressed irresistibly since Copernicus?" Nietzsche asks (*GM* III, 25). Thanks to the discoveries of science, humankind has been displaced from the center of the universe and from the top of the pyramid of creation, and human "existence appears […] arbitrary, beggarly, and dispensable in the *visible* order of things" (III, 25). Since Darwin especially, "the faith in the dignity and uniqueness of man, in his irreplaceability in the great chain of being, is a thing of the past—he has become an *animal*, literally and without reservation or qualification, he who was, according to his old faith, almost God." "*All* science," Nietzsche declares, "has at present the object of dissuading man from his former respect for himself […] One might even say that […] its own austere form of stoical ataraxy, consists in sustaining this hard-won *self-contempt* of man" (*GM* III, 25). This declaration encompasses not only "natural" but also "*unnatural*" science,[32] namely, "the self-critique of knowledge" (III, 25) conducted by "philosophical laborers" like Kant (*BGE* 211) and the neo-Kantians (alluded to scathingly in *BGE* 204: "Philosophy reduced to 'theory of knowledge' [*Erkenntnisstheorie*], in fact no more than a timid epochism[33] and doctrine of abstinence"). Historiography too, in its effort to become

[32] Here one must bear in mind that the German *Wissenschaft* has a broader meaning than the English *science*; sometimes better translated as "scholarship," it includes all systematic pursuit of knowledge, including the professional study of the humanities, philosophy among them.
[33] I.e., a policy of *epochē*, of suspending judgment.

"scientific," is complicit: historians pride themselves on denying themselves the right to interpret or make judgments about the past, or to find purposes in history.[34] "All this is to a high degree ascetic," Nietzsche concludes, but "to an even higher degree *nihilistic*," in that it portrays all of human history as aimless, for naught, "in vain!" (*GM* III, 26).

Science constitutes the *spiritualization* of the ascetic ideal (see III, 24, 27) in that it translates ascetic self-denial and contempt for human existence into the *intellectual* rather than the physical realm. Science denies us any comforting "convictions" (as we saw in *GS* 344), any faith in a purpose to human existence, any illusions about our privileged place in the universe. *GS* 357 (which Nietzsche quotes at length in *GM* III, 27) draws the connection to the Christian form of the ascetic ideal even tighter:

> [U]nconditional and honest atheism [… is] a triumph achieved finally and with great difficulty by the European conscience, […] the most fateful act of two thousand years of discipline for truth that in the end forbids itself the *lie* in faith in God.
>
> You see what it was that really triumphed over the Christian god: Christian morality itself, the concept of truthfulness that was understood ever more rigorously, the father confessor's refinement of the Christian conscience,[35] translated and sublimated into a scientific conscience, into intellectual cleanliness at any price. Looking at nature as if it were proof of the goodness and governance of a god; interpreting history in honor of some divine reason, as a continual testimony of a moral world order […]; interpreting one's own experiences […] as if everything were providential […] is considered indecent and dishonest by every more refined conscience […] (*GS* 357)

In *Beyond Good and Evil* Nietzsche brings out the *religious* character of scientific asceticism still more sharply. "There is a great ladder of religious cruelty, with many rungs," he says, including the sacrifice of human life, and the ascetic sacrifice of "one's own strongest instincts" (*BGE* 55).

> Finally—what remained to be sacrificed? At long last, did one not have to sacrifice for once whatever is comforting, holy, healing; all hope, all faith in hidden harmony, in future blisses and justices? didn't one have to sacrifice God himself and, *from cruelty against oneself*, worship the stone,

[34] Ken Gemes, in "Nietzsche's Critique of Truth" (1992), emphasizes a related problem Nietzsche sees with the way the concept of truth is used: that people who claim to believe the objective truth deny that that they are always imposing some interpretation on things, and thus abdicate responsibility for their own views and values (see esp. pp. 50ff.). The historians criticized in *GM* III, 26 are at least honest about their desire to evade this kind of responsibility, though not about the impossibility of abstaining from interpretation.

[35] I.e., the requirement that the Christian face up to the full extent of her weakness and sinfulness.

> stupidity, gravity, fate, the nothing? To sacrifice God for the nothing— […] all of us already know something of this.— (*BGE* 55, emphasis added)

The modern partisans of science have sacrificed God, Nietzsche says, *from* cruelty to themselves; but *to* what? To *truth* and the imperative of truthfulness, as *GS* 357 suggests, on which the scientific enterprise places the highest (indeed, unconditional) value. This, I think, sheds some light on what Nietzsche means when he says, at the end of *GS* 344, that "even we seekers after knowledge today, we godless anti-metaphysicians still take our fire, too, from […] that Christian faith which was also the faith of Plato, that God is the truth, that truth is divine." Truth is treated as a surrogate for God, but, as I suggested in section 2.1 above, in my discussion of atheism as "abstinence" from comforting or accessible ideals (*GM* III, 27), it is a cold, unresponsive surrogate—and thus all the more in keeping with the self-denial demanded by the ascetic ideal.

This is a stark example of the willingness of the believers in the unconditional value of truth to sacrifice the interests of life to the demands of truth, which they have set in a position of primacy above the world we live in. Human beings need ideals in order to live—that is crucial to the argument of *GM* III; they need to be shown a "*meaning*" or a "*purpose*" for their suffering (*GM* III, 28), and even a reason for their very existence (see *GS* 1). But science will never *find* one in things, and it cannot *create* one itself, as Nietzsche asserts outright: "Science […] first requires in every respect an ideal of value, a value-creating power, in the *service* of which it could *believe* in itself—it never creates values" (*GM* III, 25).[36] It can only destroy the basis of the old ideals that gave meaning to people's lives, replacing them with nothing, and raising the threat that people will fall into what Reginster calls "nihilism as disorientation": they will come

[36] I will return to this issue in Chapter 3, when I discuss Nietzsche's conception of the proper roles of science and philosophy.

to the conclusion that "nothing has value, nothing really matters […] there really is no good life to be had" (2006: 26–7). This is the kind of nihilism that Nietzsche characterizes in an 1887 note (*KSA* 12:9[35], published as *WP* 2) as follows: "*That the highest values devaluate themselves*. The aim is lacking; 'why?' finds no answer."

There are other respects, too, in which the unconditional pursuit of truth can be harmful, especially to its pursuers themselves. There are ugly truths about the world, human nature, and the ultimate aimlessness of the world from which an inquirer's mental well-being may require her to look away, but an unconditional will to truth will not permit her to do so. Nietzsche no longer holds, as he did in *The Birth of Tragedy*, that the deep metaphysical nature of the world is nothing but suffering and horror. But he does still hold that there are "plain, harsh, ugly, repellent […], immoral truth[s]" (*GM* I, 1) that it hurts to know. He also still thinks it is possible to look *too* deeply into things, as he suggests in *BGE* 59 when he says that "whoever stands […] much in need of the cult of surfaces must at some time have reached *beneath* them with disastrous results." One possible example of an underlying truth that might "burn" a knowledge-seeker who reached down to it, as described in *BGE* 59, is the one Nietzsche articulates in *GS* 109: "The total character of the world […] is in all eternity chaos—in the sense not of a lack of necessity but of a lack of order, arrangement, form, beauty, wisdom, and whatever other names there are for our aesthetic anthropomorphisms." He even says that there are some truths about which "[*h*]*onesty* would lead to nausea and suicide."

The specific truth he is referring to when he makes that claim is "the realization of general untruth and mendaciousness that now comes to us through science—the realization that delusion and error are a condition of knowing and sensing existence" (*GS* 107).[37] In keeping with

[37] "[…] *die Einsicht in in die allgemeine Unwahrheit und Verlogenheit, die uns jetzt durch die Wissenschaft gegeben wird — die Einsicht in den Wahn und Irrthum als in eine Bedingung des erkennenden und empfindenden Daseins*

the claim that this truth "comes to us through science," in *GS* 110 Nietzsche explains in evolutionary terms how false conceptions were so crucial to survival as to become ingrained, instinctive, almost inescapable in our thinking (also see *GS* 111 on a similar theme):

> Over immense periods of time the intellect produced nothing but errors. A few of these proved to be useful and helped to preserve the species: those who hit upon or inherited these had better luck in their struggle for themselves and their progeny. Such erroneous articles of faith, which were continually inherited, until they became almost part of the basic endowment of the species, include the following: that there are enduring things; that there are equal things; that there are things, substances, bodies; that a thing is what it appears to be; that our will is free […] (*GS* 110)

It is debatable whether by this Nietzsche means that human beings are biologically incapable of apprehending truth, that our beliefs are always necessarily distorted by the limits of our cognitive apparatus (the so-called "falsification thesis").[38] Even if he is only making the weaker claim "that finite beings like us could never have *only* true beliefs and survive" (Nehamas 2017: 326, emphasis added), this truth is still potentially devastating for an adherent of the unconditional will to truth because it suggests that what she takes to be her highest aim in life is unattainable—if not because of the limits of her cognitive capacities, then because of her limits as an embodied finite creature with physical and psychological needs. It is likewise relevant, and ironic, that this truth about the limits of our ability to apprehend or live with truth "comes to us through science": the conclusion we must draw from the results of science is that *the goal of science*, at least as understood by those with the "faith in science" described in *GS* 344—attaining a wholly true picture of the world, free of any error or distortion—may well be unattainable for beings like us.

[…]." Kaufmann translates the last phrase as "the realization that delusion and error are conditions of human knowledge and sensation."

[38] Whether and for how long Nietzsche held this falsification thesis has occasioned much recent controversy. Clark (1990) and, following her, Leiter (2002), believe that Nietzsche espoused such a thesis in his earlier works (including the first edition of *The Gay Science*) but gave it up while writing *Beyond Good and Evil*; Anderson (2002, 2005) takes Nietzsche to have held some version of it all his life; Nehamas (2017) argues that Nietzsche never endorsed a falsification thesis at all. It is not my goal here to stake out and defend a position on the issue; what I say should be compatible with any viable position.

Nietzsche continues to express similar doubts about "the extent to which truth can endure incorporation" into human life (to paraphrase the end of *GS* 110) in later works. In *Beyond Good and Evil*, he contends that "the falsest judgments (which include the synthetic judgments a priori) are the most indispensable for us," and that "without accepting the fictions of logic, […] without a constant falsification of the world by means of numbers, man could not live" (*BGE* 4). Especially relevant in this case is that without the "fictions" and "falsification" of logic and mathematics, we *could not do modern science*—which is why Nietzsche declares in *BGE* 24, "only on this now solid, granite foundation of ignorance could knowledge rise so far […]!", and affirms that "precisely science at its best seeks most to keep us in this *simplified*, thoroughly artificial, suitably constructed and suitably falsified world." In *GS* 354 he casts doubt on the ability of *conscious* thought—which surely includes scientific "knowledge"—to capture the true complexity of reality: because (Nietzsche contends) consciousness developed only for the purpose of communicating our needs and feelings to others, "whatever becomes conscious *becomes* by the same token shallow, thin, relatively stupid, general, sign, herd signal; all becoming conscious involves a great and thorough corruption, falsification, reduction to superficialities, and generalization."

The problem is that a scientist with an *unconditional will to truth* would not be able to evade these facts about the limits of our ability to live with truth. And they would be devastating to her, because they would entail that she was permanently incapable of satisfying the demand to believe nothing but truth. This would lead her into the other type of nihilism that Reginster distinguishes, "nihilism as despair": "the conviction that our existence in this world cannot realize our 'highest values and ideals'" (2006: 31). In a note from 1887 (*KSA* 12:9[60], p. 366, published as *WP* 585), Nietzsche defines a nihilist as someone "who judges of the world as it is

that it ought *not* to be, and of the world as it ought to be that it does not exist." We have seen that the unconditional will to truth has abolished "the world as it ought to be," according to any value system that modern Europeans might recognize. The will to truth has dismissed the world of "future blisses and justices" (*BGE* 55) promised by Christianity (i.e., the theistic version of the ascetic ideal). As we have seen, it also appears to be on its way to concluding that a world in which human beings successfully obey its own imperative to believe only truth cannot exist either. If that is not possible in the only world there is, then without a change in our values, all that is left is to judge that it ought not to be.

3. Pursuing a conditional will to truth: "gay science"

Should we conclude from this revelation of the ascetic, life-denying character of the unconditional will to truth, and of science insofar as it is animated by that will, that we should give up science and the search for truth? Nietzsche's self-identification as one of the "idealists of knowledge" at whom his critique is leveled suggests that the answer is "no"—but might Nietzsche be exposing his own hypocritical asceticism in order to publicly force himself to cast it away? That would be yet another instance of the asceticism Nietzsche has described: sacrificing one more ideal because *the unconditional will to truth* revealed that the belief in the overriding value of the ideal was unjustified, and therefore the idealist had no right to it. And Nietzsche is perfectly explicit in admitting that it is, in fact, the will to truth that drives the investigation into the origins, motivations, and value of the will to truth itself:

> The will to truth which will still tempt us to many a venture […]—what questions has this will to truth not laid before us! What strange, wicked, questionable questions! […] Is it any wonder that we should finally become suspicious […]? that we should finally learn from this Sphinx to ask questions, too? *Who* is it really that puts questions to us here? *What* in us really wants "truth"?
>
> Indeed we came to a long halt at the question about the cause of this will—until we finally came to a complete stop before a still more basic question. We asked about the *value* of this will. Suppose we want truth: *why not rather* untruth? and uncertainty? even ignorance? (*BGE* 1)

In the penultimate section of *GM* III, Nietzsche underlines this irony still more emphatically:

> All great things bring about their own destruction through an act of self-overcoming: thus the law of life will have it […] the lawgiver himself eventually receives the call: "*patere legem, quam ipse tulisti*" ["submit to the law you yourself proposed"]. In this way Christianity *as a dogma* was destroyed by its own morality; in the same way Christianity *as morality* must now perish, too: we stand on the threshold of *this* event. After Christian truthfulness has drawn one inference after another, it must end by drawing its *most striking inference,* its inference *against* itself; this will happen, however, when it poses the question *"what is the meaning of all will to truth?"* (*GM* III, 27)

If, as Nietzsche predicts, "morality will gradually *perish* now," does that not mean that Nietzsche is recommending that we give up the will to truth? For Nietzsche, this would mean sacrificing his own ideal—but might he regard it as necessary to climb that last rung of "the great ladder of religious cruelty" (*BGE* 55) in order to kick it away and become entirely free of morality?

Some of Nietzsche's remarks about his own will to truth suggest that this solution may not be possible for him, since it is such a deep-rooted, intractable part of his character. This emerges especially in Part VII of *Beyond Good and Evil*, "Our Virtues," in which he speaks of "honesty" as something he simply finds himself stuck with: "Honesty, supposing that this is our virtue from which we cannot get away, we free spirits—well, let us work on it with all our malice and love and not weary of 'perfecting' ourselves in *our* virtue, the only one left us" (*BGE* 227). He reinforces this suggestion obliquely a few sections later with a rather peculiar transition. *BGE* 230 closes with a characterization of Nietzsche's fellow "free spirits" and the task to which they feel they are bound:

> Every courageous thinker will recognize this in himself, assuming only that, as fit, he has hardened and sharpened his eye for himself long enough […] He will say: "there is something cruel in the inclination of my spirit"; let the virtuous and kindly try to talk him out of that!
>
> Indeed, it would sound nicer if we were […] reputed to be distinguished not by cruelty but by "extravagant honesty," we free, *very* free spirits […] But we hermits and marmots have long persuaded ourselves […] that this worthy verbal pomp, too, belongs to the old mendacious pomp, junk, and gold dust of unconscious human vanity […]
>
> To translate man back into nature; to become master over the many vain and overly enthusiastic interpretations […] that have so far been scrawled and painted over that eternal basic text of *homo natura*; to see to it that man henceforth stands before man as even today, hardened in the discipline of science, he stands before the *rest* of nature, […] deaf to the siren songs of old metaphysical bird catchers who have been piping at him all too long, "you are more, you are higher, you are of a

> different origin!"—that may be a strange and insane task, but it is a *task*—who would deny that? Why did we choose this insane task? Or, putting it differently: "why have knowledge at all?"
>
> Everybody will ask us that. And we, pressed this way, we who have put the same question to ourselves a hundred times, we have found and find no better answer— (*BGE* 230)

Nietzsche appears to leave the question unanswered and moves on to seemingly unrelated musings in *BGE* 231: "Learning changes us […] But at the bottom of us, really 'deep down,' there is, of course, something unteachable, some granite of spiritual *fatum* […]" I read this apparently abrupt transition not as a complete change of subject, but as an answer to the question posed at the end of *BGE* 230.

Nietzsche and his free spirits are committed to the "strange and insane task" of unveiling the painful truth about humanity: we are just another species of animal, not "higher," "of a different origin," uniquely endowed with a rational soul, or made in God's image. This is precisely the kind of painful scientific revelation that Nietzsche identified as evidence of the asceticism of science.[39] The question "Why did we choose this insane task?", Nietzsche says, is equivalent to the question "why have knowledge at all?" (*BGE* 230). In *GS* 344 and *GM* III, Nietzsche answers this question in terms of the world-negating morality of the ascetic ideal: "[T]he question 'Why science?' leads back to the moral problem: *Why have morality at all* when life, nature, and history are 'not moral'?" (*GS* 344).

But when he poses the question in *BGE* 230 about his *own* will to truth ("Why did we choose this insane task?"), he replies, "we who have put the same question to ourselves a hundred times, we have found and find no better answer"—no better answer, apparently, than that "at the bottom of us, really 'deep down,' there is […] something unteachable, some granite of spiritual *fatum* […]" (*BGE* 231). But he does not answer that question directly because it is

[39] Recall: "Has the self-belittlement of man […] not progressed irresistibly since Copernicus? Alas, the faith in the dignity and uniqueness of man […] is a thing of that past—he has become an *animal*, literally and without reservation or qualification […]"

not the kind of answer the questioner is looking for: it is a *cause* of his commitment to the pursuit of truth, not a *reason* or justification for it. Nietzsche argues in *GS* 344 and *GM* III that the only possible justification for the unconditional will to truth, the moral one, not only rests on false presuppositions but also involves a positively harmful attitude toward life: there is no good reason to be committed to the pursuit of truth at any price. But when a will to truth is part of the "granite of spiritual *fatum*" (*BGE* 231), reasons cannot budge it. In fact, Nietzsche is at pains to point out that the "extravagant honesty" he might like to be credited with would be more accurately identified as "cruelty" (*BGE* 230); and cruelty, Nietzsche remarks repeatedly, is a thoroughly natural, ultimately ineradicable human inclination (see, e.g., *GM* II, 5–7, 16–18).[40] And as noted before, it smacks of the ascetic ideal to try to eradicate one's deepest animal nature because its behavior runs contrary to reason.

Nietzsche's way out of this conundrum hinges on the "unconditional" part of the "unconditional will to truth." He argued in *GS* 344 that the *unconditional* will to truth is a moral imperative, and thus "negate[s] this world, *our* world." But the possibility that the will to truth might be a prudential rule implies that truth is sometimes, though not always, beneficial for life ("both truth and untruth constantly proved to be useful," *GS* 344). This suggests that a conditional will to truth, at least in the sense of being *restricted* to the cases in which truth is useful for life, might not fall prey to the charge of asceticism. Nietzsche almost explicitly answers the question of where to draw the line around this restricted will to truth when he writes, "The falseness of a judgment is for us not necessarily an objection […] The question is to what extent it is life-promoting, life-preserving, species-preserving, perhaps even species-cultivating" (*BGE* 4). In fact, this appears to state his criterion for the value of any impulse or institution,

[40] This does not, however, excuse the cruelty involved in the unconditional will to truth. The point is that cruelty *as such* need not be condemned; the value of cruelty depends on the purpose to which it is directed.

from altruistic morality (see *GM* Pref. 6) to hierarchical social structures (*BGE* 257), so it is hardly surprising that he holds the will to truth to the same standard. But what would it mean to exercise the will to truth *only* so far as it is "life-promoting, life-preserving, species-preserving, perhaps even species-cultivating" (*BGE* 4)?

I believe that Nietzsche has already given a sketch, albeit unsystematic and allusive, of such a will to truth in *The Gay Science*. He points to the distinctive role of *art* in saving the pursuit of truth from asceticism with his choice of the expression "*la gaya scienza*" (the subtitle of *Die Fröhliche Wissenschaft*), the Provençal term for the art of the medieval troubadours—"that unity of *singer, knight,* and *free spirit* which distinguishes the wonderful early culture of the Provençals from all equivocal cultures" (*EH* III, "Gay Science"). The "gay science" Nietzsche describes is a mode of pursuing truth that enables the pursuer—who, like Nietzsche, may be ineluctably committed to seeking truth by "some granite of spiritual *fatum*" (*BGE* 231)—to remain cheerful and life-affirming, despite the ever-present risk that too much knowledge, or some particular ugly truth, will depress or crush her.

The key attributes of gay science are these: (1) The inquirer uses *artistry* to interpret the knowledge she acquires in a way that enables her to love and affirm life, rather than condemn it for its horror and meaninglessness. Sometimes this is a matter of artistically interpreting *her own life of inquiry* so that she can affirm *it*, despite the horrible truths she may have encountered. A primary way of doing this that Nietzsche emphasizes is (2) using *experimentation* as an opportunity for courage and adventure—thus reintroducing the "knight" aspect of the early Provençal practitioners of *la gaya scienza* into his own version. Thus it is a gay *science* because modern science is the mode of knowledge-seeking that distinctively prioritizes *experimentation* in its methods. And throughout the process of experimentation and artistic reinterpretation, (3) a

spirit of *play* is maintained. In the remainder of this section, I will explicate these components and show how Nietzsche's conception of gay science involves a will to truth that is conditional in both senses: *instrumental* to life-affirming values as well as *restricted* to circumstances in which it promotes them.

3.1 Honesty and artistry

R. Lanier Anderson (2005) presents a reading of the eternal recurrence as a test of the goodness of a life and as a tool for helping us to endorse our own lives by "redeeming" past events of questionable value. Anderson argues that in order to be able to affirm her life as the eternal recurrence demands, an agent must balance two competing criteria: honesty and artistry. *Honesty* ensures that it is really *her own life* she is affirming, not something fictionalized beyond recognition. *Artistry*, meanwhile, enables her to "tell her life to herself" (cf. *EH*, epigraph) in a way that is narratively satisfying, and shows that questionable elements are *necessary* either to other elements that she would not want her life to be without or simply to the aesthetic integrity of the whole. Anderson also suggests that this "thought of an ideal somehow based on the mutually limiting combination of virtues drawn from art and science […] informs [Nietzsche's] idea of a 'gay science'" (2005: 220, n. 47)—i.e., that gay science is the practice of balancing honesty and artistry. And Nietzsche in fact asserts that an artistic attitude can help us evade the risk of becoming beholden to the ascetic ideal: "*Art* […], in which precisely the *lie* is sanctified and the *will to deception* has a good conscience, is much more fundamentally opposed to the ascetic ideal than is science" (*GM* III, 25).

The idea that artistic techniques can be used to shape one's life occurs repeatedly throughout *The Gay Science*. In *GS* 290, for example, Nietzsche extols the "great and rare art" of "'giv[ing] style' to one's character" by "survey[ing] all the strengths and weaknesses of [one's]

nature and then fit[ting] them into an artistic plan"; in *GS* 299, he recommends that we "learn from artists" how to "make things beautiful, attractive, and desirable for us when they are not," in order to "be the poets of our life." He brings the idea to bear specifically on the problem of potentially harmful knowledge in *GS* 107:

> *Our ultimate gratitude to art.*— If we had not welcomed the arts and invented this kind of cult of the untrue, then the realization of general untruth and mendaciousness that now comes to us through science—the realization that delusion and error are conditions of human knowledge and sensation—would be utterly unbearable. *Honesty* would lead to nausea and suicide. But now there is a counterforce against our honesty that helps us to avoid such consequences: art as the *good* will to appearance. We do not always keep our eyes from rounding off something and, as it were, finishing the poem […] As an aesthetic phenomenon existence is still *bearable* for us, and art furnishes us with eyes and hands and above all the good conscience to be *able* to turn ourselves into such a phenomenon.

This passage alludes to four separate ways in which we can improve our lives using the tools of art: (1) we can *accept* that we perceive the world through a screen of "delusion and error," i.e., through the potentially distorting structures of our cognitive apparatus, because we can regard ourselves as doing *artistic* shaping of the world around us; (2) we can *deliberately* view things in the world with artists' eyes, "rounding [them] off" with a neatness and symmetry they do not possess; (3) we can regard life as "an aesthetic phenomenon" and appreciate it for the beauty that can be found in spite of its suffering and moral disorder; and (4) we can regard *ourselves* as aesthetic phenomena, and carry out the kind of artistic fashioning of our character described in *GS* 290 and 299.

As Nietzsche suggests in the Preface to the second edition of *The Gay Science*, this artistic license that the practitioner of gay science permits herself in interpreting the world is sometimes simply a matter of knowing when to look away or forget what she has seen:

> There are a few things we now know too well, we knowing ones: oh, how we now learn to forget well, and to be good at *not* knowing, as artists!
>
> And as for our future, one will hardly find us again on the paths of those Egyptian youths who endanger temples by night, embrace statues, and want by all means to unveil, uncover, and put into a bright light whatever is kept concealed for good reasons. No, this bad taste, **this will to truth, to**

> "**truth at any price,**" this youthful madness in the love of truth, have lost their charm for us: for that we are too experienced, too serious, too merry, too burned, too *profound*. […]
>
> Oh, those Greeks! They knew how to live. What is required for that is to stop courageously at the surface, the fold, the skin, to adore appearance […] (*GS* Preface 4; bold emphasis added)

The phrase I have highlighted in this quotation, "this will to truth, to 'truth at any price,'" has special resonance with a very similar locution in *GS* 344—"the disutility and dangerousness of 'the will to truth,' of 'truth at any price' is proved […] constantly"—in light of the fact that this preface and Book V, which includes *GS* 344, were both added for the second edition published in 1887. This passage in the Preface, then, might constitute Nietzsche's response to the criticism he aims at himself in *GS* 344. Yes, he admits in the Preface, he *used* to be a devotee of the unconditional will "to 'truth at any price.'" But "one will hardly find us *again* on the path" of those who want to "unveil" everything; such "youthful madness" and "bad taste," as he calls it—framing the problem of the will to truth, tellingly, in aesthetic terms—"have *lost* their charm for us" (*GS* Pref. 4, emphasis added). He and other gay scientists exercise their good *taste* in choosing what not to look into, or what to ignore.

Nietzsche certainly does not disavow the will to truth entirely here; rather, he ties it even more tightly to his individual character, as seen in *BGE* Part VII:

> We philosophers are not free to divide body from soul as the people do […] We are not thinking frogs, nor objectifying and registering mechanisms with their innards removed: constantly, we have to give birth to our thoughts out of our pain and, like mothers, endow them with all we have of blood, heart, fire, pleasure, passion, agony, conscience, fate, and catastrophe. […] Only great pain is the ultimate liberator of the spirit, being the teacher of *the great suspicion* that turns every *U* into an *X*[41] […]
>
> The attraction of everything problematic, the delight in an *x*, however, is so great in such more spiritual, more spiritualized men that this delight flares up again and again like a bright blaze over the distress of what is problematic […] We know a new happiness. (*GS* Preface 3)

[41] As Walter Kaufmann clarifies in an editorial footnote, Nietzsche means that "the great suspicion" casts doubt on apparently familiar things, thus turning supposedly known quantities into unknown quantities, as symbolized by the algebraist's *x* (*GS* Preface 3, note 6, p. 36).

The drive to investigate "what is problematic," or to solve for *x*, is here understood not as the fulfillment of a duty, but as the pursuit of a "delight" available only to the "more spiritual." This view of the relationship of philosophers to their thoughts is reaffirmed in the Preface to the *Genealogy*: "we may not make isolated errors or hit upon isolated truths. Rather do our ideas, our values, our yeas and nays […] grow out of us with the necessity with which a tree bears fruit—related and each with an affinity to each, and evidence of *one* will, *one* health, *one* soil, *one* sun" (*GM* Pref. 2).

The idea that a philosopher's ideas grow not out of an indifferent will to truth but out of the needs, strengths, and weaknesses of her individual character is thoroughly in keeping with Nietzsche's characterization of philosophers past and future in *Beyond Good and Evil*. While he criticizes past philosophers for their hypocrisy and timidity in denying this fact (see, e.g., *BGE* 5, 6, 9, 187), he declares it approvingly in the case of the "philosopher of the future" who will avow openly, "'My judgment is *my* judgment': no one else is easily entitled to it" (*BGE* 43). This kind of individuality seems, on the face of it, less suited to truth—which is generally understood to be universal, true for everyone if it is true for anyone[42]—than to *taste*; Nietzsche's tree metaphor in *GM* Pref. 2 could as well describe an *aesthetic* unity among a philosopher's thoughts as a logical unity. Nietzsche indicates the importance of such aesthetic unity in his advice on how to "'give style' to one's character": "when the work is finished, it becomes evident how the constraint of a single taste governed and formed everything large and small. Whether this taste was good or bad is less important than one might suppose, if only it was a single taste!" (*GS* 290).

These characterizations of the gay scientist and the new philosopher point to ways in which their will to truth is both instrumental to other values and restricted accordingly. Gay

[42] Nietzsche's perspectivism may complicate this generalization slightly, but does not invalidate it: perspectivism is not the same as relativism.

scientists do not pursue truth out of a sense of moral obligation but for the pleasure it brings them: "The attraction of everything problematic, the delight in an *x* [… that] flares up again and again like a bright blaze over the distress of what is problematic" (*GS* Pref. 3). True philosophers do not pursue truth in general, but *their own* truths, the truths that express their distinctive temperament, worldview, and vision for the world (*GM* Pref., *BGE* 43). Their pursuit of truth is at the same time a process of self-creation: as the philosopher's ideas develop from her character like fruit from a tree (*GM* Pref. 2), she simultaneously discovers and shapes who she is. And for a Nietzschean philosopher, truth-seeking is not only a matter of self-shaping, but of shaping the world as a whole:

> *Genuine philosophers, however, are commanders and legislators:* they say, "*thus* it *shall* be!" They first determine the Whither and For What of man […] With a creative hand they reach for the future, and all that is and has been becomes a means for them, an instrument, a hammer. Their "knowing" is *creating*, their creating is a legislation, their will to truth is—*will to power*. (*BGE* 211)

Gay scientists and philosophers, then, pursue truth with aesthetic and creative as well as epistemic considerations in mind, following certain avenues of inquiry rather than others because of how well they fit with their personal concerns or their life history—or because of how the answers might contribute to a project of reshaping the world around them.

3.2 Experimentation and courage

In a few apparently confessional sections of *The Gay Science*, Nietzsche describes the weariness and disillusionment that attend the life of the seeker of knowledge. Here is one example:

> *Excelsior.*— "You will never pray again, never adore again, never again rest in endless trust; you do not permit yourself to stop before any ultimate wisdom, ultimate goodness, ultimate power, while unharnessing your thoughts; you have no perpetual guardian and friend for your seven solitudes […]; there is no longer any reason in what happens, no love in what happens to you; no resting place is open any longer to your heart […]; you resist any ultimate peace; you will the eternal recurrence of war and peace: man of renunciation, all this you wish to renounce? Who will give you the strength for that? Nobody yet has had this strength!" (*GS* 285)[43]

[43] *GS* 309 is another example.

In short, a knowledge-seeker cannot be simply comforted or enchanted by any ideals or heroes of the past or present: she too often feels compelled to look beneath, behind, or through them; she sees their flaws and limitations, and this inevitably breaks the enchantment.

Besides resisting the urge "to unveil […] whatever is kept concealed for good reasons" (*GS* Pref. 4), the seeker of knowledge can also regard her disappointments, disillusionments, and renunciations—with some exercise of the artistic license discussed in section 3.1—as tests of her courage and strength: she can regard herself as a *warrior* in the service of truth.[44] Nietzsche clearly thinks strength and courage (intellectual as well as physical) are thoroughly life-affirming primary values, and his outlook makes the pursuit of truth *instrumental* to them. Paradoxically, this way of treating the will to truth as instrumental can serve as a counterweight to the artistic tendency to embellish or elide the truth, and thus push the will to truth closer to being *unrestricted*. Nietzsche suggests that he believes "the strength of a spirit should be measured according to how much of the 'truth' one could still barely endure—or to put it more clearly, to what degree one would *require* it to be thinned down, shrouded, sweetened, blunted, falsified" (*BGE* 39). Therefore, someone who pursues truth as a means to prove or cultivate her *strength* would be motivated to take in more of it in unedited, unembellished form, for *that* reason, not from an ascetic moral commitment to truth. In fact, Nietzsche may regard it as a regulative ideal to be able to take in *all* of the truth that one comes across in a life spent seeking truth; but the value of such an accomplishment lies in the spiritual strength one must build in order to be capable of it, *not* in the commitment to truth as such.

[44] Nietzsche seems to think this would make the gay scientist a more effective as well as a healthier seeker of truth, as he indicates in the epigraph to the Third Essay of the *Genealogy:* "Unconcerned, mocking, violent—thus wisdom wants *us;* she is a woman and always loves only a warrior."

Elsewhere Nietzsche connects the "heroic" aspects of the search for knowledge specifically with its *experimental* character: "I favor any *skepsis* to which I may reply: 'Let us try it!' But I no longer wish to hear anything of […] questions that do not permit any experiment. This is the limit of my 'truthfulness'; for there courage has lost its right" (*GS* 51). This maxim explicitly *restricts* the search for truth to questions that require courage in experimentation (meaning, presumably, experimentation in living according to different rules and values, not laboratory experiments). And the implied rationale for this restriction is that inquiry is valuable only as a *means* to exercising one's courage, which would make the gay scientist's will to truth conditional in both senses laid out in section 1. This restriction would mean, furthermore, that interpreting the life of inquiry as one of heroism would end up being quite natural.

Nietzsche uses the appeal to courage and experimentation to address a very serious problem posed by the search for knowledge. He observes that a thorough study of the moral customs of humankind would raise "the most insidious question of all":

> whether science can furnish goals of action after it has proved that it can take such goals away and annihilate them; and then experimentation would be in order that would allow every kind of heroism to find satisfaction—centuries of experimentation that might eclipse all the great projects and sacrifices of history to date. (*GS* 7)

Later Nietzsche determines that science cannot "furnish goals of action": he states that science "never creates values" (*GM* III 25) and confirms in a note from the same year (1887) that "the ascertaining of facts […] is fundamentally different from creative positing" (*KSA* 12:9[48], published as *WP* 605). But this last paragraph of *GS* 7 reveals a sense in which "science" *can* furnish goals of action: the *activity* of gay science, which crucially involves experimentation, provides occasions for acts of heroism. Of course, science cannot *tell* us that courage is valuable, or that pioneering novel ways of life counts as a worthy example of heroism; we must assume

these values already. But since (as Nietzsche supposes) we generally do, this way of conducting science can offer a satisfying and meaningful life.

3.3 The child at play

Christa Davis Acampora (2004) points to Nietzsche's admiring remarks, in his lectures on the pre-Platonic philosophers, about Heraclitus's understanding of the strife of the world in terms of the image of "a child playing a game" (Acampora 2004: 176). The child's game is a fruitful image for processes in the world; as Acampora argues, it steers between the shortcomings of a teleological picture, in which purposes are imposed on the world from a transcendent source, and a mechanistic one, which is entirely purposeless (and also, implicitly, follows laws imposed from outside) (172–3). "The play of the child," by contrast, "has *immanent* purposes, directed by the particularities of the play at any given moment, but its shape unfolds without an orchestrating will or design" (177, emphasis added). Acampora suggests that the image of Heraclitus's "cosmic child" [*Weltkind*], setting the game-pieces of the world into such internally rule-governed conflict, provides Nietzsche with a model not only for conceptualizing natural processes, but for shaping the future of humanity. "What I am endeavoring to identify as 'gay science,'" she says, "is tied up with Nietzsche's anticipation of a kind of selection that adapts Heraclitus' model of the playful child, but in which human beings take it upon themselves to create the conditions under which contests over the meaning of humanity can arise" (180). *GS* 7 might even be read as calling for a kind of organized "contest" in which each contestant attempts to demonstrate that his proposed new ideal for human life is the best, by means of exemplifying a life lived according to this ideal.

Acampora's specific interpretation of the phrase "gay science" strikes me as a bit far-fetched, but she is right to point to the importance of the image of the playing child for

understanding Nietzsche's conception of a gay science. The most famous occurrence of the image of the playing child in Nietzsche's published writings is in the section of *Thus Spoke Zarathustra* called "The Three Metamorphoses" (1883). In this "speech," Zarathustra explains how the human spirit must become a camel, who obeys difficult commandments; a lion, who tears down old commandments—not in order to create new values, which he cannot do, but to create "freedom […] for new creation"; and finally a child. The child *can* create new values because "[t]he child is innocence and forgetting, a new beginning, a game, a self-propelled wheel, a first movement, a sacred 'Yes'" (*Z* I, 1). The child is not weighed down by the memory of the old ideals, because he simply "forgets"; it is all a game to him, and each game—the reign of each value-ideal—has its own rules, but he knocks it all down from time to time, tired of the old game, and starts a new game with new rules, the old one over and forgotten (see Acampora 2004: 177).

Nietzsche returns to this image in the last substantive section of Book V of *The Gay Science*:

> Another ideal runs ahead of us, a strange, tempting, dangerous ideal […]: the ideal of a spirit who plays naively—that is, not deliberately but from overflowing power and abundance—with all that was hitherto called holy, good, untouchable, divine; […] the ideal of a human, superhuman well-being and benevolence that will often appear *inhuman*—for example, when it confronts all earthly seriousness so far […] as if it were [the] most incarnate and involuntary parody—and in spite of all of this, it is perhaps only with him that *great seriousness* really begins, that the real question mark is posed for the first time, that the destiny of the soul changes, […] the tragedy *begins*. (*GS* 382)

This section connects itself with both the first and the last sections of the original 1882 edition of *The Gay Science*, reinforcing the idea that the whole book is intended as a unity—that the newly added portions are still invested in the original project of establishing a practice of "gay science." The final phrase of *GS* 382, "the tragedy *begins*," translates "*Incipit tragoedia*," the title of the last section of Book IV (which is virtually identical to the first paragraph of *Thus Spoke*

Zarathustra, potentially strengthening the connection with the child in "The Three Metamorphoses").

The quoted passage also returns to a central idea of *GS* 1: the juxtaposition and eventual synthesis of comedy and tragedy. In *GS* 1, Nietzsche contrasted the viewpoint of "the age of tragedy, the age of moralities and religions"—which teach that all of life, and every individual life, has a "purpose"—with that of "the eternal comedy of existence," which reveals that each individual is a laughably insignificant tool for the perpetuation of the species. At the end of the section, "the most cautious friend of man" concludes: "Not only laughter and gay wisdom but the tragic, too, with all its sublime unreason, belongs among the means and necessities of the preservation of the species." In light of "this new law of ebb and flood," Nietzsche appears to be seeking a perspective that could *merge* the seemingly opposed viewpoints of comedy and tragedy. The figure presented as an "ideal" in *GS* 382 can meet this demand, since he "confronts all earthly seriousness so far […] as if it were [the] most incarnate and involuntary parody—and in spite of all of this, it is perhaps only with him that *great seriousness* really begins." The depiction of this ideal figure as one who "plays naively" with the ideals of the past raises the question whether this "*great seriousness*" is the same one that Nietzsche identifies with true "maturity" in *BGE* 94: "the seriousness one had as a child, at play."

This closing image of *GS* 382 also calls our attention to the various occurrences of the notion of "play" in *The Gay Science*. *GS* 110—which points out the inherent limitations on the human capacity for knowledge that, Nietzsche worried in *GS* 107, would "lead to nausea and suicide" if fully acknowledged—places this notion of *play* at the very origin of the will to knowledge:

> This subtler honesty and skepticism came into being wherever two contradictory sentences appeared to be *applicable* to life because *both* were compatible with the basic errors,[45] and it was therefore possible to argue about the higher or lower degree of *utility* for life; also wherever new propositions, though not useful for life, were also evidently not harmful to life: in such cases there was room for the expression of an intellectual play impulse [*Spieltrieb*], and honesty and skepticism were innocent and happy like all play [*Spiele*]. (*GS* 110)

The pursuit of truth became a serious matter when "[n]ot only utility and delight but every kind of impulse took sides in [the] fight about 'truths,'" and "eventually knowledge and the striving for the truth found their place as a need among other needs." But I think that Nietzsche posits for it an origin in *play* in order to emphasize the possibilities for playfulness in the search for truth, especially in the kind of experimentation, the spirit of "Let us try it!", adverted to in *GS* 51. This proposed origin story also drives home that the will to truth has only incidentally acquired a moral valence: it can still be pursued for the sheer pleasure of contrariness and curiosity, and pursued only as long as it is "not harmful to life" (*GS* 110), rather than unconditionally, "at any price."

But it is not only the search for truth that Nietzsche describes as presenting possibilities for play. In *GS* 107, he describes the artistic reinterpretation of oneself and the world in terms of childhood, play, *and* heroism:

> We do not always keep our eyes from rounding off something and, as it were, finishing the poem; and then it is no longer eternal imperfection that we carry across the river of becoming—then we have the sense of carrying a *goddess*, and feel proud and childlike [*kindlich*] as we perform this service. […] At times we need a rest from ourselves by looking upon, by looking *down* upon, ourselves and, from an artistic distance, laughing *over* ourselves or weeping *over* ourselves. We must discover the *hero* no less than the *fool* in our passion for knowledge […] Precisely because we are at bottom grave and serious human beings […] nothing does us as much good as a *fool's cap*: we need it in relation to ourselves—we need all exuberant, floating, dancing, mocking, childish [*kindische*] and blissful art lest we lose the *freedom above things* that our ideal demands of us. […] We should be *able* also to stand *above* morality—and not only to *stand* with the anxious stiffness of a man who is afraid of slipping and falling any moment, but also to *float* above it and *play.* (*GS* 107)

[45] I.e., the ones that "proved to be useful and helped to preserve the species," in that "those who hit upon or inherited these had better luck in their struggle for themselves and their progeny," and were therefore "continually inherited until they became almost part of the basic endowment of the species" (*GS* 110).

Here the child represents both the "childlike" reverence toward the "goddess" that life becomes under our artist's gaze and the "childish" irreverence we direct toward ourselves when we picture a "*fool's cap*" on our own head: as suggested by *GS* 382, the child is the figure in whom tragedy and comedy come together.[46] The artistic impulse that enables us to feel thus both "childlike" and "childish" *also* enables us to view ourselves as a "*hero* […] in our passion for knowledge," not only as a fool (*GS* 107). Paradoxically, Nietzsche suggests that the attitude of "floating above" that we adopt when we look at ourselves and the world through artists' eyes helps us to *practice* and maintain "the *freedom above things* that our ideal"—i.e., the ideal of the pursuit of truth—"demands of us," including the ability to "float above" morality and view it clearly and without prejudice or attachment. The knower and the artist are not so different in the masterly, proprietary, sometimes playful attitudes they direct at their objects. To practice gay science, then, is to seamlessly blend the attitudes of artist and knower, to view things with keen eyes from above, but also with a "good conscience" to be able to reshape them creatively when necessary (*GS* 107); to blend the viewpoints of comedy and tragedy, treating the world with "the seriousness one had as a child, at play" (*BGE* 94); and to approach the objects of inquiry with a spirit of courageous and playful experimentation.

4. Conclusion

"Gay science" as I have described it accommodates Nietzsche's own stubborn drive to seek truth without falling afoul of his powerful critique of the unconditional will to truth that propels modern science, because it is *conditional* in both senses in which the attitude he criticizes is unconditional. Gay scientists regard the value of pursuing truth as *instrumental* to aims that

[46] *GS* 382 does not actually mention the word "child," but the image of a "human, superhuman" but also "*inhuman*" being who "plays naively" with the most important things calls to mind the Heraclitean *Weltkind* also evoked in *Zarathustra.*

Nietzsche considers life-affirming: the delight of discovery, the cultivation of strength and courage, and (if they are philosophers) the advancement of their own aesthetic and ethical vision for the world. They also *restrict* their pursuit of truth to circumstances in which it promotes those aims; they know to look away from truth when it causes pain that weakens rather than strengthens them, and to shape their picture of the world, with artists' eyes, so that they can love and affirm life in spite of the pain and disappointment it presents. The stance that gay scientists take toward truth is wholly different from that of adherents to the unconditional will to truth: practitioners of gay science regard the pursuit of truth as a *game* rather than a solemn duty. At times they can be wholly engrossed in it, so that it can produce the "passion, love, ardor, and" (yes) "*suffering*" that Nietzsche admires in the "last idealists of knowledge" (*GM* III, 24). But they can also step back from their pursuit of truth and assess whether it is fulfilling the purposes for which they engage in it.

Chapter Two

James's Epistemic Anti-Asceticism

1. The opponent: the "idol" of "Scientific Truth"

James, of course, never uses the expression "the unconditional will to truth," but one of the primary targets of biting critique throughout his oeuvre could easily be identified with the unconditional will to truth as Nietzsche understands it. One of James's most passionate and pointed denunciations of this attitude (from which I took the title of this section) comes in a relatively early essay, "Reflex Action and Theism," which he delivered in 1881 as an address to the Unitarian Ministers' Institute, in his capacity as a former physiology professor, on the consequences of current physiological discoveries for religious thought and belief (see *WB* 90–1). James's tone approaches Nietzschean polemic: "Certain of our positivists keep chiming to us, that, amid the wreck of every other god and idol, one divinity still stands upright,—that his name is Scientific Truth […]" (*WB* 104). In a footnote he continues:

> As our ancestors said, *Fiat justitia, pereat mundus*, so we, who do not believe in justice or any absolute good, must according to these prophets, be willing to see the world perish, in order that *scientia fiat.* Was there ever a more exquisite idol of the den, or rather of the *shop?* In the clean sweep to be made of superstitions, let the idol of stern obligation to be scientific go with the rest […]
> (*WB* 104, note 1)

The resonances with Nietzsche are remarkable.[47] Here James charges, much as Nietzsche did in *GS* 344 and *GM* III, that the "prophets" of science, while claiming to have done away with all "superstitions," with "every […] god and idol," have nonetheless illicitly kept one for themselves

[47] It is an amusing coincidence that both Nietzsche and James adapt the expression *Fiat justitia, pereat mundus* to satirize certain professional thinkers. While James accuses the prophets of science of being "willing to see the world perish" for the sake of science, Nietzsche says of the *philosopher* that "he […] affirms *his* existence and *only* his existence, and this perhaps to the point at which he is not far from harboring the impious wish: *pereat mundus, fiat philosophia, fiat philosophus,* ***fiam!*** [though the world perish, let there be philosophy, let there be the philosopher, let there be **me!**]" (*GM* III, 7).

to worship, namely, "Scientific Truth." He is saying, effectively—six years before Nietzsche—that despite having "offered and slaughtered one faith after another on this altar" (*GS* 344), these "idealists of knowledge" are "far from being *free* spirits: *for they still have faith in truth*" (*GM* III, 24). In *The Varieties of Religious Experience* (1902), James remarks again on the ironically religious manner in which the resolutely scientific-minded refuse traditional religion: "'He believes in No-God, and he worships him,' said a colleague of mine of a student who was manifesting a fine atheistic ardor; and the more fervent opponents of Christian doctrine have often enough shown a temper which, psychologically considered, is indistinguishable from religious zeal" (*VRE* 37).

But while both James and Nietzsche blast the hypocrisy of the fervently anti-religious apostles of science ("these pale atheists [and] anti-Christians," *GM* III, 24) who maintain a religious attitude toward truth, the significance of their criticism is quite different. Nietzsche counts himself among the "godless anti-metaphysicians" (*GS* 344), and plainly is as opposed to theistic interpretations of the world as the positivists that both he and James lampoon, albeit for different reasons.[48] For Nietzsche, pointing out the religious character of their devotion to science and its connections, more specifically, to the ascetic ideal and to Christianity in particular, is not only an accusation of hypocrisy, but a criticism in itself. James, however, is interested in defending the right to believe in God, or at least a providential moral order, with a good intellectual conscience. So when he remarks on what practitioners of science and its most zealous admirers have in common with religious believers (such as the influence of personal

[48] Although Nietzsche has both epistemic and ethical reasons for his opposition to Christianity, he makes clear throughout the *Genealogy* that the ethical reasons are foremost. Meanwhile, the so-called "free spirits" or "freethinkers" of the nineteenth century, the "goodly advocates of 'modern ideas'" like democracy and "equality of rights" (*BGE* 44), are still devoted followers of the Christian ethics of altruism and compassion, despite their rejection of Christian theology— as Clifford amply demonstrates with his (rather flimsy) justification of morality in "The Ethics of Belief" (1999 [1877]: 89). As Nietzsche imagines one of them saying: "Apart from the church, we, too, love the poison" (*GM* I, 9).

interests and preferences on belief-formation, which I will discuss in greater detail in Chapter 4), he is, in addition to exposing their hypocrisy, hoping to legitimate certain characteristics of religious belief in the eyes of an audience with great respect for science, by showing that the methods by which people arrive at scientific and religious conclusions are not so different after all.

One of James's most sustained attacks on the unconditional will to truth is in his famous essay "The Will to Believe," which was delivered as an address to the Philosophical Clubs of Yale and Brown Universities before being published in 1896. The figure James sets up as his primary opponent in this essay is W.K. Clifford, an English mathematician and public intellectual. In particular, James has in mind Clifford's essay "The Ethics of Belief," whose central message James quotes as follows:

> "Belief is desecrated when given to unproved and unquestioned statements for the solace and private pleasure of the believer. … Whoso would deserve well of his fellows in this matter will guard the purity of his belief with a very fanaticism of jealous care, lest at any time it should rest on an unworthy object, and catch a stain which can never be wiped away. … If [a] belief has been accepted on insufficient evidence [even though the belief be true, as Clifford on the same page explains] the pleasure is a stolen one. … It is sinful because it is stolen in defiance of our duty to mankind. That duty is to guard ourselves from such beliefs as from a pestilence which may shortly master our own body and then spread to the rest of the town. … It is wrong always, everywhere, and for everyone, to believe anything upon insufficient evidence."
>
> (*WB* 17–8, quoting Clifford 1999 [1877]: 74–7; ellipses and bracketed remarks are James's)

The final sentence of this quotation is, I take it, the central thesis of "The Ethics of Belief." Richard Gale (1980: 1) calls it the "Scientific Credo" (a name that strikes me as almost *too* friendly to my project); following the convention in more recent literature on the ethics of belief, I will refer to it simply as "Clifford's Principle."

The portions of Clifford's essay that James cites could be a manifesto for the unconditional will to truth as Nietzsche characterizes it: his principle forbids any convictions, in the sense of beliefs adopted "without first having given [oneself] an account of the final and most

certain reasons pro and con" (*GS* 2), not only in science but in the whole of life. Clifford's language, which goes beyond the moralistic into the religious, is telling: "Belief is *desecrated*" when given to an unjustified proposition; we must guard the "*purity*" of our belief with "*fanaticism*," lest it "catch a *stain* which can never be wiped away"; believing on insufficient evidence is "*sinful*" (my emphases). One is tempted to think that if Nietzsche had read Clifford's essay, he wouldn't have needed to make the elaborate disjunctive argument in *GS* 344 (reconstructed in Chapter 1, section 1) for the thesis that the unconditional will to truth has a moral basis; he could have just quoted from Clifford.

As several commentators have noted (see Hollinger 1997: 71–2 and Klein 2015: 76 n. 6), James represents Clifford's thesis as being more extreme than it in fact is. James implies that by "sufficient evidence" Clifford means "coercive evidence" (*WB* 28), evidence that compels the assent of all thinkers, and insists that we must "keep [our] mind in suspense forever" (*WB* 24)—which, for James, also means refraining from *acting*—until such evidence becomes available. But Clifford himself denies this; less than two pages after the famous statement of his principle, he acknowledges that "there are many cases in which it is our duty to act upon probabilities, although the evidence is not such as to justify present belief; because it is precisely by such action, and by observation of its fruits, that evidence is got which may justify future belief" (Clifford 1999: 79). This statement, however, threatens to render his principle trivial, if its wording did not do so already. Of course it is wrong to believe on "insufficient" evidence, because it is wrong to act on or testify to unjustified belief; but how much evidence is sufficient for belief and what degree of confidence is sufficient for action depends on the case, and the

more specific guidelines Clifford offers reflect a feebly defended prejudice in favor of science and against religion.[49]

As Hollinger also stresses (1997: 76–8), James understates the extent to which Clifford's argument rests on the harm that can be done to others, and to society at large, when people act on or disseminate false beliefs. But, as Susan Haack (2001) points out, Clifford overstates how dangerous unjustified belief actually is in most cases. First, his central example, of a ship-owner who convinces himself that his aging ship is sound and lets it set sail with a full load of passengers (Clifford 1999: 70–1), is hardly representative of belief-forming situations. Since the ship-owner is personally and directly responsible for the safety of a large number of people, it makes sense that the beliefs on which their safety depends should be held to a stricter standard of evidence; but most individuals when they form beliefs do not bear this kind of responsibility (Haack 2001: 26). Second, Clifford's effort to bring beliefs that do not pose an immediate risk of harm under his principle—warning that "[e]very time we let ourselves believe for unworthy reasons, we weaken our powers of self-control" and thus cultivate in ourselves a "credulous character" that will encourage others to take advantage of us (Clifford 1999: 76–7)—places too much weight on "a risk of risk of harm" (Haack 2001: 27). As Haack remarks, if such a remote risk were sufficient for moral culpability, "not only drunken driving, but owning a car, would be morally culpable" (27).

It might be suggested that the genuine risk involved in the habit of forming beliefs on the basis of doubtful evidence is the risk of "infection": the risk that the unjustified belief, the lax standard of evidence, or both will spread to other epistemic agents, and thus undermine the whole societal project of gathering knowledge, and the practice of giving and demanding reasons

[49] I encourage readers who suspect me of injustice toward Clifford to read "The Ethics of Belief" in its entirety.

for our assertions. Clifford does seem to have this concern in view in the passage James quotes from "The Ethics of Belief," when he says we have the duty "to guard ourselves from such beliefs [i.e., those accepted on insufficient evidence] as from a pestilence which may shortly master our own body and then spread to the rest of the town" (Clifford 1999: 75–6). However, as James argues in "The Will to Believe" (which I will discuss in greater detail in Chapter 4), one can quarantine the tendency to believe on the basis of desire by restricting it to a certain class of propositions whose truth or falsity (1) cannot, in principle, be decided by the evidence and/or (2) depends at least in part on whether or not the subject believes them.

In short, the prudential argument for Clifford's Principle fails—which we might have predicted, considering Nietzsche's argument in *GS* 344 that prudential considerations could not justify an unconditional will to truth, but only a strategically restricted one. It may be that James passes over Clifford's prudential arguments in silence because they are weak enough that he recognizes they are not the real challenge: Clifford's true motivation is a moral impulse, and James surely knows that Clifford is not the only one to whom it appeals. He anticipates the reaction of the admirers of science (and he probably expects there will be many of these in his college-age audience, considering, as he remarks in *Pragmatism*, that "[o]ur children […] are almost born scientific; *P* 492) to the idea of "believing by our volition": that it is "vile" (*WB* 17).

> When one turns to the magnificent edifice of the physical sciences, and sees how it was reared; *what thousands of disinterested moral lives of men lie buried in its mere foundations; what patience and postponement, what choking down of preference, what submission to the icy laws of outer fact are wrought into its very stones and mortar;* how absolutely impersonal it stands in its vast augustness,—then how besotted and contemptible seems every little sentimentalist who comes blowing his voluntary smoke-wreaths, and pretending to decide things from out of his private dream! Can we wonder if those bred in the rugged and manly school of science should feel like spewing such subjectivism out of their mouths? The whole system of loyalties which grow up in the schools of science go dead against its toleration; so that it is only natural that those who have caught the scientific fever should pass over to the opposite extreme, and write sometimes as if *the incorruptibly truthful intellect ought positively to prefer bitterness and unacceptableness to the heart in its cup.*
> (*WB* 17, emphasis added)

Clearly, James, like Nietzsche, perceives a strong strand of ascetic self-denial in the cult of science, as evidenced especially by the passages I have emphasized. The last lines in particular call to mind Nietzsche's remark that not only "the self-belittlement of man" but "his *will* to self-belittlement" has "progressed irresistibly since Copernicus" (*GM* III, 25). His description in *Pragmatism* of the bleak worldview with which science seems to leave us likewise has strong resonances with Nietzsche's:

> For a hundred and fifty years past the progress of science has seemed to mean the enlargement of the material universe and the diminution of man's importance. […] Man is no lawgiver to nature, he is an absorber. She it is who stands firm; he it is who must accommodate himself. Let him record truth, inhuman though it be, and submit to it! The romantic spontaneity and courage are gone, the vision is materialistic and depressing. Ideals appear as inert by-products of physiology; what is higher is explained by what is lower and treated forever as a case of 'nothing but'—nothing but something else of a quite inferior sort. You get, in short, a materialistic universe, in which only the tough-minded find themselves congenially at home. (*P* 15)

Despite the tone of ironic hyperbole with which James describes the Cliffordian moralistic attitude toward scientific truth, it probably holds some appeal for James himself; Hollinger contends that in "The Will to Believe," "James was lashing out against a scientific conscience that held enormous power over him" (1997: 70–1), and that "haunted" him "throughout his career-long effort to vindicate religion" (73). James's early career in physiology and empirical psychology, as well as the familiarity with the latest theories and results of the sciences that he continues to show throughout his philosophical writings, certainly attest to the high regard he himself has for the scientific enterprise; and as Hollinger suggests (1997: 73–4), the vagueness in James's statements of the religious beliefs he hopes to defend reflects a concern not to run afoul of any of the advances of science. If Hollinger's diagnosis is correct, James may find himself in a dialectical position similar to Nietzsche's: critical of the unconditional will to truth, but nonetheless tempted by it.

2. "Believe truth" and "shun error": "two materially different laws"

One respect in which James's critique of the unconditional will to truth differs from Nietzsche's is that James recognizes that it consists of two separate and practically separable imperatives: to attain as much true belief as possible, and to avoid error and false belief to the greatest extent possible. Nietzsche usually talks about the two imperatives together, under the heading of "the unconditional will to truth," without discussing the distinction between them. Both components can express the asceticism involved in the unconditional will to truth. The imperative to attain truth can be ascetic when it requires the subject to acknowledge disappointing or painful truths about herself, her society, her religion, human nature, or the world as a whole (for examples of this, see *GS* 107, 109; *BGE* 59; *GM* I, 1 and III, 25, as quoted in Chapter 1, esp. subsection 2.2). The imperative to avoid error can be ascetic when it forces the subject to give up comforting illusions about herself, God, or the place of humankind in the universe (see *GS* 1, 357; *BGE* 55; *GM* III, 25 and 27, again as quoted in Chapter 1).

In "The Will to Believe," James points out the difference between the two parts of the will to truth, and explains how they can come apart: how obedience to one may not entail obedience to the other, and how privileging one or the other prescribes different courses of action.

> There are two ways of looking at our duty in the matter of opinion,—ways entirely different, and yet ways about whose difference the theory of knowledge seems hitherto to have shown very little concern. *We must know the truth; and we must avoid error*—these are our first and great commandments as would-be knowers; but they are not two ways of stating an identical commandment, they are two separable laws. Although it may indeed happen that when we believe the truth *A*, we escape as an incidental consequence from believing the falsehood *B*, it hardly ever happens that by merely disbelieving *B* we necessarily believe *A*. We may in escaping *B* fall into believing other falsehoods, *C* or *D*, just as bad as *B*; or we may escape *B* by not believing anything at all, not even *A*.
>
> Believe truth! Shun error!—these, we see, are two materially different laws; and by choosing between them we may end by coloring differently our whole intellectual life. We may regard the chase for truth as paramount, and the avoidance of error as secondary; or we may, on the other hand, treat the avoidance of error as more imperative, and let truth take its chance. Clifford, in the

> instructive passage which I have quoted, exhorts us on the latter course. Believe nothing, he tells us, keep your mind in suspense forever, rather than by closing it on insufficient evidence incur the awful risk of believing lies. You, on the other hand, may think that the risk of being in error is a very small matter when compared with the blessings of real knowledge, and be ready to be duped many times in your investigation rather than postpone indefinitely the chance of guessing true. (*WB* 24–5)

Logically, it should be noted, there will always be a gap between James's two imperatives. If a subject has insufficient evidence for proposition *p* and declines to believe it in order not to risk believing a falsehood, she is not thereby committed to believing not-*p*. Similarly, if a subject finds that theory *A*, which purports to explain some body of experimental data, is insufficiently confirmed by the evidence and withholds belief, she is not committed to believing either that *A* is false, or that some incompatible alternative theory *B* is true (and let us suppose that *B* is the only viable alternative to *A* for explaining the data in question). In both cases, the subject can simply suspend judgment, which would be a way of privileging the imperative to avoid false beliefs over the imperative to believe truth: if the subject has no belief as to whether *p* obtains, or which theory is correct, she cannot have a false belief, but cannot believe truly, either. A subject who privileged the imperative to believe truth, on the other hand, would weigh the evidence for the available alternatives and give her belief to the one that seemed most likely to be true. While she incurs the risk of believing a falsehood by committing herself to a belief, she also leaves open the possibility of hitting upon the truth.

However, it might be objected that the two commandments James distinguishes are so closely interconnected that the distinction is insignificant. In many cases, after all, giving up a comforting illusion entails—*practically*, if not logically—facing an uncomfortable truth. A couple of Nietzsche's favorite examples can illustrate this point. Giving up the providential interpretation of the world, the belief that nature is "proof of the goodness and governance of a god" and history "a continual testimony of a moral world order" (*GS* 357) means, effectively, acknowledging the contrary truth that the world *lacks* any providential order, any benevolent

guidance from a powerful designer—perhaps even that "[t]he total character of the world […] is in all eternity chaos" (*GS* 109). Giving up the "the faith in the dignity and uniqueness of man, in his irreplaceability in the great chain of being" (*GM* III, 25) means recognizing that human beings are simply another species of animal—a very unusual one, to be sure, perhaps even unique in its capacity for adaptation and innovation (see *GM* II, 16–18), but not categorically distinct from the other animals, and developed from them by no more than natural historical processes (see also *BGE* 230). And, to take an example from James himself, refusing to believe in *any* kind of eternal spiritual order—whatever conception of divinity, the afterlife, or the spiritual world may be involved—means accepting the fate foretold by "scientific materialism" (*P* 54): that

> the laws of redistribution of matter and motion, though they are certainly to thank for all the good hours which our organisms have ever yielded us and for all the ideals which our minds now frame, are yet fatally certain to undo their work again, and to redissolve everything that they have once evolved […] when these transient products are gone, nothing, absolutely *nothing* remains, to represent those particular qualities, those elements of preciousness which they may have enshrined. (*P* 54)

The cases in which James's two commandments *fail* to meaningfully come apart are those in which there are only two viable alternative candidates for belief—typically, a proposition and its negation—and the consequences for action are such that suspending judgment amounts to the same thing as opting for one of the alternatives (usually the negation). This comes very close to describing the situations in which, he argues in "The Will to Believe," it is permissible to form a belief on the basis of desire or practical interests (I will discuss the "will-to-believe" scenario in greater detail in Chapter 4). Curiously, it is in the very same essay that he insists on the *distinctness* of the two imperatives, "believe truth" and "shun error." James's point seems to be that in placing so much weight on the command to shun error at the expense of that to believe truth, Clifford and those like him end up illegitimately prejudicing such questions in

favor of the negative proposition, even though they claim they are simply recommending suspension of judgment. The examples in the previous paragraph—the beliefs in divine providence, human uniqueness, or a spiritual order—are exactly the kinds of propositions that James argues we have a right to believe in the absence of compelling scientific evidence; the "religious hypothesis" he makes a point of defending the right to is basically the posit of an eternal moral order, guarded by a kind of providential power (*WB* 29–30). Even if science can make these propositions seem implausible, it cannot *disprove* any of them. While one could simply acknowledge that the evidence for them is insufficient for belief and suspend judgment, *withholding* belief certainly invites, perhaps forces the subject to confront the alternative she would have to affirm if she were to deny the hypothesis in question. And for some people, no longer believing in a moral order to the universe or a God to sustain it, even if they call themselves "agnostic," can lead to the same kind of disorientation regarding what is genuinely valuable, or despair that anything is, as actively denying their existence.

After laying out the distinction between the two commandments, James continues, "I myself find it impossible to go with Clifford" in privileging the imperative to avoid error over the one to attain truth (*WB* 25). James's discussion hints that he considers it more *ascetic*, in Nietzsche's terms, to regard "shun error" as the primary commandment and "believe truth" as only secondary—as Clifford apparently recommends in the passage from "The Ethics of Belief" that James quotes (*WB* 17–8)—than the other way around. Someone with these priorities would end up having very few beliefs, because she would suspend judgment on almost every proposition that came before her rather than, in James's satiric phrase, "incur the awful risk of believing lies" (*WB* 24). James seems to regard this habit of doing without belief as a kind of self-denial, and depicts beliefs themselves as nourishing resources, as suggested by his appeal to

"the blessings of real knowledge" (*WB* 24), as well as his remarks on "what patience and postponement, what choking down of preference, what submission to the icy laws of outer fact" have gone into constructing "the magnificent edifice of the physical sciences" (*WB* 17).

Curiously, however, although he seems to be circling around the idea, James does not pinpoint moral or quasi-religious asceticism as the motivating impulse behind Cliffordians' emphasis on the avoidance of error. Instead, he attributes "these feelings of our duty about either truth or error" to quite a different aspect of "our passional life": "he who says 'Better go without belief forever than believe a lie!' merely shows his own preponderant private horror of becoming a dupe" (*WB* 25). Nietzsche, meanwhile, attributes this extreme form of the unconditional will to truth to "puritanical fanatics of conscience who prefer even a certain nothing to an uncertain something to lie down on—and die" (*BGE* 10). Insofar as Nietzsche takes this attitude to involve a fear of being deceived, it is a deeper, more existential fear than what James calls the "private horror of becoming a dupe"—which has the ring of fearing the embarrassment of falling for a con artist's scam. The "fanaticism" Nietzsche mentions in *BGE* 10 seems to be the same one he describes in *GS* 347 as "[t]he demand that one *wants* by all means that something should be firm," and diagnoses as an "*instinct of weakness*," "the *need* for a faith, a support, a backbone, something to fall back on."[50] For a fanatic of this kind, the fear of being deceived is the fear that the support for one's entire life is hollow and bound to collapse. Most of the fanatics whom Nietzsche discusses in *GS* 347 *have* invested their belief in some religious, philosophical, or political creed that they rely on for support and refuse to question because they cannot afford to lose it ("An article of faith could be refuted before him a thousand times—if he needed it, he

[50] Aside from Nietzsche's use of related words—"*Fanatiker*" in *BGE* 10 and "*Fanatismus*" in *GS* 347—the fact that both sections discuss the conflict between metaphysics and positivist realism provides circumstantial evidence that they concern the same phenomenon. Reginster (2003: 64) agrees.

would consider it 'true' again and again"). The fanatics mentioned in *BGE* 10 are an unusual type who are *so* afraid of seeing their support pulled out from under them that they do not trust *anything* to be firm enough to place their belief in—except for the proposition that nothing is firm enough to trust with their belief (they "prefer even a certain nothing to an uncertain something").

Why might James consider it *more* ascetic to insist on avoiding error than on believing truth, when Nietzsche can demonstrate the self-denying character of both imperatives? In fact, there is a respect in which Nietzsche might consider the asceticism of the demand to believe truth to be *more* extreme: if giving up comforting illusions can be compared to the self-deprivation of fasting and taking vows of poverty, then forcing oneself to confront painful truths is analogous to the self-torment of hair shirts and flagellation (see *GM* III, 20–21). One explaining factor is simply the emphasis of "The Will to Believe": James's goal is to justify the belief in God, which both Clifford and Nietzsche would consider one of the comforting illusions that someone dedicated to avoiding error would be obligated to give up. The hypothesis that there is a benevolent God who will ensure the triumph of good—or, in the terms of James's rather nebulous "religious hypothesis" in "The Will to Believe," that "the best things are the more eternal things, the overlapping things, the things in the universe that throw the last stone, so to speak, and say the final word" (*WB* 29)—is not supported by the kind of evidence that would be admitted in scientific practice, and that thinkers like Clifford would therefore consider legitimate; so Clifford's Principle demands that we withhold assent from it. James's project is to defend the right to indulge oneself, so to speak, in beliefs of this kind; he is less concerned with the right to ignore unpleasant facts.

Besides the distinction between the two imperatives of truthfulness, James makes clear a further distinction that Nietzsche either ignores or leaves implicit: the distinction between the policy that is appropriate to science as a social practice or institution and the one appropriate to an individual believer's life. James points out this distinction in a footnote to "The Sentiment of Rationality." That essay was completed in 1880, considerably earlier than "The Will to Believe," and James seems not to have fully articulated the distinction between the commands "believe truth" and "shun error" that he lays out in the latter essay, but he gestures toward it in the following:

> At most, the command laid on us by science to believe nothing not yet verified by the senses is a prudential rule intended to maximize our right thinking and minimize our errors *in the long run.* In the particular instance we must frequently lose truth by obeying it; but on the whole we are safer if we follow it consistently, for we are sure to cover our losses with our gains […] But this hedging philosophy requires that the long run should be there; and this makes it inapplicable to the question of religious faith as the latter comes home to the individual man. He plays the game of life not to escape losses, for he brings nothing with him to lose; he plays it for gains; and it is now or never with him, for the long run which exists indeed for humanity, is not there for him. Let him doubt, believe, or deny, he runs his risk, and has the natural right to choose which one it shall be.
> (*WB* 79, n. 2, original emphasis)

When James speaks here of "the command laid on us by science to believe nothing not yet verified by the senses" (*WB* 79, n. 2), Clifford's Principle is part of what he has in mind; just two pages earlier, James mentioned "Professor Clifford's article on the 'Ethics of Belief,'" in which "[h]e calls it 'guilt' and 'sin' to believe even the truth without 'scientific evidence'" (*WB* 92). In light of the distinction he draws in "The Will to Believe," what James seems to be saying here is that while it may be correct to treat "shun error" as the more important commandment for science as a long-term social enterprise, the same rules do *not* apply to the individual believer. Clifford is right that society as a whole can be deeply harmed if *institutional science* makes a habit of accepting insufficiently supported theories, which are more likely to turn out to be false. But, as James points out, institutional science is playing a long game; it can afford to hold out for

compelling evidence before throwing itself behind a theory, and will make steadier progress if only a few eccentric researchers are permitted to go haring off after dubious theories. Individual believers, James suggests, have more to gain by believing a proposition that *may* be true than they have to lose by believing one that may be false, especially when it comes to propositions like "God exists." James, as noted before, regards true beliefs as helpful tools, as nourishment, even as "blessings" (*WB* 18). And in the case of religious belief in particular, as he argues in "The Will to Believe," subjects gain *far* more by believing if it is true than they lose if it is false.

This points to a more profound difference between Nietzsche and James: that James does not really acknowledge the possibility that some truths might be not only painful but *harmful* to the knower, going so far as to say that "the possession of true thoughts means *everywhere* the possession of invaluable instruments of action" (*P* 98, emphasis added). James focuses almost exclusively on the benefits to be gained from believing truths, whether or not they are supported by scientifically respectable evidence. In *Pragmatism*, he even credits the origin of the notion of truth as a value—indeed, the concept of "truth" itself—to its beneficial character:

> Surely you must admit this, that if there were *no* good for life in true ideas, or if the knowledge of them were positively disadvantageous and false ideas the only useful ones, then the current notion that truth is divine and precious, and its pursuit a duty, could never have grown up or become a dogma. (*P* 42)

> True ideas would never have been singled out as such, would never have acquired a class-name, least of all a name suggesting value, unless they had been useful from the outset […] (*P* 98)

James draws this tight connection between truth and usefulness in large part because he explicates the very meaning of truth *in terms of* usefulness, as I will discuss in the next section. But I suspect the explanation runs in the other direction as well: James was drawn to his pragmatic conception of truth, and sought to portray it not as a radical redefinition of the concept of truth but as a reasonable clarification of the folk understanding, because he did not see how true ideas could be anything but beneficial.

3. James's anti-ascetic conception of truth

The conception of truth that James outlines in *Pragmatism*, and then seeks to clarify and defend in *The Meaning of Truth*, is explicitly, self-consciously founded on a concern for the practical consequences for human life of holding certain beliefs. In this respect it is, as Nietzsche might put it, *anti-ascetic*; and James offers it as way to overturn or supplant conceptions of truth that he characterizes in terms Nietzsche would connect with the ascetic ideal. In this section, I will first sketch out James's pragmatist conception of truth, emphasizing the respects in which it takes into account human aims and concrete experiences better than traditional conceptions. Then I will discuss James's criticisms of the rival definitions of truth offered by the kind of philosophers he calls "rationalists." Here I will focus on the ways in which James takes aim at the *asceticism* of the rationalists' conceptions: their tendency to privilege the demands of an otherworldly ideal above the needs and well-being of living creatures.

3.1 The pragmatist understanding of truth

James establishes a concern for the concrete effects of ideas on human life very early in *Pragmatism*, in Lecture II, "What Pragmatism Means," when he introduces what he calls "the pragmatic method":

> The pragmatic method is primarily a method of settling metaphysical disputes that otherwise might be interminable. […] What difference would it practically make to anyone if this notion rather than that notion were true? If no practical difference whatever can be traced, then the alternatives mean practically the same thing, and all dispute is idle. (*P* 28)

> There can *be* no difference anywhere that doesn't *make* a difference elsewhere—no difference in abstract truth that doesn't express itself in a difference in concrete fact and in conduct consequent upon that fact, imposed on somebody, somehow, somewhere, and somewhen. The whole function of philosophy ought to be to find out what definite difference it will make to you and me, at definite instants of our life, if this world-formula or that world-formula be the true one. (*P* 30)

In the same lecture, James cites Peirce's essay "How to Make Our Ideas Clear" as a precedent for his own idea, and summarizes Peirce's thesis this way:

> To attain perfect clearness in our thoughts of an object. […] we need only consider what conceivable effects of a practical kind the object may involve—what sensations we are to expect from it, and what reactions we must prepare. Our conception of these effects, whether immediate or remote, is then for us the whole of our conception of the object, so far as that conception has positive significance at all. (*P* 29)

It should be noted that these statements can be read in two different ways. When James says, "If no practical difference whatever can be traced, then the alternatives mean practically the same thing, and all dispute is idle" (*P* 28), he might mean that the alternatives have exactly the same semantic content, and therefore the dispute is merely verbal: if we think that there is an opposition between genuinely distinct alternatives, it is because we are confused about the meaning of our terms. But he might mean instead that, even though there *is* a difference in semantic content between the alternatives, if the difference would never show up in anyone's experience, then (1) the dispute can never be resolved, and (2) it simply *doesn't matter* which one of them is true. In that case, while people can meaningfully argue about the alternatives, it is not a good use of their time. While the practical upshot of these two claims—that philosophers should stop arguing about the issue in question—is the same, the rationale is quite different: in the one case, it is a logical or semantic claim about the formal equivalence of the supposed alternatives; in the other, it is a metaphilosophical or perhaps even ethical claim about what sorts of disputes are worth philosophers' time. The former interpretation of the pragmatic method is closely tied to James's pragmatist understanding of truth,[51] while the latter is more easily separable from it, albeit related in spirit and anti-ascetic philosophical motivation.[52]

Also in Lecture II, James gives a fairly general statement of the understanding of truth espoused not only by himself, but by pragmatist thinkers more broadly, including, most notably,

[51] This reading would also bring Jamesian pragmatism closer to logical positivism as laid out in, e.g., Carnap's "Empiricism, Semantics, and Ontology" (1950).
[52] Hookway (2012) provides a helpful discussion of the differences between Peirce's purely logical and semantic application of pragmatic principles and James's broader philosophical program.

F.C.S. Schiller (an English philosopher in the pragmatist vein, who called his view "humanism")[53] and John Dewey. After a brief discussion of the rise of various brands of anti-realism, conventionalism, and instrumentalism in the philosophy of science, James continues:

> Riding now on the front of this wave of scientific logic Messrs. Schiller and Dewey appear with their pragmatistic account of what truth everywhere signifies. Everywhere, these teachers say, 'truth' in our ideas and beliefs means […] nothing but this, *that ideas (which themselves are but parts of our experience) become true just in so far as they help us to get into satisfactory relation with other parts of our experience*, to summarize them and get about among them by conceptual short-cuts instead of following the interminable succession of particular phenomena. Any idea upon which we can ride, so to speak; any idea that will carry us prosperously from any one part of our experience to any other part, linking things satisfactorily, working securely, simplifying, saving labor; is true for just so much, true in so far forth, true *instrumentally*. This is the 'instrumental' view of truth taught so successfully at Chicago [i.e., by Dewey], the view that truth in our ideas means their power to 'work,' promulgated so brilliantly at Oxford [by Schiller]. (*P* 34; italics original, bracketed insertions mine)

The important link between this instrumental view of truth and the pragmatic principle is that they both demand that the truth of a proposition have some sort of experienced effect on human life. We give a proposition the distinction of calling it *true* because it is *good for something* to us. It *matters* that some given claim is true because considering it true confers a noticeable benefit in our thinking or acting, by making the world easier to navigate either as investigators or as agents.

To some extent James confuses the issue by adding the qualifiers "for just so much" and "in so far forth." Does he mean to say that ideas that "carry us prosperously" between different parts of our experience, and never cease to do so, are not unqualifiedly *true*, but only true in this limited, specialized way: "*instrumentally*"? I suspect that James's purpose in adding the qualifiers is to acknowledge that certain ideas may perform this function of "linking things satisfactorily" and "saving labor" for some purposes but not others, or up to some point in history but not afterward—an issue he will address explicitly in Lecture VI, "Pragmatism's Conception of Truth."

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[53] James discusses Schiller's views at greatest length in Lecture VII of *Pragmatism*, "Pragmatism and Humanism," and Chapter 3 of *The Meaning of Truth*, "Humanism and Truth."

James begins Lecture VI by presenting an ordinary, commonsense (or "dictionary") definition of truth:

> Truth, as any dictionary will tell you, is a property of certain of our ideas. It means their 'agreement,' as falsity means their disagreement, with 'reality.' Pragmatists and intellectualists both accept this definition as a matter of course. They begin to quarrel only after the question is raised as to what may precisely be meant by the term 'agreement,' and what by the term 'reality,' when reality is taken as something for our ideas to agree with. (*P* 96)

"The popular notion," James notes, "is that a true idea must copy its reality" (*P* 96). But, as he points out, it is only clear what this means in the case of visual ideas, i.e., that the picture in one's head should resemble the external object one is thinking about. Even with sensory ideas from other modalities, the "copy" metaphor becomes attenuated (what is it, exactly, that an idea of a smell or a sequence of sounds should resemble?), and it loses purchase altogether in the case of abstract ideas (what does one copy when one thinks of gravity, or justice, or the economy?)—unless, like some neo-Hegelian idealists, we posit an infinite, all-encompassing mind and decide that "our ideas possess […] truth just in proportion as they approach to being copies of the Absolute's eternal way of thinking" (*P* 96).

In outlining his own account of what "agreement with reality," or *truth*, amounts to, James is careful always to keep it connected with concrete experience. To some extent this reflects his empiricist epistemological scruples, but it also follows the "pragmatic method" as described in the quotations from Lecture II above. In fact, early in Lecture VI, James presents the motivation behind the pragmatist conception of truth in the terms of this pragmatic method:

> Pragmatism, on the other hand, asks its usual question. 'Grant an idea or belief to be true,' it says, 'what concrete difference will its being true make in anyone's actual life? How will the truth be realized? What experiences will be different from those which would obtain if the belief were false? What, in short, is the truth's cash-value in experiential terms?'
>
> The moment pragmatism asks this question, it sees the answer: *True ideas are those that we can assimilate, validate, corroborate and verify. False ideas are those that we cannot.* That is the practical difference it makes to us to have true ideas; that, therefore, is the meaning of truth, for it is all that truth is known-as. […]
>
> But what do the words verification and validation themselves pragmatically mean? […] They [verified ideas] lead us, namely, through the acts and other ideas which they instigate, into or up to, or

> towards, other parts of experience with which we feel all the while […] that the original ideas remain in agreement. The connections and transitions come to us from point to point as being progressive, harmonious, satisfactory. This function of agreeable leading is what we mean by an idea's verification. (*P* 97)

James's understanding of truth begins and ends with concrete experiences. As he says in his discussion of Dewey and Schiller's instrumental view of truth in Lecture II, ideas "*themselves are but parts of our experience*" (*P* 34, italics original). Entertaining an idea is just the middle term in a sequence of experiences that begins with the sensory experiences that provoked it, and ends with the experience of acting on it and the further sensory experiences consequent upon that action, which may then start a new sequence of conception and action.[54] Whether the idea was well formed from its inputs can only be determined by whether the experiences that follow from *acting* on the idea (i.e., on the assumption that it is true) conform to the believer's expectations—typically, by satisfying the desires that, in conjunction with the belief, motivated the action.

James goes on to give an appropriately concrete example of this "agreeable leading," as well as an account of what has become an infamous formulation of the pragmatist conception of truth—"what's true is what's useful":

> If I am lost in the woods and starved, and find what looks like a cow-path, it is of the utmost importance that I should think of a human habitation at the end of it, for if I do so and follow it, I save myself. The true thought is useful here because the house which is its object is useful. […] [S]ince almost any object may someday become temporarily important, the advantage of having a general stock of *extra* truths, of ideas that shall be true of merely possible situations, is obvious. […] Whenever such an extra truth becomes practically relevant to one of our emergencies, it passes from cold-storage to do work in the world and our belief in it grows active. *You can say of it then either that 'it is useful because it is true' or that 'it is true because it is useful.' Both of these phrases mean exactly the same thing, namely that here is an idea that gets fulfilled and can be verified.* True is the name for whatever idea starts the verification-process, useful is the name for its completed function in experience. (*P* 98, emphasis added)

[54] James was already gesturing at this idea as early as 1881, in "Reflex Action and Theism" (see *WB* 91–2 for the initial statement), though he was still speaking as if sensation, conception, and action were basically different in kind, rather than just segments of an internally homogeneous train of experience.

The cow-path example is a particularly blunt illustration of the "function of agreeable leading" and the connection between an idea's truth and its usefulness, but it serves as a metaphor for the way the relationship works even in less obvious cases. The discovery of many scientific theories can be understood as having proceeded in a way analogous to James's example—i.e., recognizing the cleared trail through the woods as a cow-path, and thinking of human agents as causally connected to it, leads the subject to follow the trail and find the house—though there are many more intermediate terms between the initial experience and the useful outcome, and often several separate experiences initiating chains of inference that later become connected. The discovery of the structure of DNA is a good example of this process: the idea of DNA as a double helix made of two strands of complementary nucleotide bases—inferred from chemical analyses in combination with photographs of crystalized fibers—led to the idea of how it both replicates and stores hereditary information, and thence to the very useful techniques of artificially replicating it and, eventually, editing and even constructing DNA sequences.

Eventually James offers the following gloss on the standard definition of truth as "agreeing with reality":

> To 'agree' in the widest sense with a reality, *can only mean to be guided either straight up to it or into its surroundings, or to be put into such working touch with it as to handle either it or something connected with it better than if we disagreed.* Better either intellectually or practically! And often agreement will only mean the negative fact that nothing contradictory from the quarter of that reality comes to interfere with the way in which our ideas guide us elsewhere. To copy a reality is, indeed, one very important way of agreeing with it, but it is far from being essential. The essential thing is the process of being guided. Any idea that helps us to *deal*, whether practically or intellectually, with either the reality or its belongings, that doesn't entangle our progress in frustrations, that *fits*, in fact, and adapts our life to the reality's whole setting, will agree sufficiently to meet the requirement. It will hold true of that reality.
>
> Thus, *names* are just as 'true' or 'false' as definite mental pictures are. They set up similar verification-processes, and lead to fully equivalent practical results. (*P* 102)

For James, the crucial sense in which an idea must agree with reality, if we are to count it as true, is not that it copies or resembles some external reality, but that it successfully mediates our

dealings with reality. What is truly radical about the pragmatic conception of truth James is outlining is that the idea's ability to guide our dealings, its "fitting" harmoniously into the whole of our experience, do not simply provide the *certification* that the idea is true; they are not merely *symptoms* or fortunate consequences of its truth, understood, in the traditional way, as its mirroring or resembling reality. They provide the *significance* of the idea's being true, in both senses of "significance": not only are harmonious experiences the reason that it *matters* whether or not an idea is true; they are what the truth of an idea consists in.

This understanding overcomes two serious problems with a naïve "copy" or "resemblance" conception of truth. The first is the conceptual problem noted above, that we cannot always make sense of what it would mean for an idea to copy reality. The second is the epistemic and metaphysical problem that, at least much of the time, we can't tell whether our ideas are copying reality, *except* through the supposedly indirect indication that we navigate it smoothly, running into no unexpected obstacles. This is certainly the case with abstractions like natural laws, since we can hardly check our conclusions against the list of natural laws that God imposed when creating the world, or with what James satirically calls "the infinite folio, or *édition de luxe*" of the universe, the "eternally complete" account of the way things are. But we might even consider it to be the case with the ideas that were the very prototype for the copy view of truth: if we consider our perceptual experiences to be *ideas*, then we still have no way to get outside our own heads and check whether our visual perceptions are accurate copies of the external objects. The notion that an idea's truth *really* consists in its copying reality comes to seem superfluous if it only shows up in our experience as the idea's ability to guide us without rude surprises.

Indeed, James argues elsewhere that even in cases where the copy metaphor seems to be applicable, the idea's copying or resembling a corresponding reality contributes little to the benefit that come from having true ideas. In the essay "A World of Pure Experience" (1904), James gives an example to illustrate the extraneousness of resemblance:

> Suppose me to be sitting here in my library at Cambridge, at ten minutes' walk from 'Memorial Hall,' and to be thinking truly of the latter object. My mind may have before it only the name, or it may have a clear image, or it may have a very dim image of the hall, but such an intrinsic difference in the image makes no difference in its cognitive function. **Certain *extrinsic* phenomena, special experiences of conjunction, are what impart to the image, be it what it may, its knowing office.**
>
> For instance, if you ask me what hall I mean by my image, and I can tell you nothing; or if I fail to point or lead you towards the Harvard Delta; or if, being led by you, I am uncertain whether the Hall I see be what I had in mind or not; you would rightly deny that I had 'meant' that particular hall at all, even tho [sic] my mental image might to some degree have resembled it. The resemblance would count in that case as coincidental merely, for all sorts of things of a kind resemble one another in this world without being held for that reason to take cognizance of one another.
>
> On the other hand, if I can lead you to the hall, and tell you of its history and present uses; if in its presence I feel my idea, however imperfect it may have been, to have led hither and to be now *terminated*; if the associates of the image and of the felt hall run parallel, so that each term of the one context corresponds serially […] with an answering term of the other; why then […] my idea must be, and by common consent would be, called cognizant of reality. (*ERE* 28–9; bold emphasis added)[55]

As James points out, resemblance between idea and object is neither necessary nor sufficient for the truth of the idea. Even if the idea of the hall is very vague, or mistaken in some respects, or is merely a word that signifies it without resembling it, we consider it true if it succeeds in leading to the desired object. Conversely, a perfect imagistic copy that cannot guide its possessor to the object or help him identify it when confronted with it cannot be counted as a true idea. Whether or not the idea copies the object (or the present sensory experience of the object, at least) simply *doesn't matter*: it makes no difference to our actions connected with the idea, and in many cases (possibly all, depending on one's theory of perception) it makes no difference in our experience.

[55] This argument rehearses, in condensed form, part of James's argument against the copy theory of reference and truth in an earlier essay, "The Function of Cognition" (delivered as an address to the Aristotelian Society in December 1884 and first published in *Mind* in 1885; reprinted as Chapter 1 of *The Meaning of Truth*, 1909).

Here, at last, is James's most explicit statement of the pragmatist conception of truth that Lecture VI is named for:

> *'The true,' to put it very briefly, is only the expedient in the way of our thinking, just as 'the right' is only the expedient in the way of our behaving.* Expedient in almost any fashion; and expedient in the long run and on the whole of course; for what meets expediently all the experience in sight won't necessarily meet all farther experiences equally satisfactorily. Experience, as we know, has ways of *boiling over*, and making us correct our present formulas.
>
> The 'absolutely' true, meaning what no farther experience will ever alter, is that ideal vanishing-point towards which we imagine that all our temporary truths will someday converge. It runs on all fours with the perfectly wise man, and with the absolutely complete experience; and, if these ideas are ever realized, they will all be realized together. Meanwhile we have to live today by what truth we can get today, and be ready tomorrow to call it falsehood. (*P* 106–7)

It may be helpful to note here what James does and does not mean by "expedient." The Oxford English Dictionary contrasts two senses of the word which were both current in James's time. The one that is more common now, and which probably springs first to a reader's mind, is "In [a] depreciative sense, 'useful' or 'politic' as opposed to 'just' or 'right.'" James's statement that "*'the right' is only the expedient in the way of our behaving*" (*P* 106) should suggest to any charitable reader that this is not the definition of "expedient" he has in mind (though an uncharitable reader could take this as an indication that philosophical pragmatism is, in fact, identical with pragmatism in the colloquial sense, and thus as further reason to reject it). Instead, what he appears to mean by "expedient" is "Conducive to advantage in general, or to a definite purpose; fit, proper, or suitable to the circumstances of the case."[56]

The "true," then, is what is *advantageous* to human beings, in the long run, to believe; it is what, on the whole, conduces to the achievement of human goals when believed. It is helpful to refer back to the passage from Lecture II (*P* 34) quoted above to get a more concrete understanding of what James means by an idea's being "expedient" to believe. It means that the idea helps us to draw fruitful connections between distinct experiences. One way an idea might

[56] Definitions found at <http://www.oed.com/view/Entry/66476?redirectedFrom=expedient&>.

do this is by grouping separate experiences into classes that allow us to generalize and accurately predict future experiences, as do concepts of natural and social kinds or event types. Or an idea might fruitfully link experiences by explaining one in terms of another in a way that we find satisfying, or that illuminates connections to even more experiences, and that enables us to plan by predicting the consequences of certain actions; this is the function of causal principles and natural laws.

It is important, of course, that James adds the qualification "in the long run and on the whole" to his explication of truth as "the expedient in the way of our thinking," and points out that the "'absolutely' true," being that which "no farther experience will ever alter," will be attained contemporaneously with "the absolutely complete experience" (*P* 106–7). Truth is always beholden to the vagaries of experience, which, as he recognizes, "has ways of *boiling over*, and making us correct our present formulas" (*P* 106). I take it that what he means by experience "boiling over" is that it presents us with *anomalies*, in the Kuhnian sense—phenomena that our current theories cannot explain, or can account for only in an unsatisfyingly ad hoc way[57]—because he goes on to list scientific theories that have been replaced: "Ptolemaic astronomy, Euclidean space, Aristotelian logic, scholastic metaphysics, were expedient for centuries, but human experience has boiled over those limits, and we now call these things only relatively true, or true within those borders of experience" (*P* 107). This *relative* truth, or truth within certain "borders of experience," seems to be what James had in mind in Lecture II when he described beliefs that satisfactorily link certain of our experiences as "true for just so much" or only "*instrumentally*" true (*P* 34). And this limitation need not be only a matter of outdated scientific theories being useful for summarizing human experience until the point in history

[57] See Kuhn 2012 [1962]: 52–65.

when an anomaly came to light. Euclidean geometry, while we no longer consider it true of the universe as a whole, or of space in general, is nonetheless still very useful for purposes of engineering on an earthly scale—it is very *approximately* true at that level, true for all practical purposes, "true for just so much."

Until experience no longer has the capacity to surprise us, all of our theories must be considered only true *for now*, as James's examples illustrate. And since we can never know when we have reached the point at which no further experience will falsify our theories (if we ever reach it), we can never know that we have attained absolute truth. While this may seem unsatisfying, it is simply a thoroughgoing *fallibilism*, which James characterizes in "The Will to Believe" as his "empiricism": "The absolutists […] say that we not only can attain to knowing truth, but we can *know when* we have attained to knowing it; while the empiricists think that although we may attain it, we cannot infallibly know when" (*WB* 20).[58]

Critics of pragmatism, as James well knows, often fail to recognize the respect that it pays to the constraints imposed on our beliefs by experience, past and present. "A favorite formula for describing Mr. Schiller's doctrines and mine is that we are persons who think that by saying whatever you find it pleasant to say and calling it truth you fulfill every pragmatistic requirement," James complains. But, he counters,

> Pent in, as the pragmatist more than anyone else sees himself to be, between the whole body of funded truths squeezed from the past and the coercions of the world of sense about him, who so well as he feels the immense pressure of objective control under which our minds perform their operations? If anyone imagines that this law is lax, let him keep its commandment one day, says Emerson. (*P* 111–2)

[58] This is, to be sure, an unusual use of the word "empiricism," and James uses and defines the word in a number of different ways across his oeuvre. I suspect that here he's trading on a couple of different associations with the word: (1) the absence, in most empiricist philosophies, of any kind of *criterion* of knowledge like Descartes' "clear and distinct perception"; and (2) the connotation of epistemic *humility*, of depending on experience for all our knowledge, of finding ourselves epistemically at the mercy of an unpredictable world.

"We live in a world of realities that can be infinitely useful or infinitely harmful," as James pointed out; "[i]deas that tell us which of them to expect count as the true ideas" (*P* 98). It is certainly not in the best interest of any subject to set herself up to be blindsided by an experience that her theories did not enable her to anticipate; and this is no less true of collective epistemic agents than of individual ones, whether these are scientific research teams, governments, or humanity as a whole.[59]

In Lecture II, after proffering a tentative definition of truth as "What would be better for us to believe," James makes a similar rebuttal to an anticipated objection—namely, the "suspicion that if we practically did believe everything that made for good in our personal lives, we should be found indulging in all kinds of fancies about this world's affairs, and all kinds of sentimental superstitions about a world hereafter" (*P* 42–3). He counters this suspicion, which he admits to be "undoubtedly well founded," as follows:

> I said just now that what is better for us to believe is true *unless the belief incidentally clashes with some other vital benefit.* Now in real life what vital benefits is any particular belief of ours most liable to clash with? What indeed except the vital benefits yielded by *other beliefs* when these prove incompatible with the first ones? In other words, the greatest enemy of any one of our truths may be the rest of our truths. Truths have once for all this desperate instinct of self-preservation and of desire to extinguish whatever contradicts them. My belief in the Absolute, based on the good it does me, must run the gauntlet of all my other beliefs. […] (*P* 43)

The concern that pragmatism licenses "saying whatever you find it pleasant to say and calling it truth" (*P* 111) tends to arise where what is pleasant to believe conflicts with the observable evidence. James's reply assumes, first of all, that believing in accordance with the observable evidence—with experience, past and future—comes with "vital benefits" (*P* 43). One is far more likely to have the experience that one's beliefs are performing a "function of agreeable leading" (*P* 97) through the world if they take into account the observed evidence; the believer is less

[59] In the next subsection, there will be some discussion (though hardly conclusive) about what it means for humanity as a whole to be an epistemic agent.

likely to be surprised by subsequent experiences, or to come into disagreement with other believers.

But "sentimental superstitions about a world hereafter" cannot directly conflict with perceptual evidence; why, then, should Pragmatism not tolerate them, provided they do not interfere with the believer's ability to navigate the world? We may infer an answer from James's discussion of his refusal to believe in the Absolute of neo-Hegelian idealism, despite the practical value that he acknowledges such belief to have: namely, that "since in the Absolute finite evil is 'overruled' already," believing in it assures us that "we have a right ever and anon to take a moral holiday, to let the world wag in its own way, feeling that its issues are in better hands than ours" (*P* 41). Because belief in the absolute "performs a concrete function" in providing this reassurance, James is willing to consider it "true 'in so far forth'" (*P* 41).

> Nevertheless, as I conceive it, […] it clashes with other truths of mine whose benefits I hate to give up on its account. It happens to be associated with a kind of logic of which I am the enemy, I find that it entangles me in metaphysical paradoxes that are inacceptable, etc., etc. But as I have enough trouble in life already without adding the trouble of carrying these intellectual inconsistencies, I personally just give up the Absolute. I just *take* my moral holidays; or else as a professional philosopher, I try to justify them by some other principle. (*P* 43)

As James remarks (again) in Lecture VI, logical and conceptual relations as well as sensory data constrain our beliefs:

> Our ready-made ideal framework for all sorts of possible objects follows from the very structure of our thinking. We can no more play fast and loose with these abstract relations than we can do so with our sense-experiences. They coerce us; we must treat them consistently, whether or not we like the results. (*P* 101)

We cannot, therefore, posit any unobservable order of things we like; it must be consistent with the most fruitful, predictively accurate, intellectually satisfying account we have of the observed order—that is, our best scientific theories. As we shall see in considering his defense of the religious attitude in Chapter 4, James is more permissive in regard to *consistency* with scientific theories than staunchly anti-religious opponents like Clifford. And the James of *Pragmatism*

allows an idea's usefulness in action, regardless of what prior evidence there may be for it, to count not only as a reason in favor of *believing* it, but also, and by the same token, a consideration that points toward its *truth*. After all, the better it does in enabling human beings to accomplish their aims, the more likely it is to be included in the final set of theories that humanity converges on at the ideal end of inquiry.

3.2 James's critique of rationalist theories of truth

In Lecture VI of *Pragmatism*, James also singles out some attempts by non-pragmatist philosophers to define truth in order to point out the implausibility of their proposed definitions, and his discussion of these attempted definitions is complex and telling, both in what it perceives and in what it misses. Since it is a long passage, I will divide it into two parts and discuss one at a time.

> When […] you ask rationalists, instead of accusing pragmatism of desecrating the notion of truth, to define it themselves by saying exactly what *they* understand by it, the only positive attempts I can think of are these two:
>
> 1. "Truth is the system of propositions which have an unconditional claim to be recognized as valid."
> 2. Truth is a name for all those judgments which we find ourselves under obligation to make by a kind of imperative duty.[60]
>
> The first thing that strikes one in such definitions is their unutterable triviality. They are absolutely true, of course, but absolutely insignificant until you handle them pragmatically. What do you mean by 'claim' here, and what do you mean by 'duty'? As summary names for the concrete reasons why thinking in true ways is overwhelmingly expedient and good for mortal men, it is all right to talk of claims on reality's part to be agreed with, and of obligations on our part to agree. We feel both the claims and the obligations, and we feel them for just those reasons. (*P* 109)

James is quite right that these definitions are *uninformative* in an important way, in that they neglect to say *what feature* it is of the "propositions" or "judgments" that count as true in virtue of which they "have an unconditional claim to be recognized as valid," or impose an "imperative duty" on the thinker to assent to them. But as Nietzsche would be quick to point out, these

[60] James attributes these definitions to "A.E. Taylor, *Philosophical Review*, vol. xiv, p. 288" and "H. Rickert, *Der Gegenstand der Erkenntniss*, chapter on 'Die Urtheilsnothwendigkeit,'" respectively (*P* 109, notes 1 and 2).

definitions are far from *trivial*; they are quite controversial, in that they build the unconditional will to truth *into the very definition of truth*.

James sometimes seems to be gesturing toward the point Nietzsche made in *GS* 344, that prudential reasons could never support an *unconditional* or *categorical* imperative. It may be "all right to talk of claims on reality's part to be agreed with, and of obligations on our part to agree" as "summary names for the concrete reasons why thinking in true ways is overwhelmingly expedient and good for mortal men" (*P* 109), but it is certainly not all right to summarize such concrete reasons as an "unconditional claim," as James suggests that Taylor is doing. James appears to recognize the merely conditional validity of a prudential imperative to believe truth when he says, "We feel both the claims and the obligations, and we feel them *for just those reasons*" (*P* 109, emphasis added)—i.e., we recognize an obligation to believe truth, but only as far as it is beneficial for our lives, and no farther. Just a bit later, he makes the point more explicitly: "Truth makes no other kind of claim and imposes no other kind of ought than health and wealth do. All these claims are *conditional*; the concrete benefits are what we mean by calling the pursuit a duty" (*P* 110, emphasis added).

James then expands as follows on his statement that the claims of truth are conditional:

> [U]ntrue beliefs work as perniciously in the long run as true beliefs work beneficially. Talking abstractly, the quality 'true' may thus be said to grow absolutely precious and the quality 'untrue' absolutely damnable: the one may be called good, the other bad, unconditionally. We ought to think the true, we ought to shun the false, imperatively.
>
> But if we treat all this abstraction literally and oppose it to its mother soil in experience, see what a preposterous position we work ourselves into.
>
> We cannot then take a step forward in our actual thinking. When shall I acknowledge this truth and when that? […] When may a truth go into cold-storage in the encyclopedia? when shall it come out for battle? Must I constantly be repeating the truth "twice two are four" because of its eternal claim on recognition? Must my thoughts dwell night and day on my personal sins and blemishes, because I truly have them?—or may I sink and ignore them in order to be a decent social unit, and not a mass of morbid melancholy and apology?
>
> It is quite evident that our obligation to acknowledge truth, so far from being unconditional, is tremendously conditional. Truth with a big T, and in the singular, claims abstractly to be recognized, of course; but concrete truths in the plural need be recognized only when their recognition is expedient. (*P* 110–1)

The first thing to note about this passage is that it is the closest James ever comes to the idea that some truths may be painful or harmful to acknowledge. Nonetheless, he does not suggest, as Nietzsche seems to, that some truths should be ignored permanently for this reason, only that they should not be at the front of the knower's mind at all times.

A second point to note is that it is not entirely clear whether James is already presupposing the pragmatist conception of truth when he makes these statements. When he says that "untrue beliefs work as perniciously in the long run as true beliefs work beneficially," is it merely a generalization? Or does he intend it as an analytic statement, considering the explication of truth he has just given? What does he mean by the claim that, "[t]alking abstractly, the quality 'true' may thus be said to grow absolutely precious and the quality 'untrue' absolutely damnable: the one may be called good, the other bad, *unconditionally*" (*P* 110, emphasis added)?

Here the two senses of "unconditional" that I disambiguated in the introduction to Part I should be kept distinct, although James himself seems to be conflating them. When he says (as quoted previously), "Truth makes no other kind of claim and imposes no other kind of ought than health and wealth do. All these claims are conditional; the concrete benefits are what we mean by calling the pursuit a duty" (*P* 110), what he means is that the value of truth, like the value of health and wealth, is *instrumental* rather than final. Truth is not valuable for its own sake, but for the sake of what we can do with it: predicting future experiences accurately enough to be able to make plans and achieve our practical aims. However, when James goes on to elaborate this statement in the next paragraph, he starts talking about the value of truth and the duty to believe truth being conditional in the other sense: restricted by circumstances, not in force always and everywhere. This conflation probably occurs because, as I discussed in the Part

I introduction, the two kinds of conditionality often and non-accidentally coincide: if something is valuable only as a means to a further end, then it will make sense to pursue it only when and to the extent that it advances that further end. So if truth is valuable only as a means to achieving other goals, then believing a given truth—by which James seems to mean, in this context, entertaining it as an *occurrent* belief—is a duty only when that is helpful to achieving some other goal.

But there is a way in which James's pragmatic characterization of truth makes its value and the imperative to believe it *unconditional* in the sense of being unrestricted by circumstances, although they are still instrumental rather than final. Sometimes, as in the long passage just quoted, James talks about belief as an occurrent mental state in an individual human being; in that case, as he explains, the duty to believe it is situationally restricted. But, he says, "untrue beliefs work as perniciously *in the long run* as true beliefs work beneficially"; and therefore, "*[t]alking abstractly* […] the one may be called good, the other bad, unconditionally" (*P* 110, emphasis added). The way we might interpret this statement is that there can be no truths which it would be in the best interests of humanity as a whole to ignore permanently, or "in the long run," and no false claims that it would be best for humanity as a whole to accept. And, if James is already assuming the pragmatic definition of truth, that would be an analytic claim, considering that truth simply *is* what is good, in the long run, for human beings to believe.

It is, as James puts it, "talking abstractly" to speak of humanity as a whole believing or ignoring a proposition, and it is more difficult to make explicit what it would mean for *humankind*, rather than an individual human being, to have an obligation to believe truth and avoid error. We have already seen, in the passage from "The Sentiment of Rationality" quoted in section 2 above, that James recognizes a difference between the epistemic obligations of

individual persons and those of "humanity." In that passage—in which James is discussing "the command laid on us by science to believe nothing not yet verified by the senses" as "a prudential rule intended to maximize our right thinking and minimize our errors *in the long run*," and remarks that "the long run which exists indeed for humanity, is not there for" the individual believer (*WB* 79, note 2)—what I interpreted him to mean by "humanity" was something like *institutional science*. When, in *Pragmatism*, he is speaking more generally about what humanity will converge on as the "absolute truth," I suspect he means something broader than institutional *science*. He seems to mean the sum of the most advanced, evidentially supported, carefully examined and defended of human knowledge in all subject matters, at the (ideal) point at which it will never be contravened by further experience. And humanity, as a collective epistemic agent of some sort, has an unconditional, meaning *unrestricted*, obligation to believe (or accept, or arrive at) everything that is in this collection of final theories.[61]

However, neither humanity nor the individual believer has an unconditional, meaning *final*, obligation to believe truth, as the rationalists' definitions of truth would have it. The merely instrumental value of truth, like its unrestricted value for humanity as a whole, is encoded in James's pragmatist conception. Again, if we understand truth as what is ultimately beneficial or "expedient" for human beings to believe, that benefit or expediency must be understood with reference to values or ends *other* than truth. Of course, James's formula leaves unspecified what those goods or ends might be, since different individuals have different aims, and the true ethical good might only be discovered through a long process of inquiry and social experimentation.[62]

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[61] I take it that spelling out what it means for humanity to be an epistemic agent, to believe something, and to be obligated to believe something is part of the task of social epistemology; unfortunately, it is not within the scope of this project to undertake a detailed exploration of these notions. James clearly has a socially oriented understanding of truth and knowledge, but does not always spell out the metaphysical details.

[62] This is what James suggests in his essay "The Moral Philosopher and the Moral Life" (1891).

Nonetheless, James is arguing that we cannot even specify what makes a belief true without adverting to the further ends to which it might be instrumental. If this is the case, it would seem odd to insist that we have a non-instrumental obligation to believe the propositions that are most helpful, in the long run, for the purpose of accomplishing other ends. According to this conception, "truth is *one species of good*, and not, as is usually supposed, a category distinct from good, and co-ordinate with it" (*P* 42, original emphasis).

James offers the following explanation for other philosophers' misapprehension of the merely conditional nature of truth's claim on us:

> But the rationalists who talk of claim and obligation *expressly say that they have nothing to do with our practical interests or personal reasons.* [… Truth's] claims antedate and exceed all personal motivations whatsoever. Though neither man nor God should ever ascertain truth, the word would still have to be defined as that which *ought* to be ascertained and recognized.
>
> **There was never a more exquisite example of an idea abstracted from the concretes of experience and then used to oppose and negate what it was abstracted from.**
>
> Philosophy and common life abound in similar instances. The 'sentimentalist fallacy' is to shed tears over abstract justice and generosity, beauty, etc., and never to know these qualities when you meet them in the street, because there the circumstances make them vulgar […] [I]n almost the last philosophic work I read, I find such passages as the following: "Justice is ideal, solely ideal. Reason conceives that it ought to exist, but experience shows that it cannot… Truth, which ought to be, cannot be. … Reason is deformed by experience. As soon as reason enters experience it becomes contrary to reason."
>
> The rationalist's fallacy here is exactly like the sentimentalist's. **Both extract a quality from the muddy particulars of experience and find it so pure when extracted that they contrast it with each and all its muddy instances as an opposite and higher nature.**
>
> (*P* 109–110; bold emphasis and bracketed ellipses mine, italics and other ellipses original)

The excerpts that I have highlighted in bold resonate powerfully with a very similar remark of Nietzsche's: a critique of metaphysicians, very much in the same spirit as James's parody of the kind of philosopher he calls "rationalists."

> "How *could* anything originate out of its opposite? for example, truth out of error? or the will to truth out of the will to deception? or selfless deeds out of selfishness? […] Such origins are impossible […] **the things of the highest value must have another, *peculiar* origin—they cannot be derived from this transitory, seductive, deceptive, paltry world** […] Rather from the lap of Being, the intransitory, the hidden god, the 'thing in itself'—there must be their basis, and nowhere else."
>
> This way of judging constitutes the typical prejudgment and prejudice which give away the metaphysicians of all ages; this kind of valuation looms in the background of all their logical procedures; it is on account of this "faith" that they trouble themselves about "knowledge," about something that is finally baptized solemnly as "the truth." The fundamental faith of the

> metaphysicians is *the faith in opposite values.* It has not even occurred to the most cautious among them that one might have a doubt right here at the threshold where it was surely most necessary—even if they vowed to themselves, "*de omnibus dubitandum* [All is to be doubted]."
> (*BGE* 2; bold emphasis mine, italics original)

James and Nietzsche are, in essence, accusing "rationalists" or "metaphysicians" of making the same mistake: they form a value concept, like *truth*, *justice*, or *selflessness*, by abstraction from concrete examples of those values in the world; they end up conceiving of the abstracted values as being so pure that the very concrete instances from which they were abstracted do not deserve the name of the value; they conclude that the value itself cannot originate in the imperfect world, in which every manifestation of the value is incomplete, sullied by compromises and impure motives. The value concept is "then used to oppose and negate what it was abstracted from" (*P* 109), as James puts it—to condemn the "transitory, seductive, deceptive, paltry world" (*BGE* 2) in which we live. James's rationalists, in this respect, are thinking very much like Nietzsche's ascetic priest, who devalues "our life […] along with what pertains to it: 'nature,' 'world,' the whole sphere of becoming and transitoriness" in favor of "a quite different mode of existence which it opposes and excludes, *unless* it turn against itself, *deny itself*" (*GM* III, 11). But while Nietzsche implies that the ascetic priest constructs his higher world by simply *negating* inevitable features of our world (corporeality, changeability, desire, struggle), the rationalists that James criticizes in Lecture VI of *Pragmatism* (or the metaphysicians that Nietzsche mocks in *BGE* 2) derive the very qualities that they hold up to condemn the inadequacies of our world from virtues that were originally observed in our world.

Finally, James's argument (discussed in section 3.1) that copying or resembling a reality is inessential to the practical value of truth "scales up," as it were: it applies not only to specific instances, like the idea of Memorial Hall, but to our beliefs about the world in general, where the thing to be "copied" is not a visible object but something like "the infinite folio, or *édition de*

luxe" of the universe posited by the rationalists (*P* 124) or perhaps, in the Hegelian vein, "the Absolute's eternal way of thinking" (*P* 96). Discussing, again, the definitions of truth offered by the "rationalists" Taylor and Rickert, James writes:

> I have honestly tried to stretch my own imagination and to read the best possible meaning into the rationalist conception, but I have to confess that it still completely baffles me. The notion of a reality calling on us to 'agree' with it, and that for no reasons, but simply because its claim is 'unconditional' or 'transcendent,' is one that I can make neither head nor tail of. I try to imagine myself as the sole reality in the world, and then to imagine what more I would 'claim' if I were allowed to. If you suggest the possibility of my claiming that a mind should come into being from out of the void inane and stand and *copy* me, I can indeed imagine what the copying might mean, but I can conjure up no motive. What good it would do me to be copied, or what good it would do that mind to copy me, if farther consequences are expressly and in principle ruled out as motives for the claim (as they are by our rationalist authorities) I cannot fathom. (*P* 112)

James's point here is not only that the copying is useless to the copying mind, but also that there seems to be no reason for reality itself to issue the "unconditional claim" (in Taylor's words) or impose the "imperative duty" (per Rickert).

James's personification of the reality that is to be copied or resembled—or else "agreed with" in some unspecified way that isn't James's harmonious action-guiding—may seem like an odd argumentative gambit, considering that his opponents surely do not think of reality as a sentient being that deliberately imposes the command that we conform our minds to it. But it seems to be James's way of pointing to the same puzzle that Nietzsche did in *GS* 344: if the demand that we believe truth does not proceed from our own prudential interests (as indeed, no *unconditional* demand could), where *does* it come from? Nietzsche and James come, effectively, to the same conclusion: it must be a command from *another world*, a mind-independent metaphysical world, understood as the "true world" (as opposed to the merely "apparent" world of human experience). And then they ask the same question: why should we obey this command? In the absence of either a transcendent, basically anthropomorphic God or (as James imagines) a sentient reality desiring that we know it, the command is unintelligible. James leaves his

argument at the stage of a question: tell me, rationalists, why (and how) would reality issue this command? Nietzsche, instead, follows it to the damning conclusion that adherents to the unconditional will to truth implicitly commit themselves to the belief in something very much like a God, stripped of all personal attributes though it may be, giving only one commandment (or, as James would have it, only two): believe only truth, and as much truth as possible.

4. Conclusion

Throughout his writings, James evinces an attitude toward truth and the imperative to pursue truth that Nietzsche would characterize as anti-ascetic. He recognizes and challenges the quasi-religious asceticism implicit both in the devotion to scientific truth expressed by thinkers like Clifford, and in the conceptions of truth offered by "rationalist" philosophers in the Kantian and Hegelian traditions.

James's goal in *Pragmatism* is to bring our understanding of truth back down to earth, as it were, in two connected but distinguishable respects: one descriptive, one normative. On the descriptive level, James sets out to define truth not in terms of the purified abstraction of the metaphysician, but in terms of the concrete instances of *successful believing* that we find in the real world. How can we identify instances of successful believing, considering that we cannot get outside the world and compare our beliefs with "the infinite folio, or *édition de luxe*" of the universe (*P* 124)? As James indicated in the passages from Lecture II and early in Lecture VI quoted in subsection 3.1 above (*P* 34 and 97), a successful belief—and hence a *true* belief, according to Jamesian pragmatism—is one that leads the believer to accurately predict future experience, plan her actions accordingly, and ultimately, to fulfill her aims connected with the object of the belief. These further concrete experiences are what secure the truth of the belief, what *verify* it, in James's terms (*P* 97)—not the nature of a transcendent reality outside of human

experience, or a commandment from it. Although these descriptions of verification and successful belief are phrased in terms that bring to mind an individual believer, the account can also be applied, *mutatis mutandis*, to collective "believers" like research teams, government agencies, and even institutional science itself. The individual or agency's successful beliefs are *provisionally* true, true enough for the case, if acting on them enables relevant goals to be accomplished. The *absolutely true* beliefs are those that would enable any agent, individual or collective, to achieve their relevant goals, under any set of circumstances (assuming the goals are physically attainable—but the absolutely true beliefs would inform the agent if they were not).

On the normative level, James emphasizes that whatever obligation we have to believe truth is not some *sui generis*, unconditional imperative imposed by the transcendent nature of truth itself, as rationalists like Taylor and Rickert would have it. Rather, we are obligated to believe truth only because and insofar as it is beneficial to the believer in helping her achieve her goals. The descriptive and normative points are, of course, interconnected: beliefs get to count as true only in virtue of their role in leading us successfully to fulfill our aims, and so the obligation to believe truth only amounts to an obligation to have beliefs that are helpful in this way. Thus understood, "our duty to gain truth, so far from being a blank command from out of the blue, or a 'stunt' self-imposed by our intellect, can account for itself by excellent practical reasons" (*P* 97).

Part II: Against the Hegemony of Science

Recall again the two propositions of scientism that I laid out in the General Introduction: (1) the aims of science—discovering truth and eliminating false belief—are the most important human aims; and (2) the only appropriate way to pursue those aims is through the methods of modern science. In Part I, I discussed Nietzsche's and James's critiques of the first proposition, which Nietzsche calls "the unconditional will to truth." Part II addresses their opposition to the second proposition, which I have labeled, again borrowing a phrase from Nietzsche, "the hegemony of science."

As I have emphasized throughout, neither Nietzsche nor James was opposed to *science* as such; in fact, they both gave high praise to the capacity of science to discover important and useful facts about how the world works. What they opposed was what I am calling "the hegemony of science": the idea that science, and only science, can answer any question worth asking. As noted in the General Introduction, this view leaves open two possible positions on questions of ultimate value: either that these questions *can* be answered, and therefore can be answered by science; or that because science cannot answer such questions, they are not capable of an answer at all, and discussions of them are at best expressions of preference, at worst irrational effusions of emotion. The first option would mean that science can successfully replace religion and philosophy in their traditional functions of telling people what they should value and how they should lead their lives; the second would mean that, ideally, science could eliminate those functions, and the need for them, altogether.

One of the most important themes in both Nietzsche's and James's attack on the hegemony of science is that *science cannot create values*. It can produce factual claims that some

type of event always follows some other type, which can be turned into *hypothetical* imperatives—prescriptions of a certain means to achieve an end that has already been chosen. But science cannot prescribe *final* ends or categorical imperatives: it cannot tell human beings what they *should* want. Another theme found in both philosophers' writings is the idea that the language of science is not suited to express certain ideas about meaning and value: it can describe all of the physical interactions and historical processes involved in the production of, for example, a piece of art, but it cannot tell us why that art is beautiful, or the significance of art for human life. But this does not lead either of them to the conclusion that questions of meaning and value should be abandoned, or that there is no need for the practices of philosophy and humanistic inquiry that have traditionally investigated such questions.

Following the model of Part I, I will lay out Nietzsche's critique of the hegemony of science in Chapter 3, then in Chapter 4 I will explore James's critique and how it both harmonizes with and diverges from Nietzsche's. One of the most important differences between them, of course, is the role they think that traditional religion, or something like it, can still play in modern society. They both argue that science cannot replace religion; but whereas James thinks that theism is still a live option for modern educated believers, and can still provide the values that they need to guide their lives, Nietzsche regards theism as a *dead* option for such believers (this is part of the significance of the famous declaration in *GS* 125 that "God is dead") and is trying to figure out what *can* take the place of religion in establishing values, given that science cannot.

Ultimately, however, their concerns are quite similar. Nietzsche makes some sweeping declarations about the risk of "suicide" in the absence of values that can provide meaning for human suffering—he claims, for example, that the ascetic ideal filled the "tremendous void" of

meaninglessness and thus "the door was closed to any kind of suicidal nihilism" (*GM* III, 28)—and the reader might wonder whether this is only dramatic hyperbole. But James's concern is, very concretely, the risk of suicide, as he declares in "Is Life Worth Living?" (1895):

> That life is *not* worth living the whole army of suicides declare—an army whose roll-call, like the famous evening gun of the British army, follows the sun round the world and never terminates. […]
>
> [W]hat I propose is to imagine ourselves reasoning with a fellow-mortal who is on such terms with life that the only comfort left him is to brood on the assurance "you may end it when you will." [… M]y words are to deal only with that metaphysical *tedium vitae* which is peculiar to reflecting men. […] Too much questioning and too little active responsibility lead, almost as often as too much sensualism does, to the edge of the slope, at the bottom of which lie pessimism and the nightmare or suicidal view of life. (*WB* 38–40)

More specifically, James is concerned that reverence for *science* and the bleak worldview it puts forth will lead educated, reflective people to deprive themselves of needed sources of meaning. Such people "feel a sort of intellectual loyalty to what they call 'hard facts,' which is positively shocked by the easy excursions into the unseen that other people make at the bare call of sentiment"; but they may nonetheless "be intensely religious," in that they "desire atonement and reconciliation, and crave acquiescence and communion with the total soul of things" (*WB* 40).

> But the craving, when the mind is pent in to the hard facts, especially as science now reveals them, can breed pessimism, quite as easily as it breeds optimism when it inspires religious trust […] That is why I call pessimism an essentially religious disease. The nightmare view of life has plenty of organic sources; but its great reflective source has at all times been the contradiction between the phenomena of nature and the craving of the heart to believe that behind nature there is a spirit whose expression nature is. (*WB* 40–1)

That James seems to think the natural world requires a connection with a supernatural world to provide it with meaning is evidence of a strain of continued loyalty to the ascetic ideal, in spite of the anti-ascetic concern for the practical needs of earthly beings that we saw in Chapter 2. This, alongside their disagreement regarding the *epistemic* viability of theism, accounts for their different views on the value of traditional religion. Although James disavows ascetic truthfulness and self-denial for its own sake, he still holds that a belief in a supernatural realm—in which the value of human ideals and struggles is affirmed and preserved beyond the

inevitable end of the material world—is necessary for human beings to find the kind of meaning in their suffering that can stave off "suicidal nihilism" (again, see *GM* III, 28). Even though James's posit of a supernatural realm does not precisely *condemn* the natural world or the animal instincts, it still serves to *devalue* the natural world by presuming that it cannot on its own provide sufficient justification for existence. Nietzsche, meanwhile, is determined to shake off the remnants of the ascetic ideal; even though (as he argues in *GM* III) it has been the only candidate to provide meaning for suffering so far, Nietzsche seems to think that it is possible to provide an alternative that is thoroughly rooted in the natural world.

Chapter Three

Nietzsche's Protest Against the Hegemony of Science

1. On science "playing the 'master'"

Nietzsche opens Part VI of *Beyond Good and Evil* (1886), entitled "We Scholars," with a complaint about the current state of relations between science and philosophy:

> […] I venture to speak out against an unseemly and harmful shift in the respective ranks of science and philosophy, which is now threatening to become established, quite unnoticed and as if it were accompanied by a perfectly good conscience. [… Science] now aims with an excess of high spirits and a lack of understanding to lay down laws for philosophy and to play the "master" herself— what am I saying? the *philosopher*. […]
>
> Finally: how could it really be otherwise? Science is flourishing today and her good conscience is written all over her face, while the level to which all modern philosophy has gradually sunk, this rest of philosophy today, invites mistrust and displeasure, if not mockery and pity. Philosophy reduced to "theory of knowledge," in fact no more than a timid epochism[63] and doctrine of abstinence […] How could such a philosophy—*dominate!* (*BGE* 204)

From this complaint we may gather that Nietzsche thinks philosophy is the rightful "master" of science, and is supposed to "dominate" science, not the other way around. In what, though, does this mastery or domination consist? And how far does it extend?

As ever, it is important to note that Nietzsche's opposition to "the hegemony of science"—the view that science is and ought to be the sole source of authority in all areas of human life and inquiry—does not imply opposition to *science*. Many recent commentators, including Clark (1990), Cox (1999), Janaway (2007), and Schacht (2012), have been careful in acknowledging that despite Nietzsche's trenchant critiques of some aspects of modern science, including the uncritical faith in the overriding value of truth that motivates some of its most enthusiastic defenders (as discussed in Chapter 1), he also frequently expresses respect and admiration for the virtues of science: its rigorous empiricist methodology, its spirit of

[63] A policy of *epochē*, of suspending judgment.

adventurousness, its intellectual integrity (see, e.g., *TI* III, 3; *GS* 293; *A* 47). The recent consensus is that Nietzsche has a qualifiedly positive regard for science. However, Nietzsche himself says that when considering the value of anything, "the problem 'value *for what?*' cannot be examined too subtly" (*GM* I, Note): the crucial question regarding the value of any institution, including science, is never whether it is good or bad *simpliciter*, but what it is good *for*.[64] What has not been made explicit in the secondary literature is, first, what exactly Nietzsche thinks science is good *for*; and, second, what he takes to be the proper relationship between science and philosophy that, as he indicates in *BGE* 204, he believes is currently being violated.

In this chapter, I will flesh out Nietzsche's views, especially as found in his mature writings of 1886–7 (*Beyond Good and Evil*, *The Gay Science* Book V, and *On the Genealogy of Morality*), on the limitations of science, its proper place in society, and in particular, what Nietzsche takes to be the appropriate relationship between science and philosophy. Nietzsche's key objections to the view that science can answer any question worth asking are that science cannot *create values*—i.e., it cannot tell us what is ultimately valuable, what goals we should orient our lives around—and, relatedly, that science and those who practice it are ill-equipped and unqualified to *interpret* the value-related aspects of phenomena. And Nietzsche is certainly not willing to concede to a certain kind of scientistic thinker, those whom he calls "mechanists," that phenomena *lack* any meaning beyond what fits into their mathematized causal models.

With regard to the relationship between philosophy and science, I argue that, according to Nietzsche, philosophy is supposed to play the role of *setting goals* for science. The distinctive task of philosophers is to "create values," which can be understood as involving two steps: (1)

[64] This point applies even to Christianity and its components, slave morality and the ascetic ideal: Nietzsche always points out whom they have benefited and what function they have performed in society, and his diagnosis is seldom wholly negative.

envisioning the ideals that human society should realize, and (2) turning those ideals into prescriptions for behavior and the organization of society. Philosophers need the help of scientists in order to proceed from step (1) to step (2), because scientists—understood broadly to include certain humanistic scholars as well as social and natural scientists; historians, anthropologists, and psychologists as well as biologists, chemists, and physiologists—can tell them how various value systems (including legal and moral codes, family arrangements, economic organization, and even dietary customs) affect the psychology and cultural achievements of their adherents. With a certain ideal for human life in mind, philosophers should delegate scientists to investigate what sorts of ethical systems and social arrangements were in place when this ideal was most fully realized in the past, or to test hypotheses as to what ways of life might realize it in the future.

2. Science "never creates values"

In Book V of *The Gay Science*, Nietzsche makes another complaint, in the same vein as *BGE* 204, about scientists who attempt to "play the philosopher":

> It follows from the laws of the order of rank that scholars, insofar as they belong to the spiritual middle class, can never catch sight of the really great problems and question marks; moreover, their courage and their eyes simply do not reach that far—and above all, their needs […], their inmost assumptions and desires that things might be such and such, their fears and hopes all come to rest and are satisfied too soon. Take, for example, that pedantic Englishman, Herbert Spencer. What makes him "enthuse" in his way and then leads him to draw a line of hope, a horizon of desirability—that eventual reconciliation of "egoism and altruism" about which he raves—almost nauseates the likes of us; a human race that adopted such Spencerian perspectives as its ultimate perspectives would seem to us worthy of contempt, of annihilation![65] But the mere fact that he had to experience as his highest

[65] It is another interesting coincidence that James expresses a remarkably similar sentiment in "The Dilemma of Determinism" (1884): "The white-robed harp-playing heaven of our sabbath-schools, and the ladylike tea-table elysium represented in Mr. Spencer's *Data of Ethics*, as the final consummation of progress, are exactly on a par in this respect—lubberlands, pure and simple, one and all. We look upon them from this delicious mess of insanities and realities, strivings and deadnesses, hopes and fears, agonies and exultations, which forms our present state, and *tedium vitae* is the only sentiment they awaken in our breasts. […] If *this* be the whole fruit of the victory, we say; if the generations of mankind suffered and laid down their lives […] for no other end than that a race of creatures of such unexampled insipidity should succeed, and protract *in saecula saeculorum* their contented and inoffensive lives—why, at such a rate, better lose than win the battle, or at all events better ring down the curtain

> hope something that to others appears and may appear only as a disgusting possibility poses a question mark that Spencer would have been incapable of foreseeing. (*GS* 373)

What is the question mark that Spencer's "highest hope" poses, and what is the limitation that makes him incapable of seeing it? The problem is that Spencer unquestioningly assumes the truth of the prevailing morality of his time and place: the utilitarian variant of what is, ultimately, the *Christian* morality of altruism, which says that the highest good is the happiness of the greatest number, inflected with a bourgeois capitalist ethos which claims that hedonic self-interest is both the fundamental human motivation and the greatest force for progress. This is what leads Spencer to set as the "horizon of desirability" the "eventual reconciliation of 'egoism and altruism'" (*GS* 373). But Nietzsche and those like him see how petty and paltry this goal is: they see that it would lead to a society that aspires to nothing beyond universal comfort and moderate pleasure. Spencer's ideal society is, effectively, the last men of the Prologue to *Thus Spoke Zarathustra* (see *Z* I, P 5). But Nietzsche claims that Spencer "*had* to experience [this] as his highest hope" (*GS* 373, emphasis added)[66]—because this is the natural consequence of the secular descendants of the Christian morality of altruism and compassion, whose foremost aim is to alleviate suffering. The contemptibility of the society that would result from following that morality to its ultimate goal raises for Nietzsche a question that scholars like Spencer are incapable of seeing: the question of the *value* of that prevailing morality itself; the question whether there are better, nobler, more ambitious ideals around which society might be structured.

Nietzsche makes the point somewhat more explicitly in the Note to *GM* I:

> The question: what is the *value* of this or that table of values and "morality"? should be viewed from the most divers perspectives; for the problem "value *for what?*" cannot be examined too subtly. Something, for example, that possessed obvious value in relation to the longest possible survival of a race (or to the enhancement of its power of adaptation to a particular climate or to the preservation of the greatest number) would by no means possess the same value if it were a question, for instance, of

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before the last act of the play, so that a business that began so importantly may be saved from so singularly flat a winding-up" (*WB* 130).

[66] "[…] *als höchste Hoffnung von ihm empfunden werden* ***muss*** […]"

> producing a stronger type. The well-being of the majority and the well-being of the few are opposite viewpoints of value: to consider the former *a priori* of higher value may be left to the naïveté of English biologists.

Nietzsche's remark about "English biologists" is most obviously read as a dig at Darwin, but as his complaint in *GS* 373 suggests, he also has in mind theorists like Herbert Spencer who attempted to extrapolate an ethical theory from Darwin's theory of evolution (at least as he understood it). But for Nietzsche, finding moral principles in scientific theories is much like finding synthetic *a priori* truths in nature according to Kant: we can only get out of it what we put into it in the first place. I will explore more such examples of scientists implicitly assuming the universal truth of the prevailing value ideal of their age in subsection 3.3 below.

In 1882, when the first four books of *The Gay Science* were published, Nietzsche seemed not to have arrived yet at his mature view on the powers and limitations of science. *GS* 7 ends with an open question, which he calls "the most insidious question of all": "whether science can furnish goals of action after it has shown that it can take such goals away and annihilate them." But by 1887, when the second edition including Book V was published, Nietzsche has answered this question with a resounding "no." In *On the Genealogy of Morality* (1887), he insists that science "first requires […] an ideal of value, a value-creating power, in the *service* of which it could *believe* in itself—it never creates values" (*GM* III, 25) or, in the terms of *GS* 7, "furnish[es] goals of action." Science finds truths about how the world works, which can often be translated into instructions for *how to do something*, and *which* questions it prioritizes depends on what some agent hopes to *do* with the answers; but science cannot ultimately tell people what they should *want* to do. As Nietzsche writes in a note from 1887: "The ascertaining of 'truth' and 'untruth,' the ascertaining of facts in general, is fundamentally different from creative positing, from forming, shaping, overcoming, willing, such as is of the essence of philosophy" (*KSA* 12:9[48], published as *WP* 605).

One might object that science is pursued purely for the sake of knowledge, or truth, leaving scientists free to ask any questions at all (in an order dictated by curiosity—or, as it actually happens so often, by the needs of industry). But, as Nietzsche points out, this *for the sake of knowledge* already involves the conviction that acquiring as much knowledge as possible is a worthy goal, which is the kind of proposition that science itself could never discover. "We see that science also rests on a faith," Nietzsche concludes—contrary to the supposed commitment of science to question everything and take nothing for granted; "there simply is no science 'without presuppositions'" (*GS* 344). "[A] philosophy, a 'faith,' must always be there first of all, so that science can acquire from it a direction, a meaning, a limit, a method, a *right* to exist" (*GM* III, 24). Science pursued purely for the sake of truth or knowledge is not the same thing as science existing independent of any philosophical guidance, or science providing its own foundation. Rather, it is science guided by the *philosophical* view that truth is supremely valuable—the view that Nietzsche calls "the unconditional will to truth," and whose motivation, justification, and value for human life he questions ruthlessly, as we have seen in Chapter 1.[67] Nietzsche's view is that the genuinely useful investigative tools of science would be better employed in the service of a philosophical vision that advances individual and cultural achievement in a way that, he argues, the unconditional will to truth does not.

Not only can science not *create* values, according to Nietzsche, but it is generally ill-suited to addressing questions about the meaning and value of phenomena. His complaint in *GS* 373 about the overreaching of presumptuous scientists continues at some length, but it is a rich passage and worth quoting in full:

> It is no different with the faith which so many materialistic natural scientists rest content nowadays, the faith in a world that is supposed to have its equivalent and its measure in human thought and human valuations—a "world of truth" that can be mastered completely and forever with the aid of our

[67] See especially *BGE* 1, *GS* Preface 4, *GS* 344, and *GM* III, 24–27.

> square little reason. What? Do we really want to permit existence to be degraded for us like this—reduced to a mere exercise for a calculator and an indoor diversion for mathematicians? Above all, one should not wish to divest existence of its *rich ambiguity*[68]: that is a dictate of good taste, gentlemen, the taste of reverence for everything that lies beyond your horizon. That the only justifiable interpretation of the world should be one in which *you* are justified because one can continue to work and do research scientifically in *your* sense (you really mean, mechanistically?)—an interpretation that permits counting, calculating, weighing, seeing, and touching, and nothing more—that is a crudity and naïveté, assuming that it is not a mental illness, an idiocy.
>
> Would it not rather be probable that, conversely, precisely the most superficial and external aspect of existence—what is most apparent, its skin and sensualization—would be grasped first—and might even be the only thing that allowed itself to be grasped? A "scientific" interpretation of the world, as you understand it, might therefore still be one of the *most stupid* of all possible interpretations of the world, meaning that it would be one of the poorest in meaning. This thought is intended for the ears and consciences of our mechanists who nowadays like to pass as philosophers and insist that mechanics is the doctrine of the first and last laws on which all existence must be based as on a ground floor. But an essentially mechanistic world would be an essentially *meaningless* world. Assuming that one estimated the *value* of a piece of music according to how much of it could be counted, calculated, and expressed in formulas: how absurd would such a "scientific" estimation of music be! What would one have comprehended, understood, grasped of it? Nothing, really nothing of what is "music" in it! (*GS* 373)

Nietzsche's point here is an *anti-reductionist* one: he denies that an account in terms of what is supposed to be the most basic or fundamental level of reality—which, according to the "mechanists" he lambastes here, is the level of mechanical physics, of particles colliding with each other—can explain every feature of the universe. In particular, he is mocking the notion that a complete reduction of everything in the world to the (supposedly) most fundamental science, according to which any apparently more complex phenomenon "just is" a matter of particles colliding in a certain way, provides the *deepest* or most complete understanding of the phenomenon in question. On the contrary, he says: a reduction of the world to mechanical physics would not "explain away" the appearance of meaning, value, or "*rich ambiguity*"—i.e., the possibility of many interpretations—in the world; it could only ignore or overlook the meanings and the alternative interpretations that are there.

[68] The German is "*seines* vieldeutigen *Charakters*." This might have been rendered more accurately as "its multiply ambiguous character," but Kaufmann's translation is definitely more elegant.

Note the way Nietzsche places scare quotes around "science" and "scientific" throughout the section, including in its title, "*'Science' as prejudice*"; even where "scientifically" is not in scare quotes, Nietzsche still casts doubt on it with a dismissive modification: "scientifically in *your* sense." He has in mind science as it is conceived by the most extreme defenders of the hegemony of science, who hold up physics—and within physics, elementary particle theory—as the archetype of all science and believe that all sciences should aspire not only to become like physics, but ultimately to dissolve themselves into it; science "that permits counting, calculating, weighing, seeing, and touching, and nothing more" as acceptable forms of evidence-gathering. That kind of "science," Nietzsche says, is inadequate to the task of explaining the vast array of interpretations—overlapping, interdependent, or mutually contradictory—that have been ascribed to various aspects of the world.

Nietzsche's scare quotes leave open the possibility of a wider conception of science that would be able to account for the multiplicity of meanings with which human beings have imbued the world around them. Indeed, Nietzsche's term "*Wissenschaft*" encompasses the *Geisteswissenchaften*—the human or social sciences, including anthropology, economics, psychology, and even history and Nietzsche's own former discipline of philology—as well as the *Naturwissenschaften*, the natural sciences, which are first brought to mind by the English word "science." But there certainly were thinkers in Nietzsche's time—notably, John Stuart Mill and his followers both in England and in the German-speaking world, including Ernst Mach (Anderson 2003: 222)—who held that the human sciences could only become truly scientific, or achieve the status of a "mature" science, if they modeled themselves after the natural sciences, treating their subjects quantitatively and seeking universal causal laws rather than interpreting

the unique circumstances and significance of individual events and cultural practices.[69] Even if Nietzsche thinks there is some practice that might be considered a science (which is to say, a *Geisteswissenschaft*) that could do justice to the meaning and value of a piece of music—music theory or musicology, perhaps—calling for a more expansive understanding of "science" and a place for distinctively humanistic, interpretive inquiry is still anti-scientistic in that it expresses opposition to the most extreme, restrictive versions of the hegemony of science.

3. Value-creators and "scientific laborers"

In the last few sections of "We Scholars," Nietzsche gives an account of the "philosophers of the future" (*BGE* 210) that he envisions. He "insist[s] that people should finally stop confounding philosophical laborers, and scientific men generally, with philosophers" (*BGE* 211). Philosophers as he understands them are not *primarily* concerned with acquiring knowledge, although many of the "preconditions of [their] task" crucially involve knowledge. They must have a "passion for knowledge" and the virtues of the seeker after knowledge, including "cleanliness and severity in matters of the spirit" (*BGE* 210). "It may be necessary for the education of a genuine philosopher that he himself has also once stood on all those steps on which their servants, the scientific laborers of philosophy, remain standing" (*BGE* 211)—i.e., philosophers may need to have spent some time as a scientific researcher or philosophical scholar—not so much for the knowledge it imparts as for the skills, epistemic habits, and traits of character it nourishes:

> *Science furthers ability, not knowledge.*— The value of having for a time rigorously pursued a *rigorous science* does not derive precisely from the results obtained from it: for in relation to the ocean of things worth knowing these will be a mere droplet. But there will eventuate an increase in energy, in reasoning capacity, in toughness of endurance; one will have learned how *to achieve an objective by the appropriate means.* (*HAH* I, 256)

[69] See Anderson 2003, esp. 221–3, 226.

In addition to instilling the discipline of method, the philosophers' experience of inhabiting the various forms of the contemplative life, including the religious and artistic as well as the scientific, gives them firsthand knowledge of "the whole range of human values and value feelings" (*BGE* 211). More crucially, the experience of transitioning from each of these forms of life to the next gives philosophers practice with *changing perspectives*, a skill that is essential to the function of the philosopher, as I shall explain in section 3.2 below.

The philosopher's "task itself," however, "demands something different" from the mere acquisition of knowledge: "it demands that he *create values"* (*BGE* 211). As Nietzsche declares in the rousing conclusion to the section: "*Genuine philosophers, however, are commanders and legislators:* they say, '*thus* it *shall* be!' They first determine the Whither and For What of man […] Their 'knowing' is *creating*, their creating is a legislation, their will to truth is—*will to power*" (*BGE* 211). As examples of genuine philosophers of this kind, Nietzsche names "Heraclitus, Plato, Empedocles" (*BGE* 204). Nietzsche also indicates elsewhere that he thinks Plato has succeeded in reshaping the moral landscape of the world: he credits Plato with (and blames him for) the "invention of the pure spirit and the good as such," and even labels Christianity "Platonism for 'the people'" (*BGE* Preface).

Nietzsche contrasts these genuine philosophers with two kinds of thinkers who are commonly *called* "philosophers." One group is "those hodgepodge philosophers" of Nietzsche's own era "who call themselves 'philosophers of reality' or 'positivists'" (*BGE* 204). Nietzsche scoffs that these are "at best scholars and specialists themselves," who "resentfully" deny "the masterly task and masterfulness of philosophy" because they were not capable of performing it (204). One contemporary figure whom Nietzsche explicitly identifies as belonging to this category is Eugen Dühring, a notorious antisemite to whom Nietzsche refers contemptuously in

the *Genealogy* as an "apostle of revenge […] who employs moral mumbo-jumbo more indecently and repulsively than anyone else in Germany today" (*GM* III, 14). According to George Stack (2005: 209 n. 5), Dühring was also an advocate of "materialistic positivism" who "argued for a strict realism and held that human knowledge apprehends reality as it is," with "no ambiguities […] and no room for doubt." Nietzsche may also have in mind mid-nineteenth-century materialists like Jakob Moleschott, Ludwig Büchner, and Carl Vogt. Gregory Moore (2004: 7–8) writes that these so-called philosophers "worshiped at the altar of natural science, uncritically seizing upon the latest advances in physiology and chemistry to underpin a crudely materialist and mechanist worldview," and claimed that "in systematizing the results and discoveries of the natural sciences, they had finally put an end to philosophy" or put it in its proper place as "nothing more than the theoretical aspect of the empirical sciences."

It is with reference to these so-called philosophers that Nietzsche introduces the term "the hegemony of science," which is how Kaufmann translates "*die Botmässigkeit der Wissenschaft*." Nietzsche is playing with the expression "*unter seine Botmässigkeit bringen*," meaning "to bring under one's sway," when he says of these "scholars and specialists" who have attempted unsuccessfully to play the philosopher that "*das sind* […] *unter die Botmässigkeit der Wissenschaft* ***Zurückgebrachte***" (*BGE* 204): "they have been *brought back* under science's sway." That is, they have concluded from their own failure to become genuine philosophers that philosophy itself must become subordinate to science. This is how Nietzsche explains the apparently paradoxical situation that people who call themselves philosophers are calling for philosophy either to accept its role as merely an inferior adjunct to science or to stop existing entirely.

Nietzsche takes a somewhat less dim view of the other group of merely purported philosophers: "philosophical laborers after the *noble* model of Kant and Hegel" (*BGE* 211, emphasis added). Their role is "to press into formulas, whether in the realm of logic or political (moral) thought or art […] former positings of values, creations of value which have become dominant and are for a time called 'truths'" (*BGE* 211). Kant and Hegel, it is implied, merely rationalized the prevailing Christian morality, stripping it of theological ornamentation and making explicit the basic values it expresses.[70] Although they do not count as genuine philosophers in Nietzsche's sense, the "preliminary labor" of such "philosophical laborers" is still useful for actual philosophers to "have at their disposal" (hence the "noble model" description in *BGE* 211). This is because they can "make everything that has happened and been esteemed so far easy to look over, easy to think over, intelligible and manageable" for the benefit of the philosophical legislators: they distill the value-systems of the past into their core principles or their animating spirit, as data points for philosophers to consider when evaluating the consequences of adopting various tables of values. Thus they count among the philosopher's "servants, the scientific laborers of philosophy" (*BGE* 211).

3.1 Setting goals for scientists

On several occasions in his writings, Nietzsche issues "calls" for research into specific subject areas—almost always into moral phenomena. Here is one early example:

> *Something for the industrious.* — Anyone who now wishes to make a study of moral matters opens up for himself an immense field for work […] So far, all that has given color to existence still lacks a history. Where could you find a history of love, of avarice, of envy, of conscience, of pious respect for tradition, or of cruelty? Even a comparative history of law or at least of punishment is so far lacking completely. […]
>
> The most industrious people will find that it involves too much work simply to observe how differently men's instincts have grown, and might yet grow, depending on different moral climates. It

[70] Kant in particular Nietzsche charges with being a "nihilist with […] Christian dogmatic entrails" whose "theologians' instinct" led him to the categorical imperative (*A* 11), as "[a] path […] on which one could sneak back to the old ideal" (*A* 10; cf. *EH* "CW" 2).

> would require whole generations, and generations of scholars who would collaborate systematically, to exhaust the points of view and the material. […] (*GS* 7)

This passage is from Book I of *The Gay Science* (1882), which is relatively early and (as noted) does not always represent Nietzsche's mature views, but it is representative in terms of the subject matter on which Nietzsche urges research. In almost all of these cases, the research he calls for is the kind that would enable a philosopher to accomplish step (2) in the value-creation project described above, i.e., to discover the *means* to realize his favored values in human society. Nietzsche encourages scientists (including, as noted before, historians, philologists, and anthropologists as well as psychologists and physiologists) to investigate the conditions under which various social institutions arise and their consequences for (a) the physical and psychological condition of individuals, and (b) cultural production. The philosopher can then evaluate for each set of institutions how well (a) and (b) satisfy her own favored values, and decide on that basis which ones to use as partial models for new institutions. The social institutions to be studied encompass the fine-grained and everyday customs that might be of interest to anthropologists and material historians (diet, work schedules, living arrangements: *GS* 7); matters of larger-scale societal organization that concern political scientists (hierarchical as opposed to egalitarian class and governing structures; see *BGE* 257); religious creeds, practices, and attitudes (see, e.g., Nietzsche's remarks in *BGE* 45 on the need for a study of the psychology of religiosity); and the basic values—honor, compassion, freedom, reason, honesty, etc.—revered in the whole society, which are distilled from ordinary moral judgments and practices by "philosophical laborers" like Kant and Hegel (*GS* 7: "why is it that the sun of one fundamental moral judgment and main standard of value shines here and another one there?"; see also *Z* I, 15).

Here is a later typical example of Nietzsche issuing a call for scientific research into moral values and institutions:

> *Note.* I take the opportunity provided by this treatise to express publicly and formally a desire […] that some philosophical faculty might advance *historical* studies *of morality* through a series of academic prize-essays—perhaps this book will serve as a powerful impetus in this direction. In case this idea should be implemented, I suggest the following question: it deserves the attention of philologists and historians as well as that of professional philosophical scholars[71]:
>
> *"What light does linguistics, and especially the study of etymology, throw on the history of the evolution of moral concepts?*"
>
> On the other hand, it is equally necessary to engage the interest of physiologists and doctors in these problems (of the *value* of existing valuations) The question: what is the *value* of this or that table of values and "morality"? should be viewed from the most divers perspectives; for the problem "value *for what?"* cannot be examined too subtly. Something, for example, that possessed obvious value in relation to the longest possible survival of a race (or to the enhancement of its power of adaptation to a particular climate or to the preservation of the greatest number) would by no means possess the same value if it were a question, for instance, of producing a stronger type. The well-being of the majority and the well-being of the few are opposite viewpoints of value: to consider the former *a priori* of higher value may be left to the naïveté of English biologists.— *All* the sciences have from now on to prepare the way for the future task of the philosophers: this task understood as the solution of the *problem of value*, the determination of the *order of rank among values.*
>
> (*GM* I, Note)

Once again, Nietzsche emphasizes that it is "the future task of the philosophers" to determine "the *order of rank among values*," i.e., to decide which value system is best from the broadest possible perspective. Meanwhile, the snide remark about "English biologists"—which I excerpted from this longer passage and discussed in section 2—reinforces Nietzsche's contention that mere scientists or "scholars" are unqualified to adjudicate among broad value ideals and choose one to implement, i.e., to create values.

3.2 Nietzsche: philosopher or scientist?

The Note to *GM* I raises the question of what Nietzsche takes himself to be doing, and which side of the line between philosophers and "philosophical" or "scientific laborers" he takes himself to be on. Throughout *Beyond Good and Evil* he speaks of the "new philosophers" as

[71] Kaufmann has "professional philosophers," but the German is *"Philosophie-Gelehrten von Beruf"* (KSA 5, p. 289); *"wir Gelehrten"* is the title of Part VI of *Beyond Good and Evil* (KSA 5, 129).

"coming up [*heraufkommen*]" (*BGE* 2, 44) rather than as presently existing; he poses as a question: "Are there such philosophers today? Have there been such philosophers yet? *Must* there not be such philosophers?" (*BGE* 211). *On the Genealogy of Morality* is itself a kind of "historical study of morality," and *GM* I, 4–5 makes a start at answering the question Nietzsche proposes in the note above. What kind of "impetus" for these called-for studies is the *Genealogy*—an exemplar, or a programmatic prologue? For all Nietzsche's talk of the importance for a genealogy of morals of "what is documented, what can actually be confirmed and has actually existed, in short the entire long hieroglyphic record […] of the moral past of mankind" (*GM* Pref. 7), Nietzsche does not provide much documentation for his claims about human history—nor could he, for his claims about human *prehistory*! Often one might reasonably suspect him of doing the same sort of "gazing around haphazardly in the blue" (*GM* Pref. 7) of which he accuses Paul Rée and the "English psychologists" who (according to Nietzsche) have made "the only attempts hitherto to arrive at a history of the origin of morality" (*GM* I, 1).

Brian Leiter (2002) claims that Nietzsche is a *methodological* naturalist (M-Naturalist) of the "Methods Continuity" type (2002: 6–7): that "Nietzsche's actual philosophical practice" (ibid, 6, n. 10), involves "construct[ing] philosophical theories that are continuous with the sciences […] in virtue of […] their employment and emulation of distinctively scientific ways of looking at and explaining things" (5). Accordingly, Leiter claims, "Nietzsche, the philosophical naturalist, aims to offer theories that explain various important human phenomena […] in ways that […] are *modeled* on science in the sense that they seek to reveal the causal determinants of these phenomena, typically in various physiological and psychological facts about persons" (8). Leiter acknowledges that "Nietzsche himself reserves the label 'philosopher'" as a sort of

"honorific" "for those who discharge a different kind of task than that of the naturalist: those who create or legislate values" (6, n. 10). He also implies that Nietzsche himself does undertake to earn this honorific and "utilize the information provided by 'physiologists and doctors' as to which values might contribute to […] 'producing a stronger type' (*GM* I: Note)" (2002: 68). But Leiter maintains that "most of Nietzsche's books are devoted […] to the M-Naturalistic project," and in particular that the *Genealogy* offers explanations "continuous with both the results and methods of the sciences" (11). This view of what Nietzsche does suggests that in the *Genealogy*, Nietzsche the philosopher (in the honorific sense) is, as it were, getting down in the mud with his scholarly servants and initiating the scientific researches needed to help him create the new values that will realize his vision for human life.[72]

However, I think that Nietzsche's historical accounts in the *Genealogy* are far too sketchy to count as the kind of thorough historical, linguistic, physiological, and psychological investigations into moral phenomena that he calls for in *GS* 7 and the Note to *GM* I. Perhaps more to the point, the ever-present *evaluative* (indeed, polemical) elements—his interjected sighs of despair (*GM* I, 12) and longing (*GM* II, 24), cries of horror (*GM* II, 22) and disgust (*GM* I, 11 and 14; *GM* III, 14 and 22)—point away from interpreting Nietzsche's project as that of a scientific researcher. Not only would these elements seem out of place in a scientific treatise, but Nietzsche himself has indicated that he thinks science is an inappropriate tool for assessing matters of meaning and value. Instead, it might be more appropriate to see Nietzsche as performing another one of the tasks he assigns to genuine philosophers: "being the bad conscience of their time," "applying the knife vivisectionally to the chest of the very *virtues of*

[72] Though Leiter was not the first to discuss Nietzsche in connection with metaphysical or epistemological naturalism—Cox (1995), at least, beat him to it—his thesis has engendered a lively debate in recent Nietzsche literature about the respects, if any, in which Nietzsche was a "naturalist."

their time," in order to pave the way for "a *new* greatness of man […] a new untrodden way to his enhancement" (*BGE* 212).

Nietzsche's list of roles that a philosopher might need to have played also contains a hint as to what role he now takes himself to occupy:

> It may be necessary for the education of a genuine philosopher that he himself has also once stood upon all these steps on which his servants, the scientific laborers of philosophy, remain standing […] Perhaps he himself must have been critic and skeptic and dogmatist and historian and also poet and collector and traveler and solver of riddles and moralist and seer and "free spirit" and almost everything in order to pass through the whole range of human values and value feelings […]
> (*BGE* 211)

This list is plausibly read as an account of the stages of Nietzsche's own intellectual development (perhaps not in chronological order). As a professor of philology, Nietzsche has been a "historian"; as the writer of *The Birth of Tragedy* and a disciple of Wagner, he has been a "dogmatist"; in writing the *Untimely Meditations*, he became a "critic" of other writers (David Strauss in particular, but also, more covertly, Schopenhauer and Wagner) as well as contemporary culture in general; the Nietzsche of *Human, All Too Human* could be seen as a "skeptic" who proudly claimed the term "free spirit"; in the prelude and the appendix to *The Gay Science*, and throughout *Thus Spoke Zarathustra*, Nietzsche tried his hand at being a "poet"; and so on. Nietzsche presents these prior experiences as being not entirely necessary and certainly not sufficient for becoming a genuine philosopher, so we cannot straightforwardly infer that Nietzsche considers himself a genuine philosopher from the fact that he has gone through (very nearly) this exact set of experiences. Nonetheless, I think we can take the oblique reference to Nietzsche's own indirect path to philosophy as significant. Nietzsche may be doing here something like what he did in *Ecce Homo*, though in a brief and allusive manner: framing all the

detours he took on his way to becoming a philosopher not as setbacks or as wasted time and effort, but as needed training for becoming the philosopher he eventually became.[73]

Although the primary role of philosophers is not to acquire knowledge, they do possess (at least) two distinctive skills in that regard. One is the ability to take in and interpret great *expanses* of time and space, in order to perceive in them large-scale patterns of development, vast and abstract cultural trends. Nietzsche explains the rarity of this skill:

> *"The wanderer" speaks.*— If one would like to see our European morality for once as it looks from a distance, and if one would like to measure it against other moralities, past and future, then one has to proceed like a wanderer who wants to know how high the towers in a town are: he *leaves* the town. "Thoughts about moral prejudices," if they are not meant to be prejudices about prejudices, presuppose a position *outside* morality, some point beyond good and evil to which one has to rise, climb, or fly […] the question is whether one really *can* get up there.
>
> This may depend on manifold conditions. […] One has to be *very light* to drive one's will to knowledge into such a distance and […] to create for oneself eyes to survey millennia […] One must have liberated oneself from many things that oppress, inhibit, hold down, and make heavy precisely us Europeans today. The human being of such a beyond who wants to behold the supreme measures of value of his time must first of all "overcome" his time in himself—this is the test of his strength […] (*GS* 380)

This kind of lightness, strength, and scope is characteristic of the philosopher as Nietzsche describes him in *BGE* 213: "the bold, light, delicate gait and course of his thoughts […], the loftiness of masterly glances and glances *down*,[74] feeling separated from the crowd and its duties and virtues, […] the width of the will, the slow eye that rarely admires, rarely looks up, rarely loves—" And in order to write *On the Genealogy of Morality*, with its timescale reaching back to when humans were still "semi-animals" (*GM* II, 16), Nietzsche must have made just this kind of effort "to create for [him]self eyes that survey millennia" (*GS* 380). It is this ability to distill millennia of history into their broadest overarching patterns (as well as their experience as a scientific specialist or a critical scholar of philosophy) that qualifies the philosophers to assign

[73] I follow Nehamas (1985, Chapter 6: "How One Becomes What One Is") in my reading of *Ecce Homo*.
[74] Translation slightly modified from Kaufmann for greater adherence to the German.

research tasks to scientists: it enables them to identify what more specific questions need to be asked and answered in order to choose the shape of the next several millennia of human history.

The other epistemic ability distinctive of philosophers, as I hinted earlier, is the ability to *inhabit different perspectives*. It is to develop this skill that it "may be necessary" for the philosopher to have occupied the many roles Nietzsche lists, "in order to pass through the whole range of human values and value feelings and to be *able* to see with many different eyes and consciences, from a height into every distance, from the depths into every height, from a nook into every expanse" (*BGE* 213). *This* ability, I would venture, is what qualifies philosophers for the "future task" Nietzsche assigns to them: "the solution of the *problem of value*, the determination of the *order of rank among values*." It may seem strange for someone like Nietzsche, who rejects the notion of a universal morality or of a transcendent source of ultimate values (God or some other type of "metaphysical world," as characterized in *GS* 344), to speak of "*the* solution of the problem of value" or "*the* order of rank among values" (my emphasis), as if there is only one correct answer to the question. It goes far beyond my project here to determine whether and why Nietzsche is, ultimately, a value monist or a pluralist. Nonetheless, he clearly thinks some value systems are *better* than others. And it stands to reason that philosophers who have seen the world through the lens of several different value frameworks, who know firsthand and can remember what it is like to judge according to various standards of value, are in a better position to make determinations about the relative quality (or "order of rank") of value systems than people who have only ever lived in one. In the absence of a transcendent determinant of moral truth, "objectivity" in the ethical domain, as in every other, must become a matter of being able to see from a *variety* of perspectives rather than from some ideal "God's eye view":

> There is *only* a perspective seeing, *only* a perspective "knowing"; and the *more* affects we allow to speak about one thing, the *more* eyes, different eyes, we can use to observe one thing, the more complete will our "concept" of this thing, our "objectivity," be. (*GM* III, 12)

3.3 Interpretive pointers and the autonomy of science

We have established that Nietzsche thinks philosophers are entitled to set the research agenda for scientists, i.e., to dictate (to some extent) what *questions* scientists seek to answer. But this raises another question: What kind of control does Nietzsche think philosophers have over the *answers* that science arrives at? Are philosophers also entitled to critique or revise the analyses offered by scientists, whether in answer to a question posed by the philosopher, or to questions the scientists came up with themselves? How much *autonomy* does science have from philosophy?

First of all, philosophers have no interest in *falsifying* the results of science, at least not for themselves; Nietzsche certainly thinks that the value-creators need *accurate* knowledge of cause-effect relations in order to choose the right means to their ends—and that it is possible, and usually disastrous, to have *false* beliefs on this score (on which see the whole of *Twilight of the Idols* Part VI: "The Four Great Errors"). This is why, in *GS* 335, Nietzsche says that to the end of "the *creation of our own tables of what is good*,"

> we must become the best learners and discoverers of all that is necessary in the world: we must become *physicists* in order to be able to be *creators in* this sense—while hitherto all valuations and ideals have been based on *ignorance* of physics or were constructed so as to *contradict* it. (*GS* 335)

In *The Antichrist*, Nietzsche names Christianity as a prime example of a value-system constructed in *ignorance* of natural necessities. He implies that one of the many reasons he has a higher opinion of Hinduism than of Christianity is that, while both Christianity and "the law of Manu" propagate a "holy lie" among their followers (*A* 55), Christian priests do not even allow *themselves* to see the falsity of their world-explanation in terms of "sin" and "redemption" (*A* 49). The priests, too, have "faith" in the sense of "not *wanting* to know what is true" (*A* 52); they

lie in the sense of "wishing *not* to see something that one does see" (*A* 55). By contrast, Nietzsche claims, the "holy lies" involved in the law of Manu are merely "the means of assuring authority for a *truth"* that "sums up the experience, prudence, and experimental morality of many centuries" (*A* 57).

Whether Nietzsche thinks philosophers are entitled to strategically falsify the results of science for mass consumption is unclear. He *does* make clear, however, that where it would leave the predictive accuracy of a scientific account unchanged or even improve it, philosophers *can* suggest modifications—in the name not only of truth, but also of promoting their ideals. Nietzsche does this several times in *Beyond Good and Evil*, each time suggesting his concept of *will to power* as an alternative to some current model in the sciences—or, in the case of *BGE* 36, as an alternative to *any* current model in the sciences. Here are a couple of interesting examples:

> Physiologists should think before putting down the instinct of self-preservation as the cardinal instinct of an organic being. A living thing seeks above all to *discharge* its strength—life itself is *will to power*; self-preservation is only one of the indirect and most frequent *results*.
>
> In short, here as everywhere else, let us beware of *superfluous* teleological principles—one of which is the instinct of self-preservation […] Thus method, which must be essentially economy of principles, demands it. (*BGE* 13)

> […] "nature's conformity to law," of which you physicists talk so proudly, as though—why, it exists only owing to your interpretation and bad "philology." It is no matter of fact, no "text," but rather only a naively humanitarian emendation and perversion of meaning, with which you make abundant concessions to the democratic instincts of the modern soul! "Everywhere equality before the law; nature is no different in that respect, no better off than we are" […] But as said above, that is interpretation, not text; and somebody might come along who, with opposite intentions and modes of interpretation, could read out of the same "nature," and with regard to the same phenomena, rather the tyrannically inconsiderate and relentless enforcement of claims of power […] but he might, nevertheless, end by asserting the same about this world as you do, namely, that it has a "necessary" and "calculable" course, *not* because laws obtain in it, but because they are absolutely *lacking*, and every power draws its ultimate consequences at every moment. (*BGE* 22)

In *BGE* 13, as well as in *BGE* 36, Nietzsche the philosopher appeals to an *internal* methodological guideline of science in support of his reinterpretation: "economy of [explanatory] principles." But in *BGE* 22, he does not disguise that his interests are *ethical* rather than merely epistemic; and he even accuses physicists of allowing their own ethical

predispositions—which is to say, the ethical ideals set by earlier philosophers—to push them toward a particular model of explanation. Nietzsche does little to disguise that he sees "claims of power" where democratically-inclined physicists see "laws" *because* he has "opposite intentions," and hopes to promote his vision of a spiritual hierarchy that distinguishes those with a "noble" character from the mediocre majority (this can be gathered especially from Parts VIII and IX of *BGE*, "Peoples and Fatherlands" and "What is Noble"). But he emphasizes that these disparate readings are made "out of the same 'nature,' and with regard to the same phenomena," and that his proposed alternative would "end by asserting the same about this world as you do, namely, that it has a 'necessary' and 'calculable' course" (*BGE* 22) —i.e., adopting it would not interfere with physicists' ability to predict the course of natural events. Even though it would, of course, be an instance of the naturalistic fallacy to justify an ethical system by pointing to the organization of the natural world, adopting the will-to-power model in physics and biology would in a way *reinforce* Nietzsche's social ideals by mirroring them, or harmonizing with them, in a different sphere of existence.

Nietzsche's vague, allusive suggestions in these sections raise (at least) two inevitable questions: (1) What, exactly, would an evolutionary biology or a physics built around the principle of the will to power look like? And (2) would such theories actually do as well as the existing ones in accounting for and predicting the observed data, fulfilling Nietzsche's promise that they would continue to show the "'necessary' and 'calculable' course" of nature (*BGE* 22)? The second question could only be answered experimentally—but not with any particular experiment of the kind that plays a role in an existing research program; it would have to be a long-term experiment involving a sizeable scientific community conducting a research program on the basis of a "will to power" theory of physics or evolutionary biology. I can only gesture at

an answer to the first question, because to a great extent it would depend on how that large-scale experiment turned out, but I will briefly sketch what he might have had in mind with each hypothetical will-to-power theory.

First, to his remarks on biology in *BGE* 13: Nietzsche seems to be suggesting that the two basic instincts that supposedly lead to the perpetuation of a species or a lineage—the drives to self-preservation and reproduction—should be reduced to one, considered under the heading of "will to power," which Nietzsche characterizes here as the impulse of a living thing "to *discharge* its strength." I do not have the space to defend this view thoroughly here, but from a wide variety of uses of the term "will to power" throughout Nietzsche's works, the unifying core feature I have extrapolated is the desire, impulse, or tendency (in the case of inanimate entities) to change the world in some distinctive way, to *leave a lasting mark*—in essence, to write on the world "I was here."[75] Reproduction can certainly be considered this way: it consumes the organism's resources, but also makes a change in the world that will, ideally, last beyond the progenitor's own lifespan. Some of the activities associated with the survival instinct can also be read this way, including the growth of a tree, or the destruction of other life for the purpose either of nutrition or of eliminating competition.[76] But it is not completely clear how other survival-related activities, such as a prey animal's instinct to flee, can be explained under this rubric.

I think the will-to-power model fares better when we consider levels of selection other than the individual organism. Nietzsche might well have thought of *species* as units of selection, considering his speculation in *GS* 1 that *every* human impulse and behavior, however destructive

[75] This reading unifies a number of disparate cases, including the standard examples of violence and state-building, but also the *imposition of an interpretation* on something or someone—which is what happens in cases of value-creation (as, e.g., the priests' propagation and establishment of slave morality's interpretation of strength and weakness in *GM* I, or of the ascetic interpretation of the world in *GM* III)—considering that "it is enough to create new names and estimations […] in order to create in the long run new 'things'" (*GS* 58).
[76] Indeed, in *BGE* 36, he suggests: "suppose all organic functions could be traced back to this will to power and one could also find in tit the solution of the problem of procreation and nourishment."

on the individual level, serves "the most amazing economy of the preservation of the species": "Pursue your best or your worst desires, above all perish! In both cases you are probably still in some way a promoter and benefactor of humanity." In this early (1882) section, Nietzsche is still thinking of *preservation* of the species as the goal; later he places much more emphasis on *development*. In *Thus Spoke Zarathustra* (1883–4) he presents the ideal of the "overman" as a quasi-evolutionary development of the human species, and emphasizes that humankind as we know it would have to perish: "Man is a rope, tied between beast and overman […] What is great in man is that he is a bridge and not an end: what can be loved in man is that he is an *overture* and a *going under*" (*Z* I, P 4). Recall, also, the distinction he draws in the Note to *GM* I: "Something […] that possessed obvious value in relation to the longest possible survival of a race (or to the enhancement of its power of adaptation to a particular climate or to the preservation of the greatest number) would by no means possess the same value if it were a question […] of producing a stronger type." A will-to-power biology would measure the success of a species in terms of the persistence of its *legacy*—the changing lineage it gives rise to—rather than of its *existence* as such; a species' success consists in its "self-overcoming," its *replacement* by something new and better able to thrive under changing conditions, rather than its *survival* in its current form. In fact, evolutionary biology has developed in this direction as its understanding of the mechanisms of evolution has progressed. Consider, for example, the relatively recent discovery that dinosaurs did not, in fact, go extinct: we just call some of them "birds" now.[77] The idea, championed by Dawkins (1976), of the *gene* rather than the organism as the fundamental unit of selection is also friendly to the notion of a will-to-power biology, considering that a gene secures its persistence in a lineage through the contribution that its

[77] Not being conversant in the technical evolutionary biology literature, I must rely on popular science publications for such information, such as Singer (2015).

expression as a protein—which is a the way a gene "*discharge*[*s*] its strength," so to speak—makes to the organisms that are its vehicle; "self-preservation is only one of the indirect and most frequent *results*" (*BGE* 13).

There is more textual elaboration elsewhere in Nietzsche's corpus of the will-to-power physics proposed in *BGE* 22. Other commentators have done extensive work to flesh out Nietzsche's "physics" (which is set forth mainly in work never published during Nietzsche's lifetime),[78] but my goal here is only to sketch the conceptual contrast between the physics Nietzsche proposes and the established physics of the late nineteenth century (as he saw it) and illuminate the connections between Nietzsche's scientific suggestions and his ethical aims. His objection to the notion of "nature's conformity to law"—that it is "a concession to the democratic instincts of the modern soul" and an expression of the value of "equality before the law"—provides some clues. It seems that Nietzsche is objecting to a broadly *Cartesian* and later *Newtonian* understanding of physics, according to which all matter has the same minimal properties—extension and (on the Newtonian model) mass—but is intrinsically inert, and requires transcendent laws of nature, conceived of as being imposed by God or (somehow) by the universe, to dictate how it will move and interact with other matter. Nietzsche's talk of the "enforcement of claims of power" indicates that his proposed alternative involves reviving the Aristotelian and later Leibnizian notion of *powers* inhering in things[79]—or rather in "centers of force," since Nietzsche repudiates materialistic atomism (*BGE* 12) and even the notion of a "thing" (see *GS* 110; *TI* VI, 3) and hopes to explain the world wholly in terms of the interactions of forces (see *KSA* 13:14[79] and [186], published as *WP* 634–6, all from 1888).

[78] See, e.g., Ansell-Pearson (2000), Poellner (1999), Small (1986), Stack (1981).
[79] Leibniz 1989 [1695]: 118ff. is instructive regarding the difference in conception between himself (whom he aligns with Aristotle) and the Cartesians (aligned with Democritus).

A note from 1885 or 1886—the period in which *Beyond Good and Evil* was written and published—both clarifies Nietzsche's suggestion in *BGE* 22 and illuminates its connection to his ethical aims:

> "Regularity" in succession is only a metaphorical expression, *as if* a rule were being followed here; not a fact. In the same way "conformity with a law." We discover a formula by which to express an ever-recurring kind of result: we have therewith discovered no "law," even less a force that is the cause of the recurrence of a succession of results. That something always happens thus and thus is here interpreted as if a creature always acted thus and thus as a result of obedience to a law or a lawgiver, while it would be free to act otherwise if it were not for the "law." But precisely this thus-and-not-otherwise might be inherent in the creature, which might behave thus and thus, not in response to a law, but because it is constituted thus and thus. All it would mean is: something cannot be something else, cannot do now this and now something else, is neither free nor unfree but simply thus and thus. *The mistake lies in the fictitious insertion of a subject.*
>
> (*KSA* 12:2[142], published as *WP* 632)

Parts of this passage clearly anticipate the idea of *GM* I, 13:

> To demand of strength that it should *not* express itself as strength, that it should *not* be a desire to overcome, a desire to throw down, a desire to become master, a thirst for enemies and resistances and triumphs, is just as absurd as to demand of weakness that it should express itself as strength. A quantum of force is equivalent to a quantum of drive, will, effect—more, it is nothing other than precisely this very driving, willing, effecting, and only owing to the seduction of language (and of the fundamental errors of reason that are petrified in it) which conceives and misconceives all effects as conditioned by something that causes effects, by a "subject," can it appear otherwise. For just as the popular mind separates the lightning from its flash and takes the latter for an *action*, for the operation of a subject called lightning, so popular morality also separates strength from expressions of strength, as if there were a neutral substratum behind the strong man, which was *free* to express strength or not to do so. But there is no such substratum; there is no "being" behind doing, effecting, becoming; "the doer" is merely a fiction added to the deed—the deed is everything.

WP 632's links to both *BGE* 22 and *GM* I, 13 makes very clear how Nietzsche's proposed reconception of physics relates to his ambition to reshape the ethical landscape. His *primary* aim in *GM* I, 13 is not to put forward the metaphysical thesis that there is no subject separate from and causally responsible for its actions. It is, rather, to criticize one of the premises of slave morality: that there is a free subject, with no defining characteristics other than its freedom, that can at any time choose to be either "good" (passive, peaceable, harmless) or "evil" (belligerent, domineering, possessive). Both Cartesian-Newtonian physics and Christian ethics involve a "neutral substratum"—whether this is matter as "mere extension" or the pure willing subject—

governed by a transcendent law, physical or moral, imposed from above. That the moral subject, unlike the physical subject, has the capacity to disobey the law is merely incidental; the mirroring between the models gives "laws of nature" a normative cast that suggests to the imagination the possibility that matter, too, could have done otherwise than obey the laws (perhaps if God had instituted different laws, or momentarily broken the laws for the sake of a miracle). It is because of this porousness between the physical metaphor and the ethical model that Nietzsche wants to eliminate the substratum in both the physical and the ethical realms and characterize the entities therein (bodies or persons) as consisting in their tendency to behave in certain ways: as the quantity of force they have to exert, in the physical or ethical domain, and the direction (or "purpose") toward which they exert it (see *GM* 360 on this distinction).

Some of Nietzsche's remarks in *Beyond Good and Evil* indicate that science can rule out some interpretations on its own, simply because they fit poorly with the facts. *BGE* 12 is a good example:

> As for materialistic atomism, it is one of the best refuted theories there are, and in Europe perhaps no one in the learned world is now so unscholarly as to attach serious significance to it, except for convenient household use (as an abbreviation of the means of expression)—thanks chiefly to the Dalmatian Boscovich: he and the Pole Corpernicus have been the greatest and most successful opponents of visual evidence so far. For while Copernicus has persuaded us to believe, contrary to all the senses, that the earth does not stand fast, Boscovich has taught us to abjure the belief in the last part of the earth that "stood fast"—the belief "in "substance," in "matter," in the earth-residuum and particle-atom: it is the greatest triumph over the senses that has been gained on earth so far.

Boscovich was an eighteenth-century mathematician and natural philosopher—in modern terms, a scientific theorist. He was not really a *philosopher* in Nietzsche's sense, or even a "philosophical laborer" after the model of Kant or Hegel, though the line between physical and metaphysical theorizing in his time was blurry, if present at all. He was in conversation with the ideas of Leibniz and Newton, and to some extent attempted to reconcile them (Ansell-Pearson 2000: 13); although one of them became known best as a physicist and the other as a

metaphysician, they both crossed frequently back and forth over that line. According to Boscovich, what appears as matter is made up of indivisible, immutable, non-extended mathematical points exerting attractive force at relatively large distances and repulsive force at very small distances (2000: 13). Like Nietzsche, he favored abandoning the "*Klümpchen-Atom*" (which Kaufmann translates as "particle-atom," but which on a very literal level means "little clump-atom") in favor of "centers of force" (*KSA* 13:14[188], published as *WP* 1066).

Boscovich's motivation, however, seems to have been entirely theoretical rather than, like Nietzsche's, part of a campaign toward a general change in society's ethical as well as theoretical worldview. The same is probably true of Copernicus, the other example Nietzsche mentions in *BGE* 12, who nonetheless *succeeded* (perhaps without meaning to) in revolutionizing the worldview of modern Europeans—including not only their understanding of astronomy, but their self-understanding as human beings: as Nietzsche remarks in *GM* III, 25, "Since Copernicus, man […] is slipping faster and faster away from the center […] into a '*penetrating* sense of his nothingness'." Nietzsche *does* allow that scientific specialists can arrive at certain views and reject others on the basis of purely epistemic concerns such as consistency and adequacy to the evidence. Philosophers, according to Nietzsche, always seek in characteristic ways to shape the world around them in accordance with their own needs and values: by *interpreting* it in a certain way, usually without regard for evidence; often by promulgating that interpretation in hopes that it will become generally accepted as truth; perhaps even by actively striving to impose their vision on society. By contrast, "among scholars who are really scientific people[80] […], you may actually find something like a drive for knowledge, some small, independent clockwork that, once well wound, works on vigorously without any essential

[80] Kaufmann has "men," but the German word is "*Menschen*," so I modified for both accuracy and inclusivity.

participation from all the other drives of the scholar" (*BGE* 6). In brief, then, science *can* arrive at results of great theoretical and practical import without instruction from philosophers. But Nietzsche would probably say that this is a lucky accident when it happens, and that science would be more fruitful for culture under the guidance of philosophy.

The creation of new values requires a collaboration between philosophers and scientists. As Richard Schacht puts it, science is "a needed partner" to philosophy in this project; "a *junior* partner, in the end, but a partner nonetheless" (2012: 185). Philosophy sets the ends, while science can furnish only means to these ends, and not ends of its own. But of course there are facts about cause-effect relations (which scientists *can* find out with no prompting from philosophers—though they may not know what to do with them), and hence facts about means-ends relations; and philosophers need the diligence and careful method of science to ascertain them if they are to realize their desired enhancement of human life and culture.

Chapter Four

James's Defense of the Religious Attitude

1. What James means by "the religious attitude"

When discussing James's arguments in defense of the religious attitude, it is important to get clear on what, precisely, he is defending against the scientistic disparagers of religion. This would be considerably easier if it seemed that *James* had a clear and consistent idea of what he was defending. Throughout his writings he provides a number of different characterizations of the religious beliefs or religious attitude that, in each case, he hopes to vindicate. Here I will review a representative variety of them and extract some unifying features that constitute the core of the attitude that James wants to preserve from the encroachments of science.

Over the course of his career, James appears to move from relatively concrete and specific characterizations of religion toward increasingly abstract and general ones. Hollinger (2013) connects this shift with a shift in James's strategy for defending religion from a "separate spheres" doctrine, which shields a particular class of beliefs from the epistemic standards of science, to the unitary epistemology of *Pragmatism*, according to which a certain form of religion will (he believes, or hopes) be vindicated according to the very same standards to which scientific theories must answer.

James's earliest attempt to outline the religious belief he hopes to defend, in "Reflex Action and Theism" (1881), accordingly, displays the greatest amount of detail and metaphysical commitment. He unhesitatingly gives it the name of "theism," which he later starts to withhold from his more nebulous characterizations of "religion" or "the religious hypothesis." Indeed (as quoted in the General Introduction) James even pokes fun at more permissive characterizations of divinity before he sets forth his own:

> What kind of a being would God be if he did exist? The word "God" has come to mean many things in in the history of human thought, from Venus and Jupiter to the "Idee" which figures in the pages of Hegel. Even the laws of physical nature have, in these positivistic times, been held worthy of divine honor and presented as the only fitting object of our reverence. Of course, if our discussion is to bear any fruit, we must mean something more definite than this. We must not call any object of our loyalty a "God" without more ado, simply because to awaken our loyalty happens to be one of God's functions. He must have some intrinsic characteristics of his own besides […]
>
> First, it is essential that God be conceived as the deepest power in the universe; and, second, he must be conceived under the form of a mental personality. The personality need not be determined intrinsically any further than is involved in the holding of certain things dear, and in the recognition of our dispositions towards those things, the things themselves being all good and righteous things. But, extrinsically considered, so to speak, God's personality is to be regarded, like any other personality, as something lying outside of my own and other than me, and whose existence I simply come upon and find. A power not ourselves, then, which not only makes for righteousness, but means it, and which recognizes us—such is the definition which I think nobody will be inclined to dispute.
>
> (*WB* 97–8)

Here James explicitly excludes any form of pantheism, be it the materialist pantheism of the positivist types or the idealist pantheism of the Hegelians, from his efforts to vindicate religion: the former, he argues, fails to satisfy our need for meaningful goals in life; the latter, which attempts to unify the deity with the self, goes beyond the evidence of our senses and intellect.

By the time he wrote "Is Life Worth Living?", fourteen years later, James was no longer explicitly defending "theism," but had shifted to "religion." He no longer required a God with a "mental personality," but he still insisted on a "supernatural" realm:

> Religion has meant many things in human history; but when from now onward I use the word I mean to use it in the supernaturalist sense, as declaring that the so-called order of nature […] is only one portion of the total universe, and that there stretches beyond this visible world an unseen world of which we now know nothing positive, but in its relation to which the true significance of our present mundane life consists. A man's religious faith (whatever more special items of doctrine it may involve) means for me essentially his faith in the existence of an unseen order of some kind in which the riddles of the natural order may be found explained. In the more developed religions the natural world has always been regarded as the mere scaffolding or vestibule of a truer, more eternal world, and affirmed to be a sphere of education, trial, or redemption. In these religions, one must in some fashion die to the natural life before one can enter into life eternal. The notion that this physical world of wind and water […] is absolutely and ultimately the divinely aimed-at and established thing, is one which we find only in very early religions […] It is this natural religion (primitive still, in spite of the fact that poets and men of science whose good-will exceeds their perspicacity keep publishing it in new editions tuned to our contemporary ears) that […] has suffered definitive bankruptcy in the opinion of a circle of persons, among whom I must count myself […]. For such persons the physical order of nature, taken simply as science knows it, cannot be held to reveal any one harmonious spiritual intent. It is mere *weather*, as Chauncey Wright called it, doing and undoing without end.
>
> (*WB* 48–9)

For all James's concern for the concrete situation and well-being of earthly creatures, he might justly be suspected of endorsing a version of the ascetic ideal (as Nietzsche understands it) with his contentions that, according to the type of religion he favors, "the true significance of our present mundane life consists" in its relation to some "unseen world"; that the natural world is "the mere scaffolding or vestibule of a truer, more eternal world"; that "one must in some fashion die to the natural life before one can enter into life eternal." Nietzsche would be quick to point out two critical errors: that James accepts "the physical order of nature, *taken simply as science knows it*" (my emphasis) to be the definitive account of the natural world, eliding the "rich ambiguity" (*GS* 373) it possesses in virtue of the multitude of possible (non-supernatural) interpretations; and that he demands of nature "one harmonious spiritual intent" (*WB* 49). Demanding a moral order from the natural world, Nietzsche would say, can only invite disillusionment; we are better off if we instead seek *aesthetic* meaning and value (see esp. *GS* 107).

Richard Gale (1999) regards such supernaturalist religious impulses—the desire for communion with or revelation from a "truer world"—as contradicting James's "Promethean pragmatism" (as seen in the analysis of the pragmatic conception of truth in Chapter 2), according to which the world is fundamentally what human beings make of it. Gale resists the strategy of resolving the contradiction by assigning the Prometheanism and the mysticism to different periods of James's life, as have commentators who "depicted James as relinquishing by the end of his career the assertive self in favor of a religious acceptance of forces beyond its control" (Gale 1999: 258); Gale depicts it instead as an irresolvable tension within James's philosophical personality. Hollinger (2013), however, makes a good case that if anything the change proceeded in the opposite direction; and James's increasingly humanistic accounts of

religion over the course of his career, as revealed in the present survey, tend to reinforce that impression.

In "The Will to Believe"—which was written only one year after "Is Life Worth Living?", as a rebuttal to a student's objections to the earlier essay (Klein 2015: 82–3)—James's summary of what he calls "the religious hypothesis" has become significantly less informative. He claims that this is a concession to the diversity of religions in the world—"Religions differ so much in their accidents that in discussing the religious question we must make it very generic and broad" (*WB* 29)—but the difference between this description and its predecessors has the air of a retreat:

> What then do we now mean by the religious hypothesis? Science says things are; morality says some things are better than other things; and religion says essentially two things.
>
> First, she says that the best things are the more eternal things, the overlapping things, the things in the universe that throw the last stone, so to speak, and say the final word. "Perfection is eternal"—this phrase of Charles Secrétan seems a good way of putting this first affirmation of religion, an affirmation which obviously cannot yet be verified scientifically at all.
>
> The second affirmation of religion is that we are better off even now if we believe her first affirmation to be true. (*WB* 29–30)

This characterization makes no reference either to mental personality or to the supernatural. In fact, the phrasing is so vague that, if we take this account literally, the view that whatever *happens* to last the longest is thereby the best (for example, that because the natural universe is likely to end in a permanent state of rest and uniform low temperature, that state is the highest good) would count as a religion. Clearly this is not what James intends: he is assuming that "the best" or "perfection" is to be defined antecedently by "morality," and religion foretells the final victory of that principle. This need not involve the existence of a God who will ensure the triumph of good; it might be interpreted completely naturalistically as the faith that, in Martin Luther King, Jr.'s famous phrase, "the arc of the moral universe bends toward justice."

Klein (2015) interprets James's description to be much more traditionally supernaturalist and theistic than it appears: "The hypothesis involves the prospect of an eternal afterlife, along with the prospect that the quality of this afterlife depends on whether we choose religious belief here and now" (2015: 77). To support this interpretation, Klein cites not only the passage I have just quoted from "The Will to Believe" (*WB* 29–30), but also the passage from "Is Life Worth Living?" cited previously (*WB* 48–9). Klein (2015: 77) also appeals to James's brief reference to the Protestant doctrine of "justification by faith," which he uses to introduce his project of a "justification *of* faith" (*WB* 13), as evidence that the "religious hypothesis" he is justifying faith in is none other than that of the salvation of the soul (the first affirmation) as a reward for faith in the present life (the second affirmation).

If that is what James had in mind with these two affirmations of religion, he certainly wasn't being forthright about it. James never seems to place much importance on individual immortality[81]; instead, what he consistently emphasizes is the persistence of human *ideals*, the great deeds performed in the name of such ideals, and the memory of the individuals who performed them.[82] Here is an example from Lecture III of *Pragmatism* (1906), "Some Metaphysical Problems Pragmatically Considered," in which he describes the pragmatic difference between "materialism" and "spiritualism." In the following passage I emphasize in italics the phrases that bring out his concern not with personal immortality, but with the preservation of memory and a moral order, while emphasizing in bold the language that echoes his characterization of "the religious hypothesis" in "The Will to Believe":

[81] While he supposedly defends the possibility in "Human Immortality: Two Supposed Objections to the Doctrine" (first delivered as a lecture in 1893), the hypothesis he outlines seems to allow for the immortality of a universal mentality rather than of individual minds.
[82] Rorty compares this hope of James's with "what Whitehead called objective immortality—the memory of human achievements in the mind of a 'fellow-sufferer who understands'" (Rorty 1997: 98).

> The notion of God […], however inferior it may be in clearness to those mathematical notions so current in mechanical philosophy, has at least this practical superiority over them, that it guarantees *an ideal order that shall be permanently preserved*. A world with a God in it **to say the last word**, may indeed burn up or freeze, *but we then think of him as still mindful of the old ideals and sure to bring them elsewhere to fruition*; so that, where he is, tragedy is only provisional and partial, and shipwreck and dissolution not the absolutely final things. […] Materialism means simply the denial that the moral order is eternal, and the cutting off of ultimate hopes; spiritualism means *the affirmation of an eternal moral order* and the letting loose of hope. […]
>
> Even whilst admitting that spiritualism and materialism make different prophecies of the world's future, you may yourselves pooh-pooh the difference as something so infinitely remote as to mean nothing for a sane mind. […] Religious melancholy is not disposed of by a simple flourish of the word insanity. **The absolute things, the last things, the overlapping things**, are the truly philosophic concerns; all superior minds feel seriously about them, and the mind with the shortest views is simply the mind of the more shallow man. (*P* 55–6, bold and italic emphasis added)

These similarities in wording provide only circumstantial evidence that in "The Will to Believe" James's primary concern was already for the ultimate triumph of good in the world and with the permanence of human accomplishments rather than for personal immortality. But in either case, I believe that the significance of "[t]he second affirmation of religion," "that we are better off even now if we believe her first affirmation to be true" (*WB* 30), has far less to do with securing the soul's eternal reward after death than it does with bolstering the subject's moral courage in life. For one thing, it is not clear how securing life after death makes the believer "better off even now," except through the confidence that she has secured it. Even on a traditionally theistic interpretation of the first affirmation, the respect in which the believer is truly better off *now* is in the evidence of God's grace in her life and actions: the virtue that (ideally) comes more easily once she has surrendered her will to God and the equanimity with which she suffers worldly misfortunes, knowing that everything is ultimately in God's hands.

These are the sorts of benefits that James cites in his effort to vindicate religious belief in *The Varieties of Religious Experience* (delivered as the Gifford Lectures on Natural Religion at the University of Edinburgh in 1901 and 1902). Here his focus has shifted decisively away from the *content* of religious belief and toward its effects on and significance for the individual believer. Since James professes to be offering the lectures in his capacity as a psychologist

foremost and as a philosopher only secondarily (*VRE* 12), such a focus is only to be expected. In the lecture called "Circumscription of the Topic," James characterizes the target of his inquiry as follows: "Religion, therefore, as I now ask you arbitrarily to take it, shall mean for us *the feelings, acts, and experiences of individual men in their solitude, so far as they apprehend themselves to stand in relation to whatever they may consider the divine*" (*VRE* 34, original emphasis). What should we consider "the divine," without making it so specific as to exclude any of the vast diversity of religious doctrines?

> For one thing, gods are conceived to be first things in the way of being and power. They overarch and envelop, and from them there is no escape. What relates to them is the first and last word in the way of truth. Whatever then were most primal and enveloping and deeply true might at this rate be treated as godlike, and a man's religion might thus be identified with his attitude, whatever it might be, towards what he felt to be the primal truth. (*VRE* 36)

But James considers this to be too general, because it permits any "total reaction upon life" (*VRE* 36), however cynical or irreverent, to be called religion. So he restricts it:

> There must be something solemn, serious, and tender about any attitude which we denominate religious. If glad, it must not grin or snicker; if sad, it must not scream or curse. It is precisely as being *solemn* experiences that I wish to interest you in religious experiences. So I propose—arbitrarily again, if you please—to narrow our definition once more by saying that the word 'divine,' as employed therein, shall mean for us not merely the primal and enveloping and real, for that meaning if taken without restriction might well prove too broad. The divine shall mean for us only such a primal reality as the individual feels impelled to respond to solemnly and gravely, and neither by a curse nor a jest. (*VRE* 39)

He elaborates a little later on what he means by "solemn":

> Solemnity is a hard thing to define abstractly, but certain of its marks are patent enough. A solemn state of mind is never crude or simple; it seems to contain a certain measure of its own opposite in solution. A solemn joy preserves a sort of bitter in its sweetness; a solemn sorrow is one to which we intimately consent. (*VRE* 47)

What is the significance of James's defining religion in this way? The characterization I have presented is so far, at least on the surface, purely qualitative. But James's project is not merely to offer "a descriptive survey of […] religious propensities," as he advertises it at the beginning of the first lecture (*VRE* 12), but also a "*Werthurteil*," a judgment on the *value* of

religious experience for human life (*VRE* 13). This, he says, can be determined by "*the way in which it works on the whole*" (*VRE* 24), or as he puts it at the beginning of the lectures on the topic of "Saintliness," by its "practical fruits for life" (*VRE* 210). So it is not surprising that he turns quickly from his now suitably narrowed description of what counts as religion to remarks about its characteristic *function*. After all, he says, "It is a good rule in physiology, when we are studying the meaning of an organ, to ask after its most peculiar and characteristic sort of performance, and to seek its office in that one of its functions which no other organ can possibly exert" (*VRE* 44). What is religion's distinctive function, according to James?

> [W]e are in the end absolutely dependent on the universe; and into sacrifices and surrenders of some sort, deliberately looked at and accepted, we are drawn and pressed as into our only permanent positions of repose. Now in those states of mind which fall short of religion [e.g., philosophical moralism], the surrender is submitted to as an imposition of necessity, and the sacrifice is undergone at the very best without complaint. In the religious life, on the contrary, surrender and sacrifice are positively espoused: even unnecessary givings-up are added in order that the happiness may increase. *Religion thus makes easy and felicitous what in any case is necessary*; and if it be the only agency that can accomplish this result, its vital importance as a human faculty stands vindicated beyond dispute. It becomes an essential organ of our life, performing a function which no other portion of our nature can so successfully fulfill.
> (*VRE* 49; emphasis original, bracketed remark added)

Alongside the shift over the course James's career from more specific, theistic, and supernaturalistic characterizations of religion toward vaguer ones more focused on the human aspect, Hollinger (2013) observes a shift from defending the right of individual believers to maintain *private* religious beliefs regardless of the evidence for or against them[83] to, essentially, making a bet that a certain form of religious belief can survive the kind of rigorous public debate to which political and even (in their own arena) scientific views are subject. Although James is

[83] Rorty (1997) also emphasizes the importance of the privacy of religious belief to James's (early) strategy for defending it: "It is a consequence of James's utilitarian view of the nature of obligation that *the obligation to justify one's beliefs arises only when one's habits of action interfere with the fulfillment of others' needs.* Insofar as one is engaged in a private project, that obligation lapses. The underlying strategy of James's utilitarian/pragmatist philosophy of religion is to *privatize* religion. This privatization allows him to construe the supposed tension between science and religion as the illusion of opposition between cooperative endeavors and private projects" (1997: 85).

still pursuing the private-belief strategy in many of the essays in the collection (including, arguably, the title essay), this defense-in-the-public-square approach makes its first appearance in the preface to *The Will to Believe and Other Essays* (1897):

> After all, though, you will say, Why such an ado about a matter concerning which, however we may theoretically differ, we all practically agree? In this age of toleration, no scientist will ever try actively to interfere with our religious faith, provided we enjoy it quietly with our friends and do not make a public nuisance of it in the market-place.[84] But it is just on this matter of the marketplace that I think the utility of such essays as mine may turn. If religious hypotheses about the universe be in order at all, then the active faiths of individuals in them, freely expressing themselves in life, are the experimental tests by which they are verified, and the only means by which their truth or falsehood can be wrought out. The truest scientific hypothesis is that which, as we say, "works" best; and it can be no otherwise with religious hypotheses. Religious history proves that one hypothesis after another has worked ill, has crumbled at contact with a widening knowledge of the world […]. Some articles of faith, however, have maintained themselves through every vicissitude, and possess even more vitality to-day than ever before: it is for the "science of religions" to tell us just which hypotheses these are. Meanwhile the freest competition of the various faiths with one another, and their openest application to life by their several champions, are the most favorable conditions under which the survival of the fittest can proceed. They ought therefore not to lie hid each under its bushel, indulged-in quietly with friends. They ought to live in publicity, vying with each other; and it seems to me that (the régime of tolerance once granted, and a fair field shown) the scientist has nothing to fear for his own interests from the liveliest possible state of fermentation in the religious world of his time. Those faiths will best stand the test which adopt also his hypotheses, and make them integral elements of their own. He should welcome therefore every species of religious agitation and discussion, so long as he is willing to allow that some religious hypothesis *may* be true. (*WB* 8–9)

James expresses a very similar view in the *Varieties*, suggesting that philosophy can play a role in this "science of religions":

> Philosophy can by comparison eliminate the local and the accidental from these definitions. Both from dogma and from worship she can remove historic incrustations. By confronting the spontaneous religious constructions with the results of natural science, philosophy can also eliminate doctrines that are now known to be scientifically absurd or incongruous. (*VRE* 359)

This proposal shows some curious similarities to both Nietzsche's gay science and his proposed method for creating new values. James's conception of "experimental tests" of religious hypotheses, conducted via "the active faiths of individuals in them, freely expressing themselves in life" (*WB* 8), is not unlike the experiments in living according to different values

[84] By "actively" I presume James means in some material fashion, in the way that religious regimes have "actively interfered" with heretics (by exiling them, depriving them of civil protections, or at the extreme, torturing and killing them).

that Nietzsche advocates in various sections of *The Gay Science* (e.g., *GS* 7, 51, 335). The rather martial notion of "the […] competition of the various faiths with one another" through their "application to life by their several champions" calls to mind in particular *GS* 7, which proposes that "experimentation would be in order that would allow every kind of heroism to find satisfaction—centuries of experimentation that might eclipse all the great projects and sacrifices of history to date."[85] The task that James assigns to philosophers, of removing "historic incrustations" from religious doctrines and practices (*VRE* 359) to reduce them to their spiritual core, is much like the role that Nietzsche assigns to "philosophical laborers after the noble model of Kant and Hegel" (*BGE* 211). James, like Nietzsche, is concerned that philosophers should square their favored rules for living with the results of the best science. But unlike Nietzsche, he is not so presumptuous on behalf of philosophy as to suggest that philosophers should instruct scientists as to what questions they should investigate; he seems to assume that science will proceed independently, and philosophers will simply keep up with its progress insofar as it is relevant to various religious hypotheses.

But the main difference between James's and Nietzsche's positions, even in James's later experimentalist period, lies in their assessment of the viability of traditional religious belief. Nietzsche might not precisely agree with the dogmatic scientists James opposes that "science has already ruled all possible religious hypotheses out of court" (*WB* 9); perhaps he might favor the establishment of some sort of religion of reverence for life or nature conceived as capricious goddesses, as in *Thus Spoke Zarathustra* (II, 10; III, 15), or a religion founded on the ideal of affirming the eternal recurrence. But he would reject all the religions there have been *so far* because, as he argues, they have *all* been beholden to the ascetic ideal (*GM* III, 28). But as I have

[85] James's admiration for the martial virtues, in spite of his opposition to war, is on display in his essay "The Moral Equivalent of War" (*ERM* 162–173).

suggested in the introduction to Part II and earlier in this section, James has not fully freed himself from the assumptions of the ascetic ideal. Although his later characterizations of religion do not insist on a supernatural realm to provide meaning in human life and redemption of suffering, he still speaks in terms reminiscent of the ascetic ideal when he praises the indispensable function of religion: "In the religious life […] surrender and sacrifice are positively espoused: even unnecessary givings-up are added in order that the happiness may increase" (*VRE* 49). James expresses skepticism and even occasionally horror at some of these "unnecessary givings-up" in his lectures on saintliness and its value (see esp. *VRE* 245–9, 272–89).[86] Nonetheless, James still has great sympathy for the basic spirit of traditional religions: the values of altruism, compassion, and self-sacrifice; the longing for a transcendent solution to the problem of the meaning of suffering. This is why he imagines a philosophical refinement of existing religions, along with practical experimentation with and competition among variations thereon, as the way to resolve the question of how human beings ought to live. Nietzsche, meanwhile, wants philosophers to *invent* new values—drawing inspiration from the past in certain respects, but making a definitive break with the ascetic and (in his terms) slave values that have shaped modern society.

2. The similarities between science and religion

One of James's habitual strategies for defending the right to hold religious beliefs is to show their similarities both to the ordinary beliefs that guide us through the world and to the scientific beliefs of practicing scientists. This latter is especially important rhetorically and dialectically, considering that the most vocal opponents of religion, in the late nineteenth century

[86] Hollinger (2013: 121–2) quite rightly points out that James's skeptical attitude is reserved almost entirely for Catholic saints, reflecting the sensibilities and prejudices of his own Protestant upbringing.

as now, tended to rest their arguments on the authority of science. And although James acknowledges in the preface to *The Will to Believe* that "what mankind at large most lacks is criticism and caution, not faith," his arguments are directed at "academic audiences, fed already on science," who suffer from "[p]aralysis of their native capacity for faith […] brought about by the notion, carefully instilled, that there is something called scientific evidence by waiting upon which they shall escape all danger of shipwreck in regard to truth" (*WB* 7).

James argues that the beliefs of religious persons are not so different from those of scientists in respect both of the processes by which they are formed and of their claims to justification. I will present in turn James's arguments for each point of similarity. First, I will discuss his argument that desire and (as he puts it in "The Will to Believe") "our passional nature" more generally plays a role in the formation of everyday beliefs and scientists' theoretical beliefs as well as religious ones. Then I will turn, specifically, to the central argument of "The Will to Believe": that in a specific type of scenario—which I will call, following others in the literature, "will-to-believe cases"—it is not only permissible but (arguably) required to form a belief that goes beyond what is supported by the available evidence. I am counting this among James's arguments from the similarity between science and religion because he argues that the process of scientific research (as well as ordinary practical life) presents will-to-believe cases analogous to the choice to adopt or reject "the religious hypothesis." Finally, I will present James's case that the genuinely open-minded empiricism which science supposedly embodies would take seriously the experiential evidence in favor of the religious hypothesis as well as the evidence against it.

2.1 The role of desire in belief

James often defends religious belief from those who condemn it as mere wishful thinking by pointing out how many beliefs generally considered unexceptionable are fixed in part by the desires of the believer. James acknowledges in "The Will to Believe" that this will sound implausible if we consider, for example, whether we can, "just by willing it, believe that Abraham Lincoln's existence is a myth" (*WB* 15), or whether a line of reasoning like Pascal's wager can actually convince someone to adopt the tenets of Catholicism (*WB* 16). But he goes on to point out that "[i]t is only our already dead hypotheses"—the ones that we do not even consider as possibilities for belief—"that our willing nature is unable to bring to life again. But what has made them dead for us is for the most part a previous action of our willing nature" (*WB* 18).

James clarifies that his understanding of "our willing nature" includes "all such factors […] as fear and hope, prejudice and passion, imitation and partisanship, the circumpressure of our caste and set" (*WB* 18). We decide which hypotheses seem plausible (i.e., potentially worthy of belief) not simply based on the raw evidence, but also in light of the popularity and "*prestige*" of certain hypotheses in our local context (*WB* 18). As James writes:

> Mr. Balfour gives the name of 'authority' to all those influences, born of the intellectual climate, that make hypotheses possible or impossible for us, alive or dead. Here in this room, we all of us believe in molecules and the conservation of energy, in democracy and necessary progress, in Protestant Christianity and the duty of fighting for 'the doctrine of the immortal Monroe,' all for no reasons worthy of the name. (*WB* 18)

While Protestant Christianity may be a live possibility for a bourgeois New Englander of James's milieu, Islam and even Catholicism most likely are not; and this has little to do with the amount of evidence for each of these faith systems, or their internal coherence, and much more to do with how many respectable people in a believer's social circle subscribe to them. Even the average bourgeois New Englander's belief in "molecules and the conservation of energy" is

unlikely to be based on the evidence that led scientists to formulate the theories in question, and far more likely to be based on the prestige or "authority" of modern science, as popularly understood, in their social circle. A member of a rural fundamentalist religious community will be much less likely to believe in these theories (or, to choose examples with more contemporary relevance, in the theory of evolution or anthropogenic climate change), not so much because they have a worse understanding of the available evidence as because the testimony of scientists carries much less authority in such communities, and one is more likely to secure the trust and respect of one's peers by disbelieving the theories than by believing them. Thus the range of viable candidates for belief is circumscribed (albeit mostly through subconscious processes) by our loyalty to the social groups with which we identify and our desire to fit into those groups.

In particular, James frequently emphasizes the role of emotion and desire in fixing the theoretical beliefs of practicing scientists—which, for people like Clifford, provide the paradigm of justified, responsibly formed belief. In "The Will to Believe," James appears to draw a contrast between the *context of discovery* and the *context of justification* (*avant la lettre*) and the epistemic attitude proper to each.[87] "[T]he purely judging mind" in the context of justification should, of course, "keep weighing reasons *pro et contra* with an indifferent hand" until the evidence is decisive one way or the other (*WB* 26). However, James continues:

> For purposes of discovery such indifference is to be less highly recommended, and science would be far less advanced than she is if the passionate desires of individuals to get their own faiths confirmed had been kept out of the game. […] On the other hand, if you want an absolute duffer in an investigation, you must, after all, take the man who has no interest whatever in its results: he is the warranted incapable, the positive fool. The most useful investigator, because the most sensitive observer, is always he whose eager interest in one side of the question is balanced by an equally keen nervousness lest he become deceived. (*WB* 26)

[87] Kasser (2015: 327) and Klein (2015: 89) both independently invoke these terms to characterize the distinction James makes; Klein (2015: 89 n. 29) attributes it to Hans Reichenbach.

In an early essay, "The Sentiment of Rationality" (1879–80), James even mentions Clifford as an example of a scientific thinker who, in spite of his own moral admonitions, has thrown himself behind one theory in the absence of evidence so compelling as to command universal assent:

> Faith in a religious dogma for which there is no outward proof, but which we are tempted to postulate for our emotional interests […] is branded by Professor Huxley as "the lowest depth of immorality." […] [Professor Clifford] calls it "guilt" and "sin" to believe even the truth without "scientific evidence." But what is the use of being a genius, unless *with the same scientific evidence* as other men, one can reach more truth than they? Why does Clifford fearlessly proclaim his belief in the conscious-automaton theory, although the 'proofs' before him are the same which make Mr. Lewes[88] reject it? Why does he believe in primordial units of 'mind-stuff' on evidence which would seem quite worthless to Professor Bain[89]? Simply because, like every human being of the slightest mental originality, he is peculiarly sensitive to evidence that bears in some one direction. (*WB* 77)

The suggestion here is that if several individuals with equally acute scientific minds come to different theoretical conclusions on the basis of the same body of experimental evidence, some factor must be involved beyond their dispassionate assessment of the evidence. "Pretend what we may," James continues, "the whole man within us is at work when we form our philosophical opinions. Intellect, will, taste, and passion cooperate just as they do in practical affairs; and lucky it is if the passion be not something as petty as a love of personal conquest over the philosopher across the way" (*WB* 77). Where the evidence doesn't tell decisively for one theory over its rivals, a truly neutral evaluator would suspend judgment. It must be "will, taste, [or] passion" that determines which a given thinker will support.

In "Is Life Worth Living?" (1895), James extends this point about particular scientific theories to the foundation of the whole scientific enterprise. He once more challenges the notion that emotion and desire should play no role in forming beliefs with the following remark:

> Is it not sheer dogmatic folly to say that our inner interests can have no real connection with the forces that the hidden world may contain? In other cases divination based on inner interests have proved prophetic enough. Take science itself! Without an imperious inner demand on our part for ideal logical and mathematical harmonies, we should never have attained to proving that such harmonies lie hidden between all the chinks and interstices of the crude natural world. Hardly a law

[88] George Henry Lewes, an English philosopher, literary critic, and scientific commentator.
[89] Alexander Bain, a Scottish philosopher and psychologist.

> has been established in science, hardly a fact ascertained, which was not first sought after, often with sweat and blood, to gratify an inner need. (*WB* 51)

Although he does not use the term here, what James appears to mean by "divination based on inner interests" that "proved prophetic" is a *faith* that has been subsequently vindicated by the evidence. In the previous passage from "The Sentiment of Rationality," James strongly implies a comparison between "faith in a religious dogma" and scientists' beliefs in controversial theories; and in the passage quoted from "The Will to Believe," he explicitly refers to the favored hypotheses of interested scientific investigators as their "faiths" (*WB* 26). In "Is Life Worth Living?", James says that modern science "began with Galileo" (*WB* 50). The above quotation from the same essay suggests that he takes it to have begun, more precisely, with Galileo's *faith* that, in the terms of his famous dictum, the book of nature is written in the language of mathematics—a faith based on a *desire* ("an imperious inner demand") to find "mathematical harmonies […] hidden between all the chinks and interstices of the crude natural world" (*WB* 51). But until modern science began uncovering a wealth of mathematical laws, it could only be unproven faith in their existence that led anyone to look for them.

In "The Sentiment of Rationality," James offers the following definition: "Faith means belief in something concerning which doubt is still theoretically possible" (*WB* 76). On the face of it, this definition seems wildly over-permissive. Doubt is *theoretically possible* about almost everything; does this mean that nearly all of our beliefs count as faiths? The wide reach of this definition may be a direct response to the stringency of the epistemic standards proposed by Clifford, whom James is already engaging as one of his main opponents. Here, as in "The Will to Believe," James seems to be interpreting Clifford's Principle more strictly than Clifford actually meant it. There, as noted in Chapter 2, James took "sufficient evidence" to mean "coercive evidence" (*WB* 28) that compels universal assent; in "The Sentiment of Rationality," James

appears to read the "believing on insufficient evidence" condemned by Clifford as "believing when doubt is still theoretically possible." Klein (2015) suggests, following other commentators, that Clifford's Principle is more reasonably and charitably construed to hold that "one is obligated to proportion the strength of one's belief to the available evidence" (76, n. 6).

However, it is not completely clear what James means by "theoretically possible." The interpretation that first occurs to a contemporary reader—that someone looking very hard (some intellectually over-scrupulous philosopher, or a Pyrrhonian skeptic) could find grounds for doubt, but an ordinary person likely would not—is not anachronistic; the use of the word "theoretically" to mean "hypothetically" or "in theory" (as opposed to "actually" or "in practice") was current in James's time.[90] However, he may have meant that doubt is still possible *on theoretical grounds*, i.e., as far as the evidence is concerned, while it may not be possible for practical or emotional reasons.

The focus of the passage from "The Sentiment of Rationality" quoted above suggests that what James has in mind are cases where the evidence is not sufficiently strong or unequivocal to compel every reasonable assessor to come to the same conclusion. In such cases, doubt is not only *theoretically* possible (in the sense of *hypothetically*), but quite natural and probably warranted—especially in situations like the ones James describes, where the parties to the disagreement are all knowledgeable about the topic at issue and skilled in scientific methods of interpreting experimental evidence. Although doubt is possible on theoretical grounds, in the sense explained, people will nonetheless form beliefs for non-theoretical reasons: professional advancement, loyalty, aesthetic preference. Faith, then, would be a matter of committing oneself

[90] The Oxford English Dictionary traces this usage to 1875.

to the theory that seems most plausible, and which may even seem completely compelling from one's own standpoint, and being prepared to defend it against others who believe differently.

James may also be using a strong enough notion of "doubt" that it is *not* theoretically possible to doubt everything, even if he does mean "theoretically" in the colloquial sense. In "The Fixation of Belief" (1877), C.S. Peirce characterizes doubt as "an uneasy and dissatisfied state from which we struggle to free ourselves and pass into the state of belief" (*CP* 5.372). He makes a point of repudiating the philosophical conceit that everything is open to doubt:

> Some philosophers have imagined that to start an inquiry it was only necessary to utter a question […] and have even recommended us to begin our studies with questioning everything! But the mere putting of a proposition into the interrogative form does not stimulate the mind to any struggle after belief. There must be a real or living doubt, and without all this, discussion is idle.
> (Peirce, *CP* 5.376)

If James is appealing to Peirce's understanding of doubt, then what he could mean by "faith" is settling on a belief when it is still possible—either for the subject herself, or for an equally reasonable subject with the same evidence—to remain in the "uneasy and dissatisfied state" that Peirce describes. This would be a much narrower construal of faith, especially if it is possible *for the believing subject* to remain in Peircean doubt; in that case, an element of *will* would be involved in the decision to rest content with a particular belief rather than continuing to consider the evidence or gather more.

Whatever James means by "doubt" or by "theoretically possible," his definition of "faith" must be able to encompass a significant example that James cites in "The Sentiment of Rationality," one even more basic and foundational to the scientific enterprise than Galileo's faith in mathematical harmonies:

> The necessity of faith as an ingredient in our mental attitude is strongly insisted on by the scientific philosophers of the present day; but by a singularly arbitrary caprice they say that it is only legitimate in the interests of one particular proposition—the proposition, namely, that the course of nature is uniform. That nature will follow tomorrow the same laws that she follows today is, they all admit, a truth which no man can *know*; but in the interests of cognition as well as of action we must postulate

> or assume it. As Helmholtz says: "Hier gilt nur der eine Rath: vertraue und handle! [Here only one piece of advice is valid: trust and act!]" And Professor Bain urges: "Our only error is in proposing to give any reason or justification of the postulate, or to treat it as otherwise than begged at the very outset." (*WB* 76–7)

In "The Ethics of Belief," Clifford permits this assumption as the only principle based on which we can make inferences about things outside our experience: "We may go beyond experience by assuming that what we do not know is like what we do know; or, in other words, we may add to our experience on the assumption of a uniformity in nature" (Clifford 1999 [1877]: 93). He declines to discuss "[w]hat precisely this uniformity is" (93) or how the assumption is justified (which Bain, apparently, would consider wise).

Why does James (as well as Helmholtz and Bain) consider the belief in the uniformity of nature a *faith*, about which "doubt is still theoretically possible"? This view can be traced back to Hume's investigation in his *Treatise of Human Nature* of how we are justified in making inferences about the future based on past experience. Hume argues that we can have neither demonstrative nor probable knowledge "*that instances, of which we have had no experience, must resemble those, of which we have had experience, and that the course of nature continues always uniformly the same*" (*THN* I.iii.6, 89). We cannot prove this principle of the uniformity of nature (or "PUN," as it is commonly abbreviated) demonstratively (by which Hume means *a priori*, with the force of logical necessity) because "[w]e can at least conceive a change in the course of nature; which sufficiently proves, that such a change is not absolutely impossible" (I.iii.6, 89). But we cannot even establish PUN as "probable" knowledge—i.e., that while it is not a necessary truth, it is true as a matter of fact—because any such argument would be circular. All reasoning about matters of fact, as opposed to "relations of ideas" (definitional or conceptual truths), must have some basis in experience, which is either present (sensation) or past (memory). But in order to infer from our past experiences of uniformity in nature (that our causal

inferences have been borne out by events; that things which had always occurred together in the more distant past have continued occurring together into the more recent past) to the claim that the course of nature will always be uniform in the future, we must *already* presuppose PUN (see *THN* I.iii.6, 89–90). All of our scientific reasoning relies on the assumption of PUN: when we posit a causal relation between two events, we are claiming not only that they always have occurred together in the past, but that they will always continue to occur together in the future; when we establish a principle as a law of nature, we claim that natural phenomena will continue to obey it forever, not only that they always have obeyed it hitherto. But PUN itself cannot be proven, either *a priori* or by experience; we must simply presuppose it.

This is a case in which doubt is possible both in the colloquial sense of "theoretically" (i.e., it is possible for some hypothetical over-scrupulous philosopher to doubt), and on theoretical grounds: we lack any theoretical proof for PUN, either demonstrative or probable (in Hume's terms), *a priori* or empirical (to use Kantian language). In fact, no amount of experience could ever count as sufficient evidence for the principle, because it only counts as evidence at all on the prior assumption that the principle is true. Why, then, do scientists believe it to the extent that they base all their scientific practice on the assumption? Why, in particular, does Clifford appear to exempt it from his principle that one should believe nothing for which one does not have sufficient evidence?

One might suggest that Clifford and other scientists do not, in fact, *believe* in the uniformity of nature, and that their *assumption* of it has some epistemic status different from belief. Bas van Fraassen's notion of *acceptance*—an attitude that involves the willingness to act as one would if one believed that some proposition were true, without actually believing it—is one possible interpretation of their stance toward PUN (see van Fraassen 1980: 4). Crispin

Wright's analysis of "acceptance of a proposition," as "a more general attitude than belief […] which comes apart from belief in cases where one is warranted in acting on the assumption that P or taking it for granted that P or trusting that P for reasons that do not bear on the likely truth of P" (2004: 177), may also be helpful. Wright argues that one is warranted in accepting that P, i.e., acting as if one believed that P, in cases where so acting is a *dominant strategy*: a course of action that will turn out no worse than any of the alternatives under any circumstances, and could go much better under some.[91] Wright even discusses PUN as an example of a proposition that we are warranted in accepting on the grounds that it is a dominant strategy: using inductive reasoning is clearly a good strategy in case nature is uniform; and if it is not, then we won't be able to predict the course of nature reliably by any means, so inductive reasoning is no worse than any other strategy.[92]

So Clifford may be able to defend himself against the charge that he disobeys his own strictures by believing in PUN: he can claim that he does not *believe* it, he simply *accepts* it, i.e., assumes it for the purposes of action. Toward the end of "The Ethics of Belief," he hedges in a way that may indicate such a position:

> Are we then bound to believe that nature is absolutely and universally uniform? Certainly not, we have no right to believe anything of this kind. The rule only tells us that in forming beliefs which go beyond our experience we may make the assumption that nature is practically uniform so far as we are concerned. Within the range of human action and verification, we may form, by help of this assumption, actual beliefs; beyond it, only those hypotheses which serve for the more accurate asking of questions. (Clifford 1999 [1877]: 95–6)

But Clifford, as noted, does not explain why we are permitted to make this assumption and use it not only to *act*, but to *form beliefs*. Do beliefs formed on the basis of a warranted acceptance

[91] The classic example is, of course, that defecting is the dominant strategy in a one-shot Prisoner's Dilemma while cooperating is the dominant strategy in an iterated version. See Wright 2004: 179.
[92] Wright quotes passages in which Reichenbach justifies the assumption of the uniformity of nature on very similar grounds (see Wright 2004: 179, n. 11), although of course Reichenbach did not use the "dominant strategy" terminology derived from game theory.

inherit its warrant? If so, are they warranted as full-fledged beliefs, or only as acceptances? If we take seriously Hume's challenge to PUN's justification, then Clifford's Principle, when followed consistently, may not even permit us to believe the results of the best science.

In any case, James probably would not be satisfied by this van Fraassen- and Wright-inspired defense, since he understood belief to be tied up very closely with propensities to act, as he indicates in the section of *The Principles of Psychology* (1890) on the topic of Belief:

> What characterizes both consent and belief is the cessation of theoretic agitation, through the advent of an idea which is inwardly stable, and fills the mind solidly to the exclusion of contradictory ideas. When this is the case, motor effects are apt to follow. Hence the states of consent and belief, characterized by repose on the purely intellectual side, are both intimately connected with subsequent practical activity. (*PP* 913–4)

In this he follows Peirce, who wrote in "The Fixation of Belief" (1877): "The feeling of believing is a more or less sure indication of there being established in our nature some habit which will determine our actions" (*CP* 5.371). James's definition of *faith* in "The Sentiment of Rationality," which I quoted above, continues: "as the test of belief is willingness to act, one may say that faith is the readiness to act in a cause the prosperous issue of which is not certified to us in advance" (*WB* 76). The way James sees it, insofar as Clifford, Huxley, and the other prophets of scientific rationality act as if they believed that the course of nature is uniform—which they do by practicing science and endorsing its latest findings—they display a *faith* in the uniformity of nature. All scientific belief and practice, James wishes us to realize, rests on a faith. In this respect, the practitioners and devotees of science are no more epistemically virtuous than religious believers.

2.2 Will-to-believe cases

Many of the arguments discussed in subsection 2.1 are either supplemental to the main argument of "The Will to Believe" or, in some sense, preparatory to it—considering that "The Sentiment of Rationality" and "Is Life Worth Living?" were both written prior to "The Will to

Believe," but had the same goal: the defense of religious belief against scientistic challengers. James's point is not simply that beliefs of all kinds *are*, as a matter of fact, partly determined by emotion and desire. Rather, the thesis he argues for is, as he states it: "*Our passional nature not only lawfully may, but must, decide an option between propositions, whenever it is a genuine option that cannot by its nature be decided on intellectual grounds*" (*WB* 20). The condition he specifies is what is meant by a "will-to-believe case." In this section I propose an interpretation of James's argument that takes inspiration from that offered by Alexander Klein in "Science, Religion, and 'The Will to Believe'" (2015) while differing from his reading in a few key ways.

What is a "genuine option," for James? An *option* is a choice between two incompatible *hypotheses* "proposed to our belief" (*WB* 14); a *genuine option* is one that is *living*, *forced*, and *momentous*. An option is *living* just in case both of the hypotheses under consideration are *live*: each "appeals as a real possibility to him to whom it is proposed" (*WB* 14). This specification rules out cases where it is impossible to will oneself to believe something, such as the example of believing that Abraham Lincoln did not exist or the naïve interpretation of Pascal's wager, discussed in the previous subsection. An option is *forced* if there is no way to avoid choosing between the proposed hypotheses. "Every dilemma based on a complete logical disjunction, with no possibility of not choosing, is an option of this forced kind" (*WB* 15). An option between hypotheses of the form *p* and not-*p*, where the alternatives are not only mutually exclusive but *exhaustive*, is *forced* when it is not *practically* possible to suspend judgment. Here James's action-focused (which is to say, pragmatic) understanding of belief is crucial. If the belief in *p* or not-*p* has *any* consequences for action, at least in the near term, the choice is forced. Klein (2015: 76) points to an evocative example that James gives in "Is Life Worth Living?": "If I doubt the need of insuring my house, I leave it uninsured as much as if I believed there were no need" (*WB*

50–1). James gives this example by way of illustrating the general claim that "[o]ur only way […] of doubting, or refusing to believe, that a certain thing *is*, is continuing to act as if it were *not*" (*WB* 50). Of course the central example he has in mind is that of believing that God *is*; but the principle has more general application, as I shall discuss. Finally, an option is *momentous* if the belief and the actions that follow from it will make an important difference to the subject's life.

What does James mean by the condition that the issue "cannot by its nature be decided on intellectual grounds"? He is not, as it may at first appear, limiting his thesis to intractable metaphysical questions, like the existence of God or an afterlife or free will,[93] which "by their nature" cannot be decided by empirical evidence because there cannot be any. Nor is he claiming that the question of God's existence can *never* be decided "on intellectual grounds," considering that in the preface to *The Will to Believe* and again in *The Varieties of Religious Experience*, he suggests a way that it might eventually be adjudicated. Rather, James has in mind situations in which a decision must be made before it is even possible to obtain the kind of evidence that would settle the question.

Klein (2015: 73–4) identifies two distinct points of disagreement in the literature over the interpretation of James's thesis in "The Will to Believe." The two questions on which various commentators disagree are these:

1) Is James proposing (a) a unitary set of epistemic standards governing both science and religion, or (b) a "separate spheres" doctrine according to which religious belief obeys different epistemic rules than scientific belief?

[93] In "The Dilemma of Determinism" (1884), James presented a Will to Believe-style argument in favor of believing in free will.

2) Does James consider the subject's interests and desires to be (a) evidence for the proposition she wishes to be true or (b) a non-evidential tie-breaker in cases that evidence cannot decide?

Klein identifies Misak (2013) as answering both questions with option (a)—thus portraying James as a kind of revised *evidentialist* who agrees with Clifford that belief should not go beyond the evidence, but disagrees on what counts as evidence—while Hollinger (2013) answers both with (b), giving an *anti-evidentialist* reading. Rorty (1997) agrees with Hollinger on both questions.

However, this division does not quite capture the range of interpretive options. In many of the examples that James presents as will-to-believe cases, the subject's belief that a state of affairs obtains plays a role in bringing about that state of affairs. Gale (1999: 103) refers to this, appropriately enough, as the "belief-helping-to-make-true condition"; Aikin (2014: 151) calls it "doxastic efficacy," which comes in the strong version of "doxastic preconditions" (i.e., the subject's prior belief is *necessary* for realizing the state of affairs) and the weaker version of "doxastic contribution"; Klein (2015: 103) calls the relevant states of affairs "faith-dependent facts." I will focus on three clear examples that James offers, which I will call the Mountain Climber case, the New Friendship case, and the Train Robbery case.

Although it is probably the best known of James's examples of doxastic efficacy, the Mountain Climber case does not occur in "The Will to Believe," but in its precursor, "Is Life Worth Living?"

> [O]ften enough our faith beforehand in an uncertified result *is the only thing that makes the result come true.* Suppose, for instance, that you are climbing a mountain, and have worked yourself into a position from which the only escape is by a terrible leap. Have faith that you can successfully make it, and your feet are nerved to its accomplishment. But mistrust yourself […] and you will hesitate so long that, at last, all unstrung and trembling, and launching yourself in a moment of despair, you roll in the abyss. (*WB* 53)

James hints already in this essay that the example "belongs to an enormous class" of similar ones, but does not provide more of its kind until "The Will to Believe." The first is the New Friendship case:

> Turn now from these wide questions of good to a certain class of questions of fact, questions concerning personal relations, states of mind between one man and another. *Do you like me or not?*—for example. Whether you do or not depends, in countless instances, on whether I meet you half-way, am willing to assume that you must like me, and show you trust and expectation. The previous faith on my part in your liking's existence is in such cases what makes your liking come. But if I stand aloof, and refuse to budge an inch until I have objective evidence, until you shall have done something apt, as the absolutists say, *ad extorquendum assensum meum* [to force my assent], ten to one your liking never comes. (*WB* 28)

James goes on from this case of individual social interaction to make a point about the prior trust required for social cooperation more generally, then makes this point especially vivid with an example in which this trust is *lacking*—the Train Robbery case (the relevant text is italicized):

> A social organism of any sort whatever, large or small, is what it is because each member proceeds to his own duty with a trust that the other members will simultaneously do theirs. Wherever a desired result is achieved by the co-operation of many independent persons, its existence as a fact is a pure consequence of the pre-cursive faith in one another of those immediately concerned. A government, an army, a commercial system, a ship, a college, an athletic team, all exist on this condition, without which not only is nothing achieved, but nothing is even attempted. *A whole train of passengers (individually brave enough) will be looted by a few highwaymen, simply because the latter can count on one another, while each passenger fears that if he makes a movement of resistance, he will be shot before anyone else backs him up. If we believed that the whole car-full would rise at once with us, we should each severally rise, and train-robbing would never even be attempted.* (*WB* 29, my italics)

James states the upshot of all these examples as follows:

> There are, then, cases where a fact cannot come at all unless a preliminary faith exists in its coming. *And where faith in a fact can help create the fact,* that would be an insane logic which should say that faith running ahead of scientific evidence is the 'lowest kind of immorality' into which a thinking being can fall. Yet such is the logic by which our scientific absolutists pretend to regulate our lives! (*WB* 29, original emphasis)

It is not clear whether James intends the dependence of facts on prior faith to be a condition on *all* will-to-believe cases and play a crucial role in securing the "lawfulness" of believing in excess of the evidence. This question also divides commentators:

3) Is doxastic efficacy a necessary feature of will-to-believe cases?

The answer to this question is closely connected to the answer to question (2). Both Gale (1999: 103) and Aikin (2014: 157–8) answer "yes" to question (3), but they differ on question (2), which leads them to very different conclusions about the effectiveness of James's argument. Gale takes the subject's interests as *non*-evidential, and sees doxastic efficacy, or belief-helping-to-make-true, as the key to making James's argument for justifying "epistemically nonwarranted belief" work (1999: 104). But Aikin takes the doxastic efficacy requirement to nullify James's disagreement with Clifford and turn him into an evidentialist, precisely because efficacious beliefs themselves provide *evidence* in favor of the proposition believed by increasing its likelihood (2014: 159). Klein (2015: 103) holds that the existence of faith-dependent facts "actually provides a separate argument for the permissibility of religious belief," independent of the argument regarding genuine options that evidence cannot decide by the time the subject must act.

Of course, the answer to question (3) is also closely connected with the interpretation of James's "religious hypothesis": because the aim of "The Will to Believe" is to justify belief in the religious hypothesis, doxastic efficacy can only be seen as a necessary feature of will-to-believe cases if the religious hypothesis is interpreted in such a way that it could be a faith-dependent fact. Both Gale (1999: 112) and Aikin (2014: 161) interpret James's religious hypothesis as the non-supernatural "good will win out in the long run," which is faith-dependent in that believing it can help bolster the spirits and courage of moral agents, enabling them to do more to promote good.[94] If one moral agent for whom this is the case believes it despite the absence of compelling evidence (to use James's strong interpretation of Clifford's Principle), or

[94] This is a familiar idea: Kant argued that "it is morally necessary to assume the existence of God" because the aim of moral action is to promote the highest good, the apportionment of happiness according to virtue, and he held that it was "a need connected with duty, to presuppose the possibility of this highest good," which he took to require the existence of a God who secured this apportionment (5: 125; see 124–6).

believes it more strongly than is warranted by the available evidence (on the more moderate interpretation), this will increase the probability that the religious hypothesis will turn out to be true only very slightly; but if a large number of moral agents do (assuming that their moral beliefs are mostly in alignment), it will more significantly increase the probability. However, it is harder to see how the existence of a supernatural God or an afterlife could depend on human subjects' belief therein. As Klein (2015: 103, n. 51) points out, James does entertain such an idea in "Is Life Worth Living?":

> I confess that I do not see why the very existence of an invisible world may not in part depend on the personal response which any one of us may make to the religious appeal. God himself, in short, may draw vital strength and increase of very being from our fidelity. (*WB* 55)

However, that would be a strange and highly unorthodox conception of God, and unlikely to appeal to the kind of person who is seeking justification for (continued) belief in God.

The interpretation I propose draws on Klein's (2015) very convincing argument that James regards scientific hypotheses as posing will-to-believe cases—not for an observer considering the experimental evidence in the context of justification, but for a research scientist in the context of discovery. As we have seen in section 2.1, James often tries to legitimate religious beliefs by drawing analogies with scientific beliefs that his science-admiring opponent would surely consider legitimate. Klein's thesis is that the core argument of "The Will to Believe" is an instance of the same strategy, and we should therefore interpret James as endorsing a single epistemic standard for both science and religion. As Klein argues, "James thinks good scientific methodology permits us (in special cases) to allow belief to run ahead of the evidence" (Klein 2015: 87)—namely, when a researcher is embarking on a new research program in an area where there is as yet very little experimental evidence. At the beginning of such a research program, James thinks, the scientist has little choice but to rely on her "passional

nature": a hunch, a flash of inspiration, aesthetic preference. James characterizes the production of scientific hypotheses this way in *The Principles of Psychology*:

> Every scientific conception is in the first instance a 'spontaneous variation' in someone's brain. For one that proves useful and applicable there are a thousand that perish through their worthlessness. Their genesis is strictly akin to that of the flashes of poetry and sallies of wit to which the instable brain-paths equally give rise. But whereas the poetry and wit […] are their 'own excuse for being,' and have to run the gauntlet of no farther test, the 'scientific' conceptions must prove their worth by being 'verified.' This test, however, is the cause of their *preservation*, not that of their production; and one might as well account for the origin of Artemus Ward's jokes by the 'cohesion' of subjects with predicates in proportion to the 'persistence of the outer relations' to which they 'correspond' as to treat the genesis of scientific conceptions in the same ponderously unreal way. (*PP* 1232–3)

The situation of a scientist beginning a new research program in a new and still-contested area of inquiry fits the criteria for a will-to-believe case as laid out above. If there are two or more candidates that all seem reasonably plausible, given the data that the new line of inquiry is intended to explain, the choice between the rival hypotheses is a *living* option. Assuming that the scientist is invested in the question (perhaps she has received a grant to study it), she must strike off in some direction or other, so the option is *forced*.[95] The hypothesis she chooses will determine the direction of her career at least in the near future, perhaps for many years, perhaps even for the rest of her working life, so the choice is *momentous*. The question "cannot by its nature be decided on intellectual grounds" (*WB* 20) at the time when the scientist must make a decision: she needs to choose a hypothesis to pursue in order to design the very kinds of experiments that would enable her to answer the question as to its truth, or the likelihood of its truth relative to competing hypotheses.

Two questions will no doubt occur to the reader at this point. First: does a researcher really need to *believe* her hypothesis in order to design experiments based on it—as opposed to

[95] In this her situation resembles the variant of the Mountain Climber case that James briefly presents at the very end of "The Will to Believe," quoting from Fitzjames Stephen: "'We stand on a mountain pass in the midst of whirling snow and blinding mist, through which we get glimpses now and then of paths which may be deceptive. If we stand still, we shall be frozen to death. If we take the wrong road, we shall be dashed to pieces. We do not certainly know whether there is any right one'" (*WB* 33).

just "accepting" it, in van Fraassen's sense (i.e., acting, at least in the research context, as if she believed it to be true, without actually believing it)? Second: would the researcher count as being in a will-to-believe scenario if we include doxastic contribution (i.e., the subject's belief helping to make the believed proposition true) as one of the necessary criteria?

I propose a take on James's thesis in "The Will to Believe" that enables us to answer both questions with a *conditional* "yes." My proposal also enables James to unify the religious case that is the target of his argument with both the scientific and social trust cases that he leverages as examples, and to respond to the moderate version of the Cliffordian evidentialist who holds only that "one is obligated to proportion the strength of one's belief to the available evidence," not (as James would have it) that one is permitted to believe only in the face of coercive evidence.

> **James's Thesis, Reinterpreted:** A subject faced with a genuine option is permitted to believe in a favored hypothesis to a greater extent than the available evidence supports when this is necessary for obtaining the kind of evidence that would confirm it.

James often speaks as if belief is an all-or-nothing matter, but he does indicate in "The Will to Believe" that he recognizes that there can be degrees of belief or of credence that falls short of belief: "deadness and liveness in an hypothesis […] are measured by [one's] willingness to act. The maximum of liveness in an hypothesis means willingness to act irrevocably. Practically, that means belief; but there is some believing tendency wherever there is willingness to act at all" (*WB* 14). To believe in a hypothesis to a greater extent than the available evidence supports is to be more willing to act on it, or to be willing to act on it in higher-stakes situations, than is warranted by the evidence alone.

Considering that James connects belief so closely with the propensity to act (while stopping just short of *defining* belief in terms of propensity to act), he is, as I remarked in the previous subsection, unlikely to recognize a distinction between *belief* and *acceptance*. Acceptance, he might say, is just belief that the subject does not want to admit as such, perhaps because she cannot defend it on strictly evidentialist grounds. But supposing James did recognize the distinction, or setting aside his views on the nature of belief, we can still defend James's thesis by recalling that, as Gale (1999: 109) puts it, "a will-to-believe option is relative to a person at a time because human psychology is variable"—in regard not only to which propositions are live and momentous, but also to whether a person is capable of acting as if she believed a proposition without actually believing it. A subject who can derive all the practical benefits of believing while withholding what she (or van Fraassen) calls "belief" would not be in a will-to-believe situation, as characterized in my reinterpretation of James's thesis: it would not be necessary to *believe* the proposition in order to obtain the relevant evidence.

The condition that I specified in addition to James's criteria for a "genuine option"—that belief is necessary for obtaining the kind of evidence that would confirm the proposition in question—is weaker and more general than "doxastic contribution" or "belief-helping-to-make-true." Let us call this condition *doxastic evidence-generation*. Doxastic contribution, it turns out, is a *special case* of doxastic evidence-generation, because helping to make a proposition true is one way of bringing forth evidence that supports it. It was not clear whether all of the cases that interest James—including scientific hypotheses and the religious hypothesis—involve doxastic contribution, but I think we can safely say that they all involve doxastic evidence-generation. Believing her favored hypothesis—not too firmly or dogmatically, but in preference to other equally well-supported hypotheses, which is more than the evidence alone warrants—motivates a

research scientist to design an experimental program whose results can provide either provisional confirmation or decisive disconfirmation of the hypothesis. Believing the religious hypothesis, according to the non-supernatural construal that good will triumph in the long run, makes it slightly more likely that it will turn out to be true by encouraging the subject in her pursuit of good aims; but by the same token it helps to furnish evidence of its truth, both by making the subject more likely to encounter moral successes (her own) and by making her more attentive to the good in the world. On the more traditionally theistic construal of the religious hypothesis, it would be very odd to think that a subject's belief helped to make it true (although, as we have seen, James did entertain that possibility). It is far less odd to think that a subject's belief gives her access to evidence for the religious hypothesis by making her open to religious experience, as James suggests in "The Will to Believe":

> The universe is no longer a mere *It* to us, but a *Thou*, if we are religious; and any relation that may be possible from person to person might be possible here. […] We feel, too, as if the appeal of religion to us were made to our own active good-will, as if evidence might be forever withheld from us unless we met the hypothesis half-way. To take a trivial illustration: just as a man who in a company of gentlemen made no advances, asked a warrant for every concession, and believed no one's word without proof, would cut himself off by such churlishness from all the social rewards that a more trusting spirit would earn—so here, one who should shut himself up in snarling logicality and try to make the gods extort his recognition willy-nilly, or not get it at all, might cut himself off forever from his only opportunity of making the gods' acquaintance. (*WB* 31)

Here, as we see, James is appealing to an analogy with the social trust cases he described earlier in the essay, especially New Friendship. Insofar as these are cases of doxastic contribution, they are also cases of doxastic evidence-generation. Some of these social cases can illustrate why James is on firmer ground if we place the emphasis on the role of "over-belief" (James's term for a belief that goes beyond what the evidence supports) in generating evidence for the proposition rather than contributing to its truth, and if we speak of believing to a greater *extent* than is supported by the evidence rather than believing, *tout court*, without sufficient evidence. Let us consider New Friendship as well as a new case: Rebuilding Trust, in a

relationship where trust has been broken. In either case, it does not make sense to have full belief right away that the other person is worthy of trust or (in New Friendship) that they will return the subject's liking. Instead, it is reasonable to extend a little more belief than warranted by the available evidence—which is virtually none, in New Friendship, and the experience of past betrayal in Rebuilding Trust—in order to invite the other person to provide further evidence that they are trustworthy or open to friendship. If they do provide such evidence, the subject takes that into consideration and then, once more, extends her belief a little farther than the (now more plentiful) evidence warrants, providing another opportunity for the other person to supply more evidence of their trustworthiness. In the ideal case, the positive feedback loop continues until a firm friendship is formed, or a strong trusting relationship restored. However, focusing on the fact that the subject is over-extending her belief not only in order to increase the likelihood of its truth but to gather *evidence* for it reminds us that if no such evidence is forthcoming—if the other person remains indifferent, in New Friendship, or betrays her again, in Rebuilding Trust—then at some point she is no longer justified in believing beyond the evidence: her over-belief has proven useless as an evidence-generating mechanism.

In just the same way, a researcher whose experiments fail to yield evidence in favor of her guiding hypothesis, or even produce contrary evidence, is required to abandon it and try pursuing another. And on this interpretation, the religious hypothesis, too, is vulnerable to defeat by the evidence—which seems to be the direction James was moving in through his later works, including *The Varieties of Religious Experience* and *Pragmatism*. The point at which belief in the religious hypothesis ceases to generate evidence for it will be subject-relative, as with any will-to-believe case, and different subjects may hold out longer before determining that no communication is coming from the gods' end of the line, or that the moral universe has betrayed

their trust. But this is also true in the social and scientific cases, and it may be just as difficult to specify the point when a subject should give up trust in a partner, the possibility of a friendship, or a scientific hypothesis.

It is important to remark that James's argument in "The Will to Believe" does *not* presuppose the pragmatist conception of truth outlined in Chapter 2. This may be because James had not yet arrived at his mature pragmatist doctrine ("The Will to Believe" was written ten years before *Pragmatism*); or it may be, as Gale (1999: 95) contends, that James was avoiding making any unnecessarily controversial assumptions in his premises in order to avoid alienating his audience from the outset. If James *had* been assuming the pragmatist conception of truth, the argument would look very different. He would not have said that "in our dealings with objective nature we obviously are recorders, not makers, of the truth" (*WB* 26), because according to pragmatism, human beings *do* play a role in making the truth even in the realm of natural science. The truth is what epistemic subjects will converge on in the long run, but where we end up will surely depend, to some degree, on how we got there, on which theories and conceptions won out at earlier stages of inquiry. According to this picture, there is an element of doxastic contribution every time a subject forms a belief: her believing it increases the likelihood, however slightly, that it will be part of the final consensus. If the belief runs contrary to sensory evidence, it will not go very far. But pursuing one scientific hypothesis as opposed to another, when either (given suitable refinement) might have worked just as well, can have the effect of ensuring that *that* hypothesis, or its descendant, ends up in the final collection of theories. And persisting in believing in God—if the belief is never contradicted by experience, and *especially* if it makes believers more successful in their moral projects—also increases the likelihood that God will figure in the theories that are agreed upon at the ideal end of inquiry.

2.3 Open-minded empiricism

In his argument against Clifford's Principle in "The Will to Believe," James appeals to a distinction in epistemic attitudes between what he calls *absolutism* and *empiricism*.

> We may talk of the *empiricist* way and of the *absolutist* way of believing in truth. The absolutists in this matter say that we not only can attain to knowing truth, but we can *know when* we have attained to knowing it; whilst the empiricists think that although we may attain it, we cannot infallibly know when. To *know* is one thing, and to know for certain *that* we know is another. One may hold to the first being possible without the second; hence the empiricists and the absolutists, although neither of them is a sceptic in the usual philosophic sense of the term, show very different degrees of dogmatism in their lives. (*WB* 20–21)

This is, as I remarked in Chapter 2, a very odd definition of empiricism, which is more standardly understood as the doctrine that all knowledge comes from experience. What James labels "empiricism" here is better known as *fallibilism*. But what the two doctrines have in common is the attitude that we are epistemically at the mercy of the outside world: we must always be ready for the possibility that a new experience will overthrow the conceptions that had been constructed from previous experience, along with an inevitable admixture of human imagination and prejudice.

Officially, as James notes (*WB* 21), empiricism is the epistemic outlook of the modern sciences. But James often points out that the most outspoken champions of the scientific outlook—especially those who condemn or ridicule religion and its adherents in the name of science—are themselves inconsistent in their empiricism:

> The greatest empiricists among us are only empiricists on reflection: when left to their instincts, they dogmatize like infallible popes. When the Cliffords tell us how sinful it is to be Christians on such "insufficient evidence," insufficiency is really the last thing they have in mind. For them the evidence is absolutely sufficient, only it makes the other way. They believe so completely in an anti-christian order of the universe that there is no living option: Christianity is a dead hypothesis from the start. (*WB* 21–2)

The hypocrisy of which James accuses Clifford and his allies is that they disguise their own brand of dogmatism—their firm belief in "an anti-christian order of the universe" (which James can hardly blame them for holding)—as epistemic caution, the scientifically respectable policy

of withholding belief from a proposition until it is supported by ample empirical evidence. But James suspects that they would not be open to any experiential evidence that challenges their atheistic, usually materialistic worldview. As he says a few pages earlier:

> Why do so few "scientists" even look at the evidence for telepathy, so called? Because they think, as a leading biologist, now dead, once said to me, that even if such a thing were true, scientists ought to band together to keep it suppressed and concealed. It would undo the uniformity of Nature and all sorts of other things without which scientists cannot carry on their pursuits. But if this very man had been shown something which as a scientist he might *do* with telepathy, he might not only have examined the evidence, but even have found it good enough. This very law which the logicians would impose upon us—if I may give the name of logicians to those who would rule out our willing nature here—is based on nothing but their own natural wish to exclude all elements for which they, in their professional quality of logicians, can find no use. (*WB* 19)

It seems to me that this "leading biologist," if James is reporting his views correctly, simply lacked imagination if he was so convinced that telepathy would undo the uniformity of nature; surely inventive scientists could figure out the patterns according to which it operates and integrate it into a broader understanding of the natural world. More likely what he meant was that it would undermine the *materialistic* or, more precisely, *mechanistic* understanding of the world that, as we saw in Chapter 3, was very popular with certain late nineteenth-century upholders of the hegemony of science. James might well have pointed out that the real danger in evidence for telepathy (or any of the other objects of the "psychical research" of which James was a great proponent[96]) was not that "scientists [could] not carry on their pursuits" (*WB* 19) at all, but that they could not carry on their pursuits in exactly the same way. Here Nietzsche's words are apropos:

> That the only justifiable interpretation of the world should be one in which *you* are justified because one can continue to work and do research scientifically in *your* sense (you mean, mechanistically?)—an interpretation that permits counting, calculating, weighing, seeing, touching, and nothing more—that is a crudity and a naïveté […] (*GS* 373)

[96] He was a founding member of the American Society for Psychical Research, and an entire volume of the Harvard edition of his complete works is devoted to his writings on the topic (Volume 16, *Essays in Psychical Research*).

In the preface to *The Will to Believe* (1897), James calls his own attitude "radical empiricism,"[97] and contrasts it as follows with other attitudes that go under the name of empiricism:

> Were I obliged to give a short name to the attitude in question, I should call it that of *radical empiricism*, in spite of the fact that such brief nicknames are nowhere more misleading than in philosophy. I say "empiricism," because it is contented to regard its most assured conclusions concerning matters of fact as hypotheses liable to modification in the course of future experience; and I say "radical," because it treats the doctrine of monism itself as an hypothesis, and, unlike so much of the half-way empiricism that is current under the name of positivism or agnosticism or scientific naturalism, it does not dogmatically affirm monism as something with which all experience has got to square. (*WB* 5)

What James means by "monism" is (as he characterizes it in Lecture IV of *Pragmatism*, "The One and the Many") roughly the idea that everything in the world can be unified in a single theory: that it is all ultimately the same kind of thing (be it matter or thought) and follows the same set of laws. As a radical empiricist, James is open to the idea that not all parts of the universe can be brought under the same laws.[98] This is not to say that James thinks we should give up looking for a unifying theory; he describes monism (using a Kantian term) as a "*Grenzbegriff*," a boundary or limit concept that can be used to guide inquiry. Theoretical unity is, for James, an ideal, not a given; and it is certainly not permissible to ignore experiential evidence in order to preserve a supposedly achieved unity.

James specifies in the preface to *Pragmatism* that his pragmatism is logically independent of his radical empiricism, and one can accept one doctrine while rejecting the other (*P* 6). Nonetheless, they share a spirit of openness to evidence of all kinds, even from unexpected sources. In Lecture II of *Pragmatism* James contrasts his pragmatism with what he is calling

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[97] James continued to use this term for his epistemological view throughout his later writings. A volume called *Essays in Radical Empiricism* was published in 1912, after James's death, by James's student and biographer Ralph Barton Perry, based on a table of contents that James wrote down under that title in 1907 (see Bowers 1976: 203–8).
[98] James's pluralism is, in this respect, not dissimilar to the view advocated by Nancy Cartwright in *The Dappled World* (1999).

"empiricism" for polemical reasons, but by which he clearly means "the half-way empiricism that is current under the name of positivism or agnosticism or scientific naturalism" (*WB* 5):

> You see by this what I meant when I called pragmatism a mediator and reconciler and said, borrowing the word from Papini, that she 'unstiffens' our theories. She has in fact no prejudices whatever, no obstructive dogmas, no rigid canons of what shall count as proof. […] She will entertain any hypothesis, she will consider any evidence. It follows that in the religious field she is at a great advantage both over positivistic empiricism, with its anti-theological bias, and over religious rationalism, with its exclusive interest in the remote, the noble, the simple, and the abstract in the way of conception.
>
> In short, she widens the field of search for God. Rationalism sticks to logic and the empyrean. Empiricism sticks to the external senses. Pragmatism is willing to take anything, to follow either logic or the senses, and to count the humblest and most personal experiences. She will count mystical experiences if they have practical consequences. She will take a God who lives in the very dirt of private fact—if that should seem a likely place to find him.
>
> Her only test of probable truth is what works best in the way of leading us, what fits every part of life best and combines with the collectivity of experience's demands, nothing being omitted. If theological ideas should do this, if the notion of God, in particular, should prove to do it, how could pragmatism possibly deny God's existence? She could see no meaning in treating as 'not true' a notion that was pragmatically so successful. What other kind of truth could there be, for her, than all this agreement with concrete reality? (*P* 43–4)

Note what James says about the kind of empiricism against which he is positioning his pragmatism: "Empiricism sticks to the external senses." More accurately he might have said that "*positivistic* empiricism" (as he calls it later in the passage) sticks to the external senses. James's *radical* empiricism takes seriously the evidence of (to use another Kantian term) *inner* sense as well as outer sense. This is not to say that inner sense can *trump* outer sense: as discussed in Chapter 2, it is surely not a practical policy to believe what "feels good" to believe in defiance of the evidence of one's senses (as pragmatism's detractors so often accuse it of encouraging; see, again, *P* 43, *P* 111–2). But a truly radical empiricism will, as James says, count "mystical experiences," which are entirely interior and private, as evidence of the existence of another plane of being "if they have practical consequences." After all, *successful action-guiding* is the ultimate warrant for every kind of belief, according to pragmatism.

This statement in *Pragmatism* echoes the conclusion James comes to in the lecture of *The Varieties of Religious Experience* on "Mysticism": "Mystical states, when well developed,

usually are, and have the right to be, absolutely authoritative over the individuals to whom they come" (*VRE* 335). He explains:

> As a matter of psychological fact, mystical states of a well-pronounced and emphatic sort *are* usually authoritative over those who have them. They have been 'there,' and know. It is vain for rationalism to grumble about this. If the mystical truth that comes to a man proves to be a force that he can live by, what mandate have we of the majority to order him to live in another way? […] Our own more 'rational' beliefs are based on evidence exactly similar in nature to that which mystics quote for theirs. Our senses, namely, have assured us of certain states of fact; but mystical experiences are as direct perceptions of fact for those who have them as any sensations ever were for us. The records show that even though the five senses be in abeyance in them, they are absolutely sensational in their epistemological quality […] —that is, they are face to face presentations of what seems immediately to exist. (*VRE* 335–6)[99]

James goes on to specify that "mystics have no right to claim that we ought to accept the deliverance of their peculiar experiences, if we are ourselves outsiders and feel no private call thereto" (*VRE* 336). Mystical experiences are thus not exactly like sensory experiences, because we do tend to accept the testimony of the sole witness to some external event unless we have a reason to believe them untrustworthy. Nonetheless, he insists,

> the existence of mystical states absolutely overthrows the pretension of non-mystical states to be the sole and ultimate dictators of what we may believe. As a rule, mystical states merely add a supersensuous meaning to the ordinary outward data of consciousness. They are excitements like the emotions of love or ambition, gifts to our spirit by means of which facts already objectively before us fall into a new expressiveness and make a new connexion with our active life. They do not contradict these facts as such, or deny anything that our senses have immediately seized. It is the rationalistic critic rather who plays the part of denier in the controversy, and his denials have no strength, for there never can be a state of facts to which new meaning may not truthfully be added, provided the mind ascend to a more enveloping point of view. It must always remain an open question whether mystical states may not possibly be such superior points of view, windows through which the mind looks out upon a more extensive and inclusive world. The difference of the views seen from the different mystical windows need not prevent us from entertaining this supposition. The wider world would in that case prove to have a mixed constitution like that of this world, that is all. It would have its celestial and its infernal regions, its tempting and its saving moments, its valid experiences and its counterfeit ones, just as our world has them; but it would be a wider world all the same. We should have to use its experiences by selecting and subordinating and substituting just as is our custom in this ordinary naturalistic world; we should be liable to error just as we are now; yet the counting in of that wider world of meanings, and the serious dealing with it, might, in spite of all the perplexity, be indispensable stages in our approach to the final fullness of the truth. (*VRE* 338–9)

[99] Gale (1999: 262) remarks that this "argument from analogy with sense experience" anticipates more recent and more fully developed arguments from philosophers of religion that we should presume mystical experiences to be veridical (see 1999: 262–5).

Despite James's friendliness to ascetic religious traditions (including Christianity) and the possibility of the supernatural, which Nietzsche does not share, the attitude expressed in this passage bears certain resemblances to that expressed by Nietzsche in his protest against mechanistic reductionism in *GS* 373. Both defend the possibility that earthly states of affairs have a plurality of *meanings* that go beyond what physical theories can account for. James suggests that communication from the wider universe comes *through* the subconscious mind (*VRE* 403), but mystical experiences might be understood to come *from* the subconscious mind without thereby losing their profound significance for those who undergo them. James even gestures at a naturalistic understanding of mystical states when he says, "They are excitements *like the emotions of love or ambition*, gifts to our spirit by means of which facts already objectively before us fall into a new expressiveness […]" (*VRE* 338, emphasis added). The claim that "there never can be a state of facts to which new meaning may not truthfully be added, provided the mind ascend to a more enveloping point of view," if detached from the notion that these wider points of view must be supernatural ones, seems much in the same spirit as Nietzsche's declaration that "the world [has] become 'infinite' for us all over again, inasmuch as we cannot reject the possibility that *it may include infinite interpretations*" (*GS* 374, original emphasis).

3. The limitations of science

In "The Sentiment of Rationality," James distinguishes two respects in which a conception of the world can be rational or irrational. The first is what he calls the "theoretic" respect: the satisfaction or dissatisfaction of the intellect with the way the conception accounts for the features of the world. In order to satisfy the intellect, to seem rational, a theory must accommodate two demands that pull in opposite directions: the demand for simplicity and

explanatory power, the "pleasure at finding that a chaos of facts is the expression of a single underlying fact" (*WB* 58); and the demand for adequacy to the full detail of concrete particulars (*WB* 59). Theories that unify and simplify, that place things under the broadest possible headings, tend to elide the peculiarities of individual cases; theories that dwell too much on peculiarities tend to lose sight of the general explanatory principles that provide "economy of means in thought" (*WB* 59) and enable us to make predictions. The second respect in which a conception can be rational or irrational, as distinguished from the theoretic, is the *practical*. Just as we find a conception rational in the theoretic sense if it satisfies the demands of our intellect, we find a conception *practically* rational if it satisfies our "active impulses" (*WB* 66): if it promises that our actions can be efficacious, and are not doomed to failure. Or, as he puts the same point in "Reflex Action and Theism" (1881), any "universal formula" or "system of philosophy" will inevitably fail to gain acceptance if

> it has dropped out of its net some of our impressions of sense—what we call the facts of nature—or it has left the theoretic and defining department [of the mind] with a lot of inconsistencies and unmediated transitions on its hands; or else, finally, it has left some one of more of our fundamental active and emotional powers with no object outside of themselves to react on or to live for.
> (*WB* 100)

Throughout his writings, James points to both the epistemic and the practical limitations of science—or in the terms of "The Sentiment of Rationality," to the respects in which the worldview it delivers strikes many minds (including his) as both theoretically and practically irrational. James agrees with Nietzsche on one of the most important epistemic limitations of science: its inability to perceive or account for the human meaning and value of phenomena. Consider the following passage from "The Sentiment of Rationality":

> There is nothing improbable in the supposition that an analysis of the world may yield a number of formulae, all consistent with the facts. In physical science different formulae may explain the phenomena equally well—the one-fluid and the two-fluid theories of electricity, for example. Why may it not be so with the world? Why may there not be different points of view for surveying it, within each of which all data harmonize, and which the observer may therefore either choose

> between, or simply cumulate one upon another? A Beethoven string-quartet is truly, as someone has said, a scraping of horses' tails on cats' bowels, and may be exhaustively described in such terms; but the application of this description in no way precludes the simultaneous applicability of an entirely different description. Just so a thorough-going interpretation of the world in terms of mechanical sequence is compatible with its being interpreted teleologically, for the mechanism itself may be designed. (*WB* 66)

It is yet another remarkable coincidence that James should express the idea that the scientific view of the world is merely partial, and in important respects severely limited, in terms so similar to Nietzsche's: "Assuming that one estimated the *value* of a piece of music according to how much of it could be counted, calculated, and expressed in formulas: how absurd would such a 'scientific' estimation of music be! What would one have comprehended, understood, grasped of it? Nothing, really nothing of what is 'music' in it!" (*GS* 373). Nietzsche surely would balk at James's proposal that the natural world could be interpreted "teleologically" as well as mechanistically, but once again, they are united in their insistence on a multiplicity of possible interpretations.

James also maintains along with Nietzsche that science cannot *posit* values. In "The Will to Believe" he writes:

> *Moral questions* immediately present themselves as questions whose solution cannot wait for sensible proof. A moral question is a question not of what sensibly exists, but of what is good, or would be good if it did exist. Science can tell us what exists; but to compare the *worths*, both of what exists and of what does not exist, we must consult not science, but what Pascal calls our heart. **Science herself consults her heart when she lays it down that the infinite ascertainment of fact and correction of false belief are the supreme goods for man**. Challenge the statement, and science can only repeat it oracularly, or else prove it by showing that such ascertainment and correction bring man all sorts of other goods which man's heart in turn declares. (*WB* 27; italics original, bold emphasis mine)

The sentence I have emphasized in bold expresses much the same idea that Nietzsche did in *GS* 344 when he wrote, "We see that science also rests on a faith […] The question whether *truth* is needed must not only have been affirmed in advance, but affirmed to such a degree that the principle, the faith, the conviction finds expression: '*Nothing* is needed *more* than truth, and in relation to it everything has second-rate value."

Arguably, however, James regards the *practical* limitations of science to be even more fatal than its epistemic limitations. In "Reflex Action and Theism," James endorses the physiological and psychological theory—very much in line with the pragmatist philosophy he would develop later—that "perception and thinking are only there for behavior's sake":

> The current of life which runs in at our eyes or ears is meant to run out at our hands, feet, or lips. The only use of the thoughts it occasions while inside is to determine its direction to whichever of these organs shall, on the whole, under the circumstances actually present, act in the way most propitious to our welfare. (*WB* 92)

But James finds that the worldview presented by science, which the champions of the hegemony of science insist is the only defensible worldview, fails to meet the needs of what he calls "the willing department of our nature" (*WB* 92):

> Materialism and agnosticism, even were they true, could never gain universal and popular acceptance; for they both, alike, give a solution of things which is irrational to the practical third of our nature, and in which we can never volitionally feel at home. Each comes out of the […] theoretic stage of mental functioning, with its definition of the essential nature of things, its formula of formulas prepared. The whole array of active forces of our nature stands waiting, impatient for the word which shall tell them how to discharge themselves most deeply and worthily upon life. "Well!" cry they, "what shall we do?" "Ignoramus, ignorabimus!" says agnosticism. "React upon atoms and their concussions!" says materialism. What a collapse! The mental train misses fire, the middle fails to ignite the end, the cycle breaks down half-way to its conclusion; and the active powers left alone, with no proper object on which to vent their energy, must either atrophy, sicken, and die, or else by their pent-up convulsions and excitement keep the whole machinery in a fever until some less incommensurable solution, some more practically rational formula, shall provide a normal issue for the currents of the soul. (*WB* 100–1)

This conclusion may seem rather hyperbolic; but as we have seen both in Chapter 2 and in section 1 of the present chapter, James's profound objection to the materialistic worldview has to do with the end it foretells and the implications for our present action. In Lecture III of *Pragmatism*, "Some Metaphysical Problems Pragmatically Considered," James concedes that the behavior of matter might be sufficient to explain everything that has ever existed, and that from the retrospective standpoint, saying it was caused by God "surely can lend it no increase of dignity" (*P* 51).

> But philosophy is prospective also, and, after finding what the world has been and done, and yielded, still asks the further question 'what does the world *promise?*' Give us a matter that promises *success*, that is bound by its laws to lead our world ever nearer to perfection, and any rational man will worship that matter […]
>
> Theism and materialism, so indifferent when taken retrospectively, point, when we take them prospectively, to wholly different outlooks of experience. For, according to the theory of mechanical evolution, the laws of redistribution of matter and motion, though they are certainly to thank for all the good hours which our organisms have every yielded us and for all the ideals which our minds now frame, are yet fatally certain to undo their work again, and to redissolve everything that they have once evolved. (*P* 53–4)

Somehow or other, the physical world in which we live is bound to come to an end: our sun will someday burn out, and even if we manage to find a habitable place elsewhere, thermodynamics predicts the eventual heat death of the universe. Accepting that the world as science describes it is all there is to the world means accepting that dissolution is the ultimate fate of everything that matters to us. Given that all our accomplishments are inevitably temporary, that no end we work for can be secured for good, it is natural to wonder why it is worthwhile to work for any ends at all.

Allowing ourselves to believe that there is more to the universe than science can tell us about, whether this is a God specifically or a more vaguely "spiritualistic faith" in "an ideal order that shall be permanently preserved" (*P* 55–6), allows us the *hope* that all our striving is not ultimately Sisyphean labor—a hope that, James suggests in "Reflex Action and Theism," can release our active impulses from the hobbles that materialism's gloomy prophecy placed on them (*WB* 101). And to those who will inevitably object that it is inappropriate and impermissible to allow our practical interests to dictate our beliefs, James responds in the theme that we saw already in section 2.1 above:

> As if the mind could […] be a reactionless sheet at all! As if conception could possibly occur except for a teleological purpose, except to show us the way from a state of things our senses cognize to another state of things our will desires! As if "science" itself were anything else than such an end of desire, and a most peculiar one at that! And as if the "truths" of bare physics in particular, which these sticklers for intellectual purity contend to be the only uncontaminated form, were not as great an alteration and falsification of the simply "given" order of the world, into an order conceived solely for the mind's convenience and delight, as any theistic doctrine possibly can be!

> […] At any rate, to operate upon [the given world] is our only chance of approaching it; for never can we get a glimpse of it in the unimaginable insipidity of its virgin estate.[100] To bid the man's subjective interests be passive till truth express itself from out the environment, is to bid the sculptor's chisel be passive till the statue express itself from out the stone. Operate we must! and the only choice left us is that between operating to poor or to rich results. The only possible duty there can be in the matter is the duty of getting the richest results that the material given will allow. […]
>
> These most conscientious gentlemen [i.e., the scientistic objectors] think they have jumped off their own feet—emancipated their mental operations from the control of their subjective propensities at large and *in toto*. But they are deluded. They have simply chosen from among the entire set of propensities at their command those that were certain to construct, out of the materials given, the leanest, lowest, aridest result—namely, the bare molecular world—and they have sacrificed all the rest. (*WB* 103–4)

We can see already, in this essay from 1881, the seeds of the pragmatism that will reach its mature form twenty-five years later—not only in the view that perception and thought exist only for the sake of action, but in the insistence that all of our ideas, all of our "truths," inevitably bear the imprint of the human minds that formed them, and are ultimately shaped by our practical interests. "The only possible duty there can be in the matter is the duty of getting the richest results that the material given will allow" is a forerunner of the conclusion that what is *true*—i.e., what we have a "duty" (though an instrumental, not a categorical one) to believe—is what it will be most beneficial for human beings, in the long run, to believe.

4. Conclusion

We can see, through all of James's efforts to defend the right to religious belief from scientistic efforts to outlaw it, the respect he maintains for the *practice* of science, even while he resists the *hegemony* of science, i.e., the attempt to extend science's epistemic authority to all domains of life and deny epistemic authority to the practices that traditionally governed those domains. As Hollinger (1997: 73–4) observed, James's increasingly metaphysically noncommittal characterizations of "the religious hypothesis" indicate a desire to remain

[100] This phrase, "the unimaginable insipidity of its virgin estate," is amusingly echoed in Nietzsche's assertion of any state of affairs that "*in itself* it just stands there, stupid to all eternity, like every 'thing-in-itself'" (*GM* III, 7).

consistent with the deliverances of science—or at least not to contradict them outright—while not conceding that they *exhaust* what may be true about the universe. True, his favored defensive strategy of pointing out the way that the beliefs of practicing scientists and even the conclusions of institutional science are similar to the religious beliefs of the faithful (in being formed under the influence of passions and preferences) often has the rhetorical force of a *tu quoque*. But I think it also reflects James's confidence in the effectiveness of scientific practice—especially the appeal to the analogy between scientific hypotheses and the religious hypothesis which, I have contended, underlies the argument of "The Will to Believe."

Nonetheless, James, like Nietzsche, still preserves a domain—the domain of ultimate value—in which science has no authority (indeed, no ability) to pronounce. For various reasons I have canvassed, most notably their different judgments about the value of the altruistic morality expressed in most traditional religions, James reserves the domain of value for traditional religion while Nietzsche appropriates it for a reinvented philosophy. But in any case, they agree that, contra the attitude of the hegemony of science, science *cannot* answer every question worth asking and is not the only practice with epistemic merit: art, philosophy, humanistic inquiry, and (at least for James) religion give us access to a very real realm of meaning and value in which science does not hold sway.

References

Works by Nietzsche

Primary texts are cited with an abbreviation for the title, Roman numerals for the larger divisions of the text where relevant, and Arabic numerals for the aphorism numbers.

Abbreviations

A	*The Antichrist*
BGE	*Beyond Good and Evil*
BT	*The Birth of Tragedy*
EH	*Ecce Homo*
GM	*On the Genealogy of Morality*
GS	*The Gay Science*
HH	*Human, All Too Human*
KSA	*Kritische Studienausgabe* (German edition)
TI	*Twilight of the Idols*
UM	*Untimely Meditations*
WP	*The Will to Power*
Z	*Thus Spoke Zarathustra*

Citations

The Antichrist. In *The Portable Nietzsche*, translated and edited by Walter Kaufmann, 565–656. New York: Viking Penguin Inc., 1954, 1968, 1982 (1888).

Beyond Good and Evil. Trans. by Walter Kaufmann. New York: Random House, Inc., 1966 (1886).

The Birth of Tragedy. Trans. and ed. by Walter Kaufmann. New York: Random House, Inc., 1967 (1872).

Ecce Homo. Trans. by Walter Kaufmann. New York: Random House, Inc., 1966 (1888).

On the Genealogy of Morals. Trans. by Walter Kaufmann and R.J. Hollingdale. New York: Random House, Inc., 1966 (1887).

The Gay Science. Trans. by Walter Kaufmann. New York: Random House, Inc., 1974 (1882, 1887).

Human, All Too Human. Trans. by R.J. Hollingdale. Cambridge, UK: Cambridge University Press, 1986, 1996 (1878–9).

Kritische Studienausgabe. Ed. by Giorgio Colli and Mazzio Montinari, 15 vols. Berlin: W. de Gruyter, 1967ff. (Cited by volume and page number.)

Twilight of the Idols. In *The Portable Nietzsche*, trans. and ed. by Walter Kaufmann, 463–563. New York: Viking Penguin Inc., 1954, 1968, 1982 (1888).

Untimely Meditations. Translated by R.J. Hollingdale, edited by Daniel Breazeale. Cambridge, UK: Cambridge University Press, 1997 (1873–6).

The Will to Power. Translated by Walter Kaufmann and R.J. Hollingdale, edited by W. Kaufmann. New York: Random House, 1967 (1901, 1906).

Thus Spoke Zarathustra. In *The Portable Nietzsche*, trans. and ed. by Walter Kaufmann, 103-439. New York: Viking Penguin Inc., 1954, 1968, 1982 (1883–4).

Works by James

Abbreviations

ECR	*Essays, Comments, and Reviews*
ERE	*Essays in Radical Empiricism*
ERM	*Essays in Religion and Morality*
MT	*The Meaning of Truth*
P	*Pragmatism*
PP	*The Principles of Psychology*
PU	*A Pluralistic Universe*
VRE	*The Varieties of Religious Experience*
WB	*The Will to Believe and Other Essays in Popular Philosophy*

Citations

The Works of William James. Edited by Frederick H. Burkhardt, Fredson Bowers, and Ignas K. Skrupskelis. 19 vols. Cambridge, MA and London: Harvard University Press, 1975–1988.

Vol. 1: *Pragmatism*. Ed. by F. Bowers and I. Skrupskelis. Introduction by H. S. Thayer. HUP, 1975.

Vol. 2: *The Meaning of Truth*. Ed. by F. Bowers and I. Skrupskelis. Introduction by H. S. Thayer. HUP, 1975.

Vol. 3: *Essays in Radical Empiricism*. Ed. by F. Bowers and I. Skrupskelis. Introduction by John J. McDermott. HUP, 1976.

Vol. 4: *A Pluralistic Universe*. Ed. by F. Bowers and I. Skrupskelis. Introduction by Richard J. Bernstein. HUP, 1977.

Vol. 6: *The Will to Believe and Other Essays in Popular Philosophy*. Ed. by F. Burkhardt, F. Bowers, and I. Skrupskelis. Introduction by Edward H. Madden. HUP, 1979.

Vol. 9: *The Principles of Psychology, Volume II*. Ed. by F. Burkhardt, F. Bowers, and I. Skrupskelis. HUP, 1981.

Vol. 11: *Essays in Religion and Morality*. Ed. by F. Burkhardt, F. Bowers, and I. Introduction by John J. McDermott. HUP, 1982.

Vol. 15: *The Varieties of Religious Experience*. Ed. by F. Burkhardt, F. Bowers, and I. Skrupskelis. Introduction by John E. Smith. HUP, 1985.

Vol. 17: *Essays, Comments, and Reviews*. Ed. by F. Burkhardt, F. Bowers, and I. Skrupskelis. Introduction by I. Skrupskelis. HUP, 1987.

Other Works

Acampora, Christa Davis (2004). "Between Mechanism and Teleology: Will to Power and Nietzsche's Gay 'Science.'" In *Nietzsche and Science*, edited by Gregory Moore and Thomas H. Brobjer, pp. 171–188. Burlington, VT: Ashgate Publishing Company.

Aikin, Scott F. (2014). *Evidentialism and the Will to Believe*. London: Bloomsbury Publishing Plc.

Anderson, R. Lanier (2005). "Nietzsche on Truth, Illusion, and Redemption." *European Journal of Philosophy*, Vol. 13, No. 2, pp. 185–225.

--- (2003). "The Debate Over the *Geisteswissenschaften* in German Philosophy." In *The Cambridge History of Philosophy 1870–1940*, edited by Thomas Baldwin. Cambridge, UK: Cambridge University Press.

--- (2002). "Sensualism and Unconscious Representation in Nietzsche's Account of Knowledge." *International Studies in Philosophy*, 34.3, pp. 95–117.

Ansell-Pearson, Keith (2000). "Nietzsche's Brave New World of Force: On Nietzsche's 1873 'Time Atom' Fragment and the Matter of Boscovich's Influence on Nietzsche." *Journal of Nietzsche Studies*, No. 20, pp. 5–33.

Berry, Jessica (2010). *Nietzsche and the Ancient Skeptical Tradition*. Oxford: Oxford University Press.

Bowers, Fredson (1976). “The Text of *Essays in Radical Empiricism*.” In *The Works of William James, Volume 3: Essays in Radical Empiricism*, pp. 200–229. Cambridge, MA and London: Harvard University Press.

Brobjer, Thomas (2004). “Nietzsche’s Reading and Knowledge of Natural Science: An Overview.” In *Nietzsche and Science*, ed. by Gregory Moore and Thomas Brobjer. Hampshire, UK: Ashgate Publishing, Ltd.

Carnap, Rudolf (1950). “Empiricism, Semantics, and Ontology.” *Revue Internationale de Philosophie*, Vol. 4, No. 11, pp. 20–40.

Cartwright, Nancy (1999). *The Dappled World: A Study of the Boundaries of Science*. Cambridge, UK: Cambridge University Press.

Clark, Maudemarie (1990). *Nietzsche on Truth and Philosophy*. Cambridge, UK: Cambridge University Press.

Clifford, W. K. (1999 [1877]). “The Ethics of Belief.” In *The Ethics of Belief and Other Essays*, ed. by Timothy J. Madigan, pp. 70–96. Amherst, NY: Prometheus Books.

Cox, Christoph (1999). *Nietzsche: Naturalism and Interpretation*. Berkeley: University of California Press.

--- (1995). “Nietzsche, Naturalism, and Interpretation.” *International Studies in Philosophy*, Vol. 27, No. 3, pp. 3–18.

Danto, Arthur (1965). *Nietzsche as Philosopher*. New York: Columbia University Press.

Dawkins, Richard (1991). *Growing Up in the Universe*. The Royal Institute Christmas Lectures. Part 4: “The Ultraviolet Garden.”

--- (1989). *The Selfish Gene* (2nd edition [1976]). Oxford: Oxford University Press.

Gale, Richard M. (1999). *The Divided Self of William James*. Cambridge, UK: Cambridge University Press.

--- (1980). “William James and the Ethics of Belief.” *American Philosophical Quarterly*, Vol. 17, No. 1, pp. 1–14.

Greene, Joshua (2014). *Moral Tribes: Emotion, Reason, and the Gap between Us and Them*. New York: Penguin Books.

Grove, Jack (2015). “Social sciences and humanities faculties ‘to close’ in Japan after ministerial intervention.” *Times Higher Education*, 14 September 2015. <https://www.timeshighereducation.com/news/social-sciences-and-humanities-faculties-close-japan-after-ministerial-intervention>

Haack, Susan (2007). *Defending Science—Within Reason: Between Scientism and Cynicism* (2nd edition [2003]). Amherst, NY: Prometheus Books.

--- (2001). "'The Ethics of Belief' Reconsidered." In *Knowledge, Truth, and Duty: Essays on Epistemic Justification, Responsibility, and Virtue*, ed. by Matthias Steup, pp. 21–33.

Hollinger, David A. (2013). *After Cloven Tongues of Fire: Protestant Liberalism in Modern American History*. Princeton: Princeton University Press.

--- (1997). "James, Clifford, and the Scientific Conscience." In *The Cambridge Companion to William James*, ed. by Ruth Anna Putnam, pp. 69–83. Cambridge, UK: Cambridge University Press.

Hookway, Christopher (1997). "Logical Principles and Philosophical Attitudes: Peirce's Response to James's Pragmatism." In *The Cambridge Companion to William James*, ed. by R.A. Putnam, pp. 145–165.

Hughes, Colin (1998). "The Guardian Profile, Richard Dawkins: The Man Who Knows the Meaning of Life." *The Guardian*, Saturday Review, 3 October 1998.

Hume, David (1978 [1739–40]). *A Treatise of Human Nature*. Edited, with an Analytical Index, by L.A. Selby-Bigge; Second Edition, with revised text, by P.H. Nidditch. Oxford: Oxford University Press. Cited as *THN*, by book, part, section, and page number.

Janaway, Christopher (2007). *Beyond Selflessness: Reading Nietzsche's* Genealogy. Oxford, UK: Oxford University Press.

Kant, Immanuel (1900ff). *Gesammelte Schriften*. Editors: Vols. 1–22, Preussische Akademie der Wissenschaften; Vol. 23, Deutsche Akademie der Wissenschaften zu Berlin; from Vol. 24, Akademie der Wissenschaften zu Göttingen. Berlin: de Gruyter. Cited as Ak. volume number: page number.

--- (1988 [1781/1787]). *Critique of Pure Reason*. Trans. and ed. by Paul Guyer and Allen W. Wood. Cambridge, UK: Cambridge University Press. Cited in A/B format.

--- (1996). *Practical Philosophy*. Trans. and ed. by Mary J. Gregor. Cambridge, UK: Cambridge University Press.

Kasser, Jeffrey L. (2015). "Structure and Content in 'The Will to Believe.'" *Transactions of the Charles S. Peirce Society*, Vol. 51, No. 3, pp. 320–337.

Kaufmann, Walter (1974). Translator's Introduction and Notes. In Nietzsche, *The Gay Science*, trans. by W. Kaufmann. New York: Random House, Inc.

Klein, Alexander (2015). “Science, Religion, and ‘The Will to Believe.’” *HOPOS: The Journal of the International Society for the History of Philosophy of Science*, Vol. 5, No. 1, pp. 72–117.

Kuhn, Thomas S. (2012 [1962]). *The Structure of Scientific Revolutions*. Chicago: The University of Chicago Press.

Leibniz, G.W. (1989 [1695]). “A Specimen of Dynamics, Toward Uncovering and Reducing to Their Causes Astonishing Laws of Nature Concerning the Forces of Bodies and Their Actions on One Another.” In *Philosophical Essays*, trans. and ed. by Roger Ariew and Daniel Garber, pp. 117–138. Indianapolis: Hackett Publishing Company, Inc.

Leiter, Brian (2002). *Routledge Philosophy Guidebook to Nietzsche on Morality*. Abingdon: Routledge.

Oxford English Dictionary Online. <www.oed.com>

Misak, Cheryl (2013). *The American Pragmatists*. Oxford: Oxford University Press.

Moore, Gregory (2004). Introduction. In *Nietzsche and Science*, ed. by Gregory Moore and Thomas H. Brobjer, pp. 1–17. Burlington, VT: Ashgate Publishing Company.

Nehamas, Alexander (2017). “Nietzsche on Truth and the Value of Falsehood.” *The Journal of Nietzsche Studies*, Vol. 48, No. 3, pp. 319–346.

--- (2016). *On Friendship*. New York: Basic Books.

--- (1985). *Nietzsche: Life as Literature*. Cambridge, MA: Harvard University Press.

Peirce, Charles Sanders (1958–1966). *Collected Papers*. Vols. 1–6 edited by Charles Hartshorne and Paul Weiss; vols. 7–8 edited by A. W. Burks. Cambridge: Belknap Press of Harvard University Press. Cited as *CP*, by volume number and paragraph number.

Pinker, Steven (2013). “Science Is Not Your Enemy: An impassioned plea to neglected novelists, embattled professors, and tenure-less historians.” *New Republic*, 6 August 2013. <https://newrepublic.com/article/114127/science-not-enemy-humanities>

Poellner, Peter (1999). “Causation and Force in Nietzsche.” In *Nietzsche, Epistemology, and Philosophy of Science: Nietzsche and the Sciences II* (Boston Studies in the Philosophy of Science, vol. 2014), ed. by B. Babich. Dordrecht: Kluwer Academic Publishers.

Reginster, Bernard (2006). *The Affirmation of Life: Nietzsche on Overcoming Nihilism*. Cambridge, MA: Harvard University Press.

--- (2003). “What is a Free Spirit? Nietzsche on Fanaticism.” *Archiv für Geschichte der Philosophie*, No. 85, pp. 51–85.

Rorty, Richard (1997). “Religious Faith, Intellectual Responsibility, and Romance.” In *The Cambridge Companion to William James*, ed. by R.A. Putnam, pp. 84–102. Cambridge, UK: Cambridge University Press.

Rosenberg, Alex (2011). *The Atheist’s Guide to Reality: Enjoying Life without Illusions*. New York: W.W. Norton & Company, Inc.

Schacht, Richard (2012). “Nietzsche’s Anti-Scientistic Naturalism.” In *Nietzsches Wissenschaftsphilosophie: Hintergründe, Wirkungen und Aktualität,* ed. by Helmut Heit, Günter Abel, and Marco Brusotti, pp. 161–186. Berlin: DeGruyter.

Singer, Emily (2015). “How Dinosaurs Shrank and Became Birds.” *Quanta Magazine*, 2 June 2015. Available at <https://www.quantamagazine.org/how-birds-evolved-from-dinosaurs-20150602/>

Small, Robin (1986). “Boscovich Contra Nietzsche.” *Philosophy and Phenomenological Research*, Vol. 46, No. 3, pp. 419–435.

Sorell, Tom (1991). *Scientism: Philosophy and the Infatuation with Science*. London: Routledge.

Stack, George J. (1981). “Nietzsche and Boscovich’s Natural Philosophy.” *Pacific Philosophical Quarterly*, Vol. 62, No. 1, pp. 69–87.

Stenmark, Mikael (2001). *Scientism: Science, Ethics and Religion*. Aldershot, UK: Ashgate Publishing Company.

van Fraassen, Bas. C. (1980). *The Scientific Image*. Oxford: Oxford University Press.

Williams, Bernard (1981). *Moral Luck*. Cambridge, UK: Cambridge University Press.

Wilson, Edward O. (1978). *On Human Nature*. Cambridge, MA: Harvard University Press.

--- (1975). *Sociobiology*. Cambridge, MA: Harvard University Press.

Wright, Crispin (2004). “Warrant for Nothing (and Foundations for Free)?” Part I of “On Epistemic Entitlement,” by Crispin Wright and Martin Davies. *Aristotelian Society Supplementary Volume*, Vol. 78, pp. 167-245.